2008 AMA Educators' Proceedings

Enhancing Knowledge Development in Marketing

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Preface and Acknowledgments

The theme of the 2008 Summer Educators' Conference is "Unleashing the Power of Marketing to Transform Consumers, Organizations, Markets, and Society." Marketing knowledge can be and has been used to change the way companies provide products and services to their target customers. It has also been used to transform how firms and not-for-profit organizations view themselves and plan to execute their activities. Marketing knowledge has also affected how consumers approach the marketplace and how social activists try to make that marketplace a better experience for consumers. Marketing knowledge has also been put to work to improve standards of living around the world. This conference reflects state-of-the-art thinking on these issues.

Many people have been involved in the development and implementation of the conference. Most important, we appreciate the efforts of the fine scholars who have contributed the fruits of their intellectual curiosity and passion. The conference would not exist without their stimulating input, whether in the form of papers, presentations, panel discussions, or other contributions.

Without the tireless efforts of the track chairs, this conference would not be possible. We owe a huge debt of gratitude to the following track chairs whose selfless efforts made our job so much easier.

Channels of Distribution, Supply Chain Management, Business-to-Business Marketing and Interorganizational Issues	Shankar Ganesan, University of Arizona Yubo Chen, University of Arizona
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Special Interest Groups	William L. Cron, Texas Christian University Eric Yorkston, Texas Christian University

More than 450 reviewers also gave of their time and effort to evaluate the hundreds of papers and session proposals submitted to the conference. Thanks to all who were willing and able to help (listed on p. v). We also thank the members of our "Blue Ribbon" Award Selection Committee – Ken Evans (University of Oklahoma), Dhruv Grewal (Babson College), and Kent Nakamoto (Virginia Tech) – who had the unenviable task of selecting from among a set of terrific papers the recipients of the "Best of Conference" award.

Because we were new to the use of the online conference management system, Rick Peacor with AllAcademic.com patiently guided us through the process. We appreciate his efforts on our behalf. Finally, we appreciate the assistance of the American Marketing Association staff and volunteers who have gone above and beyond to help us throughout this endeavor. Clara Nelson (program director), Lynn Brown, Francesca Cooley, Cher Doherty, and Pat Goodrich all did a terrific job keeping us pointed in the right direction. As usual, the SIG members and leaders came through with a great set of SIG special sessions. We also thank the members of the AMA Academic Council who entrusted us with this conference. Pam Ellen (Georgia State University), the current president of the Academic Council, was extremely helpful and always quick to reply to our desperate inquiries. Thank you, Pam. Finally, we owe Erin Carter a debt of gratitude for her administrative assistance.

<div align="center">

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Best of Conference Awards

"CLV and Optimal Resource Allocation: The Influence of Marketing, Buying, and Product Returns"

> J. Andrew Petersen, University of North Carolina, Chapel Hill
> V. Kumar, Georgia State University

"Evaluating Mood Measures in Consumer Research"

> Yuliya A. Komarova, University of South Carolina
> William O. Bearden, University of South Carolina
> Subhash Sharma, University of South Carolina

Best Paper Awards by Track

Channels of Distribution, Supply Chain Management, Business-to-Business Marketing, and Interorganizational Issues

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> David I. Gilliland, Colorado State University

Consumer Behavior
"The Impact of Complexity on Path Dependent Decision Making"

> Jochen Koch, Freie Universität Berlin
> Martin Eisend, European University Viadrina
> Arne Petermann, Freie Universität Berlin

Global and Cross-Cultural Marketing
"The Outsourcing and Offshoring of Customer-Facing Business Processes"

> Susan M. Mudambi, Temple University
> Stephen Tallman, University of Richmond

Marketing Communications and Branding
"Tuning In and Tuning Out: An Exploratory Study of Media Multi-Tasking Among Youth Consumers"

> Andrew John Rohm, Northeastern University
> Fareena Sultan, Northeastern University
> Fleura Bardhi, Northeastern University

Marketing Research
"Evaluating Mood Measures in Consumer Research"

> Yuliya A. Komarova, University of South Carolina
> William O. Bearden, University of South Carolina
> Subhash Sharma, University of South Carolina

New Product Development, Product Management, and Entrepreneurship
"Meaning Transfer in New Product Development"

> Jesse Stocker King, University of Oregon

Retailing and Pricing
"CLV and Optimal Resource Allocation: The Influence of Marketing, Buying, and Product Returns"

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"Understanding and Assessing the Power of the Sales Organization in Accelerating Customers' Payment Delay"

> Joel Le Bon, ESSEC

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"The Operationalization of Macneil's Relational Norms in Interfirm Exchanges: A Descriptive Meta-Analysis"

> Fabien Durif, University of Sherbrooke
> Michèle Paulin, Concordia University
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Societal, Public Policy, & Ethical Issues
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ADDENDUM

The following papers were presented at the Winter Educators' Conference, but were not included in the proceedings.

THE CONTRIBUTION OF BRAND MEANING TO BRAND EQUITY OF SERVICES: AN INFORMATION PROCESSING PERSPECTIVE

Lai-cheung Leung, Lingnan University, Hong Kong

ABSTRACT

The present research attempts to investigate how brand equity could be achieved for services from an information processing perspective. A conceptual framework together with testable hypotheses were developed to examine the influences of brand awareness and brand meaning, the two major sources of brand equity cited in the literature, on brand equity of services. The findings suggest that only brand meaning has a significant impact on brand performance evaluation and brand equity for both standardized and customized services. Marketing implications are discussed at the end of this paper.

INTRODUCTION

Services dominate almost all economies around the world and the modern economy has been characterized as a service centered economy (Lovelock and Wirtz 2004). However, as services are intangible, consumers often must experience a service before they are able to make judgment on how good a service may be (Zeithaml 1981). This lack of tangible cues for services thus causes confusion to some consumers in differentiating competitive offers in the marketplace. While branding has been employed as a strategic tool to achieve competitive differentiation in goods marketing (Varadarajan and Jayachandran 1999), relatively little attention has been given to services branding. But, a number of changes that have occurred in the recent business environment urge marketers to focus on branding for services. For instance, the advances in information technology have created new services, transformed the ways services are delivered, enhanced international trade of services, and increased productivity growth (Fitzsimmons and Fitzsimmons 2004; Wolfl 2005). Coupled with the trends toward deregulation, globalization, intensified competition, and changes in consumers' lifestyles, branding for services as a strategic tool to achieve competitive differentiation also becomes increasingly important to marketing practitioners and academics alike (de Chernatony and McDonald 2003). In fact, Berry (2000) forecasts that services branding will be the cornerstone for marketers in the twenty-first century.

However, there has been relatively little research on services branding (de Chernatony and Dall'Olmo Riley 1999; Krishnan and Hartline 2001; O'Cass and Grace 2003) compared to goods/product branding. McDonald and de Chernatony (2001) observe that services branding is different from branding for fast-moving consumer goods, where building brand awareness is of primary importance. The services branding process involves many points of contact with consumers such as providing physical evidences for intangibles, communicating brand promise(s) through frontline employees and enhancing customer participation in the service process (McDonald and de Chernatony 2001). Besides the academic viewpoint, practitioners hold similar views that branding for services is much more *tricky than the realm of the product* (Bijoor 2003, p. 1). According to Bijoor (2003), a business consultant, services branding is tough because services are people driven and brand value depends on satisfactory customer experiences in the process. Therefore, *services branding requires brand intrusion at every stage* (Bijoor 2003 p. 1). All these suggest that the communication mix and the efforts spent on services branding are different from goods branding.

The present study attempts to empirically test the effects of the two major sources of brand equity cited in the literature, brand awareness and brand meaning, on brand performance evaluation and brand equity for two chosen service products: fast food for standardized services and banking for customized services. Surprenant and Solomon (1987) conceptualize three forms of service personalization comprising option personalization (the service alternatives offered to customers), programmed personalization (the manners how customers are treated) and customized personalization (the service solutions tailor-made to customers' needs). While some banking transactions related to deposits, checking, cash withdrawals are fairly standardized for individual customers, banking services seem to have a higher degree of option personalization (e.g., the types of accounts offered to customers encompassing different service options such as foreign currencies, insurances, gold, and stock purchases) and programmed personalization (e.g., the calling of customers by names) than fast food.

AN INFORMATION PROCESSING PERSPECTIVE ON BRANDING

The cognitive information processing research perspective focuses on internal mental processes of consumers by exploring how complex chains of mental events may affect consumer decision making (Peter and Olson 2002; Solomon 2002; Kitchen and Spickett-Jones 2003). From a branding perspective, this involves the process of how brand information is encoded, stored, and retrieved by a consumer, when making brand choice decisions

(Keller 1993). Particular attention has been paid to research on the role of memory in brand purchases (Solomon 2002). The widely accepted conceptualization of the memory structure is in the form of an associative network in which pieces of information are stored in nodes. These information nodes are connected by associative links that vary in strength (Keller 1993; Solomon 2002). Keller (1993) posits that brand knowledge structure consists of two major components: brand awareness and brand image. Brand awareness refers to a consumer's ability to retrieve a brand name while brand image is formed by various types of brand associations such as product related attributes (e.g., perceived quality), non-product related attributes (e.g., price, user imagery, usage imagery) and perceived product benefits (e.g., experiential, functional, and symbolic benefits). Consumer based brand equity is determined by the extent of brand awareness and the favorability, the strength and the uniqueness of brand image (Keller 1993).

Following the research perspective based on cognitive information processing, the extant literature within the services branding domain appears to concentrate on two main themes. First, there are studies exploring the structure of brand information processing by examining the major factors that contribute to brand knowledge and hence to brand equity. This research theme adopts a holistic view and attempts to model the encoding, storing, decoding, and retrieving component throughout the whole communication process between the information sources and the consumer. Examples include Berry (2000) and de Chernatony and Segal-Horn (2003). Alternatively, the second research direction centers on part of the informa-

tion processing process by investigating the memory structure of brand knowledge. In other words, this line of research is concerned with the information nodes and the associative links among them. For example, Grace and O'Cass (2002) employ a phenomenological approach to identify the brand associations unique to services. A summary of the information processing perspective on branding is shown in Table 1.

The Service-Branding Models in Marketing Literature

Two major service-branding models were identified in the marketing literature. The first is by Berry (2000) who proposes a model in which brand equity for services is affected by brand awareness and brand meaning. The branding efforts consist of three components: the company's presented brand (controlled communication through advertising, service facilities, etc.), the external brand communications (uncontrolled communication through word-of-month, publicity, etc.) and the customer experience with the company (through service encounters with the service personnel in the service process). The company's presented brand primarily influences brand awareness while the customer experience in the service process affects perceived brand meaning. The external brand communications only have secondary impact on the two main sources of brand equity. Furthermore, brand meaning is more important than brand awareness in building brand equity.

The second service-branding model is developed by de Chernatony and Segal-Horn (2003). Their model starts

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TABLE 1
An Information Processing Perspective on Branding

Theoretical Underpinnings	Consumer learning theories
Research Focus	Organization of mental events in memory
Brand Information for Communication Effectiveness	Product related/tangible brand knowledge
Marketing Implications	Integrated marketing communications
Key to Success	Brand salience and a distinct set of consistent brand associations
Appropriate Applications	Functional or low involvement product categories
Sources of Competitive Advantages	Ease of brand name retrievability; Favorability, strength, and uniqueness of brand associations

Source: Developed for this study.

with a defined brand promise that originates from corporate values and staff behavior, which in turn are shaped by corporate culture. There are two routes to communicate this defined brand promise to the consumers. The first route is to go from such traditional external communication channels as advertising, publicity and word-of-mouth to the consumers. This route resembles the company's presented brand and the external communications presented in the model by Berry (2000). The second route is to deliver the brand promise through employees. The intended functional and emotional values of the brand should be thoroughly communicated to internal staff. Staff should be properly trained and supported by well-designed delivery systems so that their behaviors match consistently with the brand promise during service deliveries. Consumers will test the brand promise against their expectations and form a holistic brand image accordingly. A long-term relationship of trust may then be developed between the brand and the consumers.

Both models place an emphasis on the role of employees and consumer experiences in creating brand equity, and point out that a distinct brand meaning established in the consumers' mind is the precedent to building brand equity. However, both models are descriptive in nature lacking empirical evidences. This study develops a conceptual framework for services branding from previous literature review and to test the framework empirically against two selected service products: fast food and banking.

CONCEPTUAL FRAMEWORK AND HYPOTHESES

Based on the works by Berry (2000) and by de Chernatony and Segal-Horn (2003), a conceptual framework as shown in Figure 1 next page is proposed. The model begins with two major sources of consumer perceived brand equity: brand awareness and brand meaning (Keller 1993; Berry 2000). Both brand awareness and brand meaning aid consumers in making purchase decisions and increase their intention to purchase, especially for those low involvement products (Keller 1993). Satisfactory service purchases will therefore positively affect overall brand performance evaluation and increase perceived brand equity (Berry 2000; de Chernatony and Segal-Horn 2003).

Brand Awareness and Brand Performance Evaluation

Brand awareness assists a consumer in purchase decisions because it increases the likelihood that a brand will be placed in the consumer's evoked set. On the other hand, the higher the awareness with a brand among the brands in evoked set, the higher the chance that this brand will be purchased as the brand awareness may increase the consumer's trust with a brand (Keller 1993). Finally, brand awareness may affect the formation and strength of various brand associations that constitute the brand image (Keller 1993). The important role that brand awareness

FIGURE 1
Conceptual Framework for This Study
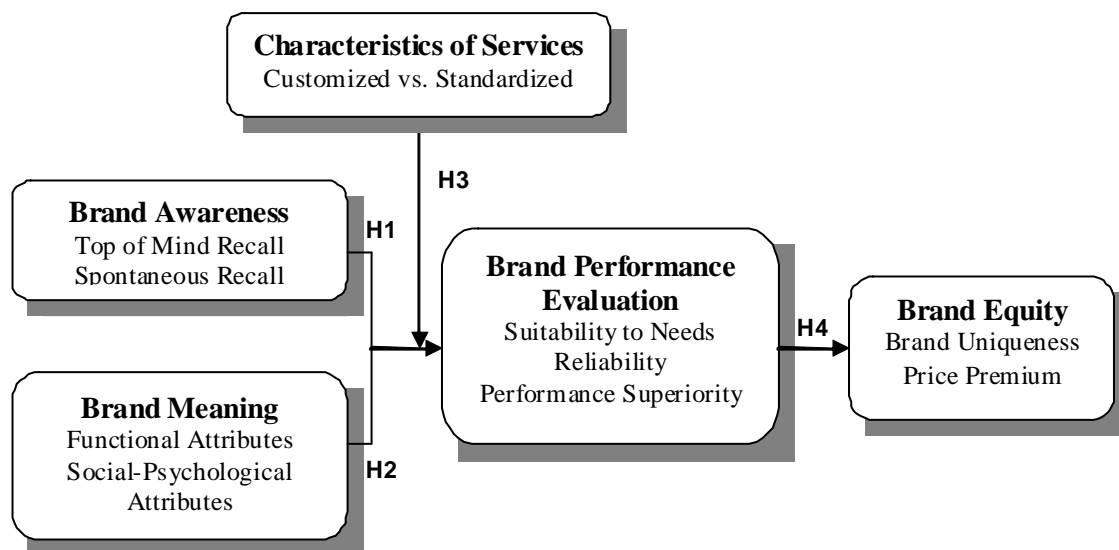
Source: Developed for this study

plays in consumer decision making forms the basis of the "double jeopardy" thesis where brands with larger market shares tend to attract a larger proportion of loyal buyers (Ehrenberg, Goodhardt, and Barwise 1990). Therefore, it is expected that brand awareness is related, directly or indirectly to brand evaluation and brand equity (Chaudhuri 1995). Thus, this forms the basis for H1:

H1: The higher the brand awareness, the higher the brand performance evaluation.

Brand Meaning and Brand Performance Evaluation

Berry (2000, p. 129) refers to brand meaning as *the customer's dominant perceptions of the brand. It is the customer's snapshot impression of the brand and its associations*. This concept is similar to brand image defined by Keller (1993, p. 3) as *perceptions about a brand as reflected by the brand associations held in consumer memory*. The key difference between the two terms is the word "dominant." Brand meaning refers to associations in mind that are strong, favorable and unique. Brand meaning is the emotional or affective component of brand knowledge.

In the service-branding model by Berry (2000), brand meaning is mainly influenced by the consumer's experiences in a service process. Therefore, a marketer should make an emotional connection between a services brand with its intended audience to *spark feelings of closeness, affection, and trust* (Berry 2000, p. 134). Along similar line of reasoning, de Chernatony and Segal-Horn (2003) suggest that a holistic brand image is determined by whether the services delivery could meet the brand promise of the company in terms of the employees' behaviors, servicescapes and customers' satisfaction with the services performance. If a consumer could experience a consistently executed service brand encounter, a long-term relationship of trust in the services brand could then be developed. Thus,

H2: The more favorable the brand meaning, the more favorable the perceived brand performance evaluation.

Characteristics of Services and Brand Performance Evaluation

Lovelock (1983) classifies services according to the degree of customization or standardization involved in the delivery process. This scheme is selected for the present study as it highlights the role of human factors in the services delivery. As services are consumed when created and consumers' participation in the service process is often required, there are a lot of rooms to customize services. However, customization of services may not always be preferred because customers may look for speed, consistency and price savings (Lovelock 1983).

In order to capture some economies of scale, standardized services tend to use equipment-based service systems or routinized procedures (Lovelock and Wirtz 2004). Therefore, most standardized services are low-involvement products in mature markets where keen competition is common among commodity-like offers (Berry 2000). High brand awareness is a key to success according to the "double jeopardy" thesis (Ehrenberg, Goodhardt, and Barwise 1990) and the beliefs in risk reduction due to brand familiarity (Keller 1993). The study by Mackay (2001) demonstrates that brand awareness is more important in influencing firm performance for credit card services, a standardized offering. Hence, it is hypothesized that brand awareness is more important than brand meaning in brand evaluation for standardized services.

On the other hand, customized services are based on unique offerings that are more difficult for competitors to imitate. Customized services tend to be based on human expertise, problem solving skills, reliability, personal services, and empathy (Lovelock and Wirtz 2004). Berry (2000) suggests that brand equity is primarily achieved through an emotional connection developed for a services brand. The study by de Chernatony and Segal-Horn (2003) also points out that a long-term relationship of brand trust is contingent upon consistent delivery of brand promise through a well-designed services delivery system and a group of motivated and trained employees. It seems likely that brand meaning is more important than brand awareness for customized services. Thus,

H3: Brand awareness is more important than brand meaning in brand performance evaluation for standardized services while brand meaning is more important than brand awareness in brand performance evaluation for customized services.

Brand Equity and Brand Performance Evaluation

There are two major approaches in defining brand equity: firm-based (e.g., Aaker 1991) and customer-based (e.g., Keller 1993). This study adopted the customer-based perspective in defining brand equity as the unit of analysis was based on a consumer's perceived value of a brand. Brand equity is thus defined as consumer perceived brand differences arising from the consumer differential response to the marketing efforts of that brand (Keller 1993) and is measured by the perceived competitive superiority of that brand in terms of two indicators: brand uniqueness and price premium (Netemeyer et al. 2004). Competitive superiority here embraces the concept of customer loyalty, but defined in a competition context.

The measures of competitive superiority are in line with the set of loyalty measures, a key dimension of brand equity, recommended by Aaker (1996). It is also consistent with some studies that modeled purchase intention and consumers' willingness to pay a price premium as behavioral consequences of service quality (e.g., Cronin and Taylor 1992; Zeithaml et al. 1994). Brand equity is hypothesized as a result of the favorable consumer experiences during the service encounters and the long term communication efforts spent by the organizations (de Chernatony and Segal-Horn 2003), therefore:

H4: The higher the brand performance evaluation, the higher the perceived brand equity.

RESEARCH METHODOLOGY

The conceptual model in Figure 1 was empirically tested by using a two-stage research process. Stage one was a focus group study and stage two was a survey on a sample of selected students in a chosen university in Hong Kong.

Stage One – Focus Group Study

The purpose is to identify the brand stimuli to be used in testing the conceptual model for this study and to generate sample items for measuring the brand meaning for each of the two service products (i.e., fast food and banking) selected. Three brand stimuli for each product category were chosen to be included in the survey. McDonalds was the most popularly mentioned brand while the other two less popular brands were Chinese fast food chains in Hong Kong. Similarly, the three names of banking services represented different degree of favorability and different firm size as described by the focus group members. The choices of the product and brand stimuli are summarized in Table 2.

Members of the focus groups were further taped for their brand knowledge and brand associations for each product category. The attributes for measuring brand meaning were classified into two groups as suggested by Neese and Taylor (1994). They conceptualize brand be-liefs as attributes that meet consumers' functional and/or social-psychological needs. This view is consistent with the conceptualization by Keller (2001) who conceives brand meaning as consisting of performance and imagery attributes. The findings from focus groups are shown in Table 2.

Stage Two – A Survey

The model was tested against a sample of 333 students selected from a local university. The student sample was employed in this study for two reasons as suggested by Yoo, Donthu, and Lee (2000). First, students are primary consumers for the two selected services. This is justified by observing that there are banks or fast food shops either inside or close to the university campuses in Hong Kong. Second, a student sample that belongs to a relatively homogenous population is most advantageous for theory testing (Yoo, Donthu, and Lee 2000).

The measurement scales were developed from literature and focus group study. Brand awareness was assessed by two closely related recall measures in the literature: top-of mind recall (the first brand name recalled in a given product category) and spontaneous awareness (unprompted recall of brand names in a given product category) (Laurent, Kapferer, and Roussel 1995). Students were asked to indicate their opinions on seven-point scales for measurement items related to brand meaning, brand performance evaluation and brand equity. A summary of the measurement items employed in this study is shown in Table 4.

FINDINGS

Structural equation modeling by maximum likelihood estimates was employed to investigate the pattern of relationships proposed in the conceptual model. The analysis followed the two-step approach suggested by Anderson and Gerbing (1988) during which the measurement model was first "fixed" before validating the structural model. A manipulation check was performed to confirm that fast food was perceived as a more standardized service than banking services.

TABLE 2	
List of Brand Stimuli Chosen for Fast Food and Banking	
Fast Food Restaurant	**Banking Services**
McDonalds	Hong Kong Bank
Café De Coral	Bank of China
Fairwood	Bank of East Asia

Source: Developed for this study.

TABLE 3
Items Taped for Measuring Brand Meaning

Fast Food	Banking	
Functional Attributes	Taste	Better Service
	Health Value	Nice Service Manner
	Variety of offers	Variety of Services
	Quality Consistency	Innovative Services
	Cleanliness	Professionalism/Expertise
	Smoke-Free Environment	Quality Consistency
	Convenient location	Internationalized
	Waiting Time	Convenient location
	Less Crowded	Waiting Time
	(9 items)	Less Crowded
		(10 items)
Social-Psychological Attributes	Meet with Friends	Trustworthiness
	Young and Energetic	Prestige/Status/High Class
	Fit with Chinese Diet	Modernized Look
	Fun/Happy	Feeling Safe
	Home-Like Feeling	(4 items)
	(5 items)	
Total Number of Items	14 items	14 items

Source: Developed for this study.

Overall Model Fit of Hypothesized Model

As recommended by Shook et al. (2004), multiple indicators including both the overall fit statistics and comparative fit indices were used to assess the model fit. The results are shown in Table 5. The indices reported indicate a reasonable level model fit (Note: Taking .9 as the threshold for GFI, AGFI, IFI, and CFI, between .05 and .08 for RMSEA, and between 1 and 5 for Normed Chi-square).

Parameter Estimation for the Proposed Model

The results, summarized in Table 6, show that only brand meaning has significant influences on brand performance evaluation and on brand equity. The squared multiple correlations for brand performance evaluation and brand equity respectively are .936 and .831 for fast food and .960 and .696 for banking. The standardized loadings for all measurement indicators range between .654 and .872 for fast food and between .679 and .922 for banking.

Assessment of Reliability and Validity

Reliability is assessed by computing the composite reliability for each latent construct based on the indicators' standardized loadings and their measurement errors (Bollen 1989; Hair et al. 1998; Shook et al. 2004). The results as shown in Table 7 in general have exceeded the threshold level of .7 except brand awareness. Brand awareness however has exceeded the acceptable level of .6 as suggested by Bagozzi and Yi (1988). One may conclude that the hypothesized model has attained acceptable level of reliability.

Validity is assessed by examining convergent and discriminant validity (Hair et al. 1998). Convergent validity is achieved in this study as the average variance for each of the four latent constructs is greater than .5 (Fornell and Larcker 1981). Discriminant validity is achieved if the shared variance between the two constructs is smaller than the average variance of the respective construct (Fornell and Larcker 1981). The shared variance was calculated by squaring the correlation between the two constructs and was then compared to the average variances shown in Table 7. There was some problems with the discriminant validity between brand meaning and brand performance evaluation (.78 vs. .84/.71 for fast food and .99 vs. .77/.67 for banking). One possible explanation might be due to the use of summated rating scales that smoothed out the variances of various indicators and hence induced a high correlation between brand meaning and brand performance. As the overall model fit was acceptable and there were no strong theoretical reason to reject either of the two constructs, the hypothesized model was retained as it was.

TABLE 4
Constructs, Indicators, and Measurement Items for This Study

Construct	Dimension (Indicator)	Measurement Items	Measure Adopted from Literature	No. of Items Used	Reported Alpha in Literature
Brand Awareness	Top-of-Mind Spontaneous	• When you think of (product), comes what is the first brand that to your mind? • When you think of (product), what are the brand names that come to your mind?	Laurent et al. (1995)	2 items	–
Brand Meaning	Functional Attributes	• As shown in Table 3	Measures developed from focus groups	Refer to Table 3	–
	Social-Psychological Attributes	• As shown in Table 3	Measures developed from focus groups	Refer to Table 3	–
Brand Performance Evaluation		• Brand X suits my needs • Brand X is reliable • Brand X is superior	Grace and O'Cass (2004)	3 items	.92
Brand Equity	Brand Uniqueness	• Brand X is distinct from others brands of (product) • Brand X really stands out from other brands of (product) • Brand X is very different from other brands of (product) • Brand X is unique from other brands of (product)	(Netemeyer et al. 2004)	4 items	.88 – .94
	Price Premium	• The price of Brand X would have to go up quite a bit before I would switch to another brand of (product) • I am willing to pay a higher price for Brand X than for other brands of (product) • I am willing to pay a lot more for Brand X than other brands of (product) • I am willing to pay ___% more for Brand X over other brands of product: 0%, 5%, 10%, 15%, 20%, 25%, 30%, or more	(Netemeyer et al. 2004)	4 items	.85 – .91

Source: Developed for this study.

TABLE 5
Model Fit Indices for Hypothesized Model

Model Fit Index	Fast Food (n = 169)	Banking (n = 164)
GFI	.955	.957
AGFI	.908	.913
RMSEA	.062	.057
IFI	.983	.988
CFI	.983	.988
Normed Chi-Square	1.639	1.537

TABLE 6
Path Coefficients for Hypothesized Model

Structural Relationships	Fast Food (n = 169)		Banking (n = 164)	
	Standardized Loading	Sig. Level	Loading	Standardized Sig. Level
Brand Awareness ⟶ Brand Performance Evaluation	.078	P < .258	.055	P < .514
Brand Meaning ⟶ Brand Performance Evaluation	.935	P < .001	.938	P < .001
Brand Performance Evaluation ⟶ Brand Equity	.912	P < .001	.834	P < .001

TABLE 7
Composite Reliabilities and Average Variances Extracted

Latent Construct	Fast Food (n = 169)		Banking (n = 164)	
	Composite Reliabilities	Average Variances Extracted	Composite Reliabilities	Average Variances Extracted
Brand Awareness	.68	.60	.66	.58
Brand Meaning	.90	.84	.84	.77
Brand Performance Evaluation	.79	.71	.75	.67
Brand Equity	.86	.70	.82	.66

Hypotheses Testing

The proposed hypotheses are tested by examining Table 6 the results indicate that only brand meaning has significant impact on brand performance and brand equity. Therefore, H1 is not supported while H2 and H4 are confirmed. For both fast food (a standardized service) and banking (a customized service), brand meaning is more important than brand awareness in influencing brand performance and hence H3 is only partially supported. It seems that even for standardized services, merely increasing the brand awareness is not sufficient to distinguish a brand from competing offers.

MARKETING IMPLICATIONS

The results of this research suggest that only brand meaning, irrespective of standardized or customized services, significantly affects brand evaluation and brand equity. Thus, building a distinct brand meaning in consumers' mind through their own experiences in the service process is crucial to attaining brand equity. Throughout the service encounter, various areas such as servicescapes, employees and other contact points require special attention (Lovelock and Wirtz 2004). In light of these, a number of marketing implications in terms of service design/delivery and communication efforts can be considered.

Gobe (2001) points out that although the baby boomers are aging, they are still psychologically young and requires new emotional criteria in service design and communications. The relevant question is not "*why do we buy?*" but "*why do we consume?*" (Solomon 2003, p. 13). So, the marketers have to go back to the basic question of marketing: how could the servicescape, employees, and other contact points combined together to present a service design/delivery with a distinct brand meaning in customers' mind? For example, consumers may not just look for speedy delivery in fast food or banking services, but also anxiety reduction and fair treatment in waiting. However, for highly routinized and well scripted services, personalization beyond "*simple courtesy*" or customers' role scripts, e.g., programmed personalization strategy for fast food services, may produce dissatisfaction (Surprenant and Solomon 1987, p. 89).

Another example may be found in Starbucks where customers go there not just for coffee, but a place that is emotionally pleasant and friendly (Gobe 2001). The research results in this study suggest that both functional and social-psychological attributes are perceived as equally important in craving a distinct brand meaning (figures not reported in this study), e.g., less crowded and fun/happy for fast food; professionalism and trustworthiness for banking. The same conclusion is reached by Schmitt (1999) who suggests that consumers are seeking memorable experiences in their consumption, and hence experiential marketing should replace traditional marketing where marketers narrowly assume that customers weigh functional features and benefits as more important purchase criteria. Along this line of thinking, customer loyalty to a bank brand may not be due to its functional features like service, rates and locations, but to the brand's reflection of the customer's self-image and lifestyle (Dougherty 2003).

Furthermore, marketers should not limit the communication tools to traditional avenues like advertising, but also to the influences of service experience on brand attitude (Grace and O'Cass 2004). Servicescapes and employees could be effective communication channels to crave a distinct brand meaning. Starbucks is a typical example to show how a warm environment with Italian elegance together with the friendly employee gives a distinct brand character in the consumers' mind. Marketers can make use of the servicescapes (e.g., home like feeling for fast food and modernized look for banking, etc.) to create brand imagery that invokes the consumers' emotional feelings (Grace and O'Cass 2004). Another related marketing imperative is the role of human resources management for front line employees in handling marketing communications and delivering the brand promises (de Chernatony and McDonald 2003). As proposed by Duncan and Moriarty (1998), communication efforts for a brand should be directed at different levels of a company. Solomon (2003) suggests that the cultural meanings of a brand may be effectively communicated through various cultural gatekeepers. For example, a fast food brand may make use of the leading restaurant reviewers and customers' word-of-mouth as effective cultural gatekeepers in communicating a distinct brand meaning.

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THE IMPACT OF PERCEIVED SERVICE QUALITY ON MBA STUDENT SATISFACTION AND RECOMMENDATIONS: DO EXPECTATIONS MATTER?

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SUMMARY

Understanding customer retention and loyalties is critical for both packaged goods and services providers. In fact, it is becoming a progressively larger issue in the service sector as it continues to be a larger proportion of the overall economy (Cronin and Taylor 1992). Further, issues related to service quality are also important to higher education. Pariseau and McDaniel (1997) state: "Service quality is a newly emerging field of concern, and is just starting to get the attention of higher education. It is imperative that business schools actively monitor the quality of their services and commit to continuous improvements." Although there has been recent activity (Alves and Raposo 2007; Appleton-Knapp and Krentler 2006), an under-researched area continues to be higher education. Thus, the purpose of this research paper is to contribute to our understanding of the relationship between service quality and a consumer's propensity to recommend the service to a friend or colleague – and the impact of expectations, in the context of an MBA graduate program.

Within the general services area, there are two primary research streams, and they differ in terms of the use and importance of consumer expectations as a moderating variable in the relationship between service quality and satisfaction/recommendations. The first perspective is expressed by Parasuraman et al. (1988, 1994) who found that expectations are a critical moderating variable in the relationship between service quality and customer satisfaction. This has also been supported more recently by other authors including Kelsey and Bond (2001), and Eggert and Ulaga (2001). Conversely, Cronin, and Taylor (1992, 1994) came to the opposite conclusion in regards to the overall importance of consumer expectations. These authors found that expectations did not have a moderating effect on the focal relationship and, importantly, their findings have also been subsequently supported by Lee et al. (2000).

The difference in these authors' respective conclusions has a real impact on business managers. More specifically, if expectations do moderate the relationship between service quality and customer satisfaction/recommendation, then managers only need to deliver against expectations – even when they are low. Likewise, if expectations are very high, then it is likely that it will be harder to generate a high level of satisfaction (or recommendations) even when a high level of service quality is delivered. However, if expectations do not moderate the focal relationship, then managers need to deliver uniformly high levels of service quality regardless of the expectations.

The current research attempts to help to resolve this conflict by focusing on the focal relationship between service quality and the likelihood to recommend (i.e., recommendations). Consistent with Parasuraman et al. (1988, 1994), *service quality* is defined as "a form of attitude, related to but not equivalent to satisfaction that results from the comparison of expectations with performance." Additionally, in the context of an MBA program, *recommend* is defined as the likelihood of a student suggesting that prospective students enroll in the MBA program, and *expectations* are defined as the student's assessment of how well the MBA program delivered against in-going anticipated service performance. In contrast to prior studies, this research also examines the role of satisfaction as a mediating variable between service quality and likelihood to recommend. Again, the overall purpose of this research is to determine whether or not *expectations* have a moderating effect on the focal relationship between *service* and recommend.

To test the overall model, MBA students were interviewed at a large Midwestern university. The interviews were conducted either during a class break or immediately after class, and the students who participated received a $5 gift certificate to a local ice cream shop. In all, 128 students participated, of which 67 percent were male, 57 percent were married, 47 percent received tuition reimbursement, and less than half were full time students.

Interestingly, mixed support for both models is observed. Consistent with Cronin and Taylor (1992, 1994), expectations do not moderate the relationship between service quality and satisfaction. However, expectations do appear to moderate the relationship between service quality and recommendations, in-line with Parasuraman et al. (1988, 1994). Thus, high levels of service quality lead to high satisfaction levels – regardless of initial expectations. However, high levels of service quality do not lead to customer recommendations to friends and colleagues if initial expectations are also high. This outcome creates some potentially difficult business trade-

offs for school administrators (and managers) in general. On the one hand, low expectations are likely to lead to a higher level of recommendation (assuming a moderate to high level of service quality). However, low expectations are counter productive, in that it could well lead to lower enrollment levels and reduced revenues sourced from tuition. That is, students would not want to attend a school for which they had low expectations in the first place.

Likewise, in a more general sense, customers are unlikely to frequent businesses for which the customers have low expectations. Since schools would be logically interested in both healthy enrollment (and tuition) levels and a high level of recommendations from current students, the research suggests that a school has no choice except to increase overall service quality and expectations, at the same time. References are available upon request.

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FAIRNESS THROUGH TRANSPARENCY: THE INFLUENCE OF PRICE TRANSPARENCY ON CONSUMER PRICE FAIRNESS PERCEPTIONS

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SUMMARY

Price transparency plays an important role in customers' judgments of whether prices offered by sellers are fair. Cognitive fairness judgments require a certain amount of information processing, so more information and transparency about prices should affect the outcome of fairness judgments. The more clear information consumers have about the sellers' price, the higher their price fairness perceptions will be regarding the superiority of the offer. Price fairness in turn leads to more favorable evaluations of satisfaction perceptions and increases customers' attitudinal loyalty toward repurchase and recommendation. The impact of price transparency on price fairness perceptions and the resulting effects on satisfaction and loyalty are tested through a structural equation model using a sample of 1,459 passengers of a major European transport services company.

Recent research has emphasized the importance of price fairness not only because it is a prevalent consumer issue but also since little is known about why consumers judge certain prices to be unfair (Campbell 1999; Xia et al. 2004). Price increases by sellers often cause consumers to evaluate the fairness of such increases (Bolton and Alba 2006; Campbell 2007). Moreover, various pricing practices, including dynamic prices, often lead to consumer fairness judgments (Grewal et al. 2004; Haws and Bearden 2006). Price fairness evaluations are critical to consumer perceptions of satisfaction with the transaction and their repeat purchase intentions (Grewal et al. 2004; Xia et al. 2004).

In services, price fairness is important not only since it affects the service provider's image but also since perceived price unfairness may have negative consequences to the seller, including consumer switching and negative word of mouth (Campbell 1999). The evaluation of price fairness of retail services is even more complicated due to the fact that while consumers may be able to make price comparisons of the invariant material costs in the case of tangible goods, they may have no such reference point, other than competitor prices, in the case of services (Bolton and Alba 2006).

In retail services, price information is important for enabling consumer comparisons and therefore, arriving at judgments as to the fairness of prices. In several service industries, such as automobile repair, consumer protection laws mandate that consumers should be provided a detailed breakdown of the repair estimates prior to service and the actual costs after service. However, in most other forms of retail services, including travel, such price information is not completely available. For example, airline tickets, especially those purchased from travel agents, contain only rudimentary price information. In most services, itemization of the various price components may not be available.

Availability of detailed price information is referred to in this research as price transparency. Price transparency, along with information on availability and access, is an important constituent of what economists refer to as market transparency. Market transparency enhances economic efficiency and the functioning of markets, while the lack of such transparency results in information asymmetry that can be exploited by either party (Akerlof 1970). Similarly, we argue that price transparency is an integral input to consumer perceptions of fairness.

The impact of price transparency on price fairness perceptions, the resulting effects on satisfaction and loyalty and moderating effects of consumer characteristics (income, payment, and price sensitivity) are tested through a structural equation model using a sample of 1,459 passengers of a major European transport services company. The conceptual model relates price transparency, price fairness, satisfaction and attitudinal loyalty, and empirically tests the model in a services context.

The results indicate that consumers, who have a better understanding of the quoted price, perceive prices to be fair and also reveal higher satisfaction with the offered services and therefore, greater attitudinal loyalty. Thus, price transparency indirectly and positively influences satisfaction judgments. The direct influence of price transparency on satisfaction is weaker than through the possibility of creating price fairness perceptions. If consumers believe that a price is favorable, the likelihood of their positive price fairness judgments increases. The results of the moderating effects between groups showed only significant differences between high and low price sensitive customers. High price sensitive customers have greater price information needs and higher price fairness

perceptions than the low price sensitive group. The high price sensitive customers showed, therefore, higher attitudinal loyalty through their better satisfaction perceptions.

These findings are important for both the theory and the practice of pricing. First, from a theoretical point of view, this study contributes to literature on the antecedents of price fairness, which previously has not addressed either price information or price transparency as possible antecedents of price fairness judgments. Second, this study introduces the concept of price satisfaction, which illuminates the influence of price fairness perceptions on consumers' satisfaction. With regard to the important practical implications of this study, firms should deliver clear, complete, and comprehensive overview of prices, thereby indicating that they have nothing to hide. Therefore, more information on prices increases consumers' price fairness perceptions and satisfaction judgments, with a resulting increase in attitudinal loyalty.

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APPLICATIONS OF FUNCTIONAL MAGNETIC RESONANCE IMAGING TO MARKETING AND CONSUMER RESEARCH: A REVIEW

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SUMMARY

This paper reviews applications of functional magnetic resonance imaging (fMRI) to marketing and consumer research. After summarizing recent studies, we discuss important methodological issues related to fMRI and assess previous applications in terms of three qualitative aspects: (1) issues related to the initial conceptualization of theoretical models of interest and operationalization, (2) issues related to data acquisition, and (3) issues related to estimation and testing of theoretical models on fMRI data. On the basis of this assessment, we identify problem areas and suggest avenues for improvement. These suggestions are illustrated based on own fMRI data, which we collected in an experiment on loss aversion in purchasing among 16 subjects.

Keywords: Functional magnetic resonance imaging, fMRI, consumer neuroscience, neuromarketing, neuro-economics.

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BUILDING BRIDGES BETWEEN CONSUMPTION RESEARCH AND PRACTICE THROUGH METAPHOR REFORMATION

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SUMMARY

This paper discusses the impact that metaphors may have on consumption research design and interpretation. In particular, we contrast the neoclassical economic "pie metaphor" with an alternative "balloon" metaphor. It is argued that the balloon metaphor aligns better with recent research on consumption, supporting a theory of expandable purchasing that is toward a theory of expandable consumption. The goal of the pie-balloon metaphor comparison is to initiate discussion on the significant research implications associated with each metaphor.

In general, metaphors can have an impact on how questions are formed, data are analyzed, and results are interpreted for a particular research tradition. According to noted linguist George Lakoff (1992), early "classical" theorists defined the metaphor as just a "linguistic expression where one or more words for a concept are used outside of its normal conventional meaning to express a similar concept." This "literal-figurative distinction" contrasts dramatically with contemporary metaphor theory, which sees its "cross-domain mapping" aspects as, "primarily conceptual," and where the "locus of metaphor is thought, not language" (1992, p. 203). Consequently, the use of metaphor allows us to better analyze "every day" abstract ideas and theories, and "enable the connection of information . . . leading to a new understanding" (Jensen 2006, p. 5). Indeed, good metaphor usage can unleash the power of marketing to transform consumers, organizations, markets, and society.

In particular, the "market pie" is a widely referenced metaphor in macroeconomic research (e.g., Alesina and Rodrik 1994; Benabou 1996). In the words of Swinnerton (1997, p. 75), "To develop a better intuition for the definitions of efficiency and their equivalence, it is useful to think of a pie as a metaphor for the output of the economy." The size of the pie is equivalent to "efficiency" in economics, which is controlled by labor inputs (i.e., the amount of time consumers put into work versus leisure). The slicing of the pie is equivalent to "equity," or the distribution of wealth in an economy (e.g., Fernandez and Rogerson 1996; Galor and Zeira 1993). Numerous studies have applied the pie metaphor from macroeconomics to individual consumer purchasing behavior (e.g., Carson et al. 1999; Chakravarti and Janiszewski 2004; Day and Montgomery 1999; Jap 1999; Nason 2006; Rokkan, Heide, and Wathne 2003; Weitz and Bradford 1999).

However, all of these studies have equated pie size with "primary demand" (instead of labor allocation) and pie distribution with "market share" (instead of wealth distribution) in discussing the pie. Yet, the axiomatic rules regarding the transitivity and completeness of consumer rationality still hold. (In interviews with the authors) university economists repeatedly and passionately state that individual consumer buying behavior is not consistent with the pie metaphor assumptions on every day, abstract concepts like time, states, change, causation, and purpose. Consequently, the potential of significant bias exists in research design and interpretation. In adopting the pie metaphor, the researcher adopts the assumptions that consumers are rational, utility-maximizing calculators given an allotment over which they cannot exert control. As shown in Bjork and Vanhuele (1992), however, this is simply incorrect.

In contrast to the consumer restraints in the pie metaphor, a balloon metaphor places the consumer at center stage. Consumption is not like a static "market pie" that the consumer is forced to divide and maintain; it's more like a dynamic "market balloon" that consumers have the ability to grow, leading toward a better quality of life. The closest existing metaphor (to the proposed balloon metaphor) is the "rubber band" metaphor. However, small differences between the two create large concerns. For instance, the rubber band requires two points of contact to make it stretch – suggesting consumers are dependent on external market forces – consistent with the pie metaphor interpretation of human decision making. The balloon effect can work in competitive markets in two ways: (1) through more aggregate measures in item performance (e.g., metrics on shareholder impact) and (2) more aggregate performance than at the product level (e.g., a market-basket, or total shopping cart, level). The balloon metaphor provides insight on the impact of consumer decision making. For example, there is a certain amount of initial force required for a balloon to expand. If not enough breath is channeled into the balloon, it remains expansion resistant. However, as it does begin to grow, the balloon itself stretches easier. Again, however, at some point the balloon reaches a point of increased resistance, and, ultimately, even a breaking point where any further breath would result in the balloon popping.

Both a theory of expandable purchasing and the historical records of command economies (i.e., the USSR) indicate that the discussion on advertising and price

discounting has been misinformed by neoclassical economics and its pie metaphor, including how consumption is viewed, marketing activities are measured, and results are interpreted. Customers, organizations, and stockholders are not homogeneous across markets (e.g., Nelson and Winter 1982). Rather, particular market segments of customers choose to patronage particular organizations that are owned by particular groups of investors. As indicated by Rust et al. (2004, p. 80), "Performance in general and marketing productivity in particular depend on the environmental and competitive context." There is evidence that expandable consumption can increase promotional competition among organizations as competitors attempt to neutralize or leapfrog over positions of competitive advantage (Bell, Iyer, and Padmanabhan 2002), further benefitting consumers as product value increases due to competition.

The proposed balloon metaphor is consistent with the recent research, supporting a theory of expandable purchasing that is toward a theory of expandable consumption. As indicated in the text, the two metaphors result in significantly different research implications for consumption research design and interpretation. We encourage researchers to recognize these metaphor implications, and seek out alternative research traditions (with supporting metaphors) that more closely align with observed consumer behavior. Future research is needed that provides a partial formalization of consumption metaphors. References are available upon request.

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THE IMPACT OF VISUAL RHETORIC ON CONSUMER MEMORY

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ABSTRACT

Visual rhetoric in advertising images enjoys elaboration, attitude, and recall advantages over other visual and verbal stimuli regardless of consumer involvement level. This paper offers a conceptual model for future research and poses a series of questions and propositions worth exploring regarding visual rhetoric advertising stimuli and consumer memory effects.

INTRODUCTION

Do you notice anything fundamentally different about the two halves of the image displayed? Well, evidence is mounting that consumers not only notice, they encode to a greater extent, form stronger positive attitudes, and are more likely to remember the ad on the right than the one on the left (McQuarrie and Mick 2003b). The ad on the right is an example of an increasingly popular ad format called visual rhetoric (e.g., a visual metaphor). We know visual rhetoric gets used a great deal in print advertising these days (Phillips and McQuarrie 2002), with considerable success. But more research is needed to determine how and why this is the case.

The purpose of this paper is threefold. First the paper will review and synthesize the literature between two primary constructs: visual rhetoric and advertising, and consumer memory. Secondly, the paper will propose a model that can be used as a guide for future research to better understand the mysteries of how and why visual rhetoric is such an appealing advertising technique. Along with the model, the paper proposes a series of important questions worth exploring, with some clues from the literature as to what the answers might be.

VISUAL RHETORIC

Visual rhetorical devices have been shown to enjoy particular advantages as advertising stimuli (McQuarrie et al. 2003b), in terms of encouraging a greater level of processing from subjects in both experimental and naturalistic conditions (McQuarrie and Mick 2003a). However, very little is known about how these popular advertising devices impact consumer memory in the context of what has just been described.

Prior to Linda Scott's work in the area of visual persuasion (Kenney and Scott 2003; Scott 1994a, 1994b), very little research adequately acknowledged visuals for their inherent, complex, communicative abilities as stimuli in advertisements. Linda Scott's (1994a) reader response theory advocated a fundamental shift in how consumer research theory should conceptualize the consumer/reader of ad texts, including and especially ads with visual rhetorical elements: from the passive, Pavlovian-esque responders to visual stimuli to active "readers" who are culturally experienced, selective, active, skeptical, agile, capable of critical judgment, and capable of extracting practical information from fantastical contextual environmental cues. Furthermore, readers of advertising text bring with them highly personal motives for engaging and responding to the texts that can be unrelated to extracting brand information.

Framed within reader response theory, Scott (1994b) argued for a theory of visual rhetoric to account for a very popular advertising method (Phillips et al. 2002): the use of disjointed, abstract visual images in print ads. Kenney and Scott (2003) advanced the argument for incorporation of visual rhetoric theories into current thinking about persuasion and consumer response, especially given the explosion of "nonverbal persuasion" technology into Western Society since the latter half of the 20th Century. It is well known that nonverbal (i.e., visual) communication between human beings existed for at least 40,000 years before Aristotle first invented rhetorical theory using a still brand new form of communication in human history: an alphabet whose symbols represented sounds. Furthermore, Kenney and Scott (2003) note that like all forms of communication, visuals are perfectly capable of taking on a narrative form, containing familiar figurative forms such as metaphors, motifs, fantasy and myth all designed to sway the opinion of the reader toward that of the author. Human visual communication is inherently symbolic, and these symbols used in a persuasive context communicate meaning derived from current cultural norms commonly understood and shared between the sender and the receiver of the message.

This paper adopts McQuarrie and Mick's (1996) definition of rhetorical figures used in advertising: artful deviations, analogous to **bold** typing, or *italicizing* text in order to "encourage reinterpretation, or reading an additional meaning." Rhetorical figures are highly stylized methods of communicating with the intention of moving an individual to think, feel, or act in a specific way. Rhetorical figures are grammatically correct, stylistically

FIGURE 1
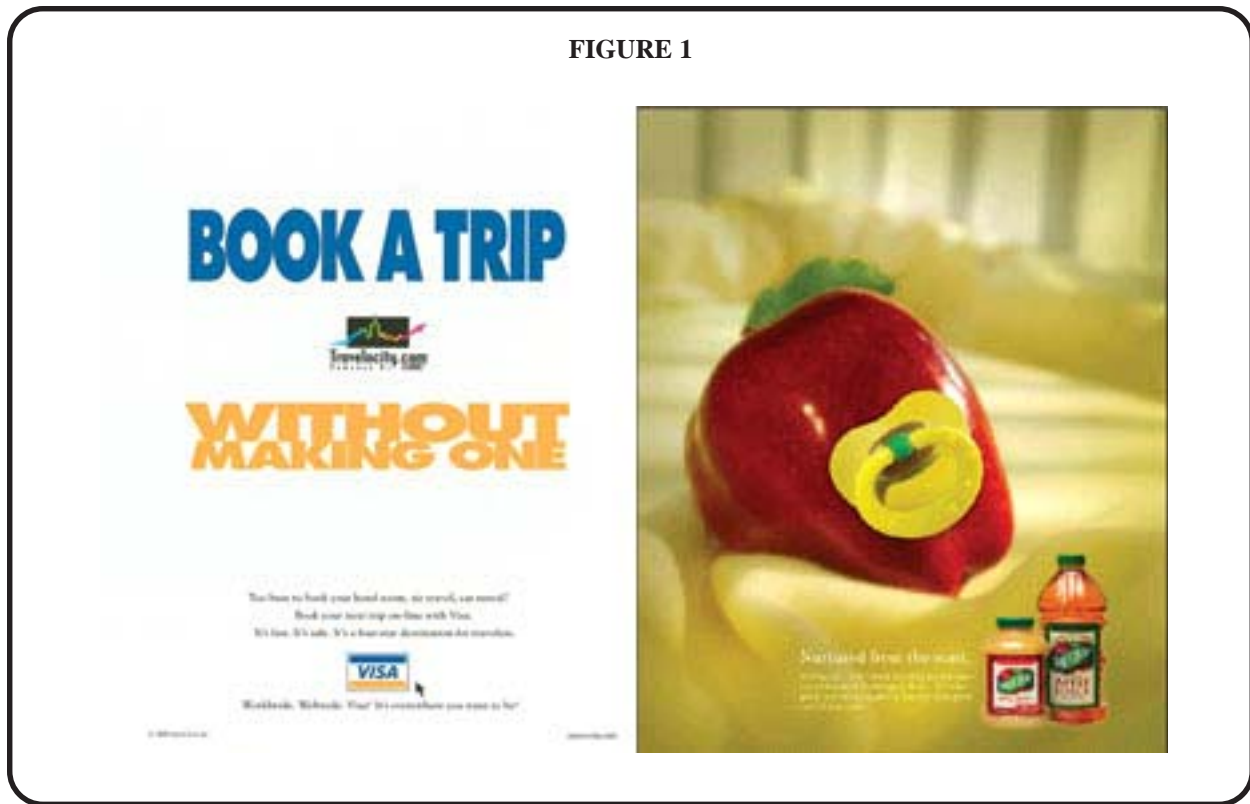
definable, and they exceed the minimum threshold necessary to arouse more central, and more complex cognitive processing. Researchers studying rhetoric in persuasion (McGuire 2000; McQuarrie et al. 2003b; Scott 1994b) broadly classify rhetorical figures into two categories: schemes and tropes. Schemes (e.g., rhymes) are regular and ordered combinations of various elements; schemes are more sensory in nature therefore they tend to push meaning in. Tropes (e.g., metaphors, puns) on the other hand are more semantic because they contain more deviant combinations of communication elements that "defamiliarize a proposition," thereby requiring greater processing effort to combine and make sense of them.

Taxonomy of Visual Rhetoric (Figure 3)

Figure 2 is taken from McQuarrie and Mick (1996), who devised their taxonomy ("the taxonomy") based on verbal language figures then subsequently extended the taxonomy to visual stimuli (McQuarrie and Mick 1999). Overall, McQuarrie and Mick's (1996, 1999, 2003a, 2003b) empirical framework builds on the work of Linda Scott (1994a, 1994b), synthesizing elements of the "human system": central and peripheral perceptual processing, and brain physiology with elements of the "ad system": elaborate communication structures that can be used to differentiate the visual content of advertisements. The authors define the term "semiotics" rather broadly, as a combination of sign (something that stands for something else such as a word, picture, or a combination) and

text (a purposeful assemblage of signs) that within a rhetorical framework works on simple and straightforward assumptions about the human system. The taxonomy links rhetorical figures to consumer processing and persuasion related outcomes: attention (rhetorical figures best at attracting attention, tropes make it farther into the "box"), elaboration (tropes seem to ignite stronger associations due to extra processing effort required), and ad liking (tropes were more well liked but more susceptible to external conditions and cultural differences). In particular with regards to visual rhetoric stimuli in advertising, McQuarrie and Mick (2003b) propose the following advantages over non-rhetorical stimuli, and over verbal rhetorical and non-rhetorical stimuli:

1. Visual ads are more tacit (McQuarrie and Phillips 2005).

2. Visuals affect the brain on contact (Damasio 1994; Franks 2003; Loftus 2005; McQuarrie et al. 2005).

3. Visuals are more prominent under naturalistic conditions.

   a. Visuals do not compete with words (e.g., in magazines, websites) as much as ad text does (McQuarrie et al. 2003a).

4. Visual memory superiority (Childers and Houston 1984).

FIGURE 2

A TAXONOMY OF RHETORICAL FIGURES IN ADVERTISING

I. Figuration — All rhetorical figures (artful deviations)

II. Figurative mode — Scheme (excess regularity) / Trope (irregularity)

III. Rhetorical operation

less COMPLEX more

Repetition — Reversal / Substitution — Destabilization

less COMPLEX more

- Rhyme, chime, alliteration
- Anaphora, epistrophe, epanalepsis, anadiplosis
- Parison

- Antimetabole
- Antithesis

- Hyperbole
- Ellipsis
- Epanorthosis, rhetorical question
- Metonym

- Metaphor
- Pun
- Irony
- Paradox

lower — GRADIENT OF DEVIATION — higher

a. Copious evidence for greater memory for visuals compared to words.

b. Visuals were far more potent than words at altering subjects' memories of a childhood visit to Disney Land (Braun-LaTour, LaTour, Pickrell, and Loftus 2004).

Although there is plenty of evidence to suggest that visual rhetoric has a strong impact on consumer memory, how and why this occurs (i.e., under what conditions), at each level of the taxonomy and at each stage of memory processing, still needs considerably experimental exploration. The primary objective of this paper is to discuss an empirical framework for such research.

CONSUMER MEMORY

This paper adopts as its core model for memory a general information processing model adapted for viewing video images (Lang 2000). Modifications to the model derive from social psychology literature on automaticity (Fergusson 2007; Moors and Houwer 2007). Moderators derive from studies which focus on this articles core constructs: memory for advertising (Keller 1993a, 1993b), visual rhetoric (McQuarrie et al. 2003b), and individual differences in personality characteristics and preference for processing visual vs. verbal information (Sojka and Giese 2006). The term "memory" collectively encompasses the processes of encoding, storage, and retrieval.

This paper assumes that encoding is modality specific, in that there are different forms of working memory for visual vs. other types of stimuli (e.g., verbal). Furthermore, encoding occurs through both by controlled processes which are more-goal oriented (relevant information) and/or automatic processes which are more stimulus-oriented (novel, or unusual information). Studies on automatic processes have shown that what consumers process is highly subjective and contextual (Moors et al. 2007), and the reason(s) underlying resource allocation at the automatic level can be dissociated from conscious

goals and motivations depending on the situation the individual incurs (Winkielman and Berridge 2004).

The memory model discussed in this paper adapts the associative network model for long-term memory storage. An object in memory is represented as a node, and linkages can be activated through the process of spreading activation. The model assumes that memory capacity is limited, which affects memory at all stages: capacity devoted to one stage may leave fewer resources available for processing at other stages of memory. In particular, excessive resources drawn toward encoding and/or retrieval may leave fewer resources available for storage. The implication is that stimuli that are either more salient (thus requiring fewer resources for encoding), or that are related to things already stored in memory that the individual is highly familiar with stand a better chance of getting stored more strongly (thus becoming more accessible later). Emotion has been shown to be a key conduit in terms of how strongly information gets stored (Levine and Pizarro 2004; Loftus 2005); this is discussed further below.

Retrieval is instrumental in both recalling old memories, such as in an experimental situation, and for forming new memories; past knowledge that is relevant to the current situation is accessed in working memory, and combined with new information to form new/updated associations in long term memory. Retrieval has an inverse capacity to thoroughness relationship under certain circumstances: the more somebody knows about something the more accessible information about the topic will be in long term memory, therefore the easier it is to further augment knowledge stored in long term memory. Lastly, the memories retrieved are not reproduced exactly as they were coded; it has been shown that memories are reconstructed, and that they can be altered during the reconstruction process via certain stimuli including advertising (Braun-LaTour et al. 2004; Loftus 2005).

VISUAL RHETORIC AND CONSUMER MEMORY: EXPERIMENTAL FRAMEWORK

This paper proposes the following information processing model as a framework for addressing the many important unanswered questions regarding the impact of visual rhetoric in advertising on consumer memory. In particular, the model is designed to explore the differential impact of visual rhetoric on memory at all levels of the taxonomy, in greater detail, across all stages of memory. Furthermore, the model looks at some of the processes that may underlie the advantage visual rhetoric seems to impart (see Figure below).

Experimental Questions and Propositions

♦ Question: How is memory impacted at each level of the taxonomy?

McQuarrie and Mick (1999, 2003a) have already shown that visual rhetoric evokes greater elaboration and more positive attitudes toward the ad than similar advertising that does not include rhetoric, in both directed and naturalistic experimental conditions. Furthermore, visual tropes (metaphors, puns) showed identical processing advantages over schemes (visual rhyme, visual antithesis) in both directed and naturalistic conditions. Further research should expand the types of tropes/schemes that are compared across both level 2 (schemes vs. tropes) and level 3 (schemes vs. schemes, tropes vs. tropes) of the taxonomy. Specifically, are more complex schemes/tropes superior to less complex schemes/tropes? Are all tropes superior to all schemes? Looking at the taxonomy, will the more complex reversal schemes (e.g., visual antithesis) show weaker memory effects than the less complex substitution tropes (e.g., visual hyperbole)?

Proposition: Tropes will show superior memory effects to schemes at level 2 and level 3 of the taxonomy
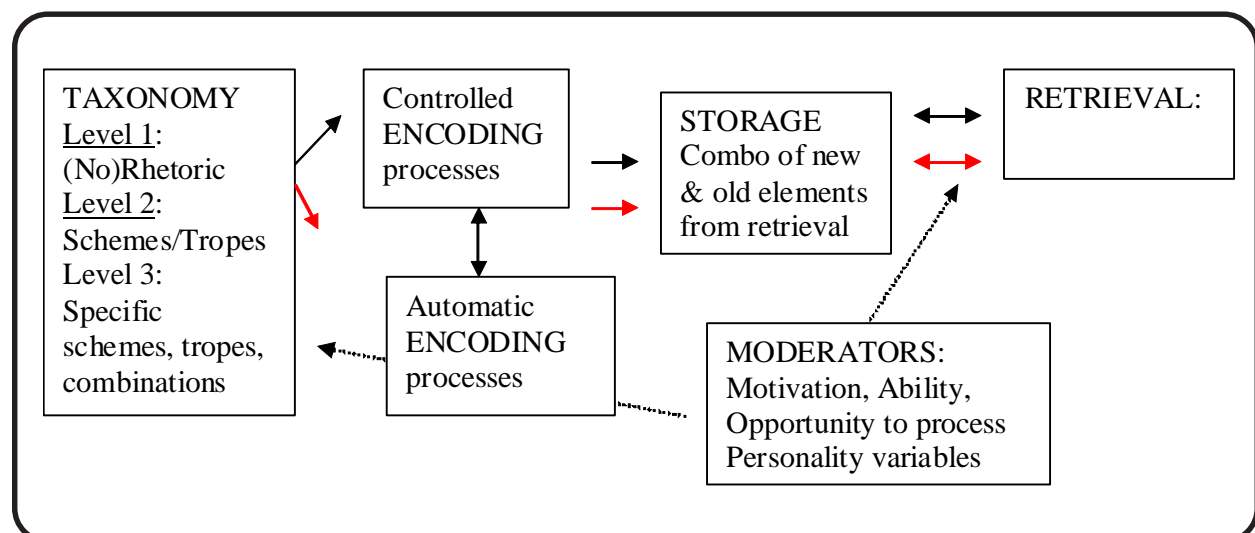
Lang's (2000) information processing model on which the present model is based, provides evidence outlining the implications of limited resource capacity at all stages of processing. Specifically, there is ample evidence to show that excess resources devoted to encoding may result in decreased resources available for storage and retrieval, especially if the subject is unfamiliar with the content of the stimulus. Familiarity with stimulus content produces stronger storage and retrieval effects, given the strength of previous associations already stored in memory. Given that tropes show greater resources toward encoding relative to schemes under all experimental conditions (low/high involvement, schemes vs. tropes, visual vs. verbal), what implications would this have on storage and retrieval? Is this moderated by motivation and/or familiarity with stimulus content, as expected?

♦ Question: What are the effects of repeated exposure? Time lag?

Presently, there have been no studies in this specific domain to measure either repeated exposure or time lag effects. Some studies have examined time lag effects of processing visual information, but not visual rhetoric. One study (Adaval and Wyer, Jr. 1998) demonstrated that after a 24-hour delay, the immediate advantages seen from processing of video information can dissipate under certain conditions. On the other hand, another study (Pullig, Simmons, and Netemeyer 2006) showed evidence of strong brand memories 5 days after exposure to print advertisements.

Results such as these provoke interesting questions in the domain of visual rhetoric that still needs exploration: would repeated exposures cause wear-out for tropes,

given the intense pleasure of processing the stimulus reported by subjects? Would repeated exposures improve the memory performance for schemes relative to tropes? It makes sense to examine these effects in and of themselves, and in light of the specific memory-related questions addressed previously in this paper, because consumers in real life are exposed to the same advertisements repeatedly, and in different contexts with respect to motivation, ability, and opportunity to process the ads. Furthermore, it would be interesting to know if different combinations of schemes and tropes would cause any interference effects. Along these same lines, it would be very interesting to know the extent to which combinations of visual and verbal rhetorical stimuli either improve or interfere with memory processing over time and/or over repeated exposures.

♦ Question: What role do emotions play in stronger memory processing of visual rhetoric?

Neuroscience evidence (Damasio, 1994) suggests the way we should approach this theoretically: rationality is fully integrated with regulatory (i.e., emotional) mechanisms that give thought content meaning. These regulatory mechanisms for the most part occur below the level of the cortex, which of course means they evolved first, and exist as a 3-tiered neurobiological system. Background feelings (called somatic markers) are the most fundamental, analogous to instincts that continuously monitor body states, the interpretation of which ultimately provide meaning for thoughts and actions.

Proposition: Emotions moderate stronger memory for visual rhetorical stimuli over non-rhetorical stimuli across all modalities.

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CUSTOMER EQUITY AND THE STOCK VALUE GAP

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SUMMARY

Prior research suggests that marketing has to be more closely connected to finance and stock value. As CEOs focus on maximizing shareholder value, researchers have started to benchmark the financial contribution of customer equity (Rust, Lemon, and Zeithaml 2004). For example, extant studies have examined the impact of customer satisfaction on firms' cash flows, Tobin's q, and firm-idiosyncratic stock returns (Anderson et al. 2004; Fornell et al. 2006; Luo 2007; Morgan and Rego 2006).

This paper introduces the concept of a stock value gap (SVG) and proposes an econometric approach measuring this gap (Aigner et al. 1977). We define SVG as the shortfall of a firm's actual market value from its optimal market value (i.e., when scientifically benchmarked against optimal, best-performing competitors, as opposed to non-optimal, average-performing rivals). The results suggest that satisfaction induces a smaller SVG, whereas customer complaint leads to a larger SVG. Negative customer complaint has a stronger impact than positive customer satisfaction on the SVG. Furthermore, these effects of customer insights on the SVG are contingent upon the boundary conditions of working capital and firm specialization. Overall, our results based on benchmarking against best-performing competitors help extend the literature on valuing customer equity. Managers are also encouraged to build a more complete customer equity dashboard and to foster a supportive organizational environment in order to create shareholder value with customer analytics.

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LINKING BRAND VALUE AND CUMULATIVE CUSTOMER SATISFACTION TO CASH FLOWS AND TOBIN'S Q

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SUMMARY

One urgent challenge in marketing is clarifying the distinction between brand and customer metrics (Ambler et al. 2002; Gupta and Zeithaml 2006; Keller and Lehmann 2006; Leone et al. 2006), and how they enhance financial performance.[1] The relevance of brand and customer metrics in marketing is discussed by practitioners, and marketing and management scientists. For instance, in a recent conference of the Association of National Advertisers, the chief executive officer of one titan brand "urged on marketers to 'let go' of their brands and bow to customer wants and needs." Contrarily, the vice president-marketing of another giant brand suggested to the audience to focus on their brands. On the other hand, marketing researchers have regarded brands and customers as heterogeneous resources and marketing assets that contribute to firm's profitability (Srivastava et al. 1998; Rust et al. 2004a); and management scientists have recognized the importance of those marketing assets as determinants of the firm's strategy and performance (Amit and Shoemaker 1993; Barney 1991; Peteraf 1993).

Brand and customer metrics include a broad range of measures. Brand metrics, for instance, include measures such as brand awareness, brand image and financial brand value (Aaker and Jacobson 1994, 2001; Barth et al. 1998). Customer metrics, on the other hand, include perceptual and behavioral measures (see Gupta and Zeithaml 2006 for a detailed revision) such as customer satisfaction, customer lifetime value and customer equity (Anderson et al. 2004; Gupta et al. 2004; Rust et al. 2004b). Up to our knowledge, studies on brand and customer metrics have followed their own stream almost independent of each other (Gupta and Zeithaml 2006; Keller and Lehmann 2006). For example, extant marketing literature has empirically studied the link between financial brand value and firm's performance separately from the effect of cumulative customer satisfaction on financial performance (e.g., Anderson et al. 2004; Barth et al. 1998; Gruca and Rego 2005; Ittner and Larcker 1998; Kerin and Sethuraman 1998; Madden et al. 2006). Briefly, financial brand value is the result of linking strong brands (i.e., strong brand awareness and favorable brand image) to managing earnings and cash flows (Kerin and Sethuraman 1998). Cumulative customer satisfaction,[2] on the other hand, is the result of an "overall evaluation of the total purchase and consumption experience with a good or service over the time" (Auh and Johnson 2005, p. 37; Anderson et al. 1994, p. 54).

Our work investigates the simultaneous connection of brand value and customer satisfaction to important financial metrics such as cash flows and firm value. Our arguments are: (1) managers and researchers should no longer value customer satisfaction and brand value in isolation since firms pursue not merely increasing brand value but also accumulating customer satisfaction. (2) Brand value and customer satisfaction lead to financial performance by customer acquisition and customer retention. Brand value, for example, increases customer acquisition and retention by strong brand awareness and favorable brand image. Customer satisfaction, on the other hand, enhances customer acquisition and retention by positive word-of-mouth and higher perceived quality and perceived value. (3) In order to obtain a more precise measuring of the simultaneous contribution of brand value and customer satisfaction to firm's performance, it is necessary to control for the expenditures in marketing activities (Rust et al. 2004). Let's consider two firms with the same level of brand value and customer satisfaction but with different level of expenditures in marketing activities (e.g., advertising, promotion), ceteris paribus, which one creates more cash flows and firm value? (4) Gaining comparative advantage makes firms create stronger financial performance. A firm gains comparative advantage by making the best use of its heterogeneous resources relative to competitors (Hunt and Morgan 1995), in other words, obtaining comparative advantage means building higher levels of brand value and customer satisfaction compared to competitors. In summary, we argue that a firm able to generate more brand value and customer satisfaction than its competitors, under the same level of expenditure in marketing activities, it will enhance cash flows and therefore create more firm value. We call to this firm's ability as marketing efficiency.

We use data envelopment analysis (Charnes et al. 1985; Luo 2004) for modeling marketing efficiency. In particular, we employ an output oriented and variable returns to scale model. To probing the effects of marketing efficiency first on cash flows and then on firm value, we used two stage least square regressions (Anderson and Sawa 1977; Greene 1998). We applied the research model to a sample of top U.S. firms. We use the financial brand value measure of Interbrand which represents brand aware-

ness and image of firms in a monetary perspective. We employ the American Customer Satisfaction Index for measuring cumulative customer satisfaction. We use advertising spendings and the aggregated amount of expenditure in direct mail, customer relationship marketing, and sales promotion of the reports of Ad Age Group for measuring marketing activities. We use the total annual cash from operating activities normalized to total assets for measuring cash flows generation. We employ Tobin's Q (Chung and Pruitt 1994) for measuring firm value. We also employ six control variables: earnings, leverage, brand name strategy, four-digit industry concentration index, age, and infrastructure.

We found a positive connection between marketing efficiency and cash flows, and between cash flows and Tobin's Q. The results reveal that the more efficient in marketing the firm, the higher the cash flows and, in turn, the stronger the Tobin's Q. Marketing efficiency proposes that higher levels of brand value and customer satisfaction have been obtained by the best use of marketing expenditure and by gaining comparative advantage relative to competitors. As a result, the impact of brand value and customer satisfaction, first on cash flows, and then on Tobin's Q is stronger for relatively more marketing efficient firms (Kamakura et al. 2002; Mittal et al. 2005). The results are consistent with Barney (1991) and Peteraf (1993) thinking about the crucial role of intangible in creating firm value. Managing marketing efficiency will provide firms with compensation in terms of value creation.

Our research supports and advances the knowledge in customer management (Blattberg, Getz, and Thomas 2001), the comparative advantage theory of competition (Hunt and Morgan 1995), and the marketing-finance interface (Srivastava et al. 1998). First, our study points out the relevance of building and managing customer assets through customer satisfaction and brand value. In other words, managers should not be remiss about the integrated role of branding and customer strategies. These fused strategies impulse customer acquisition and customer retention. Second, our work complements the comparative advantage theory of competition (Hunt and Morgan 1995) by empirically testing the importance of benchmarking to competitors in creating sustainability of the marketing strategy. Third, our investigation indicates that the marketing-finance interface is stronger when marketing assets are managed in a simultaneous way. References are available upon request.

ENDNOTES

1. Firm's performance and financial performance will be used indistinctly.
2. From now onwards, the terms financial brand value = brand value, and cumulative customer satisfaction = customer satisfaction.

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GRATITUDE IN THE RELATIONSHIP MARKETING PARADIGM

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SUMMARY

For the past several decades, marketing researchers have worked diligently to identify significant ingredients in the development of buyer-seller relationships, due to their ever increasing prevalence and importance in the marketplace. For centuries, gratitude has been recognized as an integral component in social relationships, in a manner similar to trust and commitment, but has been overlooked by marketing scholars in the study of relational exchange. Sister disciplines have hinted to the benefits of incorporating gratitude into marketing strategies, as have the practices of marketing managers. We suggest that an investigation into gratitude's role in relational exchange is vital to those marketing managers and researchers who seek to understand the fundamental components of buyer-seller relationships.

What Is Gratitude?

We accept Fredrickson's (2004, p. 150) definition of gratitude as the emotion that arises "when an individual (beneficiary) *perceives* that another person (benefactor) or source (e.g., God, luck, fate) has *intentionally* acted to improve the beneficiary's well being."

Gratitude Is Imbedded in the Relational Exchange Paradigm

Researchers have come to understand marketing as a dynamic process centered on continuing social and economic exchanges. This perspective, now known as the relational exchange paradigm, is widely studied by academics and implemented by practitioners. The benefits of implementing relational programs are accepted by both business-to-business and business-to-consumer firms.

Countless studies aim to identify the drivers and facilitating conditions that lead to relational benefits in an effort to assist managers in formulating appropriate marketing strategies. Most studies rely on the precedent set by previous researchers who pioneered the relational exchange paradigm by borrowing constructs from other disciplines to understand social relationships. Examples of these borrowed constructs include commitment, trust, satisfaction, communication, cooperation, loyalty, and functional conflict.

Absent from this list is gratitude. This oversight by relationship marketing researchers seems surprising, especially because the disciplines from which they typically borrow – sociology and psychology – readily cite the importance of gratitude in social relationships. For example, Bartlett and DeSteno (2006, p. 319) comment, "For centuries, thinkers from various disciplines have believed [gratitude] to be essential for building and preserving social relationships, so much so that gratitude has been labeled [by Cicero] 'not only the best, but the parent of all other virtues'." Expressions of gratitude build stronger bonds of friendship, as well as skills in support of loving and showing appreciation, which can have lasting rewards far beyond the benefit – gratitude exchange. Several researchers note the importance of gratitude in the continual development of long-term relationships by encouraging beneficial reciprocal behavior, and Komter (2004, p. 211) suggests, "Without the ties created by gratitude, there would be no mutual trust, no moral basis on which to act, and no grounds for maintaining the bonds of community."

The experience of gratitude has been found to motivate a desire for *continued interaction* between two parties, which is the key criteria that distinguishes transactional from relational exchanges. Since displays of gratitude signal that the possibility exists for future exchanges, gratitude may play a role in transforming transactional into relational exchanges.

Implications of Gratitude for Relationship Marketing Research

Gratitude has implications for relationship development, maintenance, and outcomes. Over time, feelings of gratitude and their expression build trust and help develop long-term relationships, due to their status as an accepted norm in social relationships. However, even a single violation of this norm could inhibit trust and commitment, undermining a partner's long-term orientation and making the transition to relational exchange more difficult. Therefore, the impact of perceived ingratitude may do more to harm a potential relationship than a proper expression of gratitude could do to enhance it.

Recently, Palmatier, Dant, and Grewal (2007) reported that commitment and trust are not the only mediat-

ing factors driving relational performance; they suggest other factors require consideration and offer gratitude as a possible mediator. Bartlett and DeSteno (2006) find that gratitude drives helping behavior. Specifically, grateful-ness, not awareness of society's reciprocity norm or a positive mood, causes participants to engage in helpful behaviors toward both benefactors and strangers. In a marketing context, Morales (2005) reveals that even when firm effort had no impact on product quality, it influences gratitude toward the high-effort firm and produces pro-firm consumer behavior, such as increased willingness to pay, store choice, and overall evaluations. Soscia (2007) finds that gratitude, but not happiness, predicts repur-chase intention and positive word of mouth. These studies thus indicate that gratitude has the potential to affect relationship behaviors positively and assist in relationship maintenance.

The exact relationship of gratitude to important rela-tional outcomes such as satisfaction and delight remains an open question. We suggest that gratitude relates more closely to delight, whereas happiness coincides with sat-isfaction. Gratitude is possible only when the scenario includes a personal intent to benefit on the part of another and high emotional and/or cognitive activation. Thus, the constructs of gratitude and delight appear much closer in conceptual space than does gratitude with either satisfac-tion or happiness. If gratitude and delight co-occur in other-caused scenarios, measures of gratitude also may help distinguish delight more clearly from satisfaction.

Finally, we address the potential negative impact of gratitude if used only to gain additional benefits, and we call on marketing scholars to contribute to the emerging science of gratitude. References are available upon re-quest.

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MEMBER NETWORKS, IDENTIFICATION, AND COMMITMENT WITHIN PROFESSIONAL ASSOCIATIONS

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SUMMARY

Much of relationship marketing (RM) research is devoted to identifying the critical factors influencing the development of strong customer relationships resulting in positive performance outcomes for sellers. A meta-analysis of RM studies by Palmatier et al. (2006) identifies characteristics of the customer, seller and the dyadic level that influence relationship development. Their findings indicate that the business context influences the extent to which relationships are important. Membership relationships within professional and voluntary associations form a unique context in which relationship marketing efforts are directed toward the maintenance of long-term relationships between an organization and its customers (Bhattacharya 1998; Gruen et al. 2000; Malewicki 2005). The current study utilizes research by Ahearne et al. (2005) on organizational identification combined with recent work by Palmatier et al. (2006) to examine relationship marketing within the context of professional associations (PAs).

PAs maintain professional standards and values through self-regulation and dedicate ongoing efforts to promote professionalism among their members (Shafer and Owsen 2003a; Shafer and Owsen 2003b). Recent attention has been devoted to the psychological bonds of membership, namely identification and commitment (Algesheimer et al. 2005; Bagozzi and Dholakia 2006; Bhattacharya 1998). Organizational identification provides members a sense of meaningfulness and belongingness with the organization, as well as the link with other members (Yi and Uen 2006) and is a strong basis for a customer retention strategy, leading to competitive advantage and improved profitability for the organization (Bhattacharya et al. 1995). Commitment also is said to serve a vital psychological force linking customers to organizations (Fullerton 2005). Committed customers not only stay with organizations, consuming their products and services, but also participate in value creation (Gruen et al. 2000). Committed employees tend to have lower turnover (Meyer et al. 2002) and are more enthusiastic in promoting the organization (Mowday et al. 1982).

Research has shown that the reputation of an organization is a critical antecedent influencing identification (e.g., Ahearne et al. 2005; Bhattacharya et al. 1995). Joining a prestigious association is a way for people to enhance their sense of self, as reputable organizations provide better opportunities for members to improve their standing (Riketta and Landerer 2005). PAs also provide benefits to their members in the form of rewards, such as discounted rates and usage privileges, and offer functional and social benefits (Bendapudi and Berry 1997; Hennig-Thurau et al. 2002) typically through organizational events, such as training courses, educational seminars and social events. People tend to participate in activities congruent with their self-image (Mael and Ashforth 1992), which increases their identification with the organization. In addition to reputation and benefits, networks are particularly important within membership contexts since many activities offered by PAs create opportunities for members to form extensive internal networks with other members. Internal ties strengthen group norms, enhance collective identity and the capacity for collective behavior (Adler and Kwon 2002). On the other hand, external ties are regarded as rich sources of novel information and knowledge (Borgatti and Cross 2003). Access to such resources makes members less dependent on any specific PA, providing members with multiple perspectives to consult and belong.

The overall conceptual model proposes that the antecedents of PA Reputation, Member Benefits and Member Internal Networks are positively related to Member Identification with the PA, which in turn leads to Member Affective and Normative Commitment, and results in the behavioral outcomes of Member Retention and Advocacy. External Networks are proposed to negatively impact Identification. Data were collected through a self-administrated, online survey questionnaire. Participants were recruited from three Australian health care PAs, each with approximately 2,000 to 3,000 members. In all, 198 members responded to the invitation to participate, with 158 usable surveys obtained.

Results from a partial least squares (PLS) analysis show the average variance accounted for (AVA), the R^2 of the structural model is .2652 (Fornell and Bookstein 1982) with 39.82 percent of explained variance in Retention and 56.94 percent in Advocacy. With significant path weights, and critical ratios, all hypotheses are supported with the exception of one.

Reputation and Internal Networks are positively related to Identification leading to Affective and Normative Commitment. Both Affective Commitment and Normative Commitment are related to member Retention and

Advocacy, with Normative Commitment more important for Retention and Affective Commitment more strongly related to Advocacy. External Networks show no relationship with Identification and are negatively related to all other relational constructs. For these reasons, managers should assist PA members in the development of Internal Networks, leading to increased PA Identification and Commitment eventually resulting in both Retention and Advocacy. References are available upon request.

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UNDERSTANDING PERFORMANCE OF JOINT VENTURES:
AN INTEGRATION OF THEORETICAL PERSPECTIVES

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SUMMARY

Research on alliances has been done across several perspectives (Harrigan 1985, 1995; Hagedoorn 1993; Chowdhury 1992; Baum and Oliver 1991; Kent 1991; Kogut 1988). Three theoretical perspectives have received considerable attention in the area of interorganizational exchange: relationship marketing, transaction cost economics, and strategic management (Robson, Leonidou, and Katsikeas 2002). These theories have made important contributions to the development of existing knowledge on joint ventures (JV) performance. However, researchers have almost always relied on one or the other approach. Moreover, research incorporating these perspectives focused more on the outcomes and less on the processes that lead to these outcomes. This paper contributes to the existing knowledge by integrating different constructs from three theoretical perspectives most widely used in JV studies. The primary contribution of this research is in demonstrating the completeness of an integrated framework that draws equally from the above mentioned theoretical perspectives.

The Study

This study was conducted with the objective of integrating transactional, resource, structural, and relational perspectives to alliances. The constructs of trust and commitment from the relational perspective were linked with partner opportunism. It was hypothesized that the specific resource investments (resource-sharing and communication) mediate the relationship between relational intentions (trust, commitment, and opportunism) and performance. This framework of links between the transactional, resource and relational perspectives interacts with the structural fit between partners to determine performance.

Data Collection

A preliminary list of 1400 JVs was first taken from Corporate Affiliations Plus on CD ROM, in order to build as much homogeneity as possible into the study. Two hundred twenty managers, each representing a specific joint venture that they managed, responded to a specifically designed survey of joint venture relationships. Of the 220 completed questionnaires, 202 were usable, yielding a response rate of 45 percent. As per the conceptual model, I wanted to test moderated mediation. As there is still no acceptable method of testing interactions through structural equation modeling, especially moderated mediation, I used Statistical Package for Social Science (SPSS 13.00) for testing moderated mediation.

Discussion of Findings

The analysis showed that in all cases, the fit between JV partners has a significant effect in strengthening/ weakening the relationships. These relationships work positively when the fit between JV partners is high. So if there is commitment and resources are being shared, performance will significantly improve in those JVs where partners have a high congruence.

I found sufficient evidence to suggest that the mediating relationship of specific investments, resource-sharing and communication, with relational intentions (trust, commitment, and opportunism) and performance is influenced by the extent of fit between partners. Commitment and trust will increase resource sharing and communication, which in turn will drive performance when there is high congruence between partners, i.e., when the partners have similar structures, common goals and values and complimentary organizational processes. Firms might share resources out of commitment and/or contractual obligations, but this will not increase performance if the partner characteristics are not in alignment. If the overall fit or congruence is low, commitment and trust will not drive communication, and the subsequent performance will be considerably low.

I also found interesting relationship of opportunism with specific investments and performance. When I looked at the complete set of cases, I found no relationship between opportunism and specific investments (resource-sharing and communication) made by the partners. When the cases were split based on the extent of fit, these investments turned out to be partially instrumental in driving performance based on the level of opportunism. Combining the moderation results with moderated mediation results give useful insights. High opportunism in a very congruent relationship can pull down performance of a JV significantly, compared to high or low opportunism in a low congruence situation.

The findings suggest that behavioral intentions of partners influence resource sharing and communication between the partners. These together drive performance

based on the extent of fit between the structures, culture and values of both partners. Thus I conclude that the transactional, relational, and structural perspectives together can help us understand performance of JVs better. References are available upon request.

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DIFFUSION PATTERN OF E-RETAILING: EVIDENCE FROM OECD ECONOMIES

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SUMMARY

Among the many industries transformed by the Internet and e-business technologies (Varadarajan and Cunningham 1995), retailing is a highly visible example. The rapid diffusion of e-retailing in countries around the world illustrates this trend. The rate at which e-retailing is substituting for conventional retailing, however, varies drastically across economies and for reasons not yet made apparent in the literature. Perhaps some of the best gauges of the cross-country diffusion of the e-retailing industry are e-retail spending per capita and the size of e-shopper population. Per capita e-retail spending and the proportion of Internet users who actually make purchases online vary widely across even the world's richest economies (Table 1). Among seventeen OECD economies considered in this paper, online spending per buyer in 2005 ranged from US\$ 245 in Greece to US\$ 988 in the U.K. In the same year, the proportion of online users buying online varied from 26 percent in Belgium to 62 percent in the U.S. An important question thus is: What are the sources of cross-national variation in consumers' online shopping behaviors and e-retailing spending?

Substitution Effects Potentially Linking Conventional Retailing and E-Retailing

There are persuasive arguments for thinking that conventional retailing and e-retailing may have complementation as well as substitution linkages. One contribution that stands out as perhaps the most developed effort to conceptualize possible complementation and substitution effects between conventional retailing and e-retailing is Anderson et al. (2003). While the authors provide some intriguing arguments as to why e-retailing may complement as well as substitute for conventional retailing, they conclude that substitution effects tend to be stronger. They observe that conventional retailing and e-retailing are "always substitutes" so that growth in one leads to relative decline in the other (Anderson et al. 2003, p. 420). Other researchers have also provided related evidence, including perspectives of conventional retailers, insights into increased e-retailing related activities, e-hub, e-marketplace, and e-commerce (Salmen and Muir 2003; Varadarajan and Cunningham 1995; Xie and Johnston 2004).

Conventional retailing's substitution by e-retailing may be attributable to a number of benefits offered by the latter. For instance, e-retailing offers consumer convenience (Litan and Rivlin 2001). The Internet allows customers to optimally utilize their time by doing business when it is convenient for them. It also has ability to empower customers by providing services such as order tracking (Otim and Grover 2006). In some cases, e-retailing can improve product quality (e.g., by reducing error). In the pharmaceutical industry, for instance, the electronic transfer of prescriptions can simplify handling and minimize the risk of spelling mistakes (Grund and Vartdal 2000).

More broadly, a classic trade-off noted by decision theorists is explained by *the functional equivalence assumption of the principle of relative constancy* (PRC). According to this perspective, the scarcity of resources such as time and income forces consumers to choose among alternative media types, and in the context of this paper, alternative distribution channels (Dupagne 1997; Eastwood 1985; Landsburg 1992). New retailing technologies such as those involving the Internet can thus expand only at the cost of old retailing technologies (McCombs 1972). This theory can be considered as being related to the marginal rate of substitution (Deaton 1992, p. 11). The marginal rate of substitution of conventional retailing by e-retailing also varies across product and services types. In the service environment, for instance, the e-channel's potential to replace traditional service delivery formats is particularly more prominent for routine types of services than it is for their non-routine counterparts (Salmen and Muir 2003; van Birgelen, Jong, and Ruyter 2006). The preceding ideas lead us to hypothesize the following:

H_{1a}: *Ceteris paribus, the* per capita e-retail spending *in an economy is negatively related to the number of* retailing sites per 1000 persons in the economy.

H_{1b}: *Ceteris paribus, the* proportion of Internet users that shop online *in an economy is negatively related to the number of* retailing sites per 1000 persons in the economy.

Methodology, Analysis, Results, and Discussion

To test the above hypotheses, we employed time series cross sectional (TSCS) models for annual data for the period: 2001–2005. Table 2 presents the correlations among explanatory variables and dependent variables – $ESHOP (the online spending per buyer) and %ESHOP (the percentage of online users that buy online) are the dependent variables. We took *per capita GNP (GNPPC), m*arket size (population size) and population density as control variables.

Considering the effect of conventional retailing on e-retailing first, we found that availability of retail sites has a significant negative effect on the proportion of Internet users shopping online as well as per capita retail spending. It is important to note that the RSPK variable – the number of retail sites per 1000 people – captures availability of conventional retailing rather than retail spending. Such an effect is especially evident in the application of the Fuller and Battese method.

A major contribution of this article is to explain the cross-national heterogeneity in e-retailing diffusion by using time series cross sectional (TSCS) models. The added value created by this research also stems from the fact that we have used "multiple perspectives to interpret a single set of data" (Patton 1980, p. 108) thereby providing both theory and methodological triangulation. For instance, we have employed models that have different assumptions regarding error terms, which address the need for better leverage concerning methodological pluralism. Moreover, we have used different but related dependent variables. In short, our approach has overcome the weaknesses inherent in a single theory and/or single methodology by combining the strengths of different theories and methodologies. References are available upon request.

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DO YOU BLOG? AN EMPIRICAL STUDY ON ADOPTION OF WEBLOGS IN CHINA

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ABSTRACT

Adopting Roger's Innovation Diffusion Theory, this research finds that Compatibility, Image, and Relative Advantages are the most important characteristics of blogs affecting Chinese consumers' blogging adoption behavior. Moreover, different patterns of impacts of blogs' characteristics on adoption are found across adopter categories. The research concludes with managerial implications.

INTRODUCTION

A Weblog is commonly known as a blog. Even though a blog is synonymous with a personal Web site for many people, Blood (2004) defined it as a format consisting of "familiar, frequently updated, reverse-chronological entries on a single Web page." Efimova and de Moor (2005) named it a "personal webpublishing" tool.

The number of blogs has grown dramatically during the past few years. According to Technorati (2007), the number of blogs worldwide increased from 2.16 million in 2002 to 10.3 million in 2004. In 2007, Technorati (2007) reported that it was tracking more than 70 million blogs. Blogs offer great benefits to bloggers. Nardi et al. (2004) identified five motivations of blogging: documenting one's life, presenting comments and opinions, expressing emotions, serving as a thinking tool, and maintaining a cyber community.

The growth of blogging provides opportunities and benefits to businesses as well. From the perspective of marketers, they can research consumers' blogs to understand their lifestyles, attitudes and buying behaviors, to collect customer feedback, and to generate new product ideas. As a data source, blogs would provide valuable information for businesses. Moreover, marketers can stimulate word-of-mouth regarding their products and brands through the social networks of bloggers. Word-of-mouth has been recognized as a more credible information source than mass media (Westbrook 1987). Many businesses have realized the important role of blogs in their marketing strategies. For example, according to Donews.com (2008), Game.com.cn, a game website in China, cooperates with Bolaa.com, a blog website, to promote its new games. Some well-picked Bolaa bloggers (i.e., the most popular game-lovers) are invited to try new games from game.com.cn for free, and then they post their experience and opinions about the new games in their blogs. Basically, readers of their blogs share the same interests and such posts will generate discussion and word-of-mouth among the target market of game.com.cn.

While the importance of blogs has been accepted, little is known about why individuals adopt blogs and why some bloggers adopt blogs earlier than others. Rogers' Innovation Diffusion Theory (IDT) (1983) indicated that the characteristics of an innovation would affect the innovation adoption behavior and adopters could be classified into categories based on their adoption rates. This research applied Rogers' IDT to the adoption of blogs in China. According to a report on Chinese blogs in 2007 (China Internet Network Information Center, CNNIC 2007), currently there are almost 47 million bloggers in China, which is 26.1 percent of all Chinese Internet users, and the number of blogs in existence is about 72.8 million. The number of active bloggers, who updated blog at least once a month in average, increased rapidly from 0.23 million in 2002, 0.75 million in 2003, 1.8 million in 2004, 4.3 million in 2005, 9.2 million in 2006, to 16.9 million in 2007 (CNNIC 2007). Blogging has become a critical part of online culture in China, which implies significant opportunities for many businesses.

The purpose of the current research is to extend the scope of innovation adoption and diffusion research to blogs, a rapidly growing innovation. To the authors' knowledge, this study is the first empirical research which attempts to understand (1) what characteristics of blogs led to the adoption of blogs, and (2) the differences among bloggers over innovation diffusion stages, in general and in China. Our findings should be able to provide further insights for blog websites and any businesses which would like to incorporate blogs into their marketing promotion mix.

LITERATURE REVIEW AND HYPOTHESES

Various theories and models have been proposed to explain innovation adoption behavior such as Theory of Reasoned Action, Theory of Planned Behavior, Motivation Theories, Technology Acceptance Model, and Domestication Approach (see Rao and Troshani 2007 for a detailed discussion). Our research focuses on the applications of Rogers' IDT, which has been widely used to explain the adoption and diffusion of various types of information technology (IT) innovations and empirically

applied to various contexts such as WWW (Agarwal and Prasad 1997), virtual stores (Chen, Gillenson, and Sherrell 2002), online games (e.g., Chen, Kao, and Lin 2004), and mobile Internet (Hsu, Lu, and Hsu 2006).

Blogs

Compared with personal websites whose designs and functions are determined by site designers' skills, blog websites provide templates which allow technology novice bloggers to easily establish their blogs. The popularity of easy-to-use blogging software has contributed to the recent proliferation of blogging (Kahn and Kellner 2004; Blood 2004). Personal website owners used various symbols and signs such as texts, icons, images and hyperlinks to express their self-concepts (Schau and Gilly 2003). Today bloggers can create their digital identities through the incorporation of symbols and signs unavailable a few years ago such as video clips from mobile devices. Moreover, most blog websites allow visitors to respond to the bloggers' posts, which stimulate two-way communication in the blogospheres (Efimova and de Moor 2005). Thus, bloggers use blogs as a tool of self-expression and communication.

There have been some researches on various types of blogs such as travel blogs (Pan, MacLauren, and Crotts 2007), healthcare blogs (Thielst 2007), and election campaign blogs (Stanyer 2006). For example, after examining 40 travel blogs on travel experience in Charleston, South Carolina, Pan, MacLauren, and Crotts (2007) indicated that blogs provided companies "rich, authentic, and unsolicited" customer feedback "inexpensively."

Innovation Diffusion Theory

Rogers (1983) identified five characteristics of an innovation – Relative Advantage, Compatibility, Trialability, Observability, and Complexity – which influence an individual consumer's adoption decision and the rate of innovation diffusion. Moore and Benbasat (1991) argued that Image was a further and separate construct in affecting adoption decisions. Different from Relative Advantage, Image focuses more on the social approval a user receives when adopting an innovation. More importantly, relying on Rogers' work (1983), they developed the measurement scales of these characteristics from an adopter's point of view.

Consistent with Moore and Benbasat (1991), this research focuses on the *perceived* characteristics of using innovations instead of *objective* characteristics of innovations. As argued by Moore and Benbasat (1991), the adoption behavior is affected by how adopters *perceive* the characteristics of innovations. For example, the usage of the Internet may be perceived as "very easy" by one

potential adopter but as "pretty hard" by the other, depending on their technological prowess. Obviously, the adoption of the Internet is determined by how potential adopters *perceive* whether the Internet is easy to use.

Perceived Characteristics of Blogging

Relative Advantage refers to "the degree to which an innovation is perceived as being better than its precursor" (Rogers 1983). Relative Advantage has been found to affect adoption of WWW (Agarwal and Prasad 1997), WAP-enabled mobile phone (Teo and Pok 2003), and cell phone banking (Brwon et al. 2003). Blogs allow users to document their daily lives and keep connected with their family and friends easily and efficiently. Moreover, allowing readers to respond on blogs stimulate readers' interactive communication with bloggers. Furthermore, the capability of uploading pictures and video clips makes the communication more vivid. Writing blogs from mobile devices allows bloggers to update their blogs anytime anywhere. Finally, different from participants on an online forum, bloggers are offered an unmanaged cyberspace where they can freely express their opinions and attitudes and are not controlled by any administrators and moderators (Stanyer 2006). Viewing all these advantages provided by blogs over other tools such as personal websites and bulletin boards, we propose that Internet users who value the advantages of blogs are more likely to adopt blogs.

H_1: Relative Advantage of using blogs positively affects intention to adopt blogs.

Compatibility is defined as "the degree to which an innovation is perceived as being consistent with the existing values, needs, and past experiences of potential adopters" (Rogers 1983). Many empirical researches confirm that Compatibility influences adoption of various innovations such as groupware application (Slyke, Lou, and Day 2002) and virtual stores (Chen, Gillenson, and Sherrell 2002). The Internet has become not only an important communication tool but, more importantly, an inalienable part of the lifestyle for global young consumers, who consist of the majority of bloggers. They are so familiar with and rely on IT products and services in every aspect of their daily lives such as entertainment, communication, and self improvement. This group of young consumers pays great attention to themselves, enjoys self-expression, prefers personalized products, and is used to make friends on the Internet (Wang 2004). Obviously, blogging, emerging as a new method of communication and self-expression, is compatible with values, needs, and past experience of potential adopters. Therefore,

H_2: Compatibility of using blogs positively affects intention to adopt blogs.

Complexity is "the degree to which an innovation is perceived as being difficult to use" (Rogers 1983). Perceived Ease of Use is a construct analogous to Complexity and used by many researchers (e.g., Moore and Benbasat 1991; Hsu, Lu, and Hsu 2006). Ease of Use has been proved to affect the adoption of virtual stores (Chen, Gillenson, and Sherrell 2002) and WAP-enabled mobile phone (Teo and Pok 2003), among other innovations. Personal websites initiated earlier than and provides the same advantages as blogs, however, personal websites can never attain the same popularity as blogs since the establishment of a personal website requires specific skills. The availability of easy-to-use software is one of the major reasons which boost blogging (Kahn and Kellner 2004). The straightforward interface and easy-to-follow instructions make creating a blog an easy task for most people. Therefore, we propose our third hypothesis:

H_3: Ease of use of using blogs positively affects intention to adopt blogs.

Observability represents "the degree to which the results of an innovation are observable to others" (Rogers 1983). Moore and Benbasat (1991) differentiated two dimensions of Observability: Visibility and Result Demonstrability, and argued that Visibility focused on the "actual visibility" of an innovation whereas Result Demonstrability "the tangibility of the results of using the innovation" (p. 203). Given the results of using blogs are quite abstract, our focus was on the visibility dimension of blogs. Blogging has become an unavoidable phenomenon. For example, the blog addresses often appear in the signatures of bloggers' emails or chatting applications (i.e., MSN, QQ, etc.); Articles discussing bloggers and/or blogs can be found in both traditional media and new media. Moreover, since blogs can be interlinked, bloggers and readers sharing same interests/characteristics are likely to be linked to each other, which creates a cyber social network (Cayzer 2004) where blogs are visible to each other. Even for those who are outside of the network, search engines can easily locate any blogs readers are interested in. Specifically in China, the adoration of celebrities leads to the popularity of celebrity blogs. According to Technorati (2006), the Chinese actress and director Xu Jing Lei topped the Technorati 100 blogs by having the most incoming links on the Internet in May 2006. The visibility and linkage of blogs help the adoption and diffusion of blogs. Therefore,

H_4: Visibility of using blogs positively affects intention to adopt blogs.

Triability indicates "the degree to which an innovation may be experimented with before adoption" (Rogers 1983). Triability has been found to affect acceptance of cell phone banking (Brwon et al. 2003). Blog websites has heavily promoted their free blog service to users. For example, in order to attract new bloggers, www.163.com provides free, unlimited blog spaces to its registered users of bulletin boards and email services. Once an email or bulletin board user logins, a message reminds the user that she/he already owns a blog space with no requirement of re-registration. Therefore, potential bloggers can easily try blog service before they make adoption decisions. Positive trial experience will increase the possibility of adopting blogs.

H_5: Triability of using blogs positively affects intention to adopt blogs.

Image refers to "the degree to which use of an innovation is perceived to enhance one's image or status in one's social system" (Moore and Benbasat 1991). According to Teo and Pok's empirical research (2003), Image affected the adoption of WAP-enabled mobile phone. More like a lifestyle innovation than a necessity, blogging becomes a trend in China during the recent years. Those, who care about their images and are not willing to be perceived as "out," are more likely to follow the trend of blogging. Therefore,

H_6: Image of using blogs positively affects intention to adopt blogs.

Adopter Categories

Based on how quickly the innovation was adopted, Rogers (1983) classified adopters into five categories: innovators (2.5%), early adopters (13.5%), the early majority (34%), the late majority (34%), and laggards (16%). These five adopter categories are differentiated based on the degree of individuals' openness to adaptation. According to Rogers (1983), innovators are risk-takers who are willing to try an innovation even when the benefits of the innovation are not even proven; early adopters are those adopting the innovation later than innovators and tend to be opinion leaders who will affect the adoption decisions of next three categories; the early majority tend to avoid risk and would adopt the innovation once it has been proved by early adopters; the later majority are skeptical individuals who would not adopt the innovation until it becomes ordinary; and laggards attempt to avoid change and would adopt the innovation only when alternatives are no longer available. Empirical researches have already proved that the adopter categories have different personalities (Cheng, Kao, and Lin 2004) and perceive innovation characteristics differently (Hsu, Lu, and Hsu 2006). Therefore, we expect

H_7: Adopter categories will show differences in their perceptions of blogs'
   H_{7a}: Relative Advantage
   H_{7b}: Compatibility
   H_{7c}: Ease of Use

H_{7d}: Observability
H_{7e}: Triability, and
H_{7f}: Image

H_8: The impacts of blogs' characteristics (Relative Advantage, Compatibility, Ease of Use, Observability, Triability, and Image) on intention to adopt blogs are different across adopter categories.

METHODOLOGY

Instrument Development

The measurement scales used in this study were extracted from the literature and revised to suit the context of blogs. The measures for Relative Advantage, Compatibility, Ease of Use, Observability, Triability, and Image were adapted from Moore and Benbasat (1991) and then modified (see Table 1). Intention to adopt blogs was measured by a three-item scale used by Hsu, Lu, and Hsu (2006) – "It is worth to use a blog," "I will frequently use a blog in the future," and "I will strongly recommend others to use a blog." Respondents were asked to express their level of agreement/ disagreement using seven-point Likert-scale. Moreover, questions on years of using the Internet, the date of adopting blogs, the number of owned blogs and the demographics were also included in the questionnaire. The questionnaire was administered in Chinese. A back-translation (Brislin 1980) was conducted to attain a good level of translation equivalence.

Data Collection

The survey questionnaires were distributed to college students of a university in China during the December of 2007. Previous research found that bloggers tended to be young, well-educated, and experienced Internet users (Rainie 2005). Moreover, according to a report on Chinese blogs (CNNIC 2007), students count for the largest group of Chinese bloggers (38%). Therefore, college students appear to represent one of the most important groups of Chinese bloggers.

A total of 421 survey questionnaires were distributed to classes mainly taken by sophomores and juniors. Two hundred and eight completed questionnaires were collected. The age of the sample ranged from 17 to 24 years old. The number of male respondents was almost the same as the female (51% vs. 49%). None of them never used the Internet and the majority (82.2%) started to use the Internet two years ago. Almost 40 percent of the respondents didn't own a blog and about half of them owned a blog for at least one year. Only 7.7 percent started to own a blog three years ago. For those who already owned blogs, the majority only owned one blog (76 out of 127).

DATA ANALYSIS AND RESULTS

A confirmatory factor analysis was conducted on the multi-item measures of the six characteristics of blogging to assess the reliability of the measures. The results (Table 1) suggest the measures were reliable and valid. Moreover, discriminant validity was evident as the squared correlations between all pairs of constructs were lower than the variance extracted for each construct (Fornell and Larcker 1981).

To test the impacts of perceived characteristics of blogging on intention to adopt blogs, Relative Advantage, Compatibility, Ease of Use, Visibility, Trialability, and Image were regressed on intention to adopt blogs. The regression model was statistically significant [$F(6, 201) = 32.31$, $p = .000$]. All characteristics but Ease of Use significantly affected intention to adopt blogs (Table 2). Specifically, Compatibility, Image, and Relative Advantage contributed the most to intention to adopt blogs. Therefore, H_1, H_2, H_3, H_5, and H_6 were supported whereas H_4 was not supported.

Moreover, the participants were classified into three groups: innovators/early adopters, early majority, and late majority/laggards. In August 2002, the first Chinese blog website, Blog China (www.bokee.com), was established (Di 2003). The mid 2005 was the turning point for blogs in China. Many international websites started to provide blog service to Chinese bloggers. For example, Microsoft announced the birth of MSN Spaces in China on April 6, 2005. At the same time, Yahoo introduced Yahoo 360 to the bloggers. At the end of September 2005, the total number of blogs was 33.36 million, which already doubled that of 2004 (Hu 2006). Therefore, compared to those bloggers with technological and financial advancements who adopted blogs between 2002 and early 2005, average persons started to own blog spaces after the mid 2005. Therefore, we classified those who adopted blogs before July 2005 as innovators/early adopters. Moreover, given the current penetration rate of 26.1 percent (CNNIC 2007), we grouped those adopting blogs in and after July 2005 as the early majority, and those who have not adopted blogs as late majority/laggards. Late majority/ laggards were also non-bloggers.

ANOVAs were conducted to test the different perceptions of blogs' characteristics across adopter categories (H_7). The results (Table 3) showed that adopter categories perceived Compatibility, Ease of Use, Visibility, and Triability of blogging differently, whereas no differences were found among adopter categories in terms of Relative Advantage and Image. Specifically, Post Hoc Tukey test indicated that innovator/early adopters and early majority perceived Compatibility, Ease of Use,

TABLE 1
Confirmatory Factor Analysis for Multi-Item Measures

	Lambda Loading	Construct Reliability	Variance Extracted
Relative Advantage		0.85	0.53
Using a blog enables me to communicate with others well.	0.65		
Using a blog improves the quality of communication.	0.77		
Using a blog makes my life simpler.	0.67		
Using a blog improves the efficiency of communication.	0.83		
Using a blog gives me greater control over my daily life.	0.70		
Compatibility	0.93	0.76	
Using a blog is completely compatible with my current situation.	0.79		
I think that using a blog fits well with my daily habits.	0.95		
Using a blog fits into my life style.	0.90		
Using a blog is compatible with all aspects of my life.	0.84		
Ease of Use.	0.89	0.78	
Learning to operate a blog is easy for me.	0.97		
Overall, I believe that a blog is easy to use.	0.79		
Visibility	0.84	0.73	
In my class, many people have their blogs.	0.91		
Blogs are not very visible in my class (rev. coded).	0.79		
Triability		0.75	0.62
I was permitted to use a blog on a trial basis long enough to see what it could do.	0.93		
Before deciding whether to use a blog, I was able to properly try them out.	0.61		
Image	0.77	0.47	
Using a blog makes me look more fashionable.	0.83		
Only modern people use blogs.	0.57		
People who use blog are IT savvy.	0.54		
Using a blog improves my image.	0.76		

Fit statistics: $\chi^2 = 266.96$, df = 135, p = .00, CFI = .96, GFI = .88, RMSEA = .07.

Visibility, and Triability more valuable than late majority/laggards. Therefore, H_{7b}, H_{7c}, H_{7d}, and H_{7e} were supported, and H_{7a} and H_{7f} were not supported.

Three regressions were run to examine the impacts of characteristics of blogging on intention to adopt within each group. The results showed that all three regression models were statistically significant [$F(6, 74) = 15.21$, p = .000; $F(6, 62) = 8.52$, p = .000; $F(6, 51) = 4.88$, p = .001]. For the innovators/ early adopters, Image was the only variable which significantly influenced the intention. For the early majority, Relative Advantage, Triability, and Image significantly and almost equally affected the adoption intention. For the late majority/laggards group, the characteristic contributing most to the adoption intention was Compatibility, followed by Image and Ease of Use. Therefore, when examining the impacts of blogging characteristics on intention across three groups, Image was the only one which significantly affected intention in all three groups. H_8 was supported (see Table 2 for results).

DISCUSSIONS

This research attempts to (1) understand which innovation characteristics affect the adoption of blogs in China, and (2) explore the differences in Chinese blogger categories over innovation diffusion stages. Our findings provide several implications for blog service providers and any businesses which would like to incorporate blogs as a tool to promote their products.

TABLE 2
Impacts of Six Blog Characteristics on Intention to Adopt Blogs

	All Respondents (n = 208)	Innovators/ Early Adopters (n = 58)	Early Majority (n = 69)	Late Majority/ Laggards (n = 81)
Relative Advantage	.20[a]**	.23	.26*	.20
Compatibility	.29**	.20	.12	.40**
Ease of Use	.10	.04	-.06	.18*
Visibility	.12*	.02	.19	.07
Triability	.16**	.13	.25*	.02
Image	.24**	.26*	.24*	.24*
Adjusted R^2	.48	.29	.40	.52
P value	.000[b]	.001	.000	.000

[a]: Standardized Coefficient
[b]: Dependent Variable: Behavior Intention
*: $p < .05$; **: $p < .01$

TABLE 3
Comparison of Adopter Categories

	Innovators/Early Adopters (n = 58)	Early Majority (n = 69)	Late Majority/ Laggards (n = 81)	p-value
Relative Advantage	3.74[a] (.98[b])	3.78 (1.05)	3.41 (1.22)	.076
Compatibility	3.76 (1.36)	3.57 (1.25)	2.80 (1.25)	.000
Ease of Use	5.25 (1.06)	5.26 (1.24)	4.43 (1.51)	.000
Visibility	5.24 (1.56)	5.09 (1.63)	4.32 (1.43)	.001
Triability	4.56 (1.38)	4.57 (1.40)	3.91 (1.48)	.006
Image	3.16 (1.27)	3.10 (1.06)	3.01 (1.25)	.752

a: Mean
b: Standard Deviation

Our research applied Rogers' IDT to blog adoption in China. We conclude that Rogers' classic IDT is valid in explaining and predicting Chinese consumers' adoption behavior of blogs. It is important to examine the validity of a theory within a new context such as blogs. Therefore, our study not only confirms IDT is theoretically well-grounded but also expands the applications of IDT to explain and predict consumers' adoption of blogs.

In the order of significance, Compatibility, Image, Relative Advantage, Visibility, and Triability of blogs were found to positively affect Chinese consumers' adop-tion of blogs. The positive impacts of these five character-istics were consistent with previous literature (Agarwal and Prasad 1997; Slyke, Lou, and Day 2002; Brown et al. 2003; Teo and Pok 2003). However, our research failed to support the positive impact of Ease of Use on the adop-tion. One possible explanation is that users perceive blogs are easy to use due to users' increased technological skills and the introduction of easy-to-use blog software. In fact, Ease of Use had the highest mean value among all six characteristics. Therefore, our findings suggest, in gen-eral, the marketing strategies of blog service providers should focus on the blogs' compatibility with current

lifestyle, relative advantages, and image enhancement. For example, Chinese blog service providers could choose non-traditional media, such as websites, online messengers (i.e., QQ, MSN Messenger, etc.), and mobile message to promote the benefits, usage, and images of blogs. Additionally, they could offer more benefits to bloggers such as more personalized functions, different styles of templates, and the resources of fashion, music, travel, sports, and so on. Employing celebrities such as Xu Jing Lei to promote blogs would also be able to improve the image of blogging.

Generally, Ease of Use, Visibility, and Triability were rated positively by all three groups of adopters (the means over 4 out of 7), and Relative Advantage, Compatibility, and Image were rated negatively. The low ratings of the last three characteristics are probably due to the fact that the blogs are still in the early stage of the diffusion in China. Even though blogs are easy to use, visible and triable, it takes time for Chinese users to recognize and appreciate the benefits of blogs. Supporting Rogers (1983), our research found that innovators/early adopters, early majority, and late majority/laggards indicated different ratings of the six characteristics of blogs. Specifically, innovators/early adopters and early majority perceived blogs more positively than late majority/laggards, which is consistent with the empirical research from Hsu, Lu, and Hsu (2006). Therefore, it is suggested that blog service providers should employ different marketing strategies for the different groups of Chinese adopters. Strategies improving perceptions of blogs' characteristics should be especially targeted at late majority/laggards.

Moreover, our research showed different impacts of blogs' characteristics on blog adoption across adopter categories.

♦ For innovators/early adopters, Image was found to be the only factor which influenced blog adoption. Our findings suggest that innovators and early adopters would adopt blogs before they realize whether blogs are compatible with their lifestyles, before they recognize the benefits of blogs, and even before they try blogs. The only motivation of their adoption is the cool, fashionable, and trendy image they receive.

♦ For the early majority, Relative Advantage, Triability, and Image were found to significantly affect blog adoption. Agreeing with Rogers (1983), our research implies that the early majority would adopt blogs after they try, realize the advantages of, and appreciate the social image associated with blogs.

♦ For late majority/laggards who were also non-bloggers in this research, Compatibility, Image, and Ease of Use significantly impacted adoption of blogs. Ease of Use had a significant influence only for this group of adopters. Since late majority/laggards are hesitated to adopt an innovation, they adopt not only blogs but also related IT products later than other users. Thus, compatibility with late majority/laggards' own lifestyles instead of current popular lifestyle would lead to the adoption for such group. Our results suggest marketing strategies of blog service providers should focus on blogs' compatibility with lifestyles, ease-of-use, and image characteristics of blogs when promoting to late majority/laggards.

It was not surprising to find that Image was the only factor affecting all groups of adopters in China. Previous research already identified the importance of symbolic meanings of a product to Chinese consumers (Zhou and Hui 2003; Chen et al. 2005; Eves and Cheng 2007). For example, Zhou and Hui (2003) indicated that symbolic benefits was one of the primary reasons motivating Chinese consumers to purchase even inconspicuous product such as (Canadian pork sausage). Therefore, our research suggests the marketing strategies of blog service providers should always focus on the symbolic meanings of blogging in China.

LIMITATIONS AND CONCLUSION

Even though students consist of an important part of Chinese bloggers, our conveniently selected student sample could bias the results which should not be generalized to the whole population of bloggers. Moreover, our hypotheses were developed to suit all cultural contexts; however, we only tested them using the data collected in China. Finally, this research used quantitative statistical analyses to understand the relationships between blogs' characteristics and intention to adopt. Future research could collect qualitative data which should provide more insights regarding why blogs are adopted.

Our research concludes that Roger's IDT (1983) is valid in explaining and predicting blog adoption behavior. Generally, Compatibility, Image, and Relative Advantages were the most important characteristics of blogs which influence Chinese consumers' adoption of blogs. Different patterns of impacts of blogs' characteristics on adoption were found across adopter categories, which suggests different marketing strategies should be employed to target at bloggers over innovation diffusion stages. Specifically, our findings indicate that the image of blogs play a very important role in blog adoption within the context of conspicuous consumption in China.

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ROMANIAN CONSUMERS' PERCEPTIONS AND ATTITUDES TOWARD ONLINE ADVERTISING

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SUMMARY

This study explores the beliefs and attitudes toward online advertising among Romanian consumers. With its rapid diffusion, online advertising has received a great deal of attention in both business and academia. Consumers' attitudes toward online advertising (ATOA) are one of the foci of existing literature relating to this new research domain. A number of published articles have explored ATOA in the United States, indicating that ATOA may influence consumers' response to online advertisements and online purchase intention. Despite the significant impact of online advertising on global marketing and commerce, little research has been conducted in countries outside the U.S.

Romania is the second largest country in Central and Eastern Europe and is larger than 19 of the current 25 EU member countries (http://www.worldbank.org.ro) and is experiencing rapid economic growth. During the past two decades, Romania has undergone a dramatic political and economic transformation. Although reform has been slow and difficult, Romania is now catching up to the other transitional economies of Central and Eastern Europe. According to the Internet World Stats (www.internetworldstats.com/europa.htm) Romania Internet usage increased as high as 444 percent, during in the last five years. Its 7 million Internet users make up 31.4 percent of the country's entire population. Nearly one third of Internet users from Romania use online stores or auction portals as a place for purchasing various goods.

Along with the rapid adoption and use of personal computers and the internet in Romania, Internet advertising expenditures have grown significantly in recent years. The Romanian Internet advertising market is estimated at 8.4 million Euros in 2007, up 52.8 percent from 5.5 million Euros in 2006 (ARBOmedia 2007). Major advertisers include banking, personal care/beauty, IT, Auto, telecoms, real estate, and insurances. According to online research company Gemius SA (2007), many Romanians believe that advertising on the Internet is efficient and informative. However, in terms of online shopping, Romanians have tended to be cautious about online purchase partly because of the perception of high risk associated with financial transactions on the Internet.

In order to explore Romanian ATOA a questionnaire was developed first in English and later translated into Romanian. That version was re-translated back into English by a bilingual third party to ensure translation equivalence. Data were collected primarily from college students in Romania.

A total of 366 questionnaires provided usable data and were analyzed using SPSS. The sample was 50 percent male and 50 percent female. Respondents ranged in age from 14 to 67 years ($M = 22.85, SD = 7.39$). The data were analyzed using MANOVA, cluster analysis, and multiple regression.

The findings indicate that internet use patterns appear to be a significant factor influencing Romanian consumers' attitudes toward online advertising and online shopping experience. Heavy users tended to have a more positive ATOA and made more purchases online than light Internet users. These results indicate that advertisers may need to consider different advertising strategies and tactics to reach heavy Internet users and light users. In addition, the three attitude groups (pro, ambivalent, and critics) were significantly different in their behaviors toward online advertising, the likelihood to make online purchases as a result, and actual online purchase behavior. These results lend support for the classic advertising effect model: cognition – affect – behavior intention, which suggests that beliefs are likely to lead to attitudes, which in turn have an impact on behavior. Reference are available upon request.

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ANTECEDENTS OF NEW PRODUCT DEVELOPMENT TEAM PERFORMANCE: A META-ANALYTIC REVIEW AND A PATH ANALYSIS

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SUMMARY

New product development (NPD) teams have risen in prominence since the 1980s and the majority of firms use them for NPD. Unfortunately, there is limited consensus as to what constitutes the nomological network of NPD team performance. Therefore, the objective of this study is to integrate literature on work group effectiveness and NPD teams and conduct a meta-analytic review based on a theoretical framework developed for investigating NPD teams.

Scholars have been investigating antecedents of NPD team performance for nearly two decades. However, they find many conflicting results on the effect of antecedents on NPD team performance. Formalized NPD process use is one such variable. In studies investigating the effect of formal NPD processes on market-based performance such as new product sales, the impact is found to be either very low and insignificant (e.g., Faraj and Sproull 2000; Atuahene-Gima and Evangelista 2000) or significant and positive (e.g., Moenaert et al. 1994; Lynn, Skov, and Abel 1999). When NPD team performance is measured by process-related variables such as budget or schedule adherence, the results still vary considerably from very low and insignificant (e.g., Faraj and Sproull 2000) to medium size significant effects (e.g., Sarin and McDermott 2001). Another issue that needs resolution is whether cross-functional team use enhances NPD outcomes. For example, while Keller (2001), Stock (2006), and Lee and Chen (2007) find a significant positive impact, many other studies (e.g., Sarin and McDermott 2001; Carbonell and Rodriguez 2006; Ancona and Caldwell 1992; Pelled, Eisenhardt, and Xin 1999) show that use of NPD teams hinder performance outcomes such as adherence to budgets and adherence to schedules. In conclusion, an empirical synthesis of the current literature on NPD teams would serve as a significant step in determining the state of knowledge on this phenomenon.

Based on a qualitative review of the literature, Cohen and Bailey (1997) develop a detailed framework for organizational team performance. Their findings suggest that team outcomes are influenced by environment, design factors, internal and external processes, and psychological traits. Subsequently, Cohen and Bailey (1997) conclude that determinants of team effectiveness vary depending on the type of team. In the NPD teams' context, McDonough (2000) proposes a general framework for investigating cross-functional team success. In this model, stage setter variables such as project goals influence cross-functional team performance through the mediation of team behaviors such as commitment. Moreover, enabling variables such as team leaders and champions are hypothesized to partially moderate the relationship between the stage setter variables and team behaviors. A closer look at Cohen and Bailey's (1997) model on organization teams and McDonough's (2000) model on NPD team performance suggests that these two models are complementary and an integration of the two could provide a comprehensive framework for understanding NPD team performance. Our guiding integrated framework distinguishes between four types of outcomes: team effectiveness outcomes such as new product quality or new product sales; team efficiency outcomes such as budget adherence, team attitudinal outcomes such as job satisfaction of team members or trust between the members; and team behavioral outcomes such as employee turnover or absenteeism.

Potentially relevant studies are identified in two stages. In the first stage, the initial step was to perform keyword searches of the electronic databases. Next, references of the papers identified through these keyword searches were examined. Third, the Social Sciences Citation Index was investigated for articles that cited several seminal studies. Fourth, leading journals were manually searched for articles on NPD teams. In the second stage, file drawer problem was addressed (Wolf 1986). As a result of this two-staged search, more than 180 studies were gathered. Next, our integrated framework provided the initial basis for inclusion of studies. Only studies that investigate the relation between a variable from the sets of variables in our comprehensive model and NPD team performance were selected. This yielded a list of 78 studies to be included in the database.

Many insights are gleaned from the meta-analytic review, including the gaps in the current body of knowledge as well as what the accumulated knowledge reveals on the effects of several antecedents of NPD team performance. This study contributes to theory in several ways. First, it extends recent meta-analysis on organizational teams (cf., Stewart 2006), by examining NPD teams only

and offers specific insights. NPD teams differ from many types of organizational teams such as top management teams, or even from other project teams such as an enterprise resource planning software implementation team. To this end, extant literature is thoroughly searched and a theoretical framework for investigating NPD team performance is constructed. Borrowing from extant literature reviews, antecedent variables were grouped into meaningful sets to provide directions for future research. One result obtained while constructing the framework was the necessity to decompose NPD team performance into dimensions such as effectiveness, efficiency, attitudinal, and behavioral outcomes. Moreover, our study contributes to NPD literature by presenting a path analytical model that utilizes the aggregate study effects to identify significant drivers of NPD team performance. By synthesizing the current literature on NPD teams followed by multivariate analyses, the study contributes to practice by enabling managers to get a more comprehensive understanding of the relevant and important factors for improving team productivity, and subsequently, NPD success. References are available upon request.

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IDENTIFYING ESCALATION OF COMMITMENT IN NEW PRODUCT DEVELOPMENT PROJECTS USING DATA ENVELOPMENT ANALYSIS

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SUMMARY

Escalation of commitment to a troubled project is a widely researched topic especially in software project management and new product development areas. Marketing managers are faced with the decision to continue or abandon the project even when the information available to them is incomplete and uncertain. Tendency to stay with failing projects has detrimental financial costs to firms.

New product development involves great risks since new product failure is common and expensive. Research has found that new products fail about 40 percent to 80 percent of the time. The consequences are detrimental as new product development projects cost millions of dollars. Why managers are reluctant to terminate failing new product development projects, is a question that still needs to be explored. Among the reasons, commitment to projects by managers and employees can be considered as an important factor.

Individuals emotionally involved in the new product development projects are reluctant to terminate it even when there are obvious signals that project will not be a success. Whatever the reason to escalate is, it is obvious that subjectivity of managers affects those decisions and there is a need for objective methods to identify escalated projects from the ones that are not. This study aims to identify escalated projects by using an objective method, namely data envelopment analysis (DEA). The main assumption is that escalated new product projects are inherently inefficient. DEA has been widely used in many areas to estimate the efficiency of projects that are characterized by multiple inputs and outputs.

DEA considers the ratio of weighted inputs and outputs and produces a single measure called relative efficiency. The most efficient unit has an efficiency of one. The units that have efficiency less than one are considered less efficient. DEA produces an efficiency frontier that shows the most efficient performers. By that way, it allows a direct comparison of the projects relative to the best performer.

New product development projects typically have inputs (e.g., budget, time, human resources) and expected outputs (e.g., profits, market share). Projects that suffer from escalation of commitment are inefficient because they consume more inputs (resources) compared to expected outputs. Hence DEA may be an appropriate tool to identify escalation. If the inefficiency scores for escalated new product projects as estimated by DEA are similar to subjectively identified escalated projects, then DEA may prove to be a valuable objective tool.

Our study was a 3x2x2x2x2 experimental design. The manipulated factors were budget already spent with values of 15 percent, 40 percent, and 60 percent (significant, moderate or minimal). The other four factors have two levels each and they are number of people working on the project (few or lot), expected return from the project (high or low), progress level (significant or minimal) and psychological dedication of the manager to the project (strong or somewhat). Project inputs were budget spent, psychological dedication of the manager (Mr. Smith) and people engaged in the project. Expected return and progress level were the two output factors that were manipulated.

The final sample consists of 71 managers from different companies in consumer packaged goods industry. Each manager was presented with four of the eight scenarios. In the end they evaluate the extent of escalation in each of the new product project in each scenario. The dependent variable (extent of escalation) was a seven-point four item scale with disagree and agree anchors in each end. Data envelopment analysis was applied to the data which had four inputs and two outputs. DEA computed the efficiency scores for the project scenarios. Next, the estimated extent of escalation in each project was computed using managerial judgement. Each scenario was evaluated by about 35 managers using a 4-point scale to measure their estimated extent of escalation. The average rating across all managers and across the four items was used to estimate the subjective escalation score. Finally, the escalation scores estimated by the managerial judgement was compared with the inefficiency score estimated by DEA. The correlation was very high and significant ($r = .8$). This suggests that the objective estimate of escalation given by DEA was comparable to the subjective estimate of escalation given by the managers in the survey.

DEA being an objective tool for determination of inefficiencies can be confidently used to identify projects that are inefficient, therefore escalated. DEA is an objec-

tive and automatic tool that makes the decision of managers easier. Managers can use this tool by inputting the output and input variables of their projects and then see which ones are escalated, therefore, need to be abandoned. As a consequence, escalation of commitment and big losses can be prevented especially in new product development area.

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PRODUCT QUALITY AND NEW PRODUCT PERFORMANCE: THE ROLE OF NETWORK EXTERNALITIES AND SWITCHING COSTS[1]

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SUMMARY

Product quality is one of the main competitive issues when launching new products, not only in domestic markets (Astebro and Michela 2005), but internationally as well (Calantone and Knight 2000). However, in the last decade academics and practitioners have found that product quality does not always have the desired outcome (Rust et al. 2002). There are several reasons that may help explain the inconsistent results.

First of all, most analyses surrounding product quality have focused on individual products. However, with the economy becoming increasingly interconnected, more products in high technologies industries exhibit network externalities (see Stremersch et al. 2007; Srinivasan et al. 2004, for a recent discussion on this matter). Consequently, in these markets the utility of a product depends not only on its attributes, but also on the number of consumers by whom it is adopted and on the availability of complementary products (Basu et al. 2003). Although, existing literature has analyzed the existence of network externalities (Sahay and Riley 2003) or the role on the diffusion of innovations (Gupta et al. 1999), there is little guidance on the influence of network externalities on product quality.

Another possible explanation of the inconsistent findings related to product quality, stems from the contention that most analyses surrounding product quality fail to take the perceived switching costs for consumers into account (Burnham et al. 2003). There is evidence that switching costs have a significant impact on the strategies managers should (and do) adopt (Eliashberg and Robertson 1988), and on the resulting industry-related and competitive structures (Farrell and Shapiro 1988). However, according to Bell (2005) further research is needed in order to understand the relationships between switching costs and product quality.

Based on the gaps discussed above, the goal of this research is to analyze the consequences of considering network externalities and switching costs when studying the impact of product quality on new product performance

The data used in this research were gathered in a cross-sectional survey. The initial sampling frame was obtained from a database listing the most innovative Spanish firms in different sectors: 28 – chemical products industry, 35 – machinery, 36 – electrical and electronic machinery industry, and 37 – transport devices. Through a telephone pre-survey, 1200 firms were identified. To be eligible, firms had to meet two criteria. First, they must have had developed and launched a new product within the last three years (Veldhuizen et al. 2006) and the product had to be in the market for more than 12 months to ensure that they had sufficient data on the product and its resulting performance (Langerak et al. 2004). Before collecting data, we conducted four in-depth case studies in each sector to validate measures (Song et al. 2005). Their feedback, as well as a pre-tested on ten managers and ten academics improve the clarity of the questionnaire and ensure an effective communication with the respondents. Data were collected through an online questionnaire, based on the improvements made with regard to this procedure in the last years (Griffis et al. 2003). Non-respondents were called after two weeks to remind them of the value of their input (Larson and Chow 2003). In all, 255 questionnaires were returned, yielding an effective response rate of 21.25 percent which is consistent with that obtained in similar researches (Sivadas and Dwyer 2000). Chi-square distribution analyses revealed no significant differences between our sample and the population it was drawn from in terms of industry distribution, number of employees and sales volume. In addition, we used Armstrong and Overton's (1977) time-trend extrapolation procedure to test for non-response bias. In comparing early and late respondents, no significant differences emerged in the mean responses on any of the constructs.

Our multi-item scales were predominantly drawn from prior studies. However, in order to analyze the validity of the reflective measures, we conducted a confirmatory factor analysis (CFA) using Lisrel 8.8. Results revealed acceptable levels of uni-dimensionality, reliability, convergent and discriminant validity, based on widely accepted procedures (Anderson and Gerbing 1988; Bagozzi and Yi 1988; Fornell and Larcker 1981). Following using structural equation modeling, we examined the relationships proposed in the theoretical model.

Results of the present study suggest that product quality in the context of network externalities and switching costs is more than just the isolated effect on quality on new product performance. In particular, our findings

suggest that product quality reduce the switching costs experienced by the customers. However, both indirect and direct network externalities increase these types of costs due to higher knowledge require to understand the functioning of complementary products or the way to interact with other customers. We also found differences in the impact of indirect and direct network externalities on short-term and long-term new product performance. Our results suggest that indirect network externalities may increase the success of the product in the short-term as this type of externality increase the utility of the product when using jointly with other complementary products. In contrast, direct network externalities will be more important in the long-term due to the larger numbers of adopters that help to interact between customers.

We believe this study contributes to existing literature by providing new insights into the relationships between quality, network externalities, switching costs and new product performance. From a managerial point of view, this research provides valuable information on how to increase the effectiveness of product launching activities, by considering the existence of other products on the market. References are available upon request.

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CONSUMER ANTICIPATION OF NEW PRODUCTS: CONCEPTUALIZATION AND EMPIRICAL EVIDENCE REGARDING PRE-RELEASE BUZZ

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SUMMARY

Consumer "buzz" for a new product is an increasingly hot topic for marketers. Referring to inter-consumer chatter, excitement, and search behavior, buzz is thought to give "life" to a new product and energize its acceptance by a system of consumers. However, there is mixed anecdotal evidence regarding the impact of buzz on the success of a new product (e.g., the box office success of the low-budget horror movie *The Blair Witch Project* is attributed to its pre-release buzz, while the movie *Snakes on a Plane* generated similar buzz, but was largely ignored at the box office). Further, existing scientific research on *pre-release* buzz is rare and does not reveal much regarding the effects of buzz on market success. This paucity of evidence can be partly attributed to the lack of a careful definition of the buzz construct or distinction from *post-release* word-of-mouth (hereafter WOM) for a product *already in the market*.

We explore two important questions. Our first research question asks "Does pre-release buzz provide an early indicator of subsequent product success?" In specific, we will examine whether *early* buzz (i.e., buzz far in advance of a product's release) reveals substantial information about the launch success of a new product. Our second research question is "Can we better explain new product outcomes by incorporating measures of buzz?" While having an early predictor of success is important, does overall buzz help better *explain* product success over and above the existing variables from extant models that are used to model new product sales? In addition to answering these questions, we provide a precise definition and related multidimensional conceptualization of pre-release consumer buzz, distinguishing it from and relating it to WOM.

We define *consumer anticipation* of products/services that have yet to be released as *an individual's state of felt expectation, visualizing the future possession, and/or consumption of a product or service*. Such anticipation is likely driven by several factors, including enduring involvement (which creates perceptions of self-relevance by linking the product category to the individual's self-concept, Bloch and Richins 1983) and the expected benefits of the new product relative to alternatives (which could combine with self-relevance to affect intensity of response). We consider consumers' anticipation as crucial for understanding pre-release consumer buzz, as an anticipatory psychological state is needed to explain behavioral responses (cf., Lewin 1951).

External and social expressions of consumer anticipation can create network effects in which individuals' anticipation is both heightened and spread to others through contagion and informational cascades (De Vany and Walls 2002; Ward and Reingen 1990). This implies that a synergy is created through external interactions in which anticipation is transmitted virulently to others (Thomas 2004), and that anticipation is strengthened within individuals. We argue that pre-release consumer buzz is the result of such interaction processes and define it accordingly as *the sum across social network participants of all social expressions of consumer anticipation*.

To conceptualize buzz, we group the responses that are triggered by a consumer's inner state into three pre-release buzz dimensions. First, *active communication behavior* refers to personal communication (offline and/or online) of a person with other actors who comprise a network which develops prior to the product becoming available. This dimension of buzz behavior has certainly been facilitated by internet communication technologies. Second, *recreational or leisure behavior* refers to experiential activities involving anticipation of the product that are engaged in for hedonic benefits. In the case of a new motion picture, this dimension includes activities such as playing an on-line trivia game regarding a forthcoming movie, listening to the soundtrack CD, or buying/selling the movie's stocks on virtual stock markets (Spann and Skiera 2003). Third and final, *information search behavior* refers to the purposeful acquisition of product-related information before a product has become available.

Pre-release consumer buzz and WOM are related, but distinct, phenomena. First, the multi-dimensional nature of buzz, which encompasses other elements than active personal communication, is in contrast to the one-dimensional character of WOM, which is exclusively a communicative concept. Second, the clear preponderance of

WOM research views WOM as a post-introduction construct in which the giver of WOM has personally experienced the product and shares his/her consumption experiences (Richins 1983). In contrast, consumer buzz takes a pre-introduction perspective and focuses on consumers' anticipation of products which are not yet available. The third major difference is that WOM is predominantly operationalized as an individual level concept, with a sole focus on the receiver (Herr, Kardes, and Kim 1991) or on dyads (Richins 1983). In contrast, consumer buzz requires an aggregate perspective, at the level of the social network, to capture the overall anticipation for a forthcoming product.

To address these questions empirically, we study a random sample of 400 motion pictures released between 1998 and 2002, tapping extant motion picture success factors as well as multidimensional buzz data for 52 weeks leading up to release. We use a residual-centering regression approach that allows us to isolate the impact of buzz in explaining box office outcomes over-and-above the explanation due to the variables suggested by extant models. Our findings provide evidence (1) that *early* pre-release buzz does provide an indicator of opening-weekend box office success and significantly reduces prediction errors, and (2) that incorporating pre-release buzz into extant models of motion picture success explains substantial additional variance in box office outcomes. The paper concludes by exploring the implications of our findings for practicing managers and for theory and future research. References are available upon request.

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AN EXAMINATION OF RESEARCH PRODUCTIVITY IN MARKETING: A DOCTORAL PROGRAM PERSPECTIVE

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SUMMARY

Prior studies have assessed the productivity of marketing departments based upon publication records of current faculty members. While these previous efforts provide clear evidence of institutional research performance over the past thirty years, their focus has neglected a key output of doctoral degree-granting institutions: the research productivity of program graduates. This study evaluates the research productivity of institutions based upon the research productivity of their doctoral graduates. Publications in six leading marketing journals *(Journal of Consumer Research, Journal of Marketing, Journal of Marketing Research, Journal of Retailing, Journal of the Academy of Marketing Science,* and *Marketing Science)* during the period of 1990 to 2005 were reviewed and catalogued.

The results reveal strong stability across the four sets of rankings: (1) total number of articles, (2) articles adjusted by the number of authors, (3) articles adjusted by the journal impact factor, and (4) articles adjusted by both the number of authors and by the impact factor. The results based simply on the total number of articles published reveals the five most productive doctoral programs are, in order, Northwestern University, Stanford University, University of Pennsylvania, Columbia University, and the University of Texas at Austin. The University of Illinois at Urbana-Champaign, Massachusetts Institute of Technology, University of Wisconsin, Purdue University, and Carnegie Mellon University complete the top ten most productive doctoral programs. Moreover, Northwestern University graduates have the highest total number of articles published in the *Journal of Consumer Research* (96), the *Journal of Marketing* (55), the *Journal of Marketing Research* (87), and the *Journal of Retailing* (33). The schools with the highest total number of articles in the *Journal of the Academy of Marketing Science* are Indiana University and Michigan State University, each with 41 articles, and the school with the highest total for *Marketing Science* is the Massachusetts Institute of Technology (73).

In addition to aggregate rankings, we also assessed the relative impact of institutions across the three main streams of marketing research: consumer behavior, research methods/modeling, and marketing strategy. The results of this sub-disciplinary analysis reveal two major trends. First, many of the top performing institutions in the general analysis also excel across each sub-discipline. Specifically, institutions like Northwestern University, Stanford University, and University of Texas at Austin excelled and placed in the top ten in each of the three categories. Alternatively, other schools seem to be more specialized and excel predominantly in one focal area. For example, the University of Florida ranks third in the consumer behavior area, Massachusetts Institute of Technology ranks fourth in research methods/modeling, and Michigan State University ranks fourth in strategy. Each of these schools does not place in the top ten in the other two areas. Taken together, it appears that top institutions have two unique publication influences on its graduates: (1) publishing across the field of marketing and (2) publishing in a specialty focus.

This study provides new insight into institutions' indirect influence on the field of marketing via the productivity of their doctoral graduates. Our examination covers a sixteen-year period and considers six leading marketing journals. It should be noted that a consistent trend across all fields is the disproportionate influence of top programs. Specifically, a small group of institutions account for a disproportionately large amount of research productivity and influence in marketing publications. For example, the top twenty schools published more total articles than over 200 of the remaining schools included in the analysis. This result suggests that although many universities are advancing marketing theory and thought, the primary influence is coming from a select list of institutions.

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DEFINING OUR DISCIPLINE: HOW WELL DO WE MARKET MARKETING?

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ABSTRACT

Marketing academics have found it challenging to accurately portray the depth and breadth of marketing to the public. We undertook a study to identify how consumers define marketing. We report the results of our study and make recommendations for the academic marketing community to begin better educating the marketplace as to the "true" meaning of marketing.

INTRODUCTION

In that "exchange" is an integral part of the history of mankind, some form of marketing has existed for nearly as long as humans have been on this earth (cf., Robbins 1947; Sahlins 1972). We find some semblance of marketing in primitive societies (Robbins 1947) as well as at baseball card swaps. Despite the overwhelming presence of marketing and its increasing sophistication by marketing professionals, misperceptions of marketing among the general public seem to exist. How many individuals truly understand what marketers deem to be marketing? Are marketers those mercenary capitalist who force consumers to buy things they do not really need? Or is marketing the clutter of information that interrupts our attempt to watch a TV program, read a magazine, or browse our favorite website. Or is marketing a catchall for anything that has to do with selling a product? Or is marketing much more?

One of the most recent perspectives of the marketing phenomena considers marketing to be "the activity, set of institutions, and processes for creating, communicating, delivering, and exchanging offerings that have value for customers, clients, partners, and society at large" (American Marketing Association 2007). This definition replaces marketing "as an exchange between marketers and consumers that aims to satisfy consumer needs and maximize the return on investment for shareholders. In both delineations the marketers' interest and the consumers' interest inevitably clash" (cf., Cui and Choudhury 2003). Which perspective of marketing is correct or are there other perspectives that better capture the term "marketing?" We pose the question: Have marketers been negligent in one of the most important marketing activities that they should perform: marketing the marketing profession to consumers? Is the "inevitable tension" necessary, or should we be doing a much better job of informing stakeholders in general, and the consuming public in particular, as to what marketing is and what value marketing holds for them as individuals, and society as a whole? More accurate perceptions could alleviate the tension, as well as encourage more individuals to consider marketing as a legitimate profession.

There have been a number of definitions of marketing offered by the American Marketing Association (AMA) and others over the past few decades. By examining the academic evolution of the definition, it becomes apparent that marketing's role is becoming more complex. Most recently marketing is being positioned as both an internal and external activity (AMA 2004; AMA 2007). This is not surprising as more and more organizations move further into relationship marketing, not only with partners but also with society and experience value not only with product but also experience. The general public continues, however, to take a myopic and oftentimes, a relatively negative view of marketing.

Even though customer satisfaction is a mantra that is continuously chanted by organizations, the reality is that the focus on the customer is sometimes lost and the outcomes are not necessarily viewed as being in the best interest of the individual or society (Rotfeld 2001). This may or may not be a fair assessment. Many years ago, Shapiro wrote a treatise on the views of marketing. He questioned if the negative perceptions of marketing are accurate or misplaced. "Are attacks on marketing merely indicative of a deep-seated dissatisfaction with prevailing forms of capitalism? . . . Is marketing a substitute or surrogate villain for individuals who fail to recognize that the factors disturbing them are inherent features of North American capitalism?" (1973, p. 174–175). He suggests that the misperception of marketing by the public would not exist if ". . . most firms actually [had] taken their marching orders from the market or been in the business of creating satisfied customers" (p. 175), and suggests that the entire organization is at fault for the confusion. Or, is the fault more wide spread? Should marketers realize that non-marketing functions cannot be depended on to convey an accurate image of what marketing can do for the customer? For example, a product with quality design problems may be blamed on marketing rather than the design team since marketing is all that the customer ever sees.

It is the purpose of this study to investigate the current perceptions of the definition of marketing and to suggest what this means for the future. As noted above, are there negative perceptions or just misperceptions of marketing? Has the current academic definition of marketing reached the marketplace? That is, do most individuals still believe that marketing is promotion and selling rather than the full depth and breadth of a much more complex concept? We chose business students as the subjects for this investigation. Business students are our link to the general public, advocates of business and voices of the future. If any segment of the next generation of the general population should have an informed perception of marketing, it should be students pursuing a business career. They should have more knowledge and insight into this area since they have chosen business as their major in college. If business students come into their first marketing course with incorrect or limited perceptions then we can assume that most non-business majors have even less of a clue. What should corporations, universities, colleges of business, and organizations (such as American Marketing Association) and marketing faculty do to correct the perception?

BACKGROUND

We begin with the foundation of marketing. The origins of marketing grew out of economics but rather than focus on exchange as an economics function, marketers focused on what underlies exchange (Houston and Gassenheimer 1987). This includes not only the activities of a marketer but also the motives for these activities (Sheth, Gardner, and Garrett 1988). The four Ps of marketing emerged as tangible components and key focal points for guiding marketing reality, followed by the emergence of an additional three Ps to capture the reality of services and heightened expectations (Pride and Ferrell 2006). While there has been little information available about how individuals develop their own reality of marketing, Kim, Lim, and Bhargava (1998) suggest that cognitive cues serve as a basis of beliefs for guiding perceptions. Cognitive cues provide information that give meaning to their experience and their environment (Priluck and Till 2004) and help to form both feature-based and value-based beliefs (Haddock and Zanna 1998). Beliefs about marketing would therefore refer to the features integral to the exchange process and the perceptions of the value gained from or the cost incurred by this process.

The more recent pedagogical focus for the discipline has marketers looking at how needs can be met, using marketing activities to communicate value and facilitate the exchange (cf., Ferrell and Gozalez 2004). Consumers, on the other hand use their experiences to transform marketing into what is relevant for them. Numerous articles have attempted to capture these experiences by

applying boundaries to the discipline (cf., Alderson 1968; Bagozzi and Richard 1975; Houston and Gassenheimer 1987; Hunt 1976; Kotler and Levy 1969; Luck 1969; Webster 1992), but seldom do these debates reach individual consumers. Rather, the normative, "what should be," view of marketing is not always how individuals perceive the rationale behind the exchange process and/or how their view of marketing is defined. Marketing reality and thus the current potency of marketing as viewed by the general public can perhaps be best understood by first identifying preconceptions and public scrutiny of the recent redefining of marketing.

The most recent definitions of marketing as adopted by the AMA defines marketing as "an organizational function and a set of processes for creating, communicating, and delivering value to customers and for managing customer relationships in ways that benefit the organization and its stakeholders" (2004) and "the activity, set of institutions, and processes for creating, communicating, delivering, and exchanging offerings that have value for customers, clients, partners, and society at large" (2007).

A search of the internet and marketing blogs (see Table 1) [http://brand.blogs.com/mantra/2004/11/new_definition_.html] concerning the 2004 AMA definitions reveal accolades and criticism among marketing scholars and practitioners. Some believe that this definition is too restrictive while others feel this definition is too vague with limited usefulness. For example, an Internet article by Peppers and Rogers (2004) applaud the 2004 definition's stronger emphasis on customer value and the power of the customer to drive the marketplace, yet question whether the definition is useful to business. They argue that few companies actually integrate marketing throughout the organization. Christopher Carfi (November 11, 2004) suggest broadening the definition to position marketing as more than an organizational function. Carfi perceives marketing as including "the entire value chain . . . everything that occurs within a company potentially becomes a marketing problem."

Others, such as Miller (November 8, 2004, p. 16) question the usefulness of the 2004 definition. Miller calls for a definition of marketing that talks about what marketing IS or DOES in a way that would make sense to someone who had never heard the term marketing. . . . He goes on to state that: "Marketing does NOT start with 'creating' but with seeking to understand our market and competitors, and conceptualizing products, services, or experiences that will meet the needs of those markets, anticipating customer wants and needs, producing goods and services that satisfy these wants and needs at a profit that exceeds the cost of capital to the company and making the market aware of these goods and service." The 2007 definition could be charged with similar criticisms broad-

TABLE 1
Definitions of Marketing on the Web

1. Social and managerial processes by which products, services and value are exchanged in order to fulfill individual's or group's needs and wants. [www.en.wikipedia.org/wiki/Marketing]

2. Means to make a communication about a product or service a purpose of which is to encourage recipients of the communication to purchase or use the product or service. [www.preemptinc.com/definitions.html]

3. This is the process of planning and executing the conception, pricing, promotion, and distribution of ideas, goods, and services to satisfy customers. [cfdccariboo.com/glossary.htm]

4. The techniques used to attract and persuade consumers. [www.motto.com/glossary.html]

5. Finding out what customers want, then setting out to meet their needs, provided it can be done at a profit. Marketing includes market research, deciding on products and prices, advertising promoting distributing and selling. [www.smallbiz.nsw.gov.au/smallbusiness/Resources/Business+Tools/Glossary+of+Business+Terms/]

6. The way in which a product or media text is sold to a target audience. www.medialit.org/reading_room/article565.html]

7. Is a management process that identifies, anticipates and supplies consumer requirements efficiently and effectively. [wps.prenhall.com/wps/media/objects/213/218150/glossary.html]

8. The process of organizing and directing all the company activities which relate to determining the market demand and converting the customers buying power into an effective demand for a service and bringing that service to the customer._[www.eyefortransport.com/glossary/mn.shtml]

9. All the activities involved in moving products and services from the source to the end user, including advertising, sales, packaging, promotion and printing. [www.garyeverhart.com/glossary_of_advertising_terms.htm]

10. The planning and implementation of a strategy for the sale, distribution, and servicing of a product or service. [mvp.cfee.org/en/glossary.html]

11. The group of interrelated individuals or organizations that direct the flow of a supplier's products to consumers. [www.caltia.com/education/terms.html]

ening the definition even further. The critical differences between the two definitions is: (1) the 2007 definition is more than a management system, marketing is deemed to be a "science, educational process, and a philosophy" and (2) marketing plays a definitive role in society (Rownd and Heath 2008). (See also Dann 2008 for a commentary on the 2007 definition.)

We turned to undergraduate students during their first day of their initial marketing course for their opinions of what marketing is. We may then use their input to accurately portray the future perception of marketing to the public and whether individuals understand marketing at a fundamental level.

METHODOLOGY

Subjects were 221students in a principles of marketing undergraduate required business class. On the first day of the quarter, before distributing the syllabus or assigning readings, all students were asked to define marketing in their own words. All definitions were transcribed. (See Table 2 for a sample of student definitions). Students also indicated their undergraduate major. Three graduate assistants analyzed the data and determined the tone of the definition (positive, negative, or neutral), the number of components in each definition, the category of each component, and which of the four Ps each component represented (place, product, promotion, price, or

other). One of the authors trained the graduate assistants on completing the task. The graduate assistants all had at least five years of marketing experience, and had completed an MBA marketing strategy class. Any discrepancies (of which there were very few) were discussed until a consensus was reached.

TABLE 2
Sample Student of Definitions of Marketing

Marketing is anything the customer touches, hears, or sees.

Marketing is the process of gathering and analyzing data to make an informed decision as to the direction and level of your business.

Marketing is selling and researching products in a way that benefits everyone involved.

Marketing is the activities related to sales and judging the needs and wants of the consumer and integrating everything with the other essential business functions.

Marketing is a way to distribute the information about products to potential consumers.

Marketing is giving the customer a product or service that will benefit them.

Marketing is about how to best promote and place a product or service to increase sales.

Marketing is the study of sales and advertising. It also deals with research, development, and brainstorming.

Marketing is analyzing data, identifying market trends, and understanding consumers to better help a company or organization (e.g., sales, logistics, marketing research).

Marketing is the designing, implementing, and/or selling of products and/or services.

Marketing is the study of consumer behavior.

Marketing is the promotion and selling of a specific product to a specific buyer at a specific time and place.

Marketing is the art of communication.

Marketing is a delivery tool that promotes or sells something.

Marketing is the distribution of reliable information that attracts consumers to invest in a product or service.

Marketing is convincing the willing to buy a particular product at said price and getting the most you can from them with reasonable cause.

Marketing is the area that relates to a job/occupation/business in which a product is released to the world. The marketers develop products, price them, and then hand them over to the advertisers. Marketing is a face of every company that the public sees and interacts with.

Marketing is the study of consumers' buying patterns and personal tastes.

Marketing is the process in which a company "closes the gap" between their product and the consumer.

Marketing is the career field that enables a person to communicate with consumers in a way that persuades them to like your personality and great entrepreneurial skills.

Marketing gives value to a good or service.

Results of the categorization are shown in Table 3. Unlike images of marketing in the past, there were very few negative definitions of marketing (6% – 7%). Most definitions were factual rather than negative or positive, which we labeled as neutral, although marketing majors were more positive than their colleagues from other business majors. Not surprisingly, the majority of definitions were within the realm of promotion (advertising and sales). This, of course, is what most individuals are exposed to, and, therefore, what they believe is the domain of marketing. This is unfortunate, since there is so much more to the discipline. Very few definitions included pricing (2% – 4%), while distribution faired only a bit better (3% – 5%). There was very little inclusion regarding customers or information gathering, not to mention processes or people involved in the creation of value.

TABLE 3 Categories of Definitions			
Sample Size	Marketing Major (72)	Other Business Majors (149)	Total (221)
Number of Components*			
0	2	3	5
1	37	78	115
2	18	53	71
3	11	14	25
4	4	1	5
Mean	1.69	1.54	1.61
Positive Definition	19 (26%)	14 (9%)	
Negative Definition	4 (6%)	10 (7%)	
Neutral Definition	49 (68%)	125 (84%)	
Categorization of Components			
Promotion (Promotion)	30	46	76
Sales (Promotion)	27	56	83
Informing (Promotion)	1	8	9
Advertising (Promotion)	20	59	79
Public Relations (Promotion)	1	5	6
Product (Product)	7	11	18
Development (Product)	6	4	10
Place (Place)	3	1	4
Distribution (Place)	1	10	11
Price	5	4	9
Research	14	22	36
Customer Relations	7	4	11
Total	122	230	352
4 P's			
Promotion	79 (65%)	174 (75%)	253 (72%)
Product	13 (11%)	15 (7%)	28 (8%)
Place	4 (3%)	11 (5%)	15 (4%)
Price	5 (4%)	4 (2%)	9 (3%)
Other	21 (17%)	26 (11%)	47 (13%)

*Examples

0 components:	Communication between two parties
1 components:	The use of advertising to hopefully increase sales
2 components:	Studying consumers' purchasing patterns/habits and developing goods and services to satisfy their needs/wants
3 components:	The advertising of products, displaying those products to the public, and selling of those products
4 components:	Promoting, pricing, producing, and physical location of goods

Most definitions included 1–2 components (generally advertising and/or sales), which would again support the idea that individuals take a very narrow perspective of marketing.

These results, while expected, do lead marketers to contemplate how to better explain our discipline and how to better educate the public about what marketing really is and what it does. There is certainly room for improvement. Presumably, when the buying public more clearly understands what marketing does, they will better appreciate how marketing lends a positive influence to their lives, and perhaps make better choices as consumers. This could ultimately lead to higher degrees of customer satisfaction!

DISCUSSION

A gap clearly exists between how the marketing discipline views marketing and how individuals, who chose business as their area of study, view marketing. This biased sample suggests that the problem of misperception is actually worse than our results indicate.

Is this a simple misunderstanding or is what we say not what we do? Does it seem that marketers need to market the profession more so than they obviously do? Just as AACSB (Association to Advance Collegiate Schools of Business) recently undertook a process to better inform the business community of the value of AACSB accreditation (BizEd 2005), so too should American Marketing Association, and members of the marketing profession create a global sustainable message to educate the public of the value of marketing.

This is especially true if we wish to attract the "best and brightest" students into this discipline. Not surprisingly, the majority of students in the study defined marketing in promotional terms. More than any other age cohort in the last sixty years, today's traditional age college students have witnessed some of the most aggressive sales oriented marketing campaigns. This generation is bombarded with an array of advertising ranging from outdoor space, product placements on TV and movies to the interface with games as well as one's own computer. This list extends as far as the imagination.

In the bygone era of mass marketing, traditional marketing objectives emphasized gaining broad reach through extensive distribution and creating deep brand awareness among target consumers through unrelenting promotions. These goals were usually operationalized by strategies that put heavy investments in marketing mix elements, such as network television and national print, media that were acknowledged as having strong capabilities in building brand image and preference. Many well-known mass marketers (e.g., P&G, Heinz, Unilever, Coca Cola, General Foods, McDonald's to name a few), not only had the resources to invest in costly mass marketing (which also served as a market entry barrier) but also knew the value of investing to become a "household name." The end goal of being a household name was to gain the greatest share of mind, belly, or wallet.

Fast forward to the last thirty years. This era is marked by the interest of and the means for marketers to narrow and focus their strategies to select segments, niche markets, and even one-to-one prospects. Greatly enabled by technology, marketers large and small, gained the ability to track consumer behavior and hence to predict with great efficiency who will buy what and where. Technology combined with new media channels (e.g., Internet) opened doors to new and old marketing techniques. The natural outgrowth of this phenomena was the reassessment of marketing strategies and the reallocation of marketing investments into mix elements such as direct response, sales promotion, and personal selling, where marketers could evoke an immediate sales response from consumers. If some segments or customer types were more responsive than others marketers had an immediate profit motivation to quickly refocus their sales engines to the most responsive groups. Clearly, a sale was the end goal and the organizational mindset valued more and more transactions, which given new technologies were cheaper than ever to process. Is it any wonder that college students today view marketing as promotion? How would they know the breadth of the subject, especially when marketers bombard them with promotional messages through every media imaginable?

The question becomes, how to better inform this segment, as well as other members of the general public to the true nature of marketing. Clearly, it is up to members of the academic and practitioner groups to market marketing. Most universities have a speakers' bureau. Here, professors go out to various organizations (e.g., rotary club and other local professional organizations) where we are asked to speak on various subjects. One mandatory message should be to engage the audience in a lively debate of what marketing encompasses and how can marketing be applied. Industry Associatons have taken a slice out of marketing with their campaigns for "Got Milk" and "The New White Meat." Only through marketing do we get the correct product or service to the appropriate consumer at the right time, at the right place and at the right price.

Faculty could also go to high schools and community colleges to give lectures in business classes on the topic of marketing. Again, emphasis should be placed on the depth and breadth of the discipline. Examples of current marketing (e.g., YouTube, Napster, MySpace, and Yahoo!) should be used. Many marketing educators may well need to bring themselves up-to-speed on the various technolo-

gies that are being used to bring marketing messages to the college-age generation, as well as other segments. We may still be teaching from books and using examples that the younger generations simply do not appreciate or comprehend. Can we explain and convey the value of Second Life, or the change in the music industry created by YouTube, Napster and file-sharing? Are we integrating the use of social networks into our educational materials?

Better yet, do we need to rethink how to accurately define marketing to include the dynamic technological changes occurring in the business sector? Can we care-fully consider the many changes occurring in the market-place and the expanded list of constituents and state that our current AMA definition of marketing is accurate? Does the definition include the complexities of the discipline? How can we expect students to know how to define marketing, if we are not completely convinced that WE know the depth and breadth of the topic?

We must engage in our own research to carefully and thoroughly determine today's accurate definition of marketing. Only then can we go to the marketplace and share our insights about the topic, and educate individuals on the vastness of our chosen field.

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SOCIALIZATION OR SELECTION? A STUDY OF ENGAGEMENT AND COMPETENCY DEVELOPMENT AMONG MARKETING AND ACCOUNTING STUDENTS

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SUMMARY

Previous research has established that there are differences between Accounting and Marketing students in their student experience and the types of outcomes they desire and achieve. This paper investigates whether the differences between marketing and accounting students in student engagement as measured by a modified version of the National Survey on Student Engagement (NSSE) and competency development as measured by the Evers and Rush instrument are the result of initial differences in the students (i.e., selection) or curriculum differences (i.e., socialization).

The framework for this study is built on four assumptions developed from existing literature. The first is that student engagement is an important lens through which to view and assess the success of post-secondary education. The second is that students in different years of study may have different experiences with respect to class size and interaction with faculty and peers that may affect their level of engagement. The third is that Accounting and Marketing students are different. Marketing students are enthusiastic and extroverted and value interactive opportunities. Accounting students are less interested in interaction, and have stronger quantitative skills. The final assumption is that using measures of reported competency in various skill and knowledge areas that are important to employers may be a useful indicator of success among post-secondary students.

Our three research questions are: (1) do students in first year who choose to major in Marketing differ in levels of engagement and competency from those first year students who choose to major in Accounting; (2) do students in fourth year majoring in Marketing differ in levels of engagement and competency from those fourth year students majoring in Accounting; and (3) is socialization or selection more important in determining levels of engagement and competency development among Marketing and Accounting majors.

Using an online survey, we collected data from 286 first year and 279 fourth year Marketing and Accounting students at a large urban Canadian university. We measured engagement using a modified version of the NSSE instrument, and competency using a modified version of

the Evers and Rush instrument. The NSSE instrument groups the questions into five educational benchmarks, but our modified version includes only the questions from the three benchmarks over which a classroom teacher has influence: level of academic challenge, student interactions with faculty members, and active and collaborative learning. Evers and Rush identify four base competencies in their original research, but our study includes questions related to three: mobilizing innovation and change, communication and managing people and tasks. Because of the ongoing debate about the quantitative skills of commerce students, we created three additional questions related to numeracy.

Because the NSSE benchmarks are very broad-based and complex, we conducted a factor analysis to reduce the data to issues that might be more practical and actionable for classroom teachers. We used principal components analysis to extract eigenvalues over one and the KMO and Bartlett's test of sampling adequacy yielded a value of .865. The six factor solution for the engagement variable explained 56 percent of the variance and included: higher order processing (e.g., level of cognitive processing involved in course work), length of assignments (e.g., how many assignments at different lengths), academic preparation (e.g., effort by students), peer interaction (e.g., working with other students on projects), external learning activities (e.g., community-based projects), and faculty interaction (e.g., discussing grades and receiving feedback).

With respect to the first research question about initial differences between Marketing and Accounting students, we find that it is only in the numeracy competency where there is a significant difference between the students and that these differences still exist in fourth year. In other words, the Marketing curriculum does not make up for the initial selection of major based on quantitative skills. In the other three competency areas, mobilizing innovation and change, managing people and tasks, and communicating, there are no significant differences between Accounting and Marketing students in first year, and Accounting and Marketing students in fourth year, which suggests that for these other competency areas, selection is not a factor. The data supporting a socialization explanation are much stronger in that except for the numeracy competency, there is a significant year of study

effect. Fourth years are significantly better than first years regardless of major in the other three areas of competency. This suggests that except for numeracy, the curriculum of both marketing and accounting have a significant and positive impact on student perceptions of competency development over four years of the program.

With respect to student engagement, there are no significant differences in overall engagement between marketing and accounting students in first year, which suggests that selection is not a factor. However, fourth year marketing students are significantly more engaged than fourth year accounting, illustrating the impact of curriculum. More specifically, in peer interaction we find higher scores among Marketing majors, but in preparation there are higher scores among Accounting majors. Marketing students may be choosing Marketing because it is perceived to be less challenging than Accounting. As with the competency items, there is a significant year of study effect with fourth year students showing significantly more engagement than first year students.

The results of this study suggest that the curriculum in Marketing needs to increase its emphasis on quantitative skills and make more demands of its students in terms of mathematical ability. Because Accounting students are less engaged than Marketing students, the accounting curriculum might benefit from designing courses where there are more opportunities for students to interact with others to refine their ideas and ground their acquired theoretical knowledge in appropriate contexts. The strong differences found between first and fourth year students suggest that regardless of content covered or pedagogy used, just being in a post-secondary institution for four years is going to have an impact on engagement in one's program and perceived competency in areas that are important for success in business and industry.

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PATIENT PARTICIPATION: A SOCIAL NETWORK PERSPECTIVE

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SUMMARY

Access to health care services and health care spending are increasingly hot topics in the recent political debates. Candidates debate whether it is a person's right or privilege to have access to health care. However, public officials and managers have long recognized that access alone is not the problem. "Access alone does not determine the use of health care services" (Roth 1994, p. 115). As is the case with many services, customers (patients) must be involved with the actual service, yet the evidence suggests that patients are not involved. Reports have shown that noncompliance with cardiovascular disease treatment can be blamed for more than 125,000 deaths per year in the United States (Tanouye 1992). Additionally, over 100,000 people die annually in the U.S. from failing to take their prescriptions as directed by their doctors and pharmacists (Berger et al. 2004). The patient's active role in the health service encounter has been empirically demonstrated to be one of the main contributors to successful adherence to treatment (Garrity 1981; Golin et al. 1996). Research in marketing has studied customer involvement in the health care service encounter (e.g., Roth 1994); however, this research has focused on the attributes of the patient and provider. Research has yet to examine the content of the patient's relationships in the health care network structure and the effects these relationships have on the patient's level of participation.

Patient participation is a vital component to the health care service industry. Patient participation is conceptualized based on the customer participation and health communication literature. Specifically, patient participation is based on the active role a person takes in the management of his or her health care, both inside and outside the medical center (Dellande and Gilly 1998). An active patient is described as engaging in relevant conversation with the provider, asking questions regarding treatment, and collaboratively working with the provider to establish goals and a health care regimen. The patients' active role in the service encounter has been empirically demonstrated to be linked with adherence to treatment; therefore, it is important to understand the various effects of the patient's network on their level of participation.

When examining the relational content among different actors or organizations (e.g., the relationship between the patient and provider), the social network perspective is a useful paradigm to couch the discussion. Several

underlying concepts make social networks a distinct research area (Borgatti and Foster 2003; Brass et al. 2004). First, the underlying, driving force in social networks is the focus on the relationships, not the attributes of the actor. Furthermore, the social network perspective recognizes that actors (people/organizations) are embedded in a network; this network may constrain the actor or allow for opportunity. Resources (information, advice) flow through the network because resources are unevenly distributed throughout the network. This social network perspective allows a researcher to examine the structure and pattern of relations surrounding the actors and how this structure affects certain organizational functions or individual behaviors. Since patients are embedded in a network that includes, but is not limited to, the provider, the support network, the insurance company and the employer, the social network perspective offers a useful paradigm for examining the content of these relationships.

The structure of a patient's relationship with other actors and organizations can have a significant impact on the patient's level of participation in the health service encounter. Furthermore, the other actors in the patient's network also will benefit from a patient's increased level of participation. The physician will benefit through the patient's increased adherence to the health care regiment. The insurance company reduces long-term health care costs through a patient's increased participation in disease prevention programs. Finally, healthier employees save the employer health care costs and lost productivity costs (due to sickness and illness). Therefore, this research has implications for each actor in the patient's health care social network.

Using social network research and concepts, this conceptual paper presents propositions on the effects of the patient's social network on their level of participation. The paper first examines the characteristics of the network tie between the patient and provider. These tie factors include tie strength, reciprocity, and multiplexity. Then, the paper discusses the effects of the entire structural network on patient participation. These structural actors include the patient's social support network, health insurance, and employer. The characteristics of the network ties and the entire network and their effects on patient participation are conceptually derived and presented. Implications and future research are also discussed. References are available upon request.

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THE SOCIAL EFFECTS OF CUSTOMER PUNISHMENT

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SUMMARY

The service firms extensively implement relationship management to build customer loyalty; but meanwhile, in order to inhibit the customer from violating transaction agreements or rules, they also utilize various types of customer punishment which may damage the customer relationship (McCarthy and Fram 2000). The employment of customer punishment is increasing in practice (Fram 1997), but not many researchers have paid attentions to this issue. Existing studies on customer punishment focus solely on the relationships between the service providers (the *executors*) and the customers (the *recipients*) who were punished for violating the company's policy (e.g., Fram and Callahan 2001; Kim 2007). However, the customer punishment may be a social phenomenon which affects persons (the *observers*) other than the executors and the recipients when the punishment information is disseminated.

In the viewpoint of the service providers, the spreading awareness of customer punishment may be beneficial because it helps other customers form correct expectations and be exposed to the consequences of violating rules or agreements without a firsthand taste of being punished (i.e., the social learning effect proposed by Bandura in 1977). However, it may induce some negative emotions or behaviors among the observers. Therefore, it is important for the service firms to know how the punishment events affect other customers, and by which means they can strengthen the desired impacts, as well as mitigate the adverse effects.

This research, applying the perspective of the vicarious punishment (Schanke 1986) and the social effects of organizational punishment (Trevino 1992) to the service context, aims to investigate how the customer punishment influences other observer customers. In doing so, we first develop a conceptual framework of punishment, in which a holistic punishment context is subdivided into five components: the misconduct, the punishment, the recipient, the executor, and the observer. The first four components together form a punishment event which has some influences on the observer. Next, we conduct two between-subjects experiments to examine the impacts of the different punishment attributes (severity, flexibility, and explanation) on the responses of the observer customers, including the perceived justice, the affective commitment, and the intention not to violate the same rules or agreements in the future (social learning effects). Because severity is the major concern of most studies on punishment (e.g., Butterfield et al. 2005; Kim and Smith 2005), we also reiterate examining its effects through two experiments. Study 1 manipulates the level of severity (high/low) and the presence of flexibility (with/without), while Study 2 manipulates the level of severity and the offering of explanation (with/without). Student samples are used in a setting of a book rental store where they witness a customer being punished for a delay in returning new-release books.

The results reveal that a punishment with low-severity, high-flexibility, and adequate-explanation induces favorable affective commitment through the mediation of perceived justice. Contrarily, no matter how severe or flexible the punishment is, as long as the observers know about the punishment event, social learning effects occur. However, explanation does make contributions: if customers understand the reason for the punishment is to maintain the demand-supply balance, they become more willing to obey the rules.

The major alchemical contribution of this research is to provide a conceptual framework for further understanding of the relationships between each component of punishment. In addition, it also shows that customer punishment is indeed a social phenomenon. Moreover, for marketing practitioners who plan to actively release punishment information, the managerial contribution of this research is to demonstrate that a punishment with lesser severity, higher flexibility, and adequate explanation is qualified to engender adequate social learning effects but without many unfavorable reactions. The prime limitation of this research is that we utilize an experimental design with student samples in signal service setting, and make the observer customers obtain the punishment information by witnessing, rather than through other channels or sources. Further research may conduct surveys with actual customers in other service industries to generalize the social effects of customer punishment, as well as to investigate the influences of different information sources and channels. References are available upon request.

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MEASURING TOURISTS' EMOTIONAL EXPERIENCES TOWARDS DESTINATIONS: DEVELOPMENT OF THE DESTINATION EMOTION SCALE (DES)

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SUMMARY

Over the past two decades, a coherent steam of research has established emotions as an important area of study in marketing (Richins 1997). A number of studies explore the role of emotion in many aspects of consumption such as evaluation, satisfaction and behavioral intentions. Similarly, in recent years, the experiential qualities of the tourism experience are increasingly acknowledged (e.g., Ekinci and Hosany 2006). The global tourism industry has evolved into an arena of fierce competition and destinations are under greater pressure to comprehend the crucial components of meaningful experiences. In particular, an appreciation of the unique and emotionally charged nature of tourist experiences, defined as "events that engage individuals in a personal way" (Bigné and Andreu 2004, p. 692) is needed. Emotional reactions to the tourism experience influence post-consumption behaviors such as evaluation of satisfaction, intention to recommend, attitude judgements and destination choice (Gnoth 1997). Marketing scholars have long emphasized the role of emotion in defining consumption experiences and influencing consumer reactions (e.g., Babin et al. 1998). Consumers derive hedonic gratification (fun, fantasy, arousal, sensory stimulation, and enjoyment) when consuming products/services (Hirschman and Holbrook 1982). However, with some exceptions, research into the experiential qualities of the tourism offerings remains largely underexplored. Accordingly, this study adopts a rigorous approach to scale development consistent with conventional guidelines (e.g., Churchill 1979) and investigate the dimensions of tourists' emotional experiences toward destinations.

The first stage involved conducting pilot tests on four commonly used and adapted emotion scales in the marketing literature namely: Mehrabian and Russell (1974) Pleasure-Arousal-Dominance (PAD); Plutchick (1980) Psychoevolutionary Theory of Emotions; Izard (1977) Differential Emotion Theory (DES); and Watson, Clark, and Tellegen (1988) PANAS scales. The outcomes were inconclusive and suggested the need for revisions and adaptations. In the next stage, focus groups and projective tests (word association) were carried out to elicit tourist destination specific emotion items. Combining results from the qualitative stages with other emotion adjectives identified from an extensive review of the literature, an initial list of 75 items was retained. The items were then assessed for content adequacy and as a result of this process, a list of 44 positive emotion items was retained spanning across four primary emotion categories of *Love, Joy, Surprise,* and *Interest*. However, despite weak support for negative emotion during the qualitative phases, negative valence statements were still included in the final questionnaire for several reasons: (i) given the exploratory nature of the study; (ii) to ensure a balanced sampling of emotions adjectives; and (iii) to be consistent with previous research on emotions incorporating both positive and negative emotions. Consequently, items representing four negative primary emotion dimensions of *Anger, Fear, Sadness,* and *Shame* were added. The survey questionnaire consisted of a final list of 74 emotion items.

Respondents were instructed to recall the last tourist destination that they have visited and to report the kind of emotion they have toward that destination using self reports. Consistent with previous research (e.g., Nyer 1997), the 74 emotion items retained for this study were formatted into a 7-point Likert-type scale with anchors 1 = "*not at all*" to 7 = "*very much*." Multiple dependent measures (overall satisfaction, attitudes and intention to recommend) were also included to assess validity and to determine relationships between the study constructs. Data for the first study were collected in a U.K. city and respondents were approached randomly on streets, around shopping malls to fill a face to face administered questionnaire. The sample (N = 200) was almost equally split between males (52%) and females (48%). The age group of the respondents were as follows: 16–24: 27; 25–34: 26 percent; 35–44: 19 percent, and 28 percent were 45 or older. A large proportion of respondents (49%) were on their first visit to the destination evaluated.

Preliminary analyses (Kurtosis and Skewness) were run on the emotions items. All negative valence emotions (e.g., humiliation, unhappiness) violated normality assumptions and were dropped from further analysis (44 positive emotions items were retained). The absence of negative emotions is in line with the hypothesis that holidays offer positive goal-directed or anticipated emotions. Vacations entail positive experiences accompanied by satisfying and pleasurable moods, emotions and feelings (Mannell 1980). Exploratory factor analysis was performed on the remaining items and a three-factor model emerged with 24 emotion items (accounted 59 percent of total explained variance). The dimensions were

labeled *joy, love,* and *positive surprise* and had high reliability coefficients ranging from 0.84 to 0.92. Three regression analyses were used to test the predictive validity of the scale. Across the models, emotion dimensions were statistically significant in estimating overall satisfaction ($R^2 = 0.23$; $F(3,196) = 19.40$, $p = 0.00$), intention to recommend ($R^2 = 0.13$; $F(3,196) = 8.99$, $p = 0.00$) and attitude toward destination ($R^2 = 0.24$; $F(3,196) = 20.45$, $p = 0.00$).

Furthermore, in order to validate the factor structure as derived from Study 1, data were collected from a second (validation) sample and consisted of 520 respondents (36% male and 64% female). Confirmatory factor analysis was used to establish unidimensionality and convergent validity of the scale. An initial 24-item, 3-dimensional confirmatory factor model was estimated using LISREL. After modifications to improve the model fit, a final structure consisting of nine items emerged (*Joy*: cheerful, pleasure, entertained; *Love*: sentimental, loving, affection; and *Positive Surprise*: amazed, astonished, and surprise). The model fit indices were acceptable: $\chi^2_{(24)} = 78.14$; GFI = 0.97; AGFI = 0.94; NNFI = 0.96; CFI = 0.97; Standardized RMR = 0.035; RMSEA = 0.067. Similar to Study 1 findings, the three emotion dimensions were statistically significant in estimating overall satisfaction ($R^2 = 0.37$; $F(3,515) = 101.2$, $p = 0.00$), intention to recommend ($R^2 = 0.39$; $F(3,515) = 72.80$, $p = 0.00$) and overall attitude judgement ($R^2 = 0.38$; $F(3,513) = 106.5$, $p = 0.00$).

In terms of theoretical contributions, this study enhances the literature by developing a valid and reliable scale measuring tourists' emotional experiences toward destinations: the Destination Emotion Scale (DES). The DES consists of three salient dimensions: joy, love, positive surprise. In addition, findings differ from previous research given that the three dimensions are of a positive valence. In past studies, the emergence of a two-factor solution (positive and negative emotion dimensions) is common. The absence of negative emotions can be attributed to the hedonic nature of the holiday experience which is rich in terms of positive emotional elements. People take vacations mainly for leisure purposes in anticipation of memorable positive feelings. Tourists try to experience positive emotions and avoid negative ones. Given the exploratory nature of this study, one can tentatively conclude that, in consumer research where the presented stimuli is of a desirable, pleasant, and goal congruent nature (such as a holistic holiday experience), the emergence of a negative emotion dimension is a methodological artefact. From a practical standpoint, destination marketers could activate, stimulate, and promote positive emotions (joy, love, and positive surprise) in their advertising campaigns. At the same time, tourism providers should strive to engineer positive emotions in order to influence tourists' satisfaction levels and behavioral intentions. Finally, this study entails some limitations such as its specificity to British nationals and therefore cannot be generalized to other tourist populations. Another limitation is that the data are based on respondents' recall of past emotional experiences.

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AROMA-DRIVEN CRAVING AND CONSUMER CONSUMPTION IMPULSES

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SUMMARY

Recent reports indicate that as many as 70 percent of consumers actually lose control and give in to food cravings (Pelchat et al. 2004). Nevertheless, very few marketing studies have investigated the extent to which olfaction (food aroma) triggers lower-order emotions like craving and desire (see Bone and Ellen 1999; Ellen and Bone 1998; Spangenberg, Crowley, and Henderson 1996; Mitchell, Kahn, and Knasko 1995; Morrin and Ratneshwar 2000). Emotional and neurological response to an olfactory sensation is extremely swift (Ehrlichman and Halpern 1988). For this reason, shoppers who are unexpectedly exposed to olfactory food sensations may react spontaneously, thus leading to impulse purchasing of unhealthy foods with enticing and seductive aromas (Wansink 2004). This paper examines the extent to which an olfactory sensation is able to evoke lower-order emotions and how these responses influence consumption impulses.

Neurological and Psychological Theories of Olfaction

According to LeDoux and Phelps (2000), stimuli (e.g., an olfactory sensation) are received through the sensory thalamus and projected directly to the amygdala – a sensitive area of the limbic system that is also known as the "pleasure center." This process produces spontaneous lower-order emotions. Unlike other stimuli, olfaction is the swiftest form of affect because it by-passes deep and deliberative cognitive processing (Ehrlichman and Halpern 1988; LeDoux 1996; LeDoux and Phelps 2000; Shiv, Fedorikhin, and Nowlis 2007). Lower-order emotions promote action tendencies through the stimulation of appetitive desires (Shiv Fedorikhin and Nowlis 2007). Humans respond to smell in an involuntary manner because of the way the olfactory pathway is wired. "The limbic system is increasingly recognized to be crucial in determining and regulating the entire emotional 'tone.' Excitation of this, by whatever means, produces heightened emotionalism and an intensification of the senses" (Jacob 2007, p. 7). In sum, because of the power of lower-order emotion and its relationship with both olfaction and consumption impulses, it is predicted that olfaction will influence consumption largely through the intensity of the consumer's lower-order emotions of craving and desire.

Method

Subjects, Design, and Procedure. Undergraduates (N = 103) were randomly assigned to an olfactory exposure versus no-exposure condition. In the olfaction exposure condition, subjects entered a room where a hidden microwave oven had been warming up six Cinnabon™ rolls for 3 minutes. Subjects responded to questions about the level of their appetitive desire and craving for Cinnabon™ rolls, their consumption impulses, their level of hunger and whether they were able to smell the Cinnabon™ rolls. Lower-Order Affect was measured with six questions using a 1-7 Disagree/Agree scale: (1) Right now I think I have an intense desire to eat Cinnabon™ rolls, (2) My desire to eat a Cinnabon™ roll right now seems overpowering, (3) Just the smell alone of Cinnabon™ rolls can make me feel like eating one, (4) I'm having a craving at this moment for Cinnabon™ rolls, (5) Eating a Cinnabon™ roll right now would feel wonderful, (6) At this moment I actually have an urge for Cinnabon™ rolls (Cepeda-Benito et al. (2000). Consumption impulses (Shiv and Fedorikhin 2002) were measured in response to the following questions: "If you had the chance right now, what's the likelihood that you would: (1) Take a quick snack of Cinnabon™ rolls right now (2) Sample a Cinnabon™ roll right now."

Results and Discussion

A factor analysis with varimax rotation on the six items ($\alpha = .94$) used to represent lower-order affect revealed that all items loaded on one common factor accounting for 80 percent of the variance. The results indicated that olfaction was capable of activating a high intensity of craving and desire and this is what influenced consumption impulse. Manipulation Checks indicated that: (1) subjects in the olfaction exposure condition did perceive a stronger aroma than those subjects in the no-exposure condition; and (2) the level of hunger and the time-of-day when subjects were exposed to the stimulus did not influence the expression of craving and desire.

This study demonstrated that exposure to an olfactory stimulus stimulates a person's lower-order emotions like craving and desire, and this enhanced level of appetitive desire produces a correspondingly positive impact on consumption impulses. Contributions of this paper: (1) First, whereas the Affective-Cognitive Model focused on visual stimuli like cake versus fruit salad to trigger lower-order emotions (Shiv and Fedorikhin 1999; Shiv and Fedorikhin 2002), our study demonstrated that non-visual stimulation of the human brain such as olfaction can also function as an affect-inducing stimulus. Second, our study attempted to demonstrate the link between olfactory ex-

FIGURE 1
The Dual Sensory Inputs to the Amygdala

Sensory Cortex

High Road Cognition

Low Road Emotion

SENSORY THALAMUS

AMYGDALA

Emotional Stimulus

Emotional Response
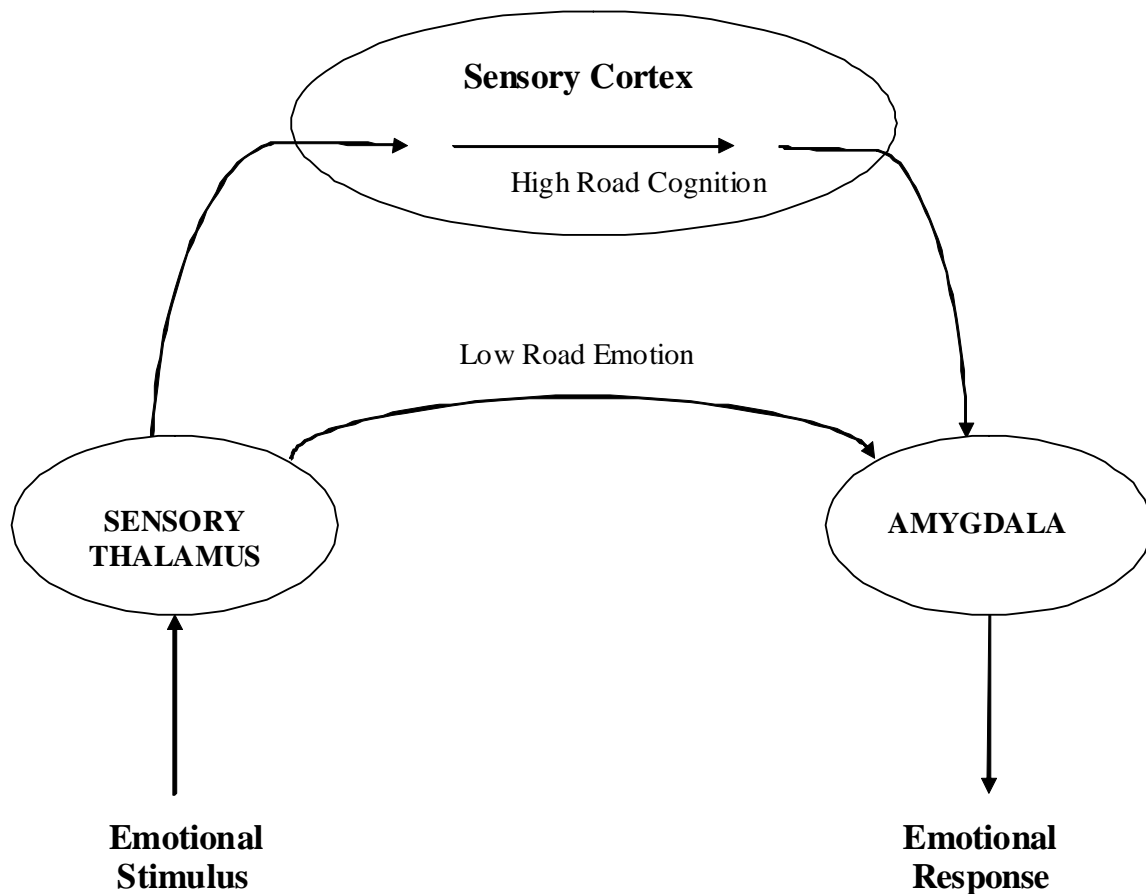
Source: LeDoux, Joseph E. and Elizabeth A. Phelps (2000), "Emotional Networks in the Brain," *Handbook of Emotions,* New York: The Guildford Press.

posure and the stimulation of craving and appetitive desire and the insightful perspective researchers can gain by understanding the consumer brain responds to swift emotion. Third, we were able to build upon neurological (LeDoux and Phelps 2000; Jacob 2007); and psychological theory (Pelchat et al. 2004; Shiv and Fedorikhin and Nowlis 2007) to identify the uniqueness of olfaction as an emotion eliciting stimulus. For example, because the emotional and neurological response to an olfactory sensation is extremely swift, leaving very little time for cognitive deliberation (Ehrlichman and Halpern 1988), lower-order emotions are often triggered because of the engagement of the amygdala in the limbic system of the brain. Fourth, we included hunger as an issue for marketing consideration (Wadhwa, Shiv, and Nowlis 2007) and found that in this study hunger was not a confounding influence on consumer's responses. However, future research should consider this variable when measuring

consumer response to food. Future research should also consider the role of appetitive desire and consumer self-regulation and ability to resist an eating temptation (Bagozzi, Moore, and Leone 2004).

Managerial Implications

Since it was appetitive desire that mediated the effect of olfaction on consumption impulses, then consumers who are less able to resist an eating temptation may be more vulnerable to olfactory sensations in the shopping environment. Situations where consumers may be most vulnerable to olfactory cues may be places where access to food may be restricted (e.g., airports and sports stadiums) when hunger may play a decisive role in making a consumer more vulnerable to olfactory food aromas and other visual stimuli.

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EMOTION REGULATION CONSUMPTION: EXAMINING HOW CONSUMERS USE CONSUMPTION TO MANAGE EMOTIONS

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SUMMARY

This research explores how individuals use consumption as a mechanism for regulating, or managing, emotions. Specifically, the "broaden and build" theory of positive emotions along with resource-based approaches to mood and self-regulation provides the conceptual framework for examining whether individuals who are experiencing negative emotions (sadness) are more likely to engage in forms of consumption, particularly of a hedonic nature, to regulate emotions.

The broaden and build theory of positive emotions proposes that positive emotions have the ability to "undo" the effect of negative emotions (Frederickon and Levenson 1998; Fredrickson et al. 2000). According to this theory, positive emotions may enable individuals to "down regulate" or "undo" the effects of negative emotions. Individuals attempting to infuse positive emotions into their lives may do so by consuming products from which they derive some hedonic benefit. Based on the "undoing hypothesis" of the broaden and build theory of positive emotions, positive emotions can undo the effects of negative emotions, such that individuals experiencing negative emotions may be more likely than individuals experiencing positive emotions to engage in self-gratifying or self-indulgent behavior:

H_1: Individuals in a negative emotion condition will express (a) more favorable attitudes, (b) demonstrate greater involvement, (c) exhibit higher purchase intentions (d) and be willing to pay a higher price for a hedonic good than individuals in a positive emotion condition.

A second hypothesis examines the strategies that individuals may use to control their emotions. Cognitive reappraisal involves construing a potentially emotion-eliciting situation in a way that changes its emotional impact (Lazarus and Alfert 1964; Gross and John 1998). It is an antecedent–focused strategy occurring early and intervening before the emotion response tendencies have been fully triggered. Cognitive reappraisal reduces the behavioral consequences of negative emotion when used to down-regulate emotion. Research has found that indi-

viduals engaging in cognitive reappraisal experience and express more (in magnitude) positive emotions (Gross and John 2003). The following is proposed:

H_2: Emotion regulation strategy will moderate the effect of emotions on attitudes, involvement and purchase intentions. Low cognitive reappraisers in a negative emotion condition will report (a) more favorable attitudes and (b) express higher purchase intentions (c) and be willing to pay a higher price for a hedonic good than high cognitive reappraisers in a negative emotion condition.

Hypotheses were tested with a 3 (emotions: amusement/neutral/sadness) X 2 (cognitive reappraisal: low/high) between subjects design. A total of 167 undergraduate students were randomly assigned to one of three emotion conditions: amusement, sadness and a neutral or control condition. They were asked to watch a film intended to elicit one of the emotions.

Cognitive reappraisal was a nonmanipulated, measured variable. After being exposed to treatments, subjects were asked to evaluate their attitudes, purchase intentions and the price they would be willing to pay for a product more utilitarian in nature (gift certificate for groceries) and one more hedonic in nature (gift certificate for dinner at a restaurant).

MANOVA results partially support the hypotheses. Univariate follow-up tests indicate a main effect for attitudes toward the product. Subjects in the sadness condition expressed the most favorable attitudes toward the hedonic product, following those in the amusement condition and the neutral condition. Simple contrasts reveal significant differences between the neutral and sadness condition and the neutral and amusement condition only. H_{1a} is partially supported. Similarly, there was a main effect for purchase intentions. Subjects in the sadness condition expressed greater purchase intentions for the hedonic good over the utilitarian good. Both the amusement and neutral conditions follow in preference for the hedonic good. However, only significant statistical differences exist between the neutral and sadness conditions and the neutral and amusement conditions. H_{1b} is

partially supported. Further, H_{1c} predicted that subjects in the sad condition will pay a higher price for the hedonic good than subjects in the amusement condition. Results show that means are in the opposite direction than predicted. Individuals in the neutral condition ($M = 20.79$) appear to be the least price sensitive to the hedonic product, followed by those in the positive condition ($M = 18.41$) and then the sad condition ($M = 16.34$). However, none of these differences reach statistical significance. Hypothesis $_{1c}$ is not supported.

H_{2a-c} predicted that cognitive reappraisal will moderate the effect of emotions on attitudes toward the product, purchase intentions and price willing to pay. Low cognitive reappraisers will express greater affinity for the hedonic product than high cognitive reappraisers. Results indicate a marginally significant interaction between emotions and cognitive reappraisal ($p < .10$). For attitude toward the product, low cognitive reappraisers expressed a more favorable attitude toward the hedonic product than high cognitive reappraisers. These differences do not reach statistical significance. However, for purchase intentions, low cognitive reappraisers express significantly greater purchase intentions than high cognitive reappraisers. H_{2a} is not supported, but H_{2b} is supported. H_{2c} predicted that low cognitive reappraisers in the sadness condition will be willing to pay a higher price for the hedonic good than high cognitive reappraisers. The means are consistent with H_{2c}. Low cognitive reappraisers in the sad condition were willing to pay a higher price for the hedonic good than high cognitive reappraisers. However, these means do not reach statistical significance ($p > .05$).

The significant findings that exist between the sadness and neutral conditions lend support to the emotion regulation consumption phenomenon. Individuals may have indeed been attempting to down-regulate their negative emotion through the consumption of a hedonic good. References are available upon request.

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THE THEORY OF REASONED ACTION: DOES IT LACK EMOTION?

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SUMMARY

Ever since the 1970s, the predominant paradigm of consumer behavior has been the "information processing view" (Bagozzi, Gürhan-Canli, and Priester 2002). Prominent researchers have increasingly contended that the information processing paradigm paints an incomplete picture of consumer decision making. While it is very successful at explaining and predicting the consumption of functional, utilitarian goods, it is not designed to account for hedonic consumption decisions in which "less experience is available, where the problem is not well-structured, and where emotional reactions are important" (Phillips, Olson, and Baumgartner 1995, p. 284; Hirschman and Holbrook 1982). Thus, over the past decade, the role of affect in consumer behavior has become one of the field's central research topics (Cohen, Pham, and Andrade 2008). The increasing fragmentation of knowledge in this field, the proliferation of research on seemingly contextual affective influences on behavior, and the limited integration of new findings with established information processing frameworks has led to growing concern among consumer researchers: "Whatever happened to Fishbein and Ajzen's theory of rational behavior and other such models? All we hear about from psychologists these days is how funny little things make people feel one way or another, influencing what they like and do" (Schwarz 2006, p. 20, citing a colleague).

This paper addresses this challenge by using Fishbein and Ajzen's (1975) well-established Theory of Reasoned Action (TRA) as a starting point. We then augment the TRA with Anticipatory and Anticipated Emotion constructs (Bagozzi, Baumgartner, Pieters, and Zeelenberg 2000) based on Larsen and Diener's (1992) Circumplex Model of Emotion. In a controlled experiment involving 308 college students faced with actual purchase decisions about motion picture DVDs (in the hedonic condition) and pocket calculators (in the utilitarian condition), we test through a series of multi-stage linear and logistic regressions whether the "Augmented TRA" performs better than the "traditional TRA" in predicting Attitude toward the Object (A_{obj}), Purchase Intentions, and Actual Behavior. In this context, we also test whether hedonic versus utilitarian consumption, enduring involvement, and consumer knowledge moderate the effects of emotions, each of which had heretofore only been tested in separate strands of literature. In short, we examine recently developed emotion constructs against the backdrop of a proven, parsimonious model of consumer behavior, and demonstrate under which conditions it makes sense to integrate them.

In general, the results show that the Augmented TRA model explains significantly more variance than the traditional TRA when A_{obj} is the dependent variable, because several Anticipatory (Ay) and Anticipated Aed) emotion dimensions have strong direct effects on A_{obj} that are not captured by assessing product attribute evaluations and attribute importance (i.e., by the adequacy-importance model of attitude). Similarly, at the second stage of the TRA model, the prediction of Purchase Intentions can be improved significantly by including the direct effects of Ay and Aed emotions that are not already contained in A_{obj}. It is interesting to note that these findings hold for both the hedonic and the utilitarian condition, showing that the prediction of both attitudes and purchase intentions for extremely utilitarian products such as pocket calculators can be enhanced by accounting for emotions. At the third stage of the TRA however, the prediction of Actual Purchases could not be improved significantly by adding Ay and Aed emotions as predictors. Thus, the further one moves along the stages of the TRA, the weaker the direct effects of emotion become. Yet, emotions indirectly influence Purchase Intentions through mediation of A_{obj}, and Actual Purchases through mediation of A_{obj} and Purchase Intentions. We also find that Ay and Aed emotions can be empirically distinguished using Confirmatory Factor Analysis (the distinction between Ay and Aed emotions had heretofore been largely theoretical, Cohen et al. 2008), and that they influence the TRA at different stages. Overall, currently experienced (Ay) emotions have a stronger effect on A_{obj}, whereas expected future (Aed) emotions have a stronger effect on Purchase Intentions.

In terms of the Emotion Circumplex, we also show that the emotional "axis" of boredom/dullness versus excitement/elation is weighted more heavily in the formation of A_{obj} when the product is hedonic rather than utilitarian. This effect decreases when Purchase Intentions are the dependent variable, and disappears when Actual Purchase is the dependent variable. Hence, while emotions significantly improve the prediction of A_{obj} and Purchase Intentions (but not Actual Purchase) both for hedonic and utilitarian products, by and large the moderating effect of the hedonic/utilitarian condition on the role of emotions is surprisingly small. The same can be said of Enduring Involvement and Consumer Expertise: We do not find that these constructs generally moderate the role of emotions in the TRA.

Whether a researcher should augment the TRA with A_y and A_{ed} emotion dimensions in his study thus, depends on the tradeoffs he is willing to make, and on the precise stage of the TRA he is looking at. For many practical purposes, especially when the antecedents of overall attitude formation are not of interest, the traditional TRA is more parsimonious and thus easier to handle. On the other hand, the additional variance explanation through A_y and A_{ed} emotions is huge for A_{obj}, still considerable and significant for Purchase Intentions, and marginal as well as statistically not significant for Actual Purchases. Thus, for researchers and practitioners alike, the Augmented TRA has the potential to deliver a much richer picture of the decision-making process. References are available upon request.

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MARKET ORIENTATION AND ORGANIZATIONAL PERFORMANCE: THE MEDIATING ROLES OF CORPORATE SOCIAL RESPONSIBILITY AND CUSTOMER SATISFACTION

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SUMMARY

Despite the empirical evidence to support the proposition that market orientation has positive impact on performance, several researchers have reported nonsignificant or even negative effects for this association. This disparity in existing studies might be reconciled by investigations into the mediators of the relationship. However, research on the topic remains limited. In light of this gap, we proposed two new mediators, namely, corporate social responsibility, and customer satisfaction and tested the mediating effects in an empirical study in China. Evidence to support the mediating effects was identified, and the managerial and research implications were discussed.

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ORGANIZATIONAL ORIENTATION IN STRATEGY INTERFACE: PERFORMANCE IMPLICATIONS FROM DEVELOPED AND DEVELOPING MARKETS

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SUMMARY

Contemporary resource-based theory (RBV) addresses the business conditions under which resources can yield differential long-run economic performance advantages. The process of implementing business strategies addresses how firm resources are accomplished. Furthermore, it is influenced by the diverse set of organizational orientations, such as market orientation, learning orientation, innovation orientation, and shareholder orientation. Some scholars additionally suggest that differences in market environments influence the type of the strategy that firms adopt, which in turn affects organizational resources and performance outcomes. The ultimate objective of the organizational orientations is to create superior value for the firm and its stakeholders. Although these influences on firm performance outcomes have been examined in isolation, they have not been studied in an integrated model of business strategy implementation.

While an expanded hybrid business strategy typology is deployed as the foundation for our research, we develop an orientation-strategy-performance model to provide insights into the specific characteristics of distinct organizational orientations that are important to the successful implementation of each strategy type. Our model focuses on the interplay of diverse organizational orientations (market orientation, learning orientation, innovation orientation, and shareholder orientation), business strategy types (prospectors, differentiation focused defenders, and low-cost defenders), and firm economic performance (market performance and financial performance). Consequently, our study aims to discover the consequences of the preceding interplay across firms operating either on developed or developing markets and representing the whole value chain in the field of both consumer and business products and services. Several scholars have argued that building knowledge of why some firms outperform others is the cornerstone of the strategic marketing research. As such, this study represents a contribution in several ways.

Drawing on the RBV, organizational orientation is conceptualized as an unobservable latent construct that is reflected in the four orientations affecting firm economic performance. Organizational orientations are essentially intangible resources, thus being hard for rivals to imitate, and making them sources of superior performance advantage. In terms of business strategies, we rely on the hybrid approach to strategy types by Walker and Ruekert (1987).

To examine the consequences of organizational orientation and business strategy on economic performance, nine testable research hypotheses were developed. The empirical study was carried out as a survey in 2001–2004, response rate being over 20 percent. Our sample covers a highly diverse set of 5055 firms from 12 countries. The firms are small, medium-sized, and large firms and represent business products, consumer products, business services, and consumer services. The full sample was divided into two sub-samples: developed and developing market economies. The measures of organizational orientation, business strategy, and firm economic performance were drawn from existing scales or developed for the research questions at hand. All items were measured on a seven or five point advantage scale. The final questionnaire deployed a 24-item set of organizational orientation variables modified from existing scales. As the measures of the strategic archetypes, we employed a six-item scale to assess the characteristics of the three business strategy types. Additionally, our survey deployed a five-item economic performance scale.

Confirmatory factor analysis was deployed for scale construction and validation. Overall, the fit indexes for the measurement model ($\chi^2 = 8037.67$; df $= 524$; p $= 0.000$; RMSEA $= 0.053$; GFI $= 0.92$; NNFI $= 0.94$; CFI $= 0.95$) indicate that the scale structures fit the data acceptably and the developed proxies perform well in the context concerned. Composite reliability values (ρc) and values of average variance extracted (ρv) were also calculated. Most of them exceeded the recommended levels ($\rho c > 0.60$; $\rho v > 0.50$), thus indicating reliable and valid metrics for the constructs. Our hypotheses were tested simultaneously with LISREL 8.72 (Jöreskog and Sörbom 2005). The fit indexes for the structural model ($\chi^2 = 8880.46$; df $= 543$; p $= 0.000$; RMSEA $= 0.055$; GFI $= 0.91$; NNFI $= 0.94$; CFI $= 0.95$) indicate that the model fit is good.

We found rather good empirical evidence for majority of the hypotheses built from the previous literature. Overall, the results suggest that both organizational orientation and business strategy play a positive and significant role in increasing firm economic value and performance. Especially innovation orientation and prospector type of strategy play a positive and significant role in increasing business performance. We also found strong and positive relationship between market performance and financial performance. Finally, we identified statistically significant differences in the orientation-strategy-performance profiles between developed and developing markets.

In conclusion, this paper complements previous work on the three major strategic archetypes in the light of recent theoretical discussions as to inclusion of conceptually relevant variables as well as their performance effects in the context of developed and developing market domains. For scholars, our inquiry provides some new and potentially fruitful avenues for identifying multiple organizational orientations to fit with strategy and environment. Our results demonstrate the utility of using a holistic approach. Moreover, the important role of strategy in our results may shed light on previous research based on industrial organization economics and competitive strategy. For managers, our findings highlight the importance of considering environmental conditions and the implementation requirements of their business strategy when the management allocates their multiple organizational orientations. References are available upon request.

ENDNOTE

The following scholars have contributed to this study by providing empirical data: Graham Hooley, Aston Business School, U.K.; Mark Gabbott, Monash University, Australia; Sheelagh Matear, Lincoln University, New Zealand; Hans Mühlbacher, University of Innsbruck, Austria; Boris Snoj, University of Maribor, Slovenia; Vasilis Theoharakis, Aston Business School, U.K. (data from Greece), Oliver H.M. Yau, University of Hong Kong (data from Hong Kong and China); Hans Kasper, University Maastricht, the Netherlands; John Fahy, University of Limerick, Ireland; Heinrich Evanschitzky, Marketing Center Muenster, Germany.

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STRATEGIC ORIENTATIONS IN A COMPETITIVE CONTEXT: FOCUS VS. DIFFERENTIATION

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SUMMARY

Strategic orientation studies in marketing often provide "best practice prescriptions" for firms in a given context – matching orientations to environmental conditions. While this contingency perspective has value, empirical results are largely equivocal. We believe that the mixed findings are the result of an important reality that has been ignored by prior research, specifically, the fact that a firm's decision to pursue a particular strategic orientation can depend on the nature of its competitors' strategic orientation. Based on an empirical study we first show that focusing on a specific strategic orientation is generally beneficial for firms. We then contend that the emphasis a firm places on a particular strategic focus depends on whether it operates in a high or low competitive context. We show that in low competitive contexts the firm's strategic focus varies according to the dominant environmental condition (e.g., a selling orientation when market turbulence is high). However, in highly competitive contexts the degree of focus varies not only according to the dominant environmental condition but also according to competitors' orientations. Specifically, we show that firms tend to differentiate from rivals: placing less emphasis on a specific strategic orientation if their main rival emphasizing that orientation.

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LINKING CUSTOMER VALUE TO CUSTOMER SHARE IN BUSINESS RELATIONSHIPS

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SUMMARY

Research Background and Objectives

Just as research into marketing metrics is growing, top managers increasingly call for "marketing accountability," pressuring their marketing departments to produce metrics that document marketing's return on investment. From an academic perspective, a growing body of research focuses on performance metrics in marketing, including the Marketing Science Institute's (2006) citation of performance metrics and their impact on marketing decision making in its list of top-tier research priorities for 2006–2008.

Along with this recognition of the strategic importance of marketing metrics, recent research displays a shift in focus from traditional aggregate performance measures, such as market share, sales, and profits, and toward performance indicators measured at the individual customer level. At this individual account level, customer share represents an increasingly popular concept in the marketing discipline (Berger, Bolton, Bowman, Briggs, Kumar, Parasuraman, and Terry 2002; Zeithaml 2000). Shifting attention from market share to customer share offers a cost-effective means to increase overall profitability (Griffin 2002), particularly in business markets, in which suppliers typically focus greater proportions of their efforts on fewer customers.

Empirical research on customer share in business markets is still in its infancy (Anderson and Narus 2003; Leuthesser and Kohli 1995). A review of the extant literature raises several issues. First, prior research provides no guidance as to how marketers should operationalize customer share in a B2B context. In particular, the question of whether the construct should be measured in absolute or relative terms remains open to debate. Second, knowledge of the customer share metric derives predominantly from consumer marketing, yet customer share may represent two different concepts, depending on the research context. In consumer marketing, the metric typically measures behavioral loyalty as an outcome of consumers' buying behavior, whereas in business marketing, the allocation of the purchasing budget among competing vendors represents a key decision variable. There is a need to investigate customer share as a focal construct in business marketing settings. Third,

little empirical research examines the interaction between customer share and related relationship-relevant constructs (Keiningham et al. 2003; Perkins-Munn et al. 2005). In particular, investigating key drivers of customer share in business markets appears as a promising research avenue.

Key Contributions

The present research investigates the relationship between customer-perceived value and customer share in key supplier relationships. Its findings draw on a cross-sectional survey among purchasing managers in U.S. manufacturing industries. Against this background, the present study provides several important insights.

First, this study finds a positive and significant link between relationship value and customer share. This research operationalizes customer share as the actual order volumes allocated across a customer's supplier portfolio and thereby validates and extends existing literature. Heretofore, the only study that focused on this link suffered a limitation by measuring the customer share variable intentionally (Liu et al. 2005). Replicating these findings with a behavioral measurement model is nontrivial. Attitudinal and intentional variables often appear strongly correlated in a relationship marketing context, but establishing links to behavioral constructs proves more difficult (Verhoef 2001). Various situational factors and contingencies that go far beyond the variables under research can influence behavioral measures. Against this background, a path estimate of .20 between both constructs indicates the importance of customer value as an antecedent of customer share in B2B settings.

Second, by using the multidimensional measurement model for the relationship value construct proposed by Ulaga and Eggert (2006), this study sheds light on ways to manage the customer share variable. According to the path estimates in this research, relationship benefits generally have a stronger impact on customer share than relationship costs. More specifically, sourcing and operations benefits appear to offer the most promising levers for effective customer share management. With regard to relationship costs, the operations and acquisition dimensions have stronger impacts than direct costs, which represents an important finding, because core benefits and direct costs traditionally receive the most attention from

marketing managers. However, this research highlights the importance of other value-creating dimensions for effective customer share management. To win a superior share of customers' business, marketing managers must broaden their view and systematically include the whole set of value-creating dimensions in business relationships.

Third, the definition and operationalization of customer share in business markets extends prior research, which relies exclusively on absolute customer share defi-nitions. This study identifies and tests alternative ways to conceptualize and measure customer share in business markets. The findings suggest that researchers may want to consider operationalizing customer share as a ratio between a customer's main supplier and secondary supplier when investigating a key buyer – supplier relationships across industries. This is an interesting analogy to the market share metric which often is operationalized in relative terms to capture the characteristics of different industries. References are available upon request.

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RESPECT IN BUSINESS-TO-BUSINESS MARKETING RELATIONSHIPS

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SUMMARY

The concept of respect, while often cited, is not well understood. Customers want to feel respected (Berry 1996). Companies in turn emphasize respect; they include it in codes of conduct (Schwartz 2005) or, like Ben & Jerry's, in mission statements that encompass "deep respect for individuals in and outside the company." Despite anecdotal evidence that respect is crucial in a marketing context (e.g., Murphy 1999), it has not been rigorously researched (e.g., Costley, Friend, and Babis 2005). Marketing channel relationships involve interactions between people, therefore, interpersonal variables like respect should impact their success. Marketing researchers have investigated numerous relationship variables, many of which are more tangible and rational in nature (e.g., relationship benefits, trust, word-of-mouth, Palmatier et al. 2006). Our research suggests that "softer" features such as respect also play a role. Our purpose is to improve understanding of the meaning and types of respect in business-to-business (B2B) marketing channel relationships, a rich environment for investigating interpersonal variables like respect.

Because respect research in marketing is limited, our literature review spanned several fields (ethics, philosophy, social/organizational psychology, and others). Across fields, researchers agree respect is complex (Sennett 2003), and definitions, conceptualizations, and dimensions of respect vary widely. Given this lack of clarity, we conducted elite interviews with a convenience sample of seventeen diverse marketing professional to explore respect. In twelve of the interviews, we initially asked respondents, who were unaware of our interest in respect, to describe one successful and one unsuccessful B2B marketing relationship. Two informants used "respect" and many others referred to elements of respect in describing good and bad relationships. These conversations clarified respect's outcomes. Samantha (pseudonym) describes respect-filled relationships as the "most productive relationships . . . you are going to be enthusiastic about working together . . . your end product is going to be much more positive." This supports respect's importance to marketing channel relationship success.

Respect, based on the informants' insights, is about a person's value or worth. This reflects a common theme in other literature, so we define respect as *regarding a relationship partner to be valuable or worthy. The other person has various aspects (e.g., rights, talents) that can be respected. Respect is a belief and/or a process.* While behaviors are not central to this definition, the informants described manifestations of respect – acknowledging people's ideas, taking an interest in their opinions, paying attention to their individuality, listening to them, and understanding that people have different points of view. The informants suggested these kinds of behaviors exceed what one might normally expect in a business-to-business relationship. Joan described a respectful relationship in which a partner took the time to learn about her organization in a way that was "more than doing homework." In respect-filled relationships, these behaviors are targeted not only at customers, but also flow between both buyers and sellers.

In the same way that there are different types of commitment with unique consequences (Bansal, Irving, and Taylor 2004), there are also different types of respect. In the interviews, two types of respect emerged that reflect Darwall's (1977) ethics typology – recognition and appraisal respect. Recognition respect is valuing a person as inherently worthy. For Samantha, this means "treating every person that we came in contact with at their agency importantly." Appraisal respect is valuing a person as a result of their capabilities. As Andrew explains, "with the Prime Minister, there is instant respect, but he also did some exceptional things to get there." In addition, the interviews revealed a second distinction – instrumental (externally motivated) and intrinsic (internally motivated). Samantha distinguishes, "we respected them as an organization and their abilities to deliver what we needed, and they respected us as an organization and our mandate. And then it went to another level in terms of there was an individual respect."

Integrating these findings, four categories of respect emerge that are supported by our interview data. **Recognition-instrumental** respect is valuing the other as a business partner with the expectation of positive business-based results. Patrick explains, "people tend to treat you with a bit more respect when they see that you are of value to them in a business sort of context." **Recognition-intrinsic** respect is valuing the other as a human being because it is the right thing to do. Samantha suggests this is manifest in treating people "the way your mom taught you . . . the way you want to be treated." **Appraisal-instrumental** respect is high regard granted to those with status or capabilities. For Blaine, this type of respect is linked to performance and achievements. **Appraisal-intrinsic** respect is process-based and develops over time

from working together. Lana describes a particular supplier with whom she traveled long distances, learned about as a person, and thus came to respect at an individual level.

Future research is needed to further explore this typology, as well as possible drivers and outcomes of respect. Our preliminary research suggests instrumental respect is driven by the benefits parties bring to the relationship and may be moderated by relative power and dependence. Appraisal-instrumental respect may also be driven by a party's reputation, word-of-mouth, or halo effects; by social norms; and by expected capabilities. Recognition-instrumental respect may be driven by the relationship's ability to provide relevant results and by organizational culture. Our informants suggested relationships with respect last the longest – a manifestation of felt commitment. Instrumental respect, because it involves a cognitive evaluation of benefits and costs, is expected to result in more calculative forms of commitment (see Meyer, Allen, and Smith 1993).

Intrinsic respect is driven to a greater extent by personal characteristics. Recognition-intrinsic respect results from a predisposition to respect others. Appraisal-intrinsic respect, because it is process- and interaction-based, results from pre-existing relationships and grows when parties possess desirable characteristics. Both recognition- and appraisal-intrinsic respect are expected to result in more affective forms of commitment (see Meyer, Allen, and Smith 1993). The informants described how relationships with intrinsic respect "feel good" – they result in "happiness" and "fulfillment." Relationships lacking respect have negative emotional consequences such as "anger" and "frustration." When a relationship feels good, parties are more engaged, put more effort and energy into the exchange, and generate positive word-of-mouth. Previous research has focused on cognitive features of marketing channel relationships, even though emotions also play a role (Bagozzi 2006). Future research should conceptualize marketing channel relationships in a way that acknowledges both rational and emotional forces. References and/or a full copy of the paper are available upon request.

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USING LADDERING TO UNDERSTAND BUSINESS COMPLAINT MANAGEMENT

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SUMMARY

Understanding the management of relationships between companies has become an important aspect of contemporary marketing theory and practice (Anderson, Håkansson, and Johanson 1994; Parolini 1999). In value-creating systems based on complex network exchanges, business marketing activities are often characterized by collaboration and cooperation with customers, suppliers, and other organizations within the network (Achrol and Kotler 1999). This results in long-term business relationships which are based on a certain degree of trust, commitment, interdependence, as well as mutual relationship-specific investments (Håkansson and Ford 2002; Morgan and Hunt 1994).

While many structural aspects of the relationships between companies within business networks are well understood, the particular interaction patterns between companies which result in business relationships are insufficiently conceptualized (Möller and Halinen 1999; Uzzi 1997). This is especially true for aspects of complaint behavior and complaint management in business-to-business settings. But things occasionally go wrong, even in close and well-performing buyer-supplier relationships. Inter-organizational complaint resolution is an important aspect of ongoing business relationships. The managerial challenge in such cases is to understand how the companies involved, especially the suppliers, ought to behave to remedy such a situation by identifying the complaint management attributes which are desired by the complaining party. Of pivotal importance is to analyze why a certain complaint management attribute represents positive value to the customer (the complainant), and also how and why addressing a specific complaint provides the buying company with satisfaction, thereby contributing to continuing the business relationship (Homburg and Fürst 2005).

The Study

In light of the limited knowledge in the area of inter-organizational complaint resolution we wanted to investigate how suppliers should behave and which qualities they should possess and to understand the underlying benefits complainants look for. An exploratory qualitative research study was conducted using the hard laddering technique based on online-questionnaires. We developed a detailed laddering explanation that was extensively pre-tested, based on the suggested process outlined by Botschen and Hemetsberger (1998). Using a commercial list of the U.K. manufacturing industry, we randomly selected companies and called up managers with responsibility for supplier relationship management. We framed the questionnaire in such a way that the respondents were asked to consider particularly close business relationship with suppliers in which they had also experienced problems, and then to think about how they and their company would have liked this complaint to have been addressed. In particular, respondents were asked about how suppliers ought to handle their complaints and what kind of qualities or complaint management characteristics they would expect.

Forty-four questionnaires were used for the final analysis. We broke off further data collection at this point due to the fact that we had achieved theoretical saturation, in that no new or relevant data emerged, and all concept categories were well developed, with the linkages between categories well established (Strauss and Corbin 1998).

Results

Our exploratory analysis shows that companies relate issues of complaint resolution by their key suppliers to the context of the overall business network in which they are embedded. As such, the complaint management activities of supplying companies, which are often disruptive to close business relationships, are seen as impacting on other relationships, even indirect ones involving downstream customers. Having appropriate complaint management practices in place does not just benefit the relationship with the direct customer, but also with other network organizations. Issues of effective complaint management therefore need to be addressed not just as isolated managerial activities with limited benefits for the parties involved, but should be seen as being part of a wider activity set of strategic networking activities with impact on whole business systems (Ford et al. 2003; Ritter 1999).

Such a perspective would also include the reverse understanding of how suppliers complain to their customers in close business relationships.

As exemplified through our laddering analysis, achieving a solution to a complaint incident is of pivotal importance for maintaining (and maybe even enhancing) direct but also indirect supplier and customer relationships. For this purpose, our analysis pinpoints the importance of being able to clearly and quickly analyze and address the problem causing the complaint, but also to do this in a manner that is in line with and appropriate for a close business relationship. The importance of empathy, manners, honesty, and openness in our analysis shows the "soft" aspects of effective complaint management that arguably cannot be part of a rules-based approach. Thus, a solution is not just about remedying the situation (outcome) but also the way in which this is done (process). This finding backs the importance of front-line managers for the complaint management process (Perrien, Paradis, and Banting 1995). However, it also qualifies the distinction of a mechanistic versus an organic complaint management approach as suggested by Homburg and Fürst (2005). References are available upon request.

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CATCH-UP, LEAPFROGGING, AND GLOBALIZATION: DYNAMICS OF NEW PRODUCT ADOPTION ACROSS NATIONS

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SUMMARY

Is the World Flat? Are differences in adoption of products across global markets increasing, decreasing or constant over time? What is the impact of globalization on these dynamics? We analyze the market adoption of 17 new products and services across 32 countries over 55 years, (totaling over 11,000 observations) to address these questions. Here, adoption is assessed by market penetration, which is the percentage of households or individuals in a country who has adopted a new product.

We find that even though the world is becoming flat, the adoption landscape is still very rugged. We examine the extent of convergence or divergence in market penetration across countries. Convergence is *decreasing* dispersion in market penetration across countries over time. Divergence is *increasing* dispersion in market penetration across countries over time. While a widespread belief is that there is greater convergence because less-developed countries are catching up with developed ones by leapfrogging, some experts believe that there is greater divergence because the rich get richer and the poor get poorer.

Our analysis reveals that work products are characterized by high market penetration and convergence in developed countries but low market penetration and divergence in developing countries. Entertainment products are characterized by quick saturation in developed countries and leapfrogging in developing countries. Communication products are characterized by convergence between and among developed and developing countries.

There is a paucity of research in marketing on how globalization influences consumer behavior across markets. We define globalization and propose measures to capture the different dimensions of globalization. Panel data regression analysis reveals that the extent of economic, political and social globalization does explain differences in adoption and catch-up by developing countries. References are available from authors upon request.

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GLOBAL SERVICE INNOVATION AND THE ROLE OF CUSTOMER INTERACTION

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SUMMARY

Service innovation and customer interaction practices are now migrating from local cross-functional collaboration to a mode of global collaboration. As a result, global service innovation is now considered a key to growth and prosperity. The benefits of global innovation management include greater efficiency, lower costs, access to technical expertise that is distributed internationally and developing a service suited more for global markets. Despite these benefits the issue of service innovation has not been studied widely in a global context. For example, a recent review article includes only a few studies conducted in Asian and emerging markets (de Jong and Vermeulen 2003). Given the importance of global service innovation and customer interaction the goal of this study is to comprehend further the customer interaction process in New Service Development (NSD) from a global perspective. To achieve this goal a case study of NSD and customer interaction was conducted in a U.S. based multinational financial service firm. The case study investigates the development of new services with inputs from company's customers in an emerging Asian market, India.

Methodology: Longitudinal Field Research

In this article, we report a case study of customer interaction employed by IndoAm Inc. (a pseudonym), one of the leading financial service firms based in the U.S. providing diverse financial services to business-to-business customers, individuals and government departments globally. IndoAm was on the verge of a big expansion in South and Southeast Asia and was planning to introduce a number of new services for its business-to-business customers. In particular, the managers wanted to improve their innovation efforts in India. The firm had a policy of interacting with customers and obtaining input from them before introducing new services, and it had carried out several similar interaction activities in the U.S.

To conduct the interaction activities reported in this research we used a longitudinal case study method. First, the author and managers of IndoAm worked as a self-directed team to find and interact with customers for the innovation process. Two managers based in IndoAm's subsidiary in India were identified as the stakeholders. We also identified 12 customers who had the richest information to offer and invited them to participate in idea genera-

tion workshops. We used a networking process to identify these customers. These 12 customers then joined the author and two IndoAm managers for idea generation and concept development workshops that lasted for 10 days. The literature on both NSD and customer interaction were used to build a tentative and skeletal understanding of customer interaction and its management. This helped us seek relevant data during the interview process. During the interviews, we deductively examined the input and concepts and their relationships. This workshop covered three broad areas of inquiry: (a) characteristics or needs of customers regarding the new services (b) the problems they had with the current services and the solutions to solve those problems, and (c) the latest trends in the market in regard to the service concepts. We posed several questions to probe these four areas of inquiry. We probed with follow-up questions and triangulated the information from documents and company's record. Interviews were tape-recorded and extensive notes were taken and recorded in a research diary. We decomposed the documentary, research notes and interview data into logical segments, which we then used deductively to verify the potential of new service ideas and their fit with IndoAm's business operations. We hermeneutically probed customers' ideas and offered cues to elicit the true meaning of the stories and anecdotes narrated by them (Thompson 1997). After a week of regular meetings and discussions, a total of 17 new service ideas were developed.

To conduct the screening and concept development activities we organized a two-day innovation retreat. In this session the participants jointly developed service delivery blueprints, reviewed the blueprints, noted the strengths and weaknesses of the service concepts and commented on the cost and fees structure of the service concepts. A mock service delivery process was also developed, and these potential customers were asked to react to the service delivery, suggest fail points and tie up all the loose ends. At the end of the retreat, only seven ideas survived and were passed on to the next stage of test marketing. The results of the test marketing of at least two new services were by and large positive. At the time of writing this article the firm has already developed these two new services and is now ready to launch them in the market. After the completion of the research, we asked all the participants about the overall value of the process, and most importantly, the strength and quality of new service concepts developed. All the participants were very pleased with the new service concepts. In particular, the customer

participants indicated that they would be willing to pay higher service fees and charges for them, relative to the existing service, because the new services would solve their problems better than the existing services available in the Indian market.

Discussions and Implications

A successful service innovation strategy requires a judicious combination of external and internal sources of information. As shown in this article customer interaction provides a means to access external information that can be difficult to develop via internal sources. Yet, customers from only the U.S. and other developed nations cannot provide information relevant to a developing country and, therefore, a service firm must adopt a global perspective for innovation. That is, input from customers from differ-ent cultures and countries must be obtained to ensure the success of a global product or service. Through this study we proposes a systematic approach to search and involve customers in NSD. Service managers may take note of this approach and apply it to their NSD programs in overseas markets. For example, the managers should tap local resources by recruiting customers locally and conduct idea generation workshops and innovation retreats. This research also found the key criteria that should be considered for customer selection and involvement in NSD process: existing relationships with the customers and customer expertise. Based on the findings of this research we recommend that managers target customers with strong ties for the purpose of involvement because commitment and trust are very important considerations in customer interaction strategy.

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EXPLORING ATTITUDES TOWARD GLOBALIZATION AND ITS EFFECTS ON INTERNATIONAL MARKETING

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SUMMARY

The topic of globalization is one that is often emotionally discussed, with supporting and opposing parties providing passionate arguments for their beliefs. Indeed, the process of globalization has had an impact not only on society as whole, but also on the psychological functioning of individuals (Arnett 2002). The geographic shift of jobs across the world has caused stress and worry for those in developed nations as they witness not only manufacturing jobs, but even "white-collar" jobs moving to lower cost markets. Furthermore, in the developing countries that receive these jobs, concerns arise about major shifts in cultural practices and social institutions (Giddens 2000; Tomlinson 1999). While many agree that there are both good and bad aspects of globalization, individual responses or sensitivity to them may differ. For example, some individuals may actively avoid purchasing products that may have been produced in an environmentally unfriendly manner, but others may not really care. At the same time, some individuals may take pleasure in thinking that globalization has helped keep prices low, while others may think it is not worth the non-monetary costs.

The purpose of this research is twofold. First, we seek to better understand attitude toward globalization and how sensitivity to the positive and negative aspects affects both the overall attitude toward globalization and subsequent consumer behavior. Second, we seek to provide more meaning to results from studies such as the Pew Global Attitudes Project by examining how globalization attitudes can ultimately affect international marketing strategy. Specifically, we investigate the effects of attitude toward globalization on three important international marketing phenomena, the salience of country-of-origin information, salience of corporate social responsibility information, and preference for global brands.

Based on the existing literature, we hypothesize that the overall attitude toward globalization is positively affected by an individual's sensitivity to the positive aspects of globalization, and negatively affected by an individual's sensitivity to the negative aspects of globalization. Important international marketing outcomes are hypothesized to be affected by not only by one's overall attitude toward globalization, but independently affected by one's sensitivity to the positive and negative aspects of globalization. Sensitivity to the positive aspects of globalization, and the overall attitude toward globalization, should positively affect the salience of corporate social responsibility information and preference for global brands, and negatively affect the salience of country of origin information. Sensitivity to the negative aspects of globalization should positively affect the salience of corporate social responsibility information and the salience of country of origin information, and negatively affect preference for global brands.

To empirically test our hypotheses, we collected survey data and estimated a structural equation model. The survey sample consisted of 386 responses with 57 percent of those coming from college students. New measures were developed to capture the variables of interest. All measures were subjected to assessments of dimensionality, reliability, and validity. Reliability and convergent validity was assessed through a series of measurement models using LISREL 8.70 (Joreskog, Sorbom, Du Toit, and Du Toit 2000). The results of the measurement models demonstrate that all latent constructs exhibit acceptable reliability based on an assessment of individual factor loadings and by calculating each construct's composite reliability, which ranged from 0.81 to 0.91 (Fornell and Larcker 1981), and average variance extracted, which ranged from 52 percent to 69 percent (Anderson and Gerbing 1988). The factor loadings ranged from 0.56 to 0.97.

Discriminant validity was assessed with a full confirmatory factor analysis (CFA). The CFA produced acceptable fit, RMSEA = 0.09, RMR = .068, CFI = 0.90, NNFI = 0.89, and $\chi^2(237) = 983.5$. Confidence intervals for the phi correlations between pairs of variables did not contain 1.0, which further supports discriminant validity (e.g., Anderson and Gerbing 1988). Additionally, all squared phi correlations were less than their respective variance extracted estimates for all pairs of constructs (e.g., Fornell and Larcker 1981).

With only one exception, all hypotheses were supported providing strong support for the proposed model. The relationship between overall attitude toward globalization and the salience of country of origin information was non significant.

The present research is intended as exploratory and the model tested is not intended to prove causation. Rather, we are attempting to determine if the independent variables analyzed here have any predictive power over the international marketing outcomes. This research study provides evidence that the overall attitude toward globalization and the sensitivity to its positive and negative aspects can serve as a predictor of the salience of corporate social responsibility and country-of-origin information. It also presents evidence that consumers' attitude toward globalization has a direct effect on preference for global brands. In today's world consumers' decision making is influenced by a number of factors. The process of globalization and attitudes developed about it could be a very significant one. References are available upon request.

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MEANING TRANSFER IN NEW PRODUCT DEVELOPMENT

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ABSTRACT

Considerable research has been directed toward the improvement of the new product development (NPD) process, yet product failure rates remain high. In this work, NPD is viewed from an anthropological prospective as a means of embedding cultural meanings within products. Through the evaluation of a series of potential meaning transfer gaps, a model for understanding the potential causes for new product successes or failures is proposed. Several research propositions are advanced as a guide for future research efforts.

INTRODUCTION

The introduction of differentiated new products has been identified as one of the major methods by which firms establish competitive advantage (Porter 1980). However, it remains a risky business. Most new products require substantial investments of resources before they can be brought to market, and the majority of products fail soon after their introduction (Wind and Mahajan 1997). Numerous studies have examined the attributes which differentiate new product successes from new product failures. Pioneering work was done by Cooper (1979), who catalogued and prioritized traits common among successful new products and their creators. Other studies have sought to compare these traits across countries in the hope of finding an ideal organizational combination which would ensure the success of future products (Song and Parry 1997).

These studies have advanced understanding about how new products should and should not be developed. For example, it has been determined that developing products which are unique and superior (differentiated) relative to those of their competitors contributes to success in the marketplace (Cooper 1979). Within a firm, greater proficiencies in product development along with a clear market focus, a clear product definition, and upfront screening all results in increased success rates (Cooper 1979; Cooper and Kleinschmidt 1987; Ernst 2002; Song and Parry 1997). There have been numerous discussions within both the management and marketing literatures, extolling the virtues of certain firm attributes and proposing methods to improve internal coordination and processes involving these variables. The goal of this stream of literature has been the identification of common organizational patterns found among successful new product development (NPD) firms. This paper seeks to expand upon this earlier work by considering the effects of

organizational elements upon the transfer of cultural meanings as they become embedded within a product during the NPD Process.

To understand the creation of meanings within the products they help create, marketers must take an anthropological prospective of the NPD process. Researchers have understood for quite some time that customers appreciate meanings in goods beyond that of just their function (Levy 1959). As marketers, we have leveraged consumer propensities to anthropomorphize goods and brands (Aaker 1997; Fournier 1998). By understanding the symbolic nature inherent in goods, marketers have created products of greater personal value (Levy 1959). Goods rich in meaning allow customers to express and understand themselves (Belk 1988) and the world in which they live (McCracken 1986).

This paper seeks to explain NPD as the process by which firms create products embedded with cultural meaning. The new proposed model explicitly integrates the meaning transfer model (McCracken 1986) into the NPD process. In doing so, this paper forwards several research propositions to be examined by future research. Further, the model suggests ways in which analysis of gaps can contribute to NPD success.

DEFINITIONS AND BACKGROUND

Cultural Meaning

The average consumer's understanding of the social structures acting in their daily lives has become so ingrained that little consideration is lent to the multitude of meanings with which they are continually confronted. Yet, consumer understandings of cultural meanings and their relationships to them guide much of their everyday activity. They develop meanings for objects based on culturally derived categories of age, gender, and class (Levy 1959). Other distinctions exist in their partitioning of time and space (McCracken 1986). Consumers understand that certain products are gender specific or should only be used during certain occasions. Further, they understand – overtly or not – that the products they choose to purchase reflect meanings they associate with themselves.

Cultural meanings are not to be confused with nationalized cultural attributes, although they are interrelated. Distinctions of power-distance, inter vs. intra dependency, uncertainty avoidance and the like are broad gen-

eralizations of culture which influence an individual's interpretation and acceptance of cultural meanings found in goods (Hofstede 1984). The manner in which those meanings come to reside in the good is the focus of the present model.

Meaning Transfer

McCracken (1986) proposed a model by which meaning is drawn from the culturally constituted world and embedded within a good. This process was theorized to occur through two separate channels, the advertising system and the fashion system. Within the advertising system, the product gains cultural meanings through the association (in media) with sources of cultural meaning. These meanings are then drawn from the source and understood to exist also within the formerly barren product. The second channel facilitates meaning transfer partly through the work of designers, who craft the physical attributes of the product to reflect culturally understood meanings, and partly through the work of journalists and opinion leaders who help screen and shape important meanings.

After meaning is embedded within a product, customers gain access to the meaning by way of ritualistic consumption. These rituals represent methods of taking possession and assimilating the good into their lives. Polishing a car, applying makeup, and fondly remembering an occasion involving a good are examples of this ritualistic consumption.

EXPLANATION OF THE MODEL

Identification of Cultural Meaning and Functional Features

In the first step of the proposed model (Figure 1), cultural meanings, relevant to a group of customers are identified. These meanings are considered in reference to the functional features required of the product (McCracken 2005). This first stage is typically referenced in the new product development literature simply as the identification of customer segments and their expectations (Parasuraman et al. 1985; Rogers 1995). Meaning identification can come by way of several channels. Ideally, relevant meanings are derived from the marketplace. In a market oriented firm, the needs of the customer are well understood and new products can be developed to satisfy emerging market desires (Day 1994). The discovery of unmet customer needs in a market oriented firm is typically the result of ongoing market research efforts.

Low levels of customer satisfaction may be one indication of underserved meanings; however, a clear understanding of the root causes of the dissatisfaction is required. As previously discussed, meanings both in the end-good and those desired by the end-consumer often lie latent. The meanings imbued in most goods are rarely explicitly considered by customers in their daily lives, and the meanings which customers seek are often referenced indirectly (Levy 1959). To fully understand the needs of customers requires a dedicated effort on the part of the development firm.

Other methods of meaning identification are also possible. The use of product champions is among these. Product champions possess a vision of what a new product should embody. They often must fight for that vision throughout the NPD process. With minimal additional market information, these unique people have an inherent understanding of the meanings customers will appreciate in products and a preconceived idea of how those meanings should be represented. Regardless of the method of identification, meanings must be clearly articulated if they are to be successfully transferred to a good and ultimately be interpretable by the consumer. This leads to the first proposition:

> Proposition 1: Meanings relevant to the identified target market for the proposed product must be clearly identified if they are to be successfully embedded within the product.

As an example, a development team which understands that a new product should possess meanings of cleanliness, sustainability, masculinity, maturity, reliability, and which should be understood to serve upper-middle class, urban families will have a greater chance of successfully embedding those meanings within the product than a team which only considers the product's functional attributes whilst leaving its cultural meanings to chance. Specifying these attributes early in the product development process increases the ease at which they are incorporated into the product.

Implementation

As discussed by McCracken (1986), meanings, once identified, are transferred to a good through two complementary processes. Where McCracken chose to describe these specifically as an advertising and a fashion system, the current work instead focuses on more general terms and depicts these processes as marketing and design channels. Marketing in the implementation phase of NPD is charged with positioning the new product through promotion and branding. Relevant meanings, identified in the previous stage, are presented in proximity to the new product and associations are formed. These meanings are derived from objects, people and ideas, – culturally understood to characterize the desired meanings. Public relations, media, and other promotional means all support

FIGURE 1
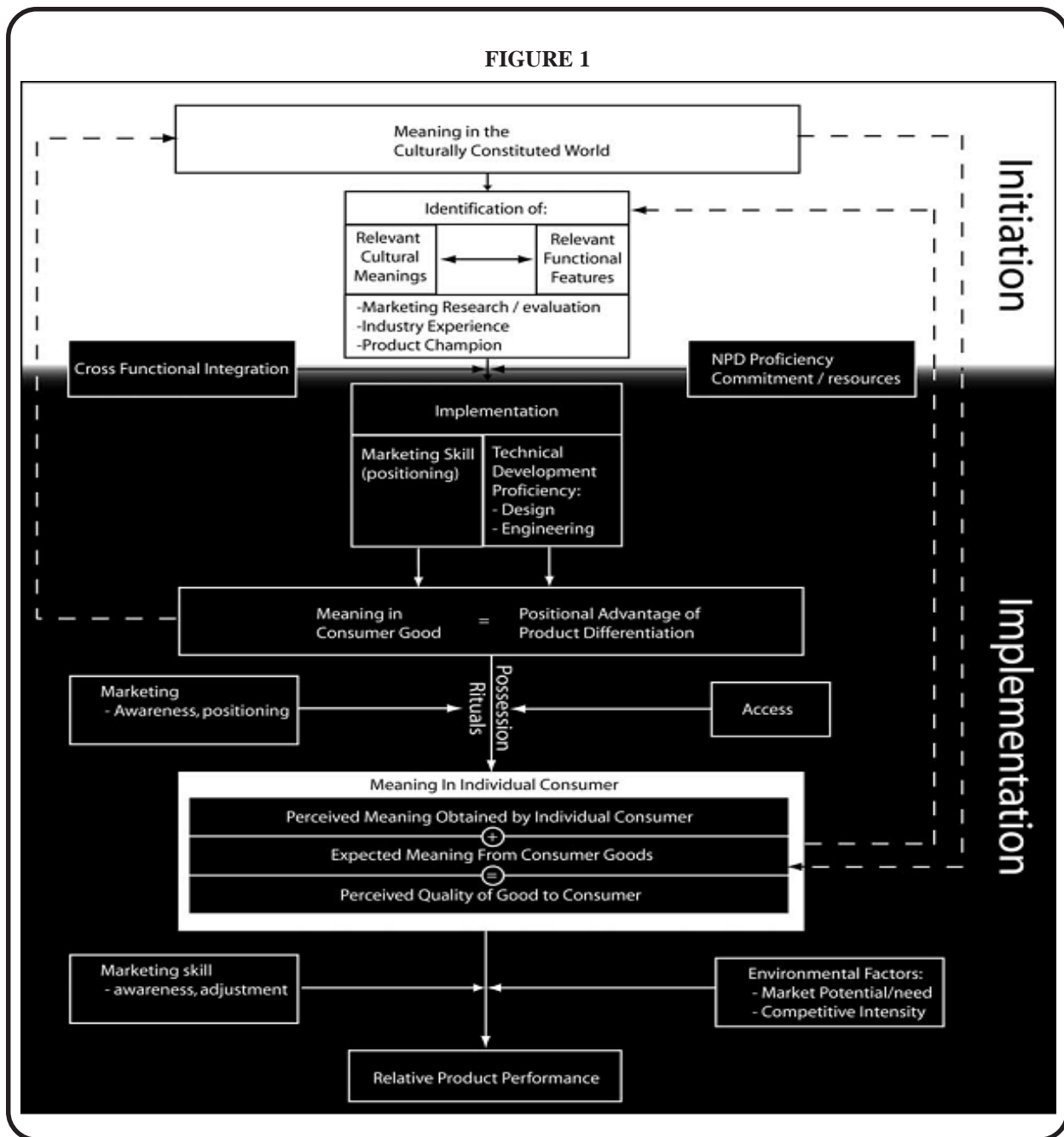
the marketer in this effort. The sum of these associations represent the transfer of meaning through the marketing channel into a new product.

The second means of transferring cultural meaning to products is through product design. The design team must convey intended meanings in the physical design of the good in a way which is interpretable by the user. Unlike marketing, meaning transfer through design is limited to communication through the physical form. Customers understand design elements in reference to existing products and objects in their lives. Their interpretation of the product's meaning is likely to change over time as future products are developed and shift their understanding of

meanings possessed by a good. Products once considered modern and fashionable become dated and previously rugged products seem flimsy in comparison to those just released.

To successfully impart decipherable meanings, both channels must work in coordination. Meanings expressed through design can be amplified by careful marketing, and those explicitly identified through marketing can be connoted through thoughtful design. Both channels also act as constraints on each other. Marketing rarely is capable of creating sustainable meanings which are unsupported by the physical characteristics of a product. Likewise, the meaning of a product design cannot be fully understood

without the referential guidance of marketing efforts. This leads to the following proposition:

> Proposition 2: The meanings transmitted through the design and marketing channels which complement each other are understood more clearly by the consumer than those which conflict.

As an example, unattractive products are usually not considered elegant and poorly refined products are not able to satisfy the tastes of connoisseurs. Some of the most spectacular product failures in are the result of conflicting product meanings. Many of these are the result of marketing channels attempting to convey meanings which were unsupported by design.

The quality of meaning transfer is moderated by two separate variables. First, a company's commitment of resources has an impact on the success of the product under development (Song and Parry 1997). Adequate commitment of resources is not a sufficient condition to ensure successful transfer of meaning to new products, but it is a necessary one. For resources to be successfully committed, a firm must possess a requisite level of proficiency in the execution of the NPD process. This proficiency is typically derived from experience and expertise (Cooper 1979; Cooper and Kleinschmidt 1987; Song and Parry 1997). NPD proficiency is similar to discussions regarding the fit between the product under development and the competencies of the company. A high degree of fit between a company and the product when combined with an acceptable allocation of resources leads to an increase in successful transfer of identified meanings into a product.

The second variable mediating the quality of the meaning transfer is cross-functional integration. Cross-functional integration leads to a minimized loss of information as it is transferred from the identification stage to the implementation stage. The relevant meanings identified through market research and other means must be successfully described to other team members who can then implement and embed these meanings into the product. Improving the quality of this transfer is greatly facilitated by involving cross-functional teams. Examples include designers participating in market research, and market researchers participating in product branding. These variables represent the following proposition:

> Proposition 3: The relative success of meaning transfer from meanings identified to those embedded within the new product is moderated by a firm's commitment of resources, its proficiency in relevant NPD tasks, and the level of cross-functional integration within the NPD team.

Meanings in the Consumer Good

The combined meanings transferred to a new product through marketing and design efforts result in the product's relative positioning in the marketplace. These embedded meanings and functional features are equivalent to the positional advantage offered to the product through differentiation. As previously referenced, the perceived uniqueness and advantages offered by a product are considered to be among the greatest determinants of new product success (Cooper 1979; Cooper and Kleinschmidt 1987; Song and Parry 1997). To be unique, the meanings imbued within the product cannot be neutral (McCracken 2005). Differentiated products possess meanings which are identifiable and consistent. This leads to the following proposition:

> Proposition 4: To effectively consume the product's meaning(s), consumers within the selected target market must be able to clearly recognize the differential advantage (unique meanings) of the new product offering.

Examples of consumers clearly understanding the unique meanings offered by products are so common that they are rarely considered. Any product for which a consumer exhibits preference, or discriminates against could be argued to possess decipherable meanings which customers are actively evaluating and comparing. Alternatively, customers who are unable to fully decipher the meanings in one product vs. another find it difficult to evaluate the product and either become frustrated or rely on price to make their decision.

Consumption Rituals

Through consumption, consumers transfer meanings, now embodied within a product, to themselves. Meaning transfer from good to consumer takes place through socially learned consumption rituals. These rituals represent a means by which consumers can extract meanings and gain value through their association with their notion of self (McCracken 1990). Possession rituals represent the largest category of ritualistic consumption. Their expression is dependent upon the nature of the good, but typically involves some form of personalization, comparison, display, or reflection. Through consumption rituals, consumers draw meanings from the product and use them in their lives (McCracken 1986). The combination of meanings extracted from the assortments of products which consumers choose to purchase helps them solidify their understanding of their lives. Products become means through which consumers represent their present status, age, gender and the like.

Meaning in the Individual Consumer

Through their interpretation of marketing communications and an analysis of the design elements, consumers develop understandings of the meanings embedded in a good - as presented by the company managing the product. Other channels which lie outside the direct control of the company exist. Word of mouth communications, previous product experience, and social observations also drive the meanings customers expect to be able to extract from a product (Parasuraman et al. 1985). This leads to the following proposition:

> Proposition 5: Consumer expectations regarding product meanings are derived from the manufacturer, social networks, and previous experience.

Product manufactures often over-hype their products and promise more than they can deliver. However, word-of-mouth networks, on occasion, are guilty of similar acts of inflation. Friends, family and acquaintances who appreciate a product enough to endorse it clearly influence the meanings expected by the referred customer.

The ability to actually extract expected meanings contained within a product is dependent upon a consumer's proficiency in performing the necessary consumption rituals, their ability to access and appreciate nuanced meanings, and the usability of the product. Some products may contain meanings which may be inaccessible to certain segments of customers. A common example is a consumer who lacks the refinement in taste, acquired through past experience, to fully appreciate an expensive food or beverage. Another is a consumer failing to achieve the social recognition they expected due to members of their social network failing to recognize the meanings in a recently acquired good. The related proposition is:

> Proposition 6: A consumer's ability to extract expected meanings contained within a product is dependent upon their proficiency in performing the necessary consumption rituals, their ability to access and appreciate nuanced meanings, and the usability of the product.

In a final step, consumers compare the meanings which they expected to extract from the product to those actually experienced. This allows them to calculate the perceived quality of the good. Usually customers are able to accurately assess the meanings they will be able to access before they purchase a good. However, instances do exist where customers are not able to extract the meanings they expect. This failure to extract meanings is typically ascribed to the attributes of the product rather than a failure of the individual. Leading to the following proposition:

> Proposition 7: A failure to extract expected meanings from products will usually be attributed to poor product quality rather than a failure on the part of the consumer.

This proposition is yet another example of the fundamental attribution error. Failing to achieve the expected level of product performance is rarely the fault of the customer, but instead attributed to a product failure. Disappointing product durability, usability, or offensive tastes and smells rarely cause customers to question the refinements of their pallets or whether they possess the skills necessary to operate a piece of equipment correctly. Failures are instead attributed to defects in the product's design.

Product Performance

With an understanding of how meanings are transferred from our culturally constituted world to a good and finally to an individual the discussion can proceed to the means by which new products succeed or fail in the marketplace. Successful transfer of meanings to products is necessary for market success as this is the means by which customers evaluate product quality. Customers must be able to identify products containing the meanings they require. They must also understand how those meanings can be extracted and put to use in their lives. Products which fail to contain relevant meanings or which possess meanings to which customers is unaware or unable to access are destined to fail.

Marketing efforts to increase awareness and make goods available to appropriate customer segments act to increase the likelihood of new product success. Conversely, highly competitive environments in which customers are presented with conflicting product information will act to complicate their efforts to identify relevant meanings. Clearly articulating a product's meanings to customers in a crowded marketplace remains a daunting challenge for marketers. Finally, successful products require a sufficient number of customers to possess a need for the meanings embedded within the new product at the price at which it is offered. The market potential for a set of product meanings should be identified in the initiation stage to screen product concepts which will be unable to generate a required rate of return.

GAPS IN THE MODEL

The proposed model (Figure 2) presents a series of disconnects between each of the NPD stages. These can be represented by gaps, many of which are theoretically similar to those described by Parsuraman et al. (1985).

FIGURE 2

Identification of
Relevant Meanings

Meaning Within Culture — Identification Gap — Transfer Gap — Meaning Within Good — Co-Creation Gap — Meaning Within Consumer — Performance Gap — Product Performance
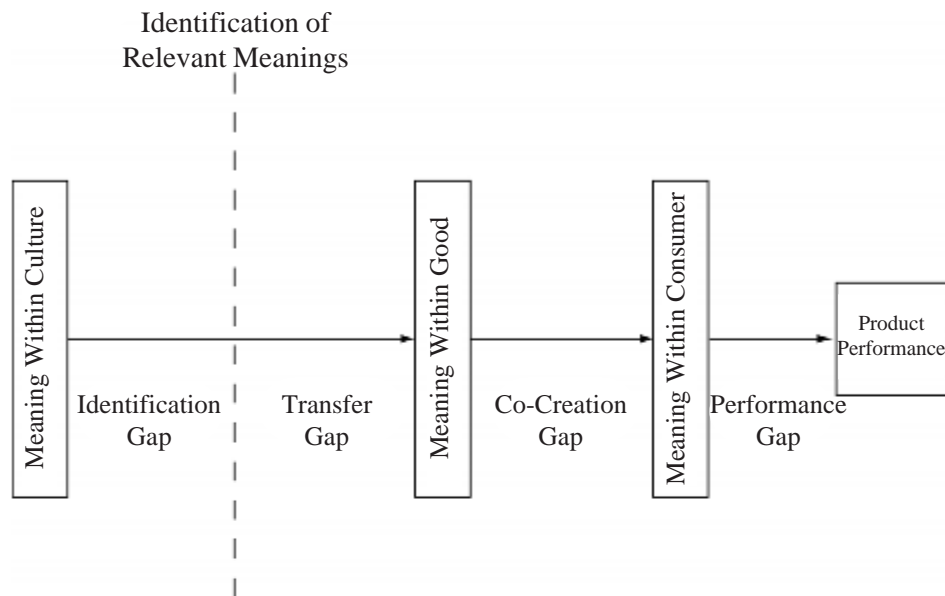
Identification Gap

The identification gap is similar in form to the "consumer expectation – management perception" gap described by Parsuraman et al. (1985). It represents a development team's attempt to understand the relevant meanings which should be transferred to a good. Failure to close this gap may be the result of the development team misunderstanding the expectations of customers. Alternatively, even if important meanings are identified, they may be unusable if a development team is not able to devise methods of transferring those meanings to the good in question. This attempt at applying relevant meanings is similar to the "management perception – service quality specification" gap, where managers seek methods of delivering consumer expectations. Culturally relevant harbors of meaning must be identified if the meaning is to be drawn from the culturally constituted world and embedded within the good.

Transfer Gap

The transfer gap is similar to the "service quality expectations – service delivery" gap. Over this gap, culturally identified meanings are transferred to the good under development through the design and marketing channels. Failure(s) to commit adequate resources, preserve the identified meanings throughout the process, or in the technical execution of the development process will result in a failure to properly embed the meanings in the good. A failure at this stage at best weakens the meanings contained within a good and at worst, distorts them until they are no longer recognizable by the customer.

Co-Creation Gap

The act of meaning transfer from the culturally constituted world to the product and finally to the user is ultimately the result of associations made by the consumer. While marketers and designers may suggest meanings, the customer is responsible for the final act of meaning transfer (McCracken 1986). Through co-creation consumers use the meaning contained within products in their lives. This leads to the following proposition:

Proposition 8: Consumers act to co-create meaning transfer in the development of a new product.

Because a new product is interpreted individually by each potential customer, it will contain different meanings when evaluated by different people. This act of interpretation demands that the customer becomes just as responsible for creating the meanings within the product as they are for consuming those meanings. While one customer may perceive a frozen dinner which requires 15 minutes in the oven as a home cooked meal, another may view it as nothing better than fast food.

A disconnect in the co-creation gap arises from a customer's incomplete or distorted understanding of the meanings present in the new product. Customers may fail to understand the meanings intended for a new product

and attempt to extract meanings which do not exist. Alternatively, they may understand the correct meanings within a product but find those meanings inaccessible because they fail to understand the appropriate consumption rituals or lack the social network to benefit from the embedded meanings. A customer who is unable to receive the benefits they expected from a good is likely to attribute the failure to poor product quality. The co-creation gap shares similarities with two of Parsuraman's et al. (1985) gaps. First, the "service delivery – external communications gap," in which service providers make promises they are unable to deliver or in which the service provider delivers services to which the consumer is unaware. Second, is the "expected service – perceived service gap," in which consumers compare the level of service they expected with the level of service which was delivered.

Performance Gap

The final gap shown in figure 2 is the performance gap. This gap represents the difference between the perceived quality of a product and the good's performance in the marketplace. Goods which are perceived as high quality are likely to succeed if they are accessible to consumers. However, moderating variables such as marketing skill in the creation of awareness and factors in the marketing environment can influence this relationship. Proficiencies in strategic evaluation of competition and the size/growth of markets may help to close this gap. The performance gap is a commonly addressed topic in marketing strategy and new product introduction literatures. New products introduced into favorable markets with adequate marketing support are more likely to succeed than products which lack those conditions. However, large marketing budgets and appealing market opportunities are insufficient stanchions for poorly developed products.

Successful Products

Successful new products must show some degree of closure in each gap discussed above. Products introduced without having found closure among all the gaps are likely to suffer from poor positioning in the marketplace and will rarely be as successful as they might have otherwise been.

New products which fail in the marketplace are likely to have some critical disconnect in at least one gap. This leads to the final set of propositions:

Proposition 9a: Successful new products will have some degree of closure in every gap.

Proposition 9b: Unsuccessful new products will exhibit a critical failure in one or more gap.

RESEARCH DIRECTIONS AND CONCLUSION

By understanding NPD as a process by which goods are embedded with cultural meaning, additional explanations for new product failures become apparent. Future research should focus methods for preventing the transfer of inappropriate meanings to goods, while simultaneously recommending possible improvements in transfer of intended meanings to new products. Additionally, the proposed propositions and model require further empirical evaluation. Future studies should seek to examine a range of successful and failed products across different industries in an effort to identify common critical failures which exemplify each gap. Through a comparison of failures and successes, improvements may be considered by which gaps may be closed and the transfer of product meanings improved. The discovery of common, critical issues existing among the proposed gaps will help provide a better understanding of the product development process.

The variety of unique circumstances surrounding the development and release of each new product has posed a formidable challenge to researchers attempting to identify generalizable prescriptions for improving the NPD process. By viewing NPD from an anthropological perspective, researchers are provided with another vantage from which they may explore the process of creating goods. This perspective may well prove beneficial in helping researchers and practitioners alike understand the role of cultural meanings in the development of new products. By incorporating the meaning transfer model (McCracken 1986) with existing NPD research it is hoped that additional strategies may be identified to improve new product development success rates.

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PRODUCT DEVELOPMENT PROCESS INFLUENCE ON EXPLORATION AND EXPLOITATION: THE ANTAGONISTIC ROLE OF LEAD USER COLLABORATION

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SUMMARY

Lead users, by definition, are at the forefront of the market majority with respect to their product requirements. Much has been written with respect to the benefits of incorporating lead users into the new product development (NPD) process. Overwhelmingly, research touts that lead user collaboration allows the firm to extract and acquire information for new product ideas that normally would not be examined within the confines of the firm's customary R&D product innovation efforts. While this may be true, as with all product users, lead users have limitations in their knowledge and capabilities and have different motivations and expectations from the firms that collaborate with them. These characteristics and objectives can adversely impact the exploration and exploitation strategies of high technology firms, particularly when interacting with other key product development processes.

In this study, lead user collaboration is defined as a set of behavioral activities that generates knowledge from lead users pertaining to their current and potential needs for new product innovations. The possibility of antagonistic interactions is examined with respect to the influences of two other R&D processes relevant to exploration and exploitation in product development: experimentation and technology monitoring. Experimentation is defined as the product development process undertaken by the firm to gain information through testing new ideas, encompassing not only systematic testing, but also evaluating and responding to information on novel concepts. Technology monitoring is the process in which an organization acquires knowledge about and understands new technology developments in its external environment. All three processes allow for knowledge acquisition from outside the borders of the organization and have been studied with respect to their main influences on exploration and exploitation. However, a large gap persists with respect to their *interaction* effects on innovation strategy. An innovation strategy of exploration encompasses those decisions and activities aimed at developing radical product innovations (innovations incorporating a large new body of technical knowledge), while an innovation strategy of exploitation encompasses those decisions and activities aimed at developing incremental product innovations (those incorporating relatively minor changes in technology). Depending on their characteristics, product

development processes can either promote exploration or promote exploitation, or, in some instances, promote both types of innovation.

This study builds upon prior research on process influence and innovation strategies, extending it to include interactions between these processes. It proposes that a firm's experimentation and technology monitoring efforts have positive influences on both exploration and exploitation while lead user collaboration has a positive impact on exploration alone. It also proposes that there are intriguing negative interactions between lead user collaboration and experimentation and lead user collaboration and technology monitoring on exploration and exploitation, respectively.

Survey data were collected via a sample of chief executive officers (CEOs)/presidents/chairman and vice presidents of marketing, strategy, or business development at the corporate level from 1000 U.S. high technology manufacturers. A three-wave mailing resulted in an effective firm response rate of 28 percent. Measurement and structural parameters were estimated simultaneously using partial least squares (PLS), specifically with PLSGRAPH v. 3.0, b.1126, but assessed sequentially. The measurement model was assessed as satisfactory by examining factor loadings, individual item and composite reliability, and discriminant validity. Results indicate that experimentation had a significant positive impact on exploration strategy, but its proposed positive impact on exploitation was not visible. Technology monitoring positively impacted both exploration and exploitation with its greatest impact on exploitation, and lead user collaboration had a significant positive effect on exploration as anticipated. More importantly, the negative interactions studied herein were supported and have significant managerial implications for management of a firm's R&D efforts with respect to NPD. Understanding these antagonistic effects is the first step toward prudent use of all three processes.

Winning lead user collaboration begins with "systematic identification" of lead users and finding the appropriate setting for them in the NPD process. Firms employing lead users must be cognizant of their differing levels of knowledge, technological expertise, and competence. Once known, organizations can prudently use them in their innovation developments, possibly in substitution

of other knowledge acquisition activities, thereby reducing research costs associated with process implementation. If done appropriately, investments in time and money in product development processes may result in greater NPD effectiveness and efficiency as firms trim resources and budgets. R&D managers should consider that collaboration with lead users is akin to an alliance between parties. Each party brings its own competences and capabilities to the partnership, along with various biases, expectations and motivations. Care must be taken to ensure the expectations for both parties are understood and recognized. Lead users will expect a product solution that meets their current or future needs in exchange for the time and effort allotted to the collaboration effort while the firm will expect an efficient and effective interchange of information. Both parties anticipate profit or gain from their joint efforts. Lead user responsibilities for the collaboration must be delineated and appropriate communication channels established. Trust and compatibility are a must as with any partnership. Thus, this research does not argue for abandonment of lead user collaboration for innovation, but instead promotes careful implementation of lead users into the NPD process along with other key product development processes. References are available upon request.

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CREATING, TESTING, AND VALIDATING A SCALE TO MEASURE RADICAL INNOVATION IN A BUSINESS-TO-BUSINESS SETTING

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SUMMARY

What is a "radical" innovation? This term has been frequently utilized by researchers in a recent stream of research. A major problem within the field however is that there is no agreed upon operationalization of the "innovation radicalness" construct within a B-2-B setting. Yet the topic is of growing importance as technological advances become increasingly expected by consumers and businesses alike. In order to advance this area of research, the discipline needs to work toward a more consistent definition and measurement of degree of innovation, or radicalness.

The prevailing approach to defining and measuring the degree of innovation of a new product or service depends on judgments from the producer point of view (Garcia and Calantone 2002). Yet it is the perception of potential adopters of the innovation that matter most when analyzing the factors that influence innovation adoption (Robertson and Gatignon 1986). Shifting the research perspective to the potential adopter point of view enriches insights into customer needs and the purchasing decision process. Understanding and reacting to customer needs are key components of the customer-linking ability critical to a firm's market orientation (Day 1994).

The objective of this research is to create and test a multi-item measure of the radicalness of an innovation from the potential adopter perspective in a B-2-B context, so as to address the lack of a commonly agreed operational definition. This will facilitate further research into how the potential adopter point of view impacts innovation adoption and, ultimately, an innovation's performance in the marketplace. The adoption of a commonly agreed measure of innovation radicalness will also strengthen the generalizability and comparability of findings based on such a measure. In this study, a scale is designed, pre-tested, and tested empirically; finally, a small number of potential adopters are interviewed in order to further analyze the measure.

Business-to-business adoption research focuses on a micro-level decision within a firm; the definition and measure of innovativeness must reflect this. In the business adoption context, consideration of both the technology and the benefit are relevant to the decision making firm. A significant change in technology most likely

means that the way the innovation is implemented and managed will change for the adopting organization. This can be competence destroying for potential customers (John, Weiss, and Dutta 1999), resulting in impacts on a firm's hiring, training, and resource allocation decisions. Perceived benefits have frequently been shown to significantly impact adoption decisions (Chau and Jim 2002; Venkatesh and Davis 2000) through significantly improved features, the meeting of an important unmet need, and/or through bringing new efficiencies into the organization. The definition of perceived radicalness used by Chandy and Tellis (1998) is applied here and measured from the customer's view, as proposed by Veryzer (1998). The definition of radical is that the innovation, relative to current solutions, (1) incorporates a substantially new core technology and (2) provides substantially higher customer benefits.

Multiple items were created for each aspect of innovation radicalness, leveraging existing measures as much as possible (initially four to measure change in technology and eleven to measure perceived increase in benefits). The items were pre-tested and then deployed in a survey targeting IT decision makers in New Zealand SMEs. The focal innovation used as a frame of reference for the perceived radicalness measure was business grade VoIP. The main study resulted in 220 useable responses, 171 of which included responses to the perceived radicalness items (the remaining 49 respondents had not yet heard of the focal innovation). The responses were used to evaluate the properties of the perceived radicalness measure. The final 10-item, two factor scale performed well, although further refinement is warranted. The first factor, perception of change in core technology, could be expanded to focus more on the innovation's technology platform, components, and design. The second factor, perception of significant increase in benefits, could be reduced to fewer items. Establishing agreement around a commonly accepted scale will benefit from application in different contexts and populations.

As a final step toward building a robust and valid innovation radicalness scale, a small number of one-hour semi-structured interviews were conducted with IT decision makers who had completed the survey. While the respondents' view of radicalness was closely linked to the definition used for this research, they also highlighted innovation acceptance (or non-acceptance) as a critical

component. The interviews reinforced the survey finding that the perception of radicalness appears to change over time and relate to a firm's knowledge and acceptance of an innovation. Instead of declaring an innovation to be incremental, discontinuous, or radical based on the producers perspective alone, this study has helped to validate the view that an innovation can take on "degrees of innovativeness" on the part of prospective adopters – depending upon point of view and point in time. The newly created multi-factor, multi-item scale allows future researchers to focus directly on the potential adopter perspective in a B-2-B setting.

The development of an innovation radicalness scale holds several implications for managers as well as for innovation researchers. It should usefully sharpen the focus of the innovating firm upon the relative advantage as perceived by prospective adopters rather than as a function of the underlying technology alone. It will help to gain insights into how much adaptation and change is perceived by prospective adopters, along with ways in which the innovating firm can provide support for its customers so as to minimize the required adaptation. Reference are available upon request.

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BAYESIAN VARIABLE SELECTION FOR BINARY CLASSIFICATION: AN APPLICATION IN DIRECT MARKETING

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SUMMARY

The key objective for direct marketing forecasting is to identify responsive and profitable customers from the existing database so that marketers can design more accurate targeted marketing programs to increase sales and profitability. Data reduction, and more specifically variable selection, is a major challenge in database marketing. Traditional methods of variable selection such as forward/backward selection and stepwise selection have certain weaknesses and are no longer adequate for handling the large number of variables in today's databases. They many result in a model that has either too many variables for a reliable interpretation or too few variables to build a good model. The conventional methods of variable selection are based on evaluating the relationships between the dependent variable and the predictor variables. Although interactions can be added manually, such models of conditional distribution ignore the interrelations among the predictors. Exhaustive search, the most desirable solution, is only feasible when the number of variables is less than twenty. Researchers need a more efficient method of variable selection to build accurate forecasting models.

Recently, the Bayesian approach has been proposed as a semi-automatic method for variable selection and provides a feasible solution for exhaustive search (George 2000). In comparison with the conventional methods, Bayesian variable selection (BVS) is more beneficial for forecasting methods that are apt in handing nonlinearity and interactions among variables. The Bayesian approach to variable selection is straightforward in principle. The posterior probability distribution is the product of the prior distribution placed on the model and the likelihood, i.e., parameters based on the data. Thus, one needs first to identify a distribution of priors for the model. Following that, one can quantify the prior uncertainties via probabilities for each model under consideration, specify a prior distribution for each of the parameters in each model, and then use the Bayes theorem to generate the posterior model probabilities that are proportional to the product of the prior probability and the likelihood. However, Bayesian variable selection is difficult to carry out because of the difficulties in specifying the prior distributions for the regression parameters for all possible models and specifying a prior distribution on the model space, and the computational burden associated with these processes. Therefore, how to execute efficient BVS remains a significant challenge.

This study proposes Bayesian variable selection using informative priors to select variables to build direct marketing forecasting models. For computing the analytically tractable prior and posterior model probabilities, we adopt the efficient algorithms of Chen et al. (1999) that require Gibbs samples from a single model. The first step is to generate an informative prior distribution for variable selection. The second step is to specify an informative prior on the model space, and the third step is for the method to compute the marginal distribution of the data. The algorithms only require Gibbs samples from the full model to facilitate the computation of the priors and posterior model probabilities for all possible models. The optimum subset is the one that has the largest posterior proability of all the available models. In practice, this approach is based on the notion of specifying a prior prediction y_0 for the response vector, and a scalar a_0 that quantifes one's assignment of information contributing to this estimate relative to the information to be collected in the experiment. Then, y_0 and a_0, along with the design matrix for model m, are used as prior information to specify an automated parametric informative prior for the regression coeffcients $\beta^{(m)}$. The motivation behind this approach is that investigators often have prior information from similar past studies measuring the same response variable and covariates as for the current study.

We performed variable selection using a direct marketing database with the records of 106, 284 consumers. We include eleven predictor variables for our variable selection experiments, consisting of six variables from customer purchase history and five demographic and credit history variables. We first perform variable selection using both forward selection method and BVS. Then, we test the effect of the selected subsets on the forecast accuracy of both logistic regression and Bayesian networks, a model of joint probability distribution, on a holdout dataset and the entire dataset.

Given the large sample size, forward and backward selection of variables makes little difference in the variables that are selected. Stepwise selection is computationally inefficient with a large dataset. Altogether, the BVS proce-

dure compares 2,047 models or sets of variables. Then, we compare the culumative response lifts of both logistic regression and Bayesian networks using the forward selection set, the BVS set, and the full set of variables. The results of validation suggest that the BVS set improves the accuracy of forecast of logistic regression over the forward selection and the full variable sets as indicated by the top decile lifts of the models. Bayesian networks achieve the best results with the BVS set and higher response lift than logistic regression.

These findings have meaningful implications for selecting variables to build forecasting models. BVS can potentially supply a set of variables with less noise and give a better opportunity to identify the underlying data distribution. Furthermore, Bayesian networks, a model of joint distribution, achieve better predictive results based on the BVS set by exploring the interactions among variables, thus benefit more from BVS than logistic regression. Overall, the results suggest that BVS using informative priors from customer purchase history provides a feasible solution for exhaustive search to select variables and build forecasting models to improve the performance of direct marketing campaigns. References are available upon request.

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INTERACTIONS MAY BE THE RULE RATHER THAN THE EXCEPTION, BUT . . . : A NOTE ON ISSUES IN ESTIMATING INTERACTIONS IN THEORETICAL MODEL TESTS

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ABSTRACT

Authors have called for more investigations of interactions in theoretical models involving survey data. However, there are interaction issues that have received little attention in theoretical model testing using survey data. For example, specifying an interaction as XZ is an insufficient disconfirmation test. And, there are competing proposals for latent variable interaction specification. There are other issues as well: what evidence suggests that a population interaction exists at the theory construction phase of model building? Also, is an interaction a construct or a mathematical form, or both? This paper critically addresses these and other theory-testing matters in conceptualizing, estimating and interpreting interactions in survey data.

INTRODUCTION

Authors have noted that interactions may be the rule rather than an exception in survey data models (e.g., Jaccard, Turrisi, and Wan 1990). However, interactions in published theoretical model tests with survey data are comparatively rare (Aiken and West 1991). Perhaps as a result, recent conference keynote speakers have called for increased investigations of substantive interactions.

While few latent variable interactions in substantive papers may have been due to a lack of suitable analysis tools until recently, substantive researchers also may not be accustomed to conceptualizing and estimating interactions. Theoretical model building with an interaction also is burdensome. It involves the usual tasks of conceptualizing at least three latent variables, then developing theory to justify two of these variables' proposed associations with a target variable. But, additional theory about the variability (form) of least one of these relationships is required.

The "value" added by the additional effort required for theorizing and assessing interactions also may seem comparatively low, especially in "new" theoretical models already containing interesting new constructs or interesting new paths among constructs. Anecdotally, some authors also believe interactions should not appear in theoretical models because they are not constructs. They are not "indicated" (pointed to) by observed variables.

Interaction specification using the existing structural equation estimation proposals is also tedious. Finally, specifying a hypothesized interaction as XZ is an insufficient test of a hypothesized interaction between X and Z.

This paper critically addresses these matters related to latent variable interactions. For example, it discusses foreseeing interactions at the model-building stage, then justifying these interactions theoretically. It also discusses how interaction hypotheses are phrased, and issues involving interaction testing proposals such as inadequate disconfirmation. Along the way, the paper discusses interpreting interactions in survey data, and probing for interactions after the hypothesized model has been estimated.

CONCEPTUALIZING INTERACTIONS

Interactions are typically phrased as "X moderates (reduces) the Z–Y association (as X increases)," which might suggest that interactions are restricted to this case only. However, X might reduce the Z–Y association as X <u>decreases</u>. In this case, X amplifies the Z–Y association. There are other forms of the interaction meaning of "moderation" as well: X could reduce the Z–Y association at one end of the range of X in the study, and it could amplify the Z–Y association at the other end. These interactions are termed disordinal interactions.

Thus, it may be useful to avoid thinking of interactions as "moderators" in the development of a model. Instead, it may be fruitful to think of what might happen to the Z–Y relationship when X was at a low level, versus when X was high. For example, it is well known that relationship satisfaction reduces relationship exiting, and attractive alternatives increase exiting (e.g., Ping 1993). However, what would happen if a data set were split at the median of satisfaction, and the strength of the alternatives-exiting association were compared between the two split halves? When satisfaction is lower, alternative attractiveness should increase exiting, but when satisfaction is high, the effect of alternatives on exiting should be lower or non significant (see Ping 1994). While this "split-halves" approach has been disparaged for interaction estimation (e.g., Lubinski and Humphreys 1990), it may be a useful "thought experiment" for conceptualizing interactions.

Because of concerns about parsimony, this thought experiment should probably be restricted to major constructs in the model. For example, for the "most important" pair of variables that should be associated, should this association plausibly change in strength or direction between low- and high-valued cases of a third variable? Specifically, when X is low should the Z–Y association somehow be different from the Z–Y association when X is high?

Obviously this thought experiment could be conducted with a new model. It also could be conducted with previously investigated models that did not consider interactions. Specifically, because a disordinal interaction could have caused a hypothesized association to be non significant in a published study (see Aiken and West 1991), previous studies with non-significant hypothesized associations might be fruitfully considered for the above thought experiment.

A disordinal interaction also could have caused a hypothesized association to be positive in one study and negative in another (see Aiken and West 1991). Thus, previous studies with an association that is not consistently significant, or not consistent in sign, might be fruitfully considered for the thought experiment. It even might be fruitful to consider the major associations in a previously investigated model for the thought experiment, even if they have been consistently significant and in the same direction. (An additional way to identify interactions for theory development and estimation in a future study involves post hoc probing for them as in ANOVA. This matter will be discussed later.)

JUSTIFYING INTERACTIONS

An interaction can be challenging to justify theoretically. While existing theory might directly imply an interaction, it is more likely that there has been little previous thought about a target interaction. This lack of previous thought about a topic has been a hallmark of science, and researchers have used many strategies to construct explanations for a topic under study.

While these can include deduction, induction and abduction (see Peirce 1931–1935, 1958), researchers typically use any sort of evidence, including direct experience such as exploratory focus groups, to support a proposed interaction. For example, satisfaction and alternatives both affect exiting. However, Ping (1994) argued that satisfaction attenuates the alternative-exiting association. To justify this hypothesis he used prior arguments that at highly satisfied subjects were not aware of alternatives (Dwyer, Schurr, and Oh 1987) or they devalued them (Thibaut and Kelly 1959). He also noted that alternatives previously had been argued to reduce exiting, and that

argument had been empirically "confirmed." To explain alternatives' apparently variable behavior, he proposed an interaction between satisfaction and alternatives. In this case he used existing arguments about high satisfaction, existing theory and prior results about alternatives-exiting, and a proposal that the prior alternatives-increases-exiting results likely applied to lower satisfaction samples to justify a proposed interaction. These results also might have been found in focus groups of low and high satisfaction subjects.

However, it usually is insufficient to use "experience" (such as focus groups) and previous writings as justification. A "why" or "because" should be supplied. For example, when satisfaction is low, increasing alternatives are likely to increase exiting because with reduced satisfaction (reduced relationship rewards) the alternatives' rewards may appear more attractive than the current relationship's. With high satisfaction, alternatives are not likely to be associated with exiting because the effort (cost) to compare rewards is unnecessary, or the alternative's rewards are less-than-certain (a risk). In general, rewards and cost (see for example Shaw and Costanzo 1982), and risk (Kahneman and Tversky 1979) have been used to justify considerable research involving human behavior, and they might continue to be useful for interactions. Examples of interaction justification can be found in Aiken and West (1991), and the citations therein, Ajzen and Fishbein (1980), Kenny and Judd (1984) and Ping (1994, 1999).

HYPOTHESIZING INTERACTIONS

If X can be argued, for example, to increase the Z–Y association, should the interaction hypothesis be stated simply as "X moderates the Z–Y association?" Terms such as "interacts with," "modifies," "amplifies," or "increases" may be more precise. Specifically, "*H*: X interacts with/modifies/amplifies/increases the Z–Y association" might be more appropriate. However, the hypothesis still may be improved, especially if the low-high thought experiment and justification approach suggested above is used. In this case, "*H*: At low X, the Z–Y association is comparatively weak, while at high X the Z–Y association is stronger," would fit a low-high argument.

AN EXAMPLE

As previously discussed, attractive alternatives are likely to increase relationship exiting, and low satisfaction (dissatisfaction) is likely to amplify this alternatives-exiting relationship. Specifically, when dissatisfaction is low the positive alternatives-exiting association should be weak (small, possibly non significant). However, when dissatisfaction is high, the alternatives-exiting association should be stronger (a larger structural coefficient com-

pared to low dissatisfaction). In this case an interaction hypothesis "set" might be, "*H1a*: Dissatisfaction is positively associated with exiting," "*H1b*: Alternatives are positively associated with exiting," and "*H1c*: Dissatisfaction moderates/interacts with/attenuates/reduces the alternatives-exiting association." Alternatively, "*H1c*: As dissatisfaction increases, the alternatives-exiting association becomes weaker."

Note that the interaction hypothesis is accompanied by two other hypotheses involving exiting with dissatisfaction and alternative, and that "moderates," meaning "to reduce" is appropriate.

Instead, one might hypothesize, "*H1c*: When dissatisfaction is low the alternatives-exiting association is weaker than it is when dissatisfaction is higher." Obviously, an equivalent interaction hypothesis statement would be "as dissatisfaction declines, the alternatives-exiting association becomes weaker." However, this may not match the above argument quite as well as *H1c–H1c*. It would match the above argument if the "direction" of the argument were reversed (i.e., "when dissatisfaction is high the positive alternatives-exiting association should be strong (large), but when dissatisfaction is lower, the alternatives-exiting association should be weaker (smaller, possibly non significant))."

A property of interactions that is useful in justifying and framing their hypotheses is interaction symmetry. To explain, an abbreviated structural equation involving dissatisfaction (DISSAT), alternatives (ALT), and exiting (EXIT) would be

$$\text{EXIT} = a\,\text{DISSAT} + b\,\text{ALT} + c\,\text{DISSATxALT}. \quad (1)$$

Factoring to produce the factored coefficient of ALT,

$$\text{EXIT} = a\,\text{DISSAT} + (b + c\,\text{DISSAT})\text{ALT}. \quad (2)$$

In words, since b and c are constants, as DISSAT changes from subject (case) to subject (case) in the study, the structural coefficient of ALT, $(b + c\text{DISSAT})$, changes (and, as shown later, has varying significance as DISSAT changes).

However, Equation 1 could be re factored into

$$\text{EXIT} = b\text{ALT} + (a + c\text{ALT})\,\text{DISSAT}. \quad (3)$$

Thus, as ALT changes, the structural coefficient of DISSAT, $(a + c\text{ALT})$, changes (and has varying significance as ALT changes). Thus, the interaction is symmetric – DISSAT moderates ALT, and ALT moderates DISSAT.

In general, if X interacts with Z in the Z–Y association, then Z interacts with X in the X–Y association. However, in the DISSATxALT case it turns out that it is easier to argue that increasing alternatives increase the dissatisfaction-exiting association, so an interaction hypothesis such as "'*H1c*': Alternatives moderate/interact with/attenuate/reduce the dissatisfaction-exiting association," *H1c*: As alternatives increase, the dissatisfaction-exiting association becomes stronger, or "*H1c*: When alternatives are low the dissatisfaction-exiting association is weaker than it is when alternatives are higher," is appropriate.

For emphasis, two thought experiments are possible with DISSAT: what happens to the DISSAT-EXIT association as ALT changes, and what happens to the ALT-EXIT association as DISSAT changes?

INTERACTION COST-BENEFITS

Interactions could be characterized as "burdensome." An interaction not only requires the usual theory development for two variables' association with a target variable. It also requires additional theory development for the variability (form) of least one of these relationships. Further, interactions typically explain comparatively little additional variance (Cohen and Cohen 1983). Specifically, in Equation 1, adding DISSATxALT explained little additional variance in EXIT. However, in theory testing it may be more important to know the form of a target relationship, and thus the behavior of a relevant factored coefficient (e.g., b + cDISSAT in Equation 2), and less important to explain significant amounts of additional variance. (Materially explaining additional variance is important in model building, e.g., epidemiology.) Parenthetically, experience suggests that even if an interaction explains comparatively little additional variance, a factored coefficient such as (b + cDISSAT) can be quite large for some values of DISSAT.

Interactions also reduce parsimony. Specifically, adding an interaction decreases degrees of freedom, and increases collinerarity in a model. However, experience suggests that if there is strong theoretical justification for an interaction, it is likely the interaction will be significant in any reasonably sized sample. In addition, a hypothesized interaction's collinearity is an important part of a theoretical model's test.

Papers with interactions also tend to be overly methods-oriented, and the interactions can "hijack" the paper. One way to reduce the appearance of a "methods paper" is to place the interaction details in an appendix. Considering interaction(s) for major exogenous constructs only, also should reduce their apparent "dominance" in a paper.

PROPOSED APPROACHES

There are many proposals for specifying latent variable interactions. These include (1) Algina and Moulder 2001; (2) Bollen 1995; (3) Jaccard and Wan 1995; (4) Jöreskog 2000; (5) Jöreskog and Yang 1996; (6) Kenny and Judd 1984; (7) Marsh, Wen, and Hau 2004; (8) Mathieu, Tannenbaum, and Salas 1992; (9) Moulder and Algina 2002; (10) Ping 1995; (11) Ping 1996a; (12) Ping 1996b; (13) Schermelleh-Engle, Kein, and Moosbrugger 1998 (also see Klein and Moosbrugger 2000; Klein and Muthén 2002); and (14) Wall and Amemiya 2001. Unfortunately, they all are tedious to use. In addition, most are inaccessible to substantive researchers (Cortina, Chen, and Dunlap 2001). Some do not involve the Maximum Likelihood estimator preferred in survey data model testing, or commercially available estimation software (proposals 2, 12, and 13).

Several proposals have not been formally evaluated for bias and inefficiency (i.e., proposals 4 and 8). In addition, proposal 8 did not perform well in a comparison of interaction estimation approaches (see Cortina, Chen, and Dunlap 2001).

Most of these proposals are based on the Kenny and Judd "product" indicators (for example, $x_1z_1, x_1z_2, \ldots x_1z_m, x_2z_1, \ldots x_2z_m, \ldots x_nz_m$, where n and m are the number of indicators of X and Z respectively). However, specifying all the Kenny and Judd product indicators usually produces model-to-data fit problems (inconsistency) (e.g., Jaccard and Wan 1995).

Several proposals use weeded subsets of the Kenny and Judd (1984) product indicators or indicator aggregation to avoid these inconsistency problems (proposals 1, 3, 5, 7, 9, 10, 11, and 14). Unfortunately, weeding the Kenny and Judd product indicators raises questions about the reliability and face validity of the resulting interaction. For example, if all the indicators of X and Z are not represented in the indicators of XZ, for example, is XZ still the product of X and Z as they were operationalized in the study? (proposals 1, 3, 5, 7, 9, and 14). In addition, the formula for the reliability of a weeded XZ is unknown. Specifically, the formula for the reliability of XZ is a function of (unweeded) X and unweeded Z (see Equation 4 below), and thus it assumes XZ is operationally (unweeded) X times (unweeded) Z. Weeded Kenny and Judd product indicators also produce interpretation problems using factored coefficients because XZ is no longer (unweeded) X times (unweeded) Z, and XZ cannot be factored as in Equations 2 and 3.

Finally, although proposal 10 has none of the above drawbacks (except that it is tedious), it assumes the loadings of XZ are tau equivalent. However, proposal 10's tediousness may be reduced using the EXCEL templates at http://home.att.net/~rpingjr/research1.htm. While, the tau equivalency assumption can be removed using weighting, experience with real-world data suggests that interaction significance is not particularly sensitive to this assumption.

INTERPRETING INTERACTIONS

There is little guidance for interpreting latent variable interactions. "Two point" graphical techniques that are used in ANOVA ignore much of the information available in survey data. For example, authors have noted that the significance of an interaction in survey data varies across a sample (Aiken and West 1991, Jaccard, Turrisi, and Wan 1990).

There have been several proposals for interpreting regression interactions (e.g., Aiken and West 1991; Darlington 1990; Denters and Van Puijenbroek 1989; Friedrich 1982; Hayduk 1987; Hayduk and Wonnacott 1980; Jaccard, Turissi, and Wan 1990; Stolzenberg 1979). The following is an adaptation of Friedrich's (1982) suggestions for interpreting interactions in regression (see Darlington 1990; Jaccard, Turrisi, and Wan 1990).

ANOTHER EXAMPLE

To explain this suggested interpretation approach, a study using a real-world, but disguised, survey data set will be discussed. The abbreviated results of a LISREL 8 Maximum Likelihood estimation of a structural model is shown in Table A. There the XZ interaction is significant. Interpretation of this interaction relies on tables such as Table B that are constructed using factored coefficients such as the factored coefficient of Z, $b_Z + b_{XZ}X$, from Table A (see Equations 2 and 3). Column 2, for example, shows the factored coefficient of Z from Table A (.047 – .297X) at several Column 1 levels of X in the study. Column 3 shows the standard errors of these factored coefficients of Z at the Column 1 levels of X, and Column 4 shows the resulting t-values. Footnotes (b) through (d) in Table B further explain the Columns 1–4 entries. In particular, Footnote (b) explains how values for the unobserved variable X are determined by the values of its indicator that is perfectly correlated with it (i.e., the indicator of X with a loading of 1). In addition, Footnote (d) discusses the Standard Error of the variable Z coefficient. The variance of b is of course the square of the Standard Error of b, and $Cov(b_Z, b_{XZ})$, the covariance of b_Z and b_{XZ}, is equal to $r(b_Z, b_{XZ})SE(b_Z)SE(b_{XZ})$, where r is the "CORRELATIONS OF ESTIMATES" value for b_Z and b_{XZ} in LISREL 8, and SE indicates Standard Error.

Footnote (a) of Table B provides a verbal interpretation of the moderated Z–Y association shown in Col-

umns 2 and 4. Specifically, when the level of X was low in the study (i.e., 1.2 to above 3 in Column 1), small changes in Z at a particular value of low X were positively associated with Y (i.e., the coefficient of Z was 0.89 – see Column 2). However, as X increased in the study, Z was less strongly associated with Y (i.e., the column 2 Z coefficient declined), until near the study average for X, 4.05, the Z–Y association was non significant (e.g., at X = 4.05 the Z–Y association was 0.04, t = 0.59 – see Columns 1, 2, and 4). Then, when the level of X was above the study average, Z was again significantly associated with Y (i.e., the Z–Y association was -0.23, t = -2.48 – see Columns 1, 2 and 4 – small changes in Z at a particular value of high X were negatively associated with Y).

Because there are always two factored-coefficients produced by a significant XZ interaction (e.g., Equations 2 and 3), Columns 5–8 are provided in Table B to help interpret the factored coefficient of X, -.849 – .297Z. Column 6 shows this factored coefficient at several Column 5 levels of Z. Column 7 shows the standard errors of this factored coefficient at these levels of Z, and Column 4 shows the resulting t-values. Again, additional information regarding Columns 5–8 is provided in Footnotes (e) through (i), and Footnote (e) provides a verbal summary of the moderated X–Y association produced by the significant XZ interaction in Table A.

DISCUSSION

Notice that in Table A b_Z was non significant (t = 0.59), yet the factored coefficient of Z was significant at both ends of the range of X in the study (see Column 4 of Table B). Z had a negative association with Y when the existing level of X was high or above its study average in the sample, but its association with Y was positive when X was lower or below its study average. Similarly, b_X was significant (t = -5.32), yet the coefficient of X moderated by Z was non significant when Z was very low in the sample (see Column 8).

Finally, notice that b_Z also was included in the Table B, Columns 2 and 3, calculations. This was done because if it is excluded, the t-value of the factored coefficient of Z is singular at the mean of X (i.e., it is undefined, and in a neighborhood of the mean of X the t-value of the factored coefficient approaches infinity).

INSUFFICIENT DISCONFIRMATION

Unfortunately, specifying an hypothesized interaction as XZ is an insufficient disconfirmation test of this hypothesis. XZ is one of many interaction forms (see Jaccard, Turrisi, and Wan 1995). Specifically, there is at least a countable infinity of mathematical forms an interaction can take besides XZ. Specifically, XZ^w, where W can be any (positive or negative) integer (or real number), is an interaction. This interaction form includes not only XZ (w = 1), it also includes X/Z (see Jaccard, Turrisi, and Wan 1995) (w = -1). It also includes XZ^2, the interaction between X and the square of Z (see Aiken and West 1991), and it curiously includes XX^w, where Z = X and X is moderated by itself (which is called a quadratic when w = 1) (see Lubinski and Humphreys 1990). Thus, an hypothesized interaction may not have the form XZ in the population model for the sample at hand. And, specifying it as XZ may produce non-significant results. In this case, concluding that there is no interaction between X and Z is erroneous – all that has been proved is that it is not of the form XZ in the sample.

Unfortunately, latent variable interaction specifications besides XZ are unknown at present. However, as a post hoc test it may be efficacious to use a median split (a subgroup analysis) of the data to test for the hypothesized interaction. While this test is fallible (Ping 1996c observed 8% false positives with subgroup analysis), if this produces a significant interaction, it suggests the hypothesized interaction may have been "confirmed" (i.e., in was observed in this test only), but its form is unknown at present.

UNOBSERVED INTERACTIONS

Anecdotally, some authors believe that unobserved (latent variable) interactions should not be included in structural equation models because they are not constructs. They are "indicated" (pointed to) by products of observed variables, and these (product) indicators cannot be directly observed. Again anecdotally, interactions also appear to have implausible reliabilities, and the "usual" validity criteria may not apply to them.

It is difficult to convincingly argue that interactions are (mental) constructs in the usual sense. While it might

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TABLE A
Example Structural Model Estimation Results

Y =	$b_X X$	+	$b_Z Z$	+	$b_{XZ} XZ$	+	$b_{XX} XX$	+	$b_{ZZ} ZZ$	
	-.849		.047		-.297		.001		004	(= unstd. b)
	(-5.32)		(0.59)		(-4.00)		(0.10)		(0.09)	(= t-value)

TABLE B
Unstandardized Y Associations with Z and X Implied by the Table A Results

X Level[b]	Z–Y Association Moderated by X[a]			Z Level[f]	X–Y Association Moderated by Z[e]		
	Z Coefficient[c]	SE of Z Coefficient[d]	t-value of Z Coefficient		X Coefficient[g]	SE of X Coefficient[h]	t-value of X Coefficient
5	-0.23	0.09	-2.48	5	-1.31	0.25	-5.19
4.05[i]	0.04	0.08	0.59	4	-1.01	0.19	-5.33
4	0.06	0.08	0.77	3.44[i]	-.84	0.16	-5.32
3	0.36	0.12	2.92	3	-.71	0.14	-5.15
2	0.65	0.18	3.52	2	-.42	0.11	-3.59
1.2	0.89	0.24	3.70	1	-.12	0.13	-.90
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8) (Col. Number)

[a] The Table displays the variable association of Z with Y produced by the significant XZ interaction. In Columns 1–4 when the level of the interacting variable X was low in Column 1, small changes in Z were positively and significantly associated with Y (see Column 2). At higher levels of X however, Z was less strongly associated with Y, until near the study average for X, the association was non significant (see Column 4). When X was above its study average, Z was not associated with Y.

[b] X is determined by the observed variable (indicator) with the loading of 1 on X (i.e., the indicator that provides the metric for X). This indicator, and therefore X ranged from 1.2 (= low X) to 5 in the study.

[c] The coefficient of Z was $(.047-.297X)Z$ with X mean centered. e.g., when X = 1.2 the coefficient of Z was $.047 - .297*(1.2 - 4.05) = .89$.

[d] The Standard Error of the Z coefficient is:

$$\sqrt{Var(b_Z+b_{XZ}X)} = \sqrt{Var(b_Z) + X^2Var(b_{XZ}) + 2XCov(b_Z,b_{XZ})},$$

where Var and Cov denote variance and covariance, and b denotes unstandardized structural coefficients from Table A.

[e] This portion of the Table displays the association of X and Y moderated by Z. When Z was low in Column 5, the X association with Y was not significant (see Column 8). However, as Z increased, X's association with Y quickly strengthened, until it was negatively and significantly associated with Y for most values of Z in the study.

[f] Z is determined by the observed variable (indicator) with the loading of 1 on Z (i.e., the indicator that provides the metric for Z). This indicator, and therefore Z ranged from 1 (= low Z) to 5 in the study.

[g] The unstandardized coefficient of X is $(-.849-.297Z)X$ with Z mean centered. E.g., when Z = 1 the coefficient of X is $-.849-.297*(1-3.44) = -.12$.

[h] The Standard Error of the X coefficient is:

$$\sqrt{Var(b_X+b_{XZ}Z)} = \sqrt{Var(b_X) + Z^2Var(b_{XZ}) + 2ZCov(b_X,b_{XZ})},$$

where Var and Cov denote variance and covariance, and b denotes unstandardized structural coefficient from Table A.

[i] Mean value in the study.

be argued that there is the (unobserved) concept of an interaction, this concept has indicators that are constructed from observed indicators, rather than indicators that are directly observed. However, interactions have "construct-like" properties: they have reliability and most aspects of validity.

RELIABILITY

The reliability of an interaction XZ is

$$\rho_{XZ} = \frac{Corr^2_{x,z} + \rho_x\rho_z}{Corr^2_{x,z} + 1} \qquad (4)$$

(Bohrnstedt and Marwell 1978, see Busemeyer and Jones 1983). However, this implies that the reliability of XZ increases as the correlation between X and Z increases. Nevertheless, this result parallels the result that the reliability of X, for example, is a function of the sum of the correlations of the indicators of X, and it increases as the correlation between the indicators increases.

VALIDITY

It could be argued that most of the "usual" validities do apply to interactions. However, authors disagree on what constitutes an adequate set of validity criteria (e.g., Bollen 1989; Campbell 1960; DeVellis 1991; Heeler and Ray 1972; Nunnally 1978; Peter 1981). A minimal demonstration of validity might include face validity (how well the target latent variable's indicators tap its conceptual definition), construct validity (its correlations with other latent variables in the model are theoretically sound), convergent validity (e.g., its average extracted variance is greater than 0.5 – see Fornell and Larker 1981), and discriminant validity (e.g., its correlations with other latent variables in the model are less than 0.7) (e.g., Bollen 1989; DeVellis 1991; Fornell and Larker 1981; Nunnally 1978). The validity of a measure is then qualitatively assessed considering reliability and the measure's performance over this minimal set of validity criteria.

An interaction XZ is content or face valid if X and Z are content valid and the specification of XZ includes all the indicators of X and Z. (Without all the indicators of X and Z accounted for in the itemization of *XZ*, the itemization of *XZ* does not specify the interaction between X and Z–X and the *X* in XZ, and Z and the *Z* in *XZ*, are different constructs.) The formula for the Average Variance Extracted (AVE) of XZ is $\Sigma(\lambda_{xi}\lambda_{zj})^2 Var(XZ)/[\Sigma(\lambda_{xi}\lambda_{zj})^2 Var(XZ) + \Sigma Var(\varepsilon_{xz})]$, where $\Sigma(\lambda_{xi}\lambda_{zj})^2$ is the sum of squares of $\lambda_{xi}\lambda_{zj}$, i = 1 to m, j = 1 to n, m is the number of indicators of X, n is the number of indicators of Z, and Var(XZ) is the error-dissattenuated variance of XZ (available in the structural model) (Fornell and Larker 1981). However, the construct (correlational) validity of an interaction can be challenging to judge.

Thus, interactions may not be constructs as they are usually "indicated." However, structural models always contain one or more exogenous latent variables, called structural disturbances, which are specified as a model variable, yet they are not "indicated" or "pointed to" as a construct would be. Thus, structural models never contain only constructs as they are usually defined.

Also, Bollen (1989, p. 268) stated that ". . . *the model . . . helps us to understand the relations between variables. . . .*" This suggests that the objective of theoretical model testing is to test relations between variables. Thus, it could be argued that constructs are important in structural equa-

tion analysis only to enable this test, and, given that they are sufficiently valid and reliable to enable that end, that relationships (including moderated relationships), not the latent variables, are the primary focus of theoretical model testing.

POST HOC PROBING

Obviously interactions might be found post hoc (i.e., after the hypothesized model has been estimated for the first time). Significant post hoc interactions could then be used to improve interpretation of study results as they are in ANOVA. Specifically, significant post hoc interactions may provide plausible explanations for hypothesized but non-significant first-order associations (main effects). This avoids casting a shadow on the relevant theory (a non-significant result suggests the relevant theory does not apply in the study context), and it improves the interpretation of significant associations that are actually conditional in the study.

However, survey researchers have been discouraged from post-hoc probing for interactions (e.g., Aiken and West 1991; Cohen and Cohen 1983) on grounds that this is unscientific (these variables were not hypothesized). Nevertheless, the logic of model testing and its variables can easily be separated from the logic of discovery and its variables (e.g., post hoc interactions) (e.g., Hunt 1983) as long as any post hoc interactions are clearly presented as empirically "discovered." Specifically, any interactions discovered in post-hoc probing should be presented as potentially an artifact of the sample. Their existence in any population, and thus in other samples/studies, should be viewed as an empirical question to be answered in later studies.

Because of the potential for detecting spurious interactions (post hoc interactions that do not exist in the population, and are significant by chance in the sample), an F-test is desirable to determine if any unhypothesized interactions are likely to be significant above the level of chance. To accomplish this, after the hypothesized structural model has been estimated, all possible interactions should be added to the hypothesized model.

AN F-TEST

To reduce the likelihood of spurious (chance) post hoc interactions, the increase in R^2 (e.g., the "Squared Multiple Correlations for Structural Equations" in LISREL) due to adding all interactions to a model should be significant. A test statistic that assesses this increase is $F = [(R_2^2 - R_1^2)/(k_2 - k_1)] / [(1 - R_2^2)/(N - k_2 - 1)]$, where R_2^2 is the total explained variance (Squared Multiple Correlations for Structural Equations) in the structural model with all interactions added, and R_1^2 is the total explained variance in the structural model with no interac-

tions added. k_1 is the number of exogenous variables (predictors) in the structural model without the post hoc interactions, k_2 is the number of exogenous variables in the structural model plus the number of interactions added, and N is the number of cases (see for example Jaccard, Turrisi, and Wan 1990). This F statistic has $k_2 - k_1$ and $N - k_2 - 1$ degrees of freedom.

Calculating F with a single endogenous or dependent variable is a straightforward calculation. With multiple dependent or endogenous variables the suggested F-test is performed multiple times, once for each endogenous variable and its antecedents. (An overall F-test is discussed later.) First, the linear equations implied by the hypothesized structural model are written out, the relevant interactions are added, and F is computed for each equation as above.

If F is significant, it means one or more non-spurious interactions are likely in the population model (represented by the present sample). If F is not significant, it suggests it is unlikely there are any population interactions in the population model.

ESTIMATION

Assuming F is significant, interactions are then estimated. However, adding all possible interactions to a model typically produces a nonsignificant F and no significant interactions. Experience suggests this is common in real-world data because interactions are usually highly correlated. Thus, a "search technique" is required.

However, depending on the search technique, different search results usually obtain. Nevertheless, Lubinski and Humphreys' (1990) suggestion that an interaction, XZ for example, should be estimated with its relevant quadratics, XX and ZZ, suggests a search technique for post hoc interactions: Gauge each post hoc interaction with its relevant quadratics (Step 1). Then, estimate a final model containing only the significant interaction(s) from each of these tests (Step 2), and compute F. This avoids mistaking an interaction for its related quadratic (see Lubinski and Humphreys 1990), and the number of inter-

actions to be jointly tested in Step 2 is reduced, which should materially reduce their masking each other.

DISCUSSION

The next step would be to develop theoretical justifications for the surviving post hoc interactions to further reduce the likelihood of their being an artifact of the sample. Stated differently, if a post-hoc interaction cannot be theoretically justified, it should not be interpreted or used as an explanation for a non-significant association in the study because any difficulty with theoretically justifying a post hoc interaction may suggest that it is implausible. In fact, if an interaction cannot be theoretically justified, it probably should not be included in the Step 2 estimation.

It is possible that in Step 2, one or more interactions will be non significant. In that case, several approaches could be taken to further investigate the set of post hoc interactions. However, forward selection using LISREL's Modification Indices may be most appropriate because it may be the most conservative. Specifically, the surviving Step 1 interactions should be specified with their paths fixed at zero. Then, the interaction with the largest Modification Index (MI) is freed, the structural model is re-estimated, and if the interaction is significant, the next largest MI is freed, etc. until no more freed interactions are significant.

The suggested F-test can become an overall test with multiple structural equations using a Bonferroni approach (see Neter, Kunter, Nachtsheim, and Wasserman 1996; however, also see Perenger 1998). Specifically, the confidence of multiple F-tests is greater than 1 minus the sum of the p-values of each test. Thus, if the confidence of the significant F-tests is at least 95 percent, for example, the overall confidence could be argued to be at least 95 percent. The amount of specification work could be reduced using the specification templates at http://home.att.net/~rpingjr/research1.htm.

SUMMARY AND CONCLUSION

(Omitted – see http://home.att.net/~rpingjr)

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EVALUATING MOOD MEASURES IN CONSUMER RESEARCH

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SUMMARY

Mood has been shown to affect consumer judgment and decision-making, as well as consumer evaluations and reactions to marketing communications and products. A variety of measures have been employed in efforts to control for mood and for assessing mood as independent and/or intervening variables in consumer research. The present study is designed to offer additional insights regarding the various measures consumer and marketing researchers often employ. First, the study was designed to provide an initial series of correlational tests in an attempt to investigate the convergence of the various multi-item measures employed by consumer researchers to assess mood of study participants. Second, the study offered an opportunity to investigate the correlation, if any, of the mood measures being investigated with self-deceptive and impression management response bias tendencies, as well as the possibility of response bias tendencies attenuating the relationship between the mood measures and another construct. Third, we also investigated the association of the various mood measures with estimates of response style biases (e.g., acquiescence, extreme response; Baumgartner and Steenkamp 2001).

Mood and Non-Mood Measures Under Investigation

In order to examine adequacy and convergence of mood measures used in the consumer research, we identified a diverse and representative sample of measures. Articles published in the *JCR, JMR,* and *JCP* in the last ten years were used in selecting scales for our investigation. Apart from their wide use in the literature, one of the main criteria for selecting mood measures to use in our study was that a scale had been designed and used to assess one's current mood state at the time of the study was being conducted. We included several single-item, as well as a number of multi-item scales because both types of measures were employed in the literature. In order to assess susceptibility of different mood measures to a variety of response biases, we included several measures which are not directly related to mood. We selected Consumer Spending Self-Control (CSSC; authors 2008) and Need for Emotion (NFE; Raman et al. 1995) scales of seemingly unrelated to mood chronic individual differences (Raman et al. 1995; p. 537). Finally, we have employed Paulhus' Socially Desirable Response Scale (SDR; 1991) to assess the two dimensions of response bias (i.e., self-deceptive enhancement and impression management) as SDR pertains to the various mood measures.

Research Methods and Results

The data were collected from 322 undergraduate study participants (136 females) as part of a multi-phase laboratory experiment. In phase 1, responses to ten mood measures were obtained (i.e., eight multi-item scales, plus two frequently used single-item measures). Following recoding for item directionality, the mood measures were scored such that higher values reflected more positive mood. For the multi-item scales, responses to the items comprising each measure were averaged to form an overall mood scale score. Following a series of filler tasks unrelated to the present study, participants responded to 20 items from the Paulhus BIDR response bias battery of items, the 10-item measure of consumer spending self-control (CSSC) (authors 2008), and the 12-item need for emotion scale (NFE) (Raman et al. 1995).

Overall, our results suggest considerable convergence among the scales (the pairwise correlations generally exceeded 0.60, with few exceptions). Differences in female versus male responses were tested for significance of differences in correlations between the various mood scale intercorrelations. These tests revealed that 7 of the 55 pairs of correlations were significantly different (i.e., differences $>= .16$). Interestingly, all differences were in the same direction, with lower scale intercorrelations found for the male respondents. Next, exploratory factor analysis of ten of the eleven measures (i.e., excluding the negatively oriented PANAS measure) was used to further examine the extent to which the various approaches overlapped. In each analysis, a single factor emerged with all of the mood measures loading strongly on the resulting factor. Based upon the responses of the total sample, the single factor solution explained 67 percent of the variance. Corresponding explained variance estimates for the male and female study participants were 64 percent and 71 percent, respectively. Consistent with the prior correlational results regarding modest gender differences, somewhat higher loadings were observed for females. Overall, the results suggest convergent validity of the selected mood scales.

Social Desirability and Response Style Biases

Our results suggest that, similar to the positive correlations observed between measures of self-esteem and self-deceptive enhancement tendencies, individuals reporting more positive mood states score higher in SDE. That is, self-deception may well be a characteristic of individuals prone to more positive moods (Mick 1996). Next, a series of partial correlations were estimated in which the pairwise correlations between the mood measures and consumer spending self-control (CSSC) were re-estimated after partialling out the effects of SDE and IM. Examination of these partial correlations suggests some attenuation in the relationship between measures of mood and CSSC when self-deceptive enhancement tendencies are accounted for.

Four important response styles are considered in our investigation: (1) acquiescence response style (ARS) – the tendency to agree with items regardless of content; (2) disacquiescence response style (DRS) – the tendency to disagree with items regardless of content; (3) midpoint response style (MRS) – the tendency to use the middle scale category regardless of content; and, (4) extreme response style (ERS) – the tendency to endorse the most extreme response categories regardless of content (Baumgartner and Steenkamp 2001, p. 145). Responses to the NFE scale of Raman et al. (1995) were used to develop the measures for the four response styles using the equations employed by Weijters and his colleagues (2007). The results suggest that individual responses to mood measures may well be modestly associated with individual response styles. In particular, higher acquiescence tendencies were found positively correlated with the mood scales.

Lastly, in an effort to further explore response style effects, the relationships between ARS, DRS, MRS, and ERS (i.e., the response style tendencies) and gender, as well as self-deceptive enhancement and impression management tendencies, were considered. Interestingly, and following a tercile split of the sample in terms of response styles, our comparisons revealed that females tended to score higher on acquiescence response style (chi-square = 12.59, 2 df, $p < .01$), while males scored higher on disacquiescence response style (chi-square = 14.63, 2 df, $p < .01$). These results are consistent with findings from the consumer satisfaction literature that females tend to give higher satisfaction ratings than males. Modest differences in the sample were also observed in terms of impression management and self-deceptive enhancement across groups differing in terms of response style tendencies. Specifically, individuals scoring high in acquiescence response style also scored higher in self-deceptive enhancement ($p = .03$, one-tail). In addition, individuals scoring low in disacquiescence response style and extreme response style also scored higher in impression management ($p = .03$ and $p = .04$, both one-tail, for DSR and ERS, respectively). Thus, the relationship between response style tendencies and socially desirable responding warrants additional research.

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MODELING COMPLEX INTERACTIONS OF SWITCHING BARRIERS: A LATENT PROFILE APPROACH

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SUMMARY

Existing research on drivers of customer loyalty such as satisfaction and switching barriers often does not account for possible nonlinear interaction effects (e.g., Jones et al. 2000). General and generalized linear models (e.g., linear regression, logistic regression, or structural equation modeling), however, typically do not fully account for the possible nonlinear interactive relationships that emerge when an entire profile of variables is considered in its holism. In consequence, the understanding of interaction effects is somewhat limited and subject to misinterpretations. This paper examines moderating effects of switching barriers on the link of satisfaction on loyalty intention. The methodical challenge is set by the need to capture possible nonlinear interactions among many moderating factors. Therefore, this article aims (a) to provide a demonstration with a particular focus on the use of finite mixture models to capture these interactive effects and (b) to compare these results to those of a traditional binomial logit regression.

Theoretical Background

We examine the moderating effect of switching barriers on the satisfaction-loyalty link. We examine customer perceived switching costs, attractiveness of alternatives and interpersonal relationships as potential moderators. Switching costs are believed to moderate the link between customer satisfaction and repurchase intention (Jones, Mothersbaugh, and Beatty 2002). Therefore, we expect that, as perceived switching costs increase, the link between customer satisfaction and customer loyalty will be weaker. Depending on the quality of competing alternatives, the customer perceives a benefit in changing the provider (Oliver 1997). There is also empirical evidence from Rusbult, Zembrodt, and Gunn (1982) reporting that the quality of alternatives is positively associated with exiting and negatively with loyalty. Therefore, we propose that as the attractiveness of competing alternatives decreases, the link between customer satisfaction and customer loyalty will be weaker. Customers build social relationships with service personnel. Empirical evidence in the context of loyalty shows that social benefits have been found to moderate the relationship between various aspects of satisfaction and selected measures of loyalty (Jones et al. 2000). Based on these findings, a moderating

effect of social benefits can be assumed. Whereas the initial study from Jones et al. (2000) identified these switching barriers as moderators by using regression analysis, following replications only partially supported these findings.

Methodology and Results

We collected 179 questionnaires from customers of a local energy provider through an online survey. We adopted four items commonly used in customer satisfaction research as indicators of the customer satisfaction construct (Bettencourt 1997). Customer loyalty is measured using staying propensity as a single item indicator. Following conventional practice, we have chosen a "natural cutoff threshold" of .50 (e.g., see Reinartz and Kumar 2000; Sharma 1996). Therefore, if customers' stated probability to stay loyal is above .50, they were assigned the status "intenders." The switching barriers were measured using the scales by Jones et al. (2000). A binomial logit (BNL) model was built to predict the intention not to switch as a function of customer satisfaction and the three switching barriers. Interactions are estimated in the BNL model through the formation of product terms (e.g., see Cohen 1978; Schumacker and Marcoulides 1998). The second BNL model, therefore, included all possible product interactions between satisfaction and the switching barriers, including three two-way interactions terms, three three-way interactions terms, and one four-way interaction term. Following Bauer and Shanahan (2007), simple slopes are computed that combine the estimates into a coherent picture of the interaction effects. The latent profile analysis (LPA) was used to capture the interactive relations between satisfaction and the switching barriers. Drawing on analytic developments made by Bauer and Shanahan (2007), we recover continua from the categories and show that the complex relationships between the system of variables, including possible nonlinear effects and interactions, have been preserved in these configurations. The LPA results are more accurate than the results of the BNL in which the influence of attractiveness of alternatives is overestimated for high values of satisfaction, underestimated for average values of satisfaction and falsely estimated for low values of satisfaction due to the linear extrapolation from other regions of the data space. LPA shows that the influence of the level of attractiveness of alternatives is irrelevant (strong) for low

and high (average) values of satisfaction. The analysis leads to a three notable result. First, a high level of perceived switchings costs reduces the effect of satisfaction on probability of retention under the condition of a low level of attractiveness of alternatives. Second, a low level of switching costs increases the effect of satisfaction on probability of retention under the condition of a high level of attractiveness of alternatives. Third, the effects of switching costs and attractiveness of alternatives are neutralized if they are both at a high (low) level.

Implications

Results of the present study indicate that marketing management of energy suppliers has to ensure that cus-tomer satisfaction remains in the upper inelastic part of the s-shape curve. The consideration of moderating effects leads to amplifying and compensating effects among the drivers of loyalty intention. From a methodological perspective, the proposed method includes in particular two distinct advantages: First, the latent profile approach does not require any prior knowledge of the nature of the relation among the latent variables, whereas parametric methods require the functional form of the nonlinear relation to be specified in advance. The second advantage is that the distributional assumptions of the method are weak, making it a semiparametric estimator. References are available upon request.

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IDENTIFYING AND MANAGING VALUABLE PROSPECTS

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SUMMARY

To increase profits, firms reallocate their resources to valuable customers and avoid "switchers," customers willing to switch from competitor to competitor in response to attractive offers. Therefore, companies must quantify each existing or potential customer's value in order to help maximize the customer lifetime value (CLV), the discounted difference between a customer's revenue and sales costs, of all customers.

Firms should consider customers as a heterogeneous asset in order to investigate how underlying factors influence the CLV and how marketing activities influence these underlying factors. For example, which consumer behaviors suggest a high CLV and how can firms use this knowledge in the acquisition phase?

Research provides multiple models to calculate CLV, yet most models ignore the importance of the acquisition stage and customer behavior. For example, customers differ in motivations to consume. For example, whereas some consume media randomly to kill time, others consume media selectively in a goal-directed manner. These different consumption motivations could influence CLV.

Yet to the authors' knowledge, few studies have investigated how consumption modes relate to CLV. Differentiating customers according to their consumption preferences could help firms increase the accuracy of CLV predictions, allocate resources to acquire valuable prospects and retain valuable customers. For academia, the relationships between consumption modes and CLV should reveal another aspect of consumer behavior, the importance of consumption modes for customer relationship management.

Investigating the relationship between consumption modes and factors influencing CLV could help determine the relation between consumption modes and CLV.

Conceptual Framework of Factors Influencing CLV

Purchase behavior and relationship perceptions – customer beliefs about the attributes and performance of firms – influence CLV. Moderators, such as experience and the level of competition, could accentuate or attenuate the effects of these factors. Marketing activities in the customer acquisition and retention phases can influence both, relationship perceptions and purchase behaviors.

Purchase Behavior

Purchasing behavior reflects the length of the firm relationship, buying frequency and average purchase value. Purchase behavior also differs in underlying motivations, utilitarian and hedonic. Whereas a utilitarian consumer is goal-oriented, consumers focusing on hedonic dimensions seek entertainment and pleasure. Similarly, users consume media such as the worldwide web and TV in utilitarian and hedonic modes.

Relationship Perceptions

Whereas purchase behavior influences CLV, relationship perceptions – customer beliefs about the attributes and performance of firms – influence purchase behavior. Satisfaction, price perception and commitment help determine relationship perceptions. Although marketers generally assume that satisfaction increases customer loyalty and relationship length, the importance of satisfaction seems to decrease with the length of the relationship, at least for hedonic products. For customers interested solely in transactions, satisfaction is the premise for future intentions; trust and commitment are important for customers in a relational partnership. Thus,

P1: Whereas customers in a hedonic mode are interested predominantly in trust, customers in a utilitarian mode are interested predominantly in satisfaction

Price Perceptions

Although satisfaction seems to play a major role forming perceptions of the customer-firm relationship, price perceptions also contribute to the formation of relationship perceptions. The price for a product and competitors' prices for the same or similar products form a perceived "price fairness." Furthermore, the initial price relates positively to customer lifetime. This is consistent with findings that promotionally acquired customers are less valuable. Thus,

P2: Customers in a utilitarian mode have a higher interest in price fairness than customers in a hedonic mode.

Commitment

Literature distinguishes affective and calculative commitment. Whereas affective commitment stems from feelings, calculative commitment stems from rationale mo-

tives, such as costs. However there seems to be ambiguity about the effects of commitment, because of these two commitment dimensions; the effects differ across markets. Some authors propose that in relationships with companies offering hedonic experiences such as entertainment, affective commitment positively influences relationship length. Thus,

P3: As calculative commitment relates to price perception, consumers in a utilitarian consumption mode form a lower firm commitment than hedonic oriented consumers do.

Conclusion

The commitment of a consumer with a company and the relationship length seem to depend on the consumption mode – utilitarian or hedonic. Whereas the utilitarian oriented consumer seems highly interested in price fairness and economic incentives, the hedonic oriented consumer seems interested in affective incentives.

Therefore, most churners, consumers willing to change from one competitor to another, tend to be interested in a utilitarian consumption. For the acquisition of new customers, it seems appropriate to focus on customers interested in a hedonic consumption. However, firms could acquire prospects interested in a utilitarian consumption, but with a high CLV, by offering loyalty programs in the retention phase. Preferences for product types, e.g., movie genres in the movie industry, could show if a consumer has a hedonic or utilitarian orientation. References are available upon request.

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IT MATTERS HOW YOU PAY: COST TYPE SALIENCE DEPENDS ON PAYMENT MECHANISM

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ABSTRACT

In continuous economic exchanges, consumers can take two perspectives on cost: average cost (unit of consumption) and total cost (aggregated). It is proposed that cost salience in consumer judgment and decision making depends on how consumption is linked to decrease in the consumer resources. Support is found across three studies.

INTRODUCTION

Costs in Consumer Judgment and Decision Making

Costs are an integral part of economic exchanges and important information used in consumer judgment and decision making (JDM). Consumers can distinguish between two cost types: average and total cost. *Average cost* is the cost defined per unit of interest, which can be a product unit, a time unit, an event, or an action, etc. *Total cost* is the cost aggregated over a number of units of interest, products, time, events, etc. Example: "the (average) cost of mobile phone call is 50 euro cents," "the (total) cost of mobile phone calling is 40 euros per month." The research question in this paper is which cost type (total or average) is more salient in consumer JDM. Within the previous example: does for mobile consumer matter more how much they spend per phone call or how much they spend per month. Sterman (1989) defines a variable to be *salient*, when individuals respond to changes in the level of that specific variable. The cost type that

consumers respond more to (in regards to chosen dependent variable) is the more salient one. Shafir and Thaler (2006) refer to paying attention to average cost as local perspective and paying attention to total cost as global perspective. Choosing the unit of interest for average cost is category dependent (Prelec and Loewenstein 1998). For example in metro commuting the smallest unit of interest can be one day or a single trip. Aggregation across units can also be done in different ways: across a set number of product units (metro trips) or a set time period (one month). Note that average cost is not necessarily equal to the marginal cost – the cost of an additional unit consumed.

Payment Mechanisms

Consumers can choose from a large number of payment mechanisms such as cash, checks, credit cards, loans, as well as payment schemes for goods and services. Examples of the last are found in telecommunications, commuting, gyms, electricity, renting movies, theater, etc.

There are two streams found in recent research on payment mechanisms. The *first* stream is focused on understanding the choice for different payment mechanisms (Prelec and Loewenstein 1998; Miravete 2003; Della Vigna and Malmendier 2006; Lambrecht and Skiera 2006). The following examples provide some insight into the nature of these findings. Prelec and Loewenstein (1998) propose that the choice of the payment mechanism

FIGURE 1
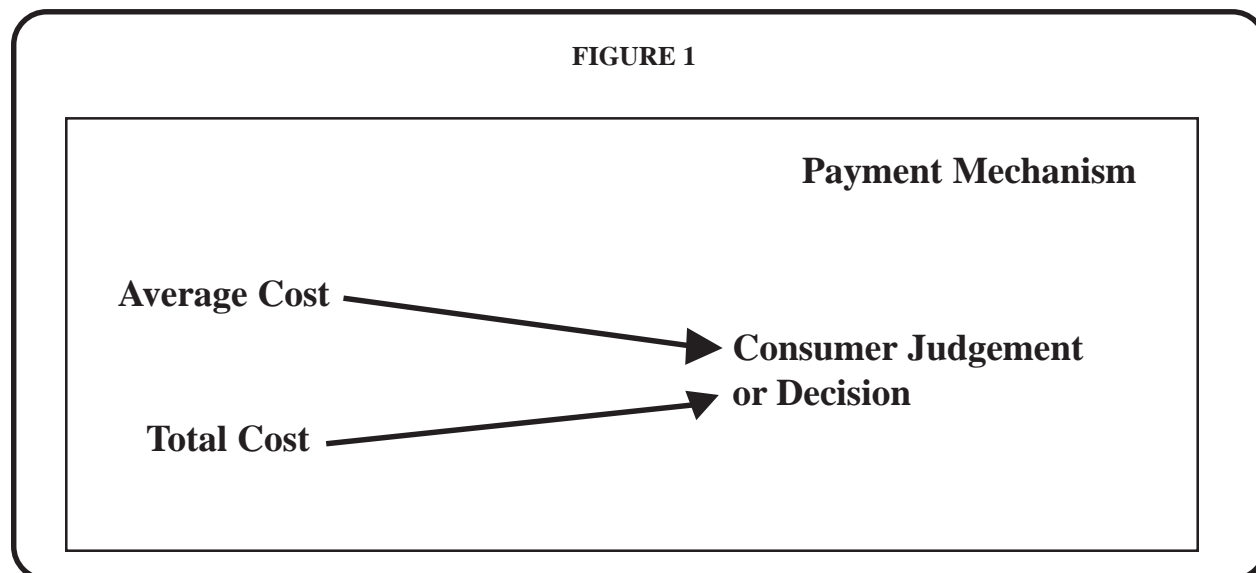
depends on the underlying product or service. Lambrecht and Skiera (2006) show that consumer characteristics influence the choice of payment mechanism.

The *second* stream of research on payment mechanisms deals with understanding the effects of specific payment mechanism on consumer judgments and decisions *after* the choice of payment mechanism. Prelec and Simester (2001) show that people are willing to pay more when instructed to pay with credit card compared to paying with cash. Soman (2001) explores the recall of past payments and purchase intentions and shows that they both differ between credit cards, checks, and cash.

Proposition

In this paper, contexts with variable costs are studied and with each consumption situation one of the following events occurs: (i) a decrease in consumer resources or (ii) an increase in consumer liabilities. *Consumer resources* are consumer assets in various accounts, such as banking accounts or accounts related to specific services or products. *Consumer liabilities* on the other hand represent consumer debt in regards to specific services or products. For example, when mobile services consumers refill mobile phone prepaid accounts they transfer resources from their bank accounts to their mobile accounts. With each usage resources in prepaid mobile accounts decrease. When contractual mobile services consumers use the service, they increase their liabilities toward the service provider. Their resources get decreased with the monthly bill. It is important to acknowledge that previous research used the concepts of wealth (assets + liabilities) and assets interchangeably. It has been proposed that experiencing a decrease in consumer resources attracts consumers' attention more than increase in liabilities (Prelec and Loewenstein 1998; Gourville and Soman 1998; Prelec and Simester 2001; Soman 2001; Soman and Lam 2002). Previous studies did not distinguish between cost types (average and total) and have focused only on one cost type in their analysis, either total or average cost. This paper goes further by proposing how two types of cost (average and total) would differ between payment mechanisms.

> Proposition: Specific cost type (average or total cost) is more important in the payment mechanism in which it has a stronger link with consumer resource decrease.

Three Studies

Three consumer categories and their specific (already existing) payment mechanisms are used in this study. The first study is a field experiment with metro commuters surveyed at different metro stations in a metropolitan area. The second study is a field study of mobile telecommunications customers with actual customer behavior data. The third study is a controlled experiment in the context of skiing done with graduate students.

STUDY 1 – METRO COMMUTING

The setting for this study is a field experiment involving metro commuters. Two payment mechanisms are studied: monthly tickets and per-trip tickets. The monthly ticket allows commuters to make as many trips as they want within one month from the date of the purchase of the ticket. The commuters who pay per trip can either buy a single ticket or a bundle of ten tickets. With each usage they spend one single ticket. The variable of interest is the *customer perceived value* for money, defined as the utility of a product or service as perceived by a customer based on what is received (benefits) and what it given (costs) (Zeithaml 1988). Metro commuters were exposed to two hypothetical situations, one with an increase in average (per trip) cost and the second one with an increase in total (monthly) cost. The impact of both changes in costs on perceived value is analyzed.

Participants, Design, and Procedure

Participants in this study were 80 commuters in the Barcelona metropolitan area, who were approached when exiting three different metro stations. It was explained that the survey was for academic purposes. Participants were not paid. The survey was pre-tested with 35 graduate students.

Out of the 80 commuters surveyed, 33 had monthly tickets and 47 were paying per trip. Commuters were asked how many trips they do in a week and what their assessment of value for money is with regards to metro commuting. Variable *Weekly number of trips* indicates how many single trips the respondent does in a typical week, including weekends. Variable *Value Initial* is measuring the initial perceived value on a 10-point scale (1 = "poor value," 10 = "good value").

Next both groups of commuters were exposed to two hypothetical situations. Commuters were asked to imagine that their monthly cost of metro commuting would increase 25 percent. Then they were asked for an assessment of the value again, which is captured by the variable *Value Average*. Commuters were also asked to imagine that their average cost per trip would increase 25 percent. Then they were asked for an assessment of the value again, which is captured by the variable *Value Total*. Both values are measured on a 10-point scale (1 = "poor value," 10 = "good value"). To control for the order effect (Podsakoff et al. 2003), each sequence of conditions was used in half of the survey documents, which were randomly assigned.

Analysis

The dummy variable *Pay per trip* was constructed, indicating the payment mechanism of respondent and is coded 1 for pay-per-trip commuters and 0 for monthly-ticket commuters. *First Average Condition* constructed dummy variable indicates the order of the two hypothetical situations, coded 1 if first situation was changing the average cost and 0 if first situation was changing the total cost. This enables us to test and account for the order.

As the commuters in the two payment mechanisms have different initial perceived value (7.9, 8.2) we need to take this into account when analyzing differences between two groups. *Delta Average* is the absolute difference between the Value Average and Value Initial, while *Delta Total* is the absolute difference between Value Total and Value Initial. In Table 1 we can observe the change in the perceived value in each of the two conditions for each of the two payment mechanisms. The first column shows changes for the commuters paying per month and the second column shows changes for commuters paying per trip. The increase in (total or average) cost is perceived as negative (disutility) from commuters' perspective therefore the decrease in perceived value is in line with literature.

We explore the difference in cost importance between payment mechanisms. Proposition states that increasing average cost has a stronger effect on commuters paying per trip. Delta Average indicates the reaction to change in average cost. Table 1 shows that Delta Average is higher for commuters with monthly tickets (-.5) compared to commuters paying per trip (-.8) ($F_{1,78} = 7.88$, $p = .006$). Proposition is supported for average cost.

Similarly, proposition says that total cost has a stronger effect on commuters with monthly tickets. Delta Total indicates the reaction to change in total cost. In Table 1 we observe that Delta Total is lower for commuters with monthly tickets (-1.2) compared to commuters paying per trip (-.3) ($F_{1,78} = 71.51$, $p < .0001$). Proposition is sup-

ported for total cost as well. These findings also hold with more robust analysis including covariates (commuter characteristics) as well as controlling for order effect.

STUDY 2 – MOBILE TELECOMMUNICATIONS

The second study is designed to test proposition of this paper in a field study. A context of mobile telephony services is chosen as both average and total cost are variable across consumers. The variability in both cost types allows us to observe their effect and importance without using hypothetical situations.

Two payment mechanisms are explored: the prepaid payment mechanism and the contract payment mechanism. Customers that use prepaid mechanism refill their mobile account and resources are deducted from their mobile account as they are using the services. Customers that use the contract mechanism get the overall monthly bill once a month. With each usage the contract customers only increase liabilities toward the service provider.

The dependent variable of interest is the variable of *exiting* the relationship with service provider. This variable represents so-called behavioral loyalty, which is a part of broader research stream interested in managing customer relationships. We are interested in what are the effects of average and total cost on exiting the relationship between payment mechanisms.

Research Design

This study uses actual customer behavior data from billing database of a major northern-european mobile telephony service provider. Each record within a database represents information related to one SIM card coded with a unique number. A random sample of 9868 customers was chosen by using a unique number assigned to each customer by the company. The sampling population was represented by all active customers (positive monthly cost) in the month of April 2004. All the monthly information related to usage and billing is organized for each

	Monthly Tickets	**Pay per Trip**
Value Initial – Initial perceived value	8.2	7.9
Value Total – total cost increases 25%	7.0	7.6
Value Average – average cost increases 25%	7.7	7.1
Delta Total (Value Total – Value Initial)	-1.2	-.3
Delta Average (Value Average – Value Initial)	-.5	-.8
N	33	77

TABLE 1

customer (SIM card) in the database. *Monthly cost of calls* is the total cost of all calls made in the given month, and *Other monthly cost* is the total cost of other mobile services (SMS, voice mailbox, data, etc.) used in the given month. *Average cost* per phone call was calculated from the total cost for calls and the number of phone calls. Further for each customer the SIM activation date was available, which was used to derive the variable *Length of relationship* measuring the elapsed time from activating the mobile account.

The dependent variable of interest is customer's act of exiting the relationship with the service provider. The nature of the two payment mechanisms requires a common way of measuring this event. Within the contract mechanism customers need to inform the service provider that they wish to terminate the relationship. However, within the prepaid mechanism this is not neccessary as customers simply stop using the service. The common characteristic of exiting is that in a specific month customers use the service followed by no service after exiting the relationship. The dependent variable *Exiting* is defined as a drop in service from using the services to not using the service in May in 2004. Information from an earlier month (March 2004) is taken for usage and costs: usage (Monthly usage), cost (Total cost and Average cost), and Length of relationship.

Analysis

As Exiting is a binary variable logistic regression is run with independent variables Average cost (per phone call), Monthly cost (total monthly costs), Other monthly cost (SMS, voice mailbox, data, etc.), and Length of relationship. Two regressions are run, one for each of the payment mechanisms: contract and prepaid. All the independent variables are standardized.

As we can observe from the Table 2, the regression coefficient of the variable Average cost is not significant for the contract customers, while it is .30 (.13), however it is significant and positive for the prepaid customers. The prepaid customers are more sensitive to average cost information. Average cost has a stronger link with resource decrease in the prepaid compared to the contract mechanism. This provides support for the proposition with regards to average cost.

For the contract customers regression coefficient of the variable Monthly cost is .41 (.17) and thus significant and positive. The effect of Monthly cost for the prepaid customers is not significant. The contract customers are more sensitive to total cost information. Total cost has a stronger link with resource decrease in the contract compared to the prepaid mechanism. This provides support for the proposition in regards to total cost.

STUDY 3 – SKI TRIP

The context of the third study is a hypothetical multi-day ski trip and builds on a similar context used in a study by Soman and Gourville (2001). Two randomly assigned payment mechanisms were used: daily tickets and a four-day ski pass. After experiencing payment mechanisms participants were exposed to two independent future ski trip options: one with increased average cost and one with increased total cost. Participants were asked for the likelihood of going on each of the two future ski trip options.

Results from the first two studies could be influence by various effects, self-selection effect, exposure effect, and cognitive effort. In order to control for these influences the third study is designed as controlled experiment. This has been applied in a similar way before by Prelec and Simester (2001) when controlling for external effects influencing the willingness to pay by credit cards and cash.

TABLE 2		
	Dependent Variable – Exiting – β (e)	
Independent Variables	**Contract Customers**	**Prepaid Customers**
Average cost per call	n.s.	.34 (.13)
Total cost of calls	.47 (.16)	n.s.
Other monthly costs (ms, data, etc.	.45 (.12)	.28 (.11)
Length of relationship	n.s.	n.s.
N	3868	6000
Likelihood ration Chi-Square	18.9	28.4
Correct case classification	.72	.63

Participants, Design, and Procedure

Participants were graduate students at a public university in a metropolitan area. Participants were contacted by email and were told that the study was for academic purposes. Out of 223 contacted students, 74 responded to an online questionnaire (a 33% response rate). Within the email to respondents there was an invitation to participate in a study and a short introduction. For each respondent a specific internet address was generated, pointing to a self-report online form linked to their email address. The form was available online for a period of two weeks in April 2007 (Llieva, Baron, and Healy 2002). Participants received written instructions that they have just started a four-day ski trip and that each day they had to make a decision whether they want to go skiing or not. All respondents were informed that cost of one day of skiing was 30 euros and the cost of four days of skiing was 120 euros.

Each respondent was randomly assigned to one of two payment mechanisms. In the first payment mechanism participants were instructed that for each day they decide to go skiing they need to purchase a daily ticket. In the second payment mechanism participants were told that they have purchased a four-day ski pass. Next both groups were lead through a computer-simulated hypothetical multi-day ski trip in order to experience the payment mechanism they were assigned to. Every "day" of skiing participants had to make a decision as to whether they would go skiing or not. Between each skiing decision a question non-related to skiing was used. The purpose of these questions was to separate skiing related decisions and thus create a perception of temporally distant decisions. A four-day ski trip experience was compressed into approximately 10 minutes of respondents' time. Computer-simulated "compressed" experiences have been shown to do a good job of simulating actual consumer experiences (Burke et al. 1992; Soman 2001).

After the four-day ski experience, participants were presented with two fictitious independent options for going skiing in the future. After being presented with each of the options they were asked the likelihood of choosing it. The first option (seven day ski trip) featured an increase in total cost (210 euros) while the average cost remained the same (30 euros a day). Variable *Increased Total Cost* measured the likelihood that respondents would choose this option (1 = "very unlikely" and 7 = "very likely"). The second option (three day ski trip) featured an increase in average cost (40 euros) while keeping the total cost (120 euros) the same as in the first experience. Variable *Increased Average Cost* measured the likelihood (same seven point scale as before) that respondents would choose the option of going skiing for three days with increased average cost. For the same reasons as in the previous study there is a need to control for possible order effects. The order of the ski options was randomly assigned for each of the respondents.

In addition to the above-mentioned variables the following variables were also collected or constructed. *Gender* measured the gender of the respondent. Variable *Number of days skiing* measured how many days per year the respondent normally goes skiing.

Analysis

An assigned payment mechanism was recorded with a dummy variable *Daily ticket,* which had the value of 1 if the daily ticket payment is assigned, 0 otherwise. No difference was found between the two groups in terms of variables Gender, Skiers, and Number of days skiing. Further variable *Skier* is constructed which has the value 1 if the person normally spends more than 0 days per year skiing and 0 if the response on the previous question was 0 days of skiing per year. *Increased Average Cost First* indicates the order of the two conditionings. It has the value 1 when the option with increased average cost is first and 0 if the order is reversed.

Figure 2 presents the means of likelihood of choosing each of the options for each of the payment mechanisms. Within the daily tickets payment mechanism the resource decrease is linked with usage and thus with average cost. Four-day ski pass draws participants attention to total cost as resource decrease is not linked with average cost.

I examined differences between payment mechanisms. Option with Increased Average Cost is preferred by users of a four-day ski pass compared to users of daily tickets ($F_{1,72} = 8.07$, p = .006). Therefore, participants in daily tickets payments are more sensitive to changes in average cost.

Further we observe that Option with Increase Total Cost is preferred by users of daily tickets compared to four-day ski pass users ($F_{1,72} = 3.29$, p = .074). Therefore, participants in four-day ski pass payment are more sensitive to changes in total cost. Proposition is supported both for average cost as well as total cost. This influence of payment mechanism is significant even when controlling for the covariates and the order of the two hypothetical options.

DISCUSSION AND CONCLUSIONS

The research question addressed in this paper is which cost type (average or total) matters more to consumers. We found that both cost types can be important in consumer judgment and decision making. Which cost type is more important depends on the payment mechanism. The underlying rationale is proposed to be based on how each specific cost type is linked to decrease in

FIGURE 2
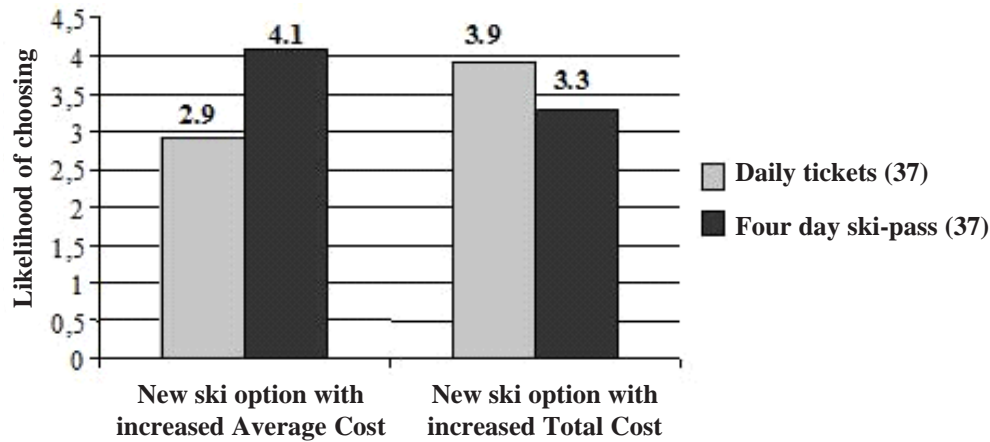
consumer resources. This link is determined by the payment mechanism.

The relevance of these findings is discussed with regard to several research streams. *First*, the difference in booking of average cost between payment mechanisms has been proposed already by Soman (2001). Therefore an extension could be proposed for the theory of mental budgeting (Heath and Soll 1996) to allow for different types of costs.

Second, coexistence and relevance of multiple cost types has implications for the concept of a reference point. Different cost types can be relevant and therefore each of them has its own reference point perceived by the consumer. This indicates that in certain contexts the reference cost is not one-dimensional as implicitly assumed before (Kalyanaram and Winer 1995; Kahneman and Tversky 1979). An extension would be to define the utility function over a multidimensional cost space.

Third, previous research has shown that payment mechanisms can influence consumer preferences for one option (e.g., Prelec and Simester 2001; Soman and Gourville 2001). However the influence of payment mechanisms when consumers are faced with two options has not been explored before. Here it is proposed and support is found that payment mechanisms can reverse preferences for two options. As we could see in ski trip context

subjects' preferences for options are reversed in different payment mechanism.

Fourth, it was proposed that when people prepay for products or services they seem to enjoy them as being free (Prelec and Loewenstein 1998). All three studies in this paper show that when prepaying, consumption is not necessarily considered as free and that it depends on characteristics of the specific payment mechanism. This paper thus joins Shafir and Thaler (2006) who propose that in some cases (e.g., gym membership or wine) advance purchases are perceived as investments at the point of purchase. Contexts in my studies feature a rather short time span between advance purchase and consumption therefore with a longer time span the effects of total cost could be diminished.

An example of managerial implication is that customers using different payment mechanisms also differ in terms of which cost type (average or total) is more relevant to them. Therefore when average cost type is more important, companies should focus on managing this cost dimension. For example in the prepaid mobile telecommunication services free phone calls would be offered instead of offering percentage reduction when refilling the mobile account. On the other hand when total cost is more important this should be the dimension to manage. Again in the mobile telecommunications context the contract customers should be offered discounts on their monthly bills instead of free usage of services.

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PSYCHOPHYSICS OF SEARCH: THE ROLE OF CONTEXT AND INDIVIDUAL DIFFERENCES

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SUMMARY

Economic rationality assumes that people maximize utility. In the domain of price savings, this translates into a consumer who should try to maximize absolute savings when comparing prices. However, psychophysical research has shown that people care about relative differences and not just absolute differences (Miller 1962). For price comparisons, this means that a saving of $x on a low price item is much more attractive than the same saving on a high-priced item. Thaler (1980) proposed that people are generally willing to drive ten minutes to save $5 on a $25 radio but unwilling to do so for a similar saving on a $500 color television.

This article investigates the psychological underpinnings of relative thinking – the tendency of consumers to consider relative savings and not just absolute savings in their decisions to search for a deal or purchase an item. We examine how the affective nature of the purchase environment, the consumer's processing style, and intuitive decision-making influence relative thinking. Affect-rich (vs. affect-poor) products, quantitative (vs. qualitative) processing style and individual level preference for intuitive decision-making alleviate this behavior.

Using a dual process framework, it has been previously demonstrated that affective priming (or affect-rich stimuli) and a qualitative (vs. quantitative) processing style enhances heuristic use in general (Mishra, Mishra, and Nayakankuppam 2007) and scope or probability insensitivity in particular (Hsee and Rottenstreich 2004; Rottenstreich and Hsee 2001; Ditto, Pizarro, Epstein, Jacobson, and MacDonald 2006). Of particular interest to our paper is the series of studies in Hsee and Rottenstreich (2004), who have used a processing-style manipulation (qualitative vs. quantitative) and a stimuli-based manipulation (affect-rich vs. affect-poor) to attenuate and accentuate a concave (risk averse) utility function. Their studies investigated the relationship between the magnitude or scope of a stimulus and its subjective value by contrasting two processing styles that may be used to construct preferences: valuation by feeling (qualitative) and valuation by calculation (quantitative). The results show that when people rely on feelings, they are sensitive to the presence or absence of a stimulus (i.e., the difference between 0 and some scope) but are largely insensitive to further variations of scope – a behavioral tendency called

scope neglect, which forms the psychophysical basis of the Prospect Theory value function.

Since scope neglect and relative thinking share a common psychophysical lineage it is therefore likely that such affective and processing manipulations will have a similar effect on relative thinking behavior as well. However, there is one noteworthy difference between scope neglect and relative thinking. Scope neglect is a bias of *irrational exclusion* (of arguably relevant information: the magnitude of the stimulus) while relative thinking is a bias of *irrational inclusion* (of irrelevant information: the original price of the item). Scope neglect involves a valuation process where the nature of the asset is enhanced while the scope (or quantitative magnitude) of the asset is ignored. In that sense, it is an effort-minimizing intuitive heuristic that ignores some information in the environment. On the other hand, relative thinking is a perception-based intuitive heuristic that incorporates non-diagnostic information that should ideally be ignored. A decision to travel 20 minutes to save $10 should be independent of the value of the item, but we fail to ignore it.

Relative thinking may well be an intuitive behavioral tendency, but executing it may require at least a minimal level of cognitive resources and calculative abilities. So, while qualitative processing manipulation (of the kind used by Hsee and Rottenstreich 2004) might indeed make the intuitive urge to engage in relative thinking more accessible, the fact that this manipulation is confounded by a propensity to discourage calculative cognition hinders the execution of this intuitive tendency. Increasing accessibility to a decision maker's feelings-based valuation mechanisms (at the expense of the ability to engage in cognitive processing), is therefore likely to discourage, instead of enhancing, relative thinking. This implies that unlike in the study by Hsee and Rottenstreich (2004), where quantitative-processing priming reduces scope neglect, such priming may actually enhance relative thinking by encouraging and facilitating the relative comparison between the relative saving and the original price. Likewise, qualitative processing will discourage participants from making such quantitative comparisons as are required for executing relative thinking. Therefore, we expect that unlike in the study by Hsee and Rottenstreich (2004), relative thinking bias will get enhanced due to quantitative processing and diminished due to qualitative processing.

H1: Qualitative (quantitative) processing will attenuate (accentuate) relative thinking.

However in the case of stimuli-based priming, we do expect the results to be along the lines of Hsee and Rottenstreich (2004) and Rottenstreich and Hsee (2001). Affective versus non-affective nature of the stimuli itself does not facilitate or hinder any quantitative comparisons. It enhances the affective content of the environment without impeding the cognitive abilities of the decision maker. Such priming is therefore more likely to tap into our intuitive system without compromising our ability to execute relative thinking.

H2: Affect-rich (affect-poor) stimuli will accentuate (attenuate) relative thinking.

Alongside, if relative thinking does in fact reside in our intuitive system, individuals with a chronic predisposition for intuitive decision-making will be more likely to engage in relative thinking.

H3: Chronic predisposition for intuitive decision-making will accentuate relative thinking.

The two studies in this paper investigate the above-mentioned hypotheses. We do this by borrowing largely from the priming methodologies used by Hsee and Rottenstreich (2004) and Rottenstreich and Hsee (2001), and the relative thinking measurement techniques used in previous literature (Thaler 1980; Tversky and Kahneman 1981).

The two primary studies are adaptations of the classic jacket-and-calculator scenario study (Tversky and Kahneman 1981). The first study examines the role of processing-style priming on relative thinking. The second study examines the effect of stimuli-based affective priming on relative thinking. Along with this manipulation, the second study also measures individual level intuition-propensity and models its effects on an individual-level propensity to engage in relative thinking. The collected experimental data confirms all the three hypotheses. References are available upon request.

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A MODEL OF SOCIAL INFLUENCES ON CONSUMER BEHAVIOR IN A SMALL GROUP

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ABSTRACT

This paper proposes a theoretical framework for understanding the consumers' shared decision making and frequently displayed collective buying behavior. The proposed framework considers traditional individual-level determinants and also identifies the key group-level variables as motivational antecedents of a consumer's participation behavior in group activities.

INTRODUCTION

A consumer does not always behave individually or in isolation. There are number of instances when she/he engages in group actions in one or the other kinds of social settings (Bagozzi 2000). For example husband and wife going together to a shopping mall to buy grocery, two friends jointly watching a movie at a theater, a family going for vacation at some hill-station, a family deciding upon the brand of a car to buy, friends chatting on internet, a group of friends celebrating somebody's birthday at some restaurant, managers from different departments of the same company discussing strategies.

Consumers may often be seen displaying the influence of collective concepts in their behavior in above mentioned settings as well as in diffused form of social settings wherein the members of a particular group are not as much interdependent and the membership may not be very conscious. The example for this could be the use of indigenous brands of products and services by the consumers of a particular country, or adoption of a particular lifestyle by consumers belonging to a specific culture.

These illustrations highlight the point that while engaging in social action, an individual shares one or more common goals with other members of the group to which she/he identifies to belong to. Unlike in performing individual behavior, a consumer works in a cooperative and coordinated manner with the other participants of the group and collectively intends to achieve the set collective goals (Bratman 1993; Gilbert 1990, 1992; Searle 1990; Tuomela 1995; Velleman 1997). Tuomela (1995) argues that consumers have both personal needs as well as collective ones. This could be one of the reasons for usage of collective concepts.

The literature reveals that in spite of being so conspicuous and frequently displayed, social aspects of consumer decision making and consumer behavior in small groups have received little attention in terms of academic research in marketing. This may be due to the prevailing assumption that consumers makes purchase decisions and displays consumption behaviors mostly on individual level. Therefore, large part of the existing marketing literature has been found to be implicitly biased toward developing knowledge that focuses on the individual role of decision makers in the market and the characteristics of individual behavior. But, since small groups like family are not a simple sum of two or more individuals and the buying behavior displayed by its members are not independent of each other, these theories do not facilitate a proper explanation of a consumer's collective behavior. Recognizing this gap, some researchers (for example Bagozzi 2000; Bagozzi 2005; Bagozzi and Dholakia 2002; Bagozzi and Lee 2002; Dholakia, Bagozzi and Pearo 2004) have recently attempted to elaborate upon the mechanism behind the social decision making and group behavior by modifying the individual theories of behavior. None of them could explain the group phenomenon in totality. This is due to the absence of consideration of inputs from all the members comprising a group.

Therefore, without discounting the utility of individual models of behavior, we believe there is an opportunity for enhancing the existing models for explaining a consumer's behavior in small groups like family. To address this need, we propose a conceptual framework (presented in Figure 1). It is built by considering and elaborating on the mediating roles of goal and implementation desires, goal intention and we-intention in social decision making process and group participation behavior. The model also explicates the role of key constructs, from the psychology and social psychology disciplines, such as social identity, group norms, subjective norms and regulatory fit in such a situation.

THEORETICAL BACKGROUND

A number of behavioural-decision theorists as well as action psychologists (for example Ajzen 1985; Bagozzi 1992; Bagozzi and Dholakia 1999; Bagozzi and Warsaw 1990; Beach 1993; Bentler and Speckart 1979; Fishbein and Ajzen 1975; Perugini and Conner 2000, etc.) have attempted to understand consumers' behavior. Attitudinal theorists maintain that attitude plays an important part in predicting a specific behavior of an individual (Leone, Perugini, and Ercolani 1999). The most systematic work

on the relationship between attitude and behavior was offered by Fishbein and Ajzen (1974, 1975) which is popularly known as the Theory of Reasoned Action (TRA). Ajzen in 1985 proposed the Theory of Planned Behavior (TPB) as an extension of the Theory of Reasoned Action and added an additional independent antecedent to intention, i.e., perceived behavioral control (PBC).

The literature reveals that both theories can successfully predict an individual's behaviors in a variety of contexts. But none explain goal-directed behaviors well. This encouraged many goal theorists (see Abraham and Sheeran 2003) to investigate why and how a particular behavior is selected. A number of researchers (Bagozzi 1992; Bagozzi and Warshaw 1990; Perugini and Bagozzi 2001) then attempted to extend the attitudinal theories to goal situations. A relatively parsimonious theory in this direction is the Model of Goal-Directed Behavior (MGB). The MGB redefines the decision making process by expanding and deepening the TPB. This is done by incorporating constructs from three new theoretical areas that were ignored by TPB (Perugini and Bagozzi 2005). These areas are habit, affect and motivation and the constructs are past behavior, anticipated emotions and desires, respectively. Another important theory to explain purposive behavior was proposed by Gollwitzer (1990) and is widely known as the Model of Action Phases (MAP).

There exists a wealth of research that has validated the above-mentioned base models. Consequently, one might think that the area of consumer behavior and decision making is well settled. On the contrary, some fundamental issues still remain unaddressed. The literature reveals that in most of the attitudinal and goal theories of behavior, the influence of social aspects is captured in them by incorporating the construct of subjective norms. But, many scholars argue (for example Bagozzi and Dholakia 2002; Bagozzi and Lee 2002; Eagly and Chaiken 1993) that the consideration of subjective norms only, is not sufficient for explaining all the aspects of social influence on a decision maker. According to Bagozzi and Dholakia (2002), Fishbein and Ajzen's (1975) conceptualization of subjective norms is very general in nature. Neither does it single out the influence of a particular group nor does it provide a comparative account of the influences of two or more social groups. Likewise, some authors (Armitage and Conner 1999) argue that subjective norms have limited conceptualization because it only deals with restricted normative components and do not reflect wider societal contexts.

Another significant limitation is due to consideration of personal intention as an antecedent of behavior. Despite the general agreement that when a consumer engages in social action, she/he works in a cooperative and coordinated manner with the other participants of the group and collectively intends to achieve the set goals, the dominant stream of researches involves the analysis of personal intention alone. It is mostly in the field of philosophy, that researchers (e.g., Bratman 1993; Bagozzi and Dholakia 2002; Gilbert 1990, 1992; Searle 1990; Velleman 1997) have explored the concept of collective intentions.

Tuomela (1995) defines we-intentions as "action-generating joint intentions that agents have in situations of joint action, for example when they intend to carry a table jointly." In other words, we-intentions refer to those kinds of intentions that each participant holds in order to carry out a fully joint action like that of carrying a table or singing a song. We-intention, as per Tuomela (1995), has the following salient properties. Firstly, when a person we-intends, then by his or her own action, by his or her part or share, that person will contribute to the joint action. Secondly, a person or an agent cannot we-intend unless she/he believes not only that she/he can perform his or her part of joint activity but also that she/he together with his fellow participants can perform the joint action in question. Third property of a we-intention is that it must be mutually believed by the participants that each participant holds the presuppositions for an intentional performance of joint action. Based on these properties highlighted by Tuomela (1995), Bagozzi (2005) identified three categories of we-intentions: each member's (of a group) own we-intention, each member's estimate of the we-intentions of the other group members, and each member's estimate of the mutuality of we-intentions. We-intention, in this paper, is adopted from Tuomela's (1995, 2003) conceptualization.

THE CONCEPTUAL MODEL

As has been established earlier in this paper, most of consumer's buying behavior is goal directed (Bagozzi and Dholakia 1999). Everything from deciding what loaf of bread to buy to what retirement plan to invest in, a consumer in a lifetime makes thousands of buying decisions. Some of them are for fulfilling individual needs and for achieving personal goals, while others are for collective needs and for realizing social goals. But irrespective of that, the whole goal-directed behavior is constituted of two main processes – goal setting and goal pursuit (Bagozzi and Dholakia 1999). Goal-setting process begins when consumers appraise the desirability and feasibility of potential goals and then choose a goal, which results in the formation of goal intention (i.e., a decision to pursue a goal). The completion of this stage results in the initiation of the goal pursuit process. In other words, goal pursuit process begins with goal intention leading consumers to develop implementation intentions, which in turn, facili-

tate instrumental behavior, and thus enhance goal attainment (e.g., Bagozzi, Dholakia, and Basuroy 2003; Gollwitzer and Brandstatter 1997).

Building on this and based on the discussion in preceding section on we-intention, we believe that it will be crucial if a consumer's behavior in a social context is investigated by considering his/her we-intentions (versus personal intentions) as the determinant of that consumer's participation behavior. Accordingly, we present a theoretical framework for explaining consumer behavior in small groups in Figure 1 and discuss the resulting propositions in the following section.

RESEARCH PREPOSITIONS

The Role of Goal Desires

In the Model of Action Phases, Gollwitzer (1996) proposed that the whole process of decision making in order to achieve some goal starts with the setting up of preferences between or among wishes. Alternative wishes are judged based on desirability and feasibility and one of several possible wishes or goals is chosen for persuasion. But progress toward fulfilling the wish will not occur unless one achieves the motivational state of mind wherein he/she desires to achieve that end-state or goal. It is this motivational state of mind that Bagozzi, Dholakia, and Basuroy (2003) refer to as a goal desire. Hence, in the context of family buying and consumption behavior, when an individual along with his/her family members, say, plans to go for meals at some restaurant in order to build good relationships and have fun with family members, goal desire corresponds to the motivation to build

good relationships and having fun with family members. Therefore, we propose that:

Proposition 1: Stronger goal desires lead to higher levels of goal intentions for participation in a small group's buying and consumption activities. In particular, the greater the desire to build good relationships and have fun with family members (an example of small group), the stronger will be the intentions to pursue such a goal.

The Role of Goal Intention

Goal intention refers to the decision of an individual to pursue a particular goal. Gollwitzer (1993) defined goal intention as a self-commitment to realize a desired end state. It mediates the effects of goal desire on a consumer's shared decision making and actual participation in a group. Linguistically, a goal intention is usually expressed as "I intend to pursue X" (Gollwitzer 1993). For example, when an individual along with his/her family members plans to go for meals at some restaurant in order to build good relationships and have fun with family members, then his/her goal intention can be expressed as "I intend to build good relationships and have fun with family members." Hence we offer the following proposition:

Proposition 2: Stronger goal intentions lead to higher levels of implementation desires for participation in a small group's buying and consumption activities. Specifically, the stronger the intention to build good relationships and have fun with family members (an example of small group), the greater will be the desire to engage in planning needed to accomplish this goal.

FIGURE 1
Model of Social Influences on Consumer Behavior in a Small Group
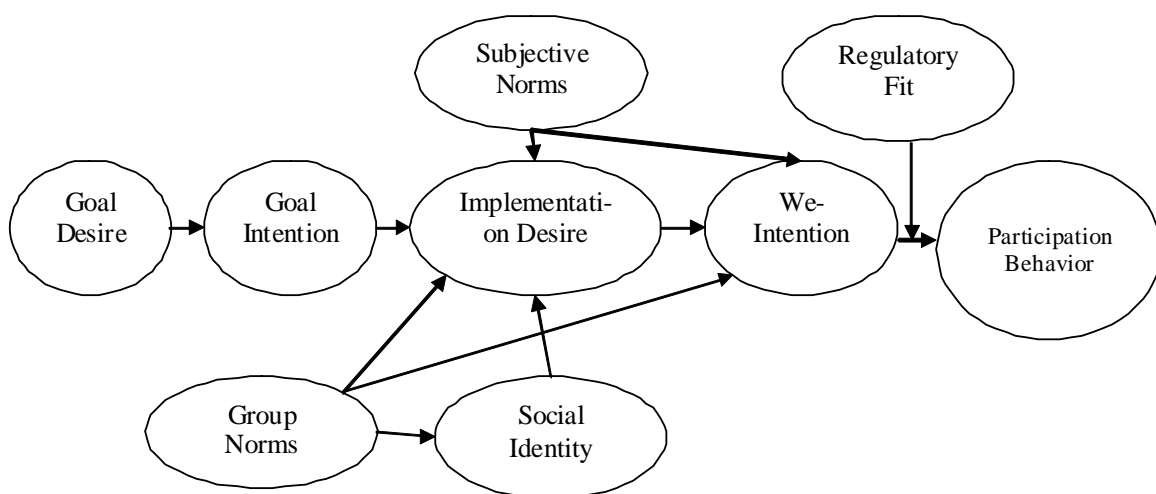
The Role of Implementation Desire

After developing goal intentions, in many situations consumers will still be far from performing overt behavior, such as making a purchase and using a product or service to attain their goals, even if they make commitments to their goals (Gollwitzer 1990). This is due to the fact that intentions formed do not necessarily translate into overt consumer behavior (Bagozzi 1992; Bagozzi, Baumgartner, and Yi 1992; Bagozzi and Warshaw 1990; Gollwitzer and Brandstatter 1997; Sheppard, Hartwick, and Warshaw 1988). Rather one needs to have a desire, i.e., the motivational commitment to undertake the said behavior. Bagozzi, Dholakia, and Basuroy (2003) have defined implementation desires as all those desires that help in transforming reasons and motives for choosing a goal into particular actions needed for goal realization. Hence, in the context of family buying/ consumption behavior, the wish to have meals together, as a means to building good relationships and having fun in the family, corresponds to the implementation desire.

Many philosophers (for example Tuomela 1995) have noted that to provide mutual support to group activities in such a way that members not only are committed to performing their pre-assigned parts, but are also committed to furthering the group's joint actions, one needs to have a particular motivation for that. Hence, we propose that implementation desires will be a significant predictor of a small group member's we-intentions to participate in group activity. Therefore,

> Proposition 3: Stronger implementation desires lead to higher levels of we-intentions for participation in a small group's buying and consumption activities. Thus, the greater the desire to engage in planning needed to pursue the goal of building good relationships and having fun with family members (an example of small group), the stronger will be the formation of we-intentions to dine at a restaurant with the family.

We-Intention as a Direct Determinant of Participation Behavior

Searle (1990, 1995) provides a strong theoretical basis for the use of the notion of intentionality in a social context. "Collective Intentionality is a sense of doing (wanting, believing, etc.) something together, and the individual intentionality (I-intentions) for each person is derived from the collective intentionality shared by them" (Searle 1990). It is a distinct form of intentionality. Collective intentional behavior is not the same as the summation of individual intentional behaviors. Nor can collective intentions be reduced to individual intentions. Hence because of the difficulties in reducing group-intentions to

individuals' I-intentions, Searle (1990) suggested that group-intentions be analyzed in terms of we-intentions.

Gilbert (1990) maintains that collectivity concepts incorporate the idea of plural subjects into their meaning. A plural subject is an entity, or as Gilbert puts it, "a special kind of thing" formed when individuals bond or unite in a particular way. Plural subjects are formed when each of a group of individuals expresses willingness to constitute, with others, the plural subject of a goal, belief, principle of action, or other such thing, in conditions of common knowledge. Therefore, the mutual possession of a sense of "us" becomes a key basis for group action and in turn we-intention becomes a basis for each individual group member's I-intention directed at a group end as well as their shared intentions (Bagozzi 2000).

Bratman (1993), on the other hand, explained collective intention in terms of intentions of the individual participants and their interrelations. As per Bratman (1993), a shared intention is not a single attitude, but a web of related and interlocking attitudes of the individual participants. Such an intention should lead to coordinated planning and unified activity by a group of agents. Hence, this planning and action should be explained by appealing to the shared intention.

In a similar vein, according to Tuomela (2003), carrying a heavy table jointly upstairs with another person is a joint action which involves a joint intention. Here joint intention refers to an intention to act jointly, attempting to act rationally in a coordinated way so as to fulfill the already formed plan. And when each participant jointly intends to carry the table, each of them can be said to we-intend to do it. Therefore, Tuomela (2003) describes a we-intention as a participant's "slice" of their joint intention.

Hence, in the context of family buying and consumption behavior, when an individual along with his/her family members, say, plans to go for meals at some restaurant in order to achieve the goal of building good relationships and having fun with family members, it is that consumer's we-intention that functions as a surrogate to his/her implementation intention. Therefore, it can be safely deduced that it will be more appropriate to consider we-intentions as the direct determinant of a consumer's participation behavior in small group buying or consumption activities than his/her individual intention per se. Hence we posit,

> Proposition 4: Higher levels of we-intentions lead to higher levels of participation behavior in small group buying and consumption activities. More specifically, the stronger the we-intention to partake in eating in a restaurant with family members as a means for building good relationships and having fun, the more will family members dine at restaurants.

The Role of Subjective Norms

Fishbein and Ajzen (1975) in their famous TRA identified subjective norm as an important predictor of intention. As the authors identify, subjective norm is a function of an individual's normative beliefs that specific significant others think he/she should or should not perform the behavior, coupled with one's motivation to comply with these referents expectations. In other words, it reflects the influence of expectations of others. Bagozzi and Dholakia (2002) argue that a person holding the subjective norms will be motivated by the need for approval from significant others. "Other people" could be members of one's various reference groups. They could even be from the primary reference group, i.e., the family. Bagozzi and Dholakia (2002), in the context of virtual communities, hypothesized that subjective norms will only have a positive mediated effect on a consumer's we-intentions through desires. This was due to the reason that virtual community participation is voluntary in nature and contains low barriers of exit. But, we believe, in many cultures, participation behavior in a group like family is more of a conspicuous nature, and possesses very high barriers for exit though there can be cultures wherein this condition may not hold true to that extent. Hence, in addition to a positive mediated effect on a consumer's we-intentions through implementation desires, subjective norms will have a direct effect on we-intentions of a consumer. Based on this discussion, we propose that:

Proposition 5: Higher levels of subjective norms lead to stronger implementation desires for participation in a small group's buying and consumption activities.

Proposition 6: Higher levels of subjective norms lead to higher levels of we-intentions for participation in a small group's buying and consumption activities.

The Role of Group Norms

The Model of Goal-Directed Behavior (MGB) considers the impact of one aspect of social influence, namely, subjective norms on an individual's goal-directed behavior. But, a number of studies have questioned the capability of subjective norms to fully capture group effects (for example Eagly and Chaiken 1993). Bagozzi and Dholakia (2002) and Bagozzi and Lee (2002) point out that the concept of subjective norms does not capture all the types of social influence in a group and is limited to compliance processes. It does not, for example, provide a comparative function of norms of different social groups or the internalization of shared norms, values, or rules. Hence the concept of group norms will be useful also to investigate in the context of group influence on small groups. Group norms, according to Dholakia, Bagozzi, and Pearo (2004), refers to the adoption of common self-guides for meeting

idealized goals shared with others (see also Bagozzi and Lee 2002). Under group norms, one develops an understanding of a set of goals, values, and beliefs of a group and commits explicitly or implicitly to share conventions with other group members. A small group like family can be characterized by stronger group norms. An individual mostly learns of family related group norms beforehand and through experience as found in socialization and modeling processes. This knowledge and acceptance of group norms results in a higher sense of identification in an individual. Since the extent of sharing of goals for pursuit is also very high in a family buying and consumption context, we believe the group norms have three effects. In the case of habitual participation without the deliberation implied in formal decision making, group norms should directly influence we-intentions of an individual. Secondly, strong cooperative interdependence exists among family members which makes the group possess stronger norms. Hence, group norms should directly influence the social identity with the family of an individual. And lastly, because of very high level of mutual agreement and accommodation between members of a family, group norms should influence we-intentions via positively influencing implementation desires. Therefore,

Proposition 7: Higher levels of group norms lead to higher levels of we-intentions for participation in a small group's buying and consumption activities.

Proposition 8: Higher levels of group norms lead to stronger social identity in a small group.

Proposition 9: Higher levels of group norms lead to stronger implementation desires for participation in a small group's buying and consumption activities.

The Role of Social Identity

Bagozzi (2000) proposes that social identity consists of three things (see also Bergami and Bagozzi 2000). Firstly, a person as a result of self-categorization process sees himself/ herself as a member of a social category. Such identification leads the person to feel depersonalized to a certain extent, followed by various in-group and out-group conceptualizations. These are basically cognitive processes. A second constituent of social identity is affective commitment to the group that one acquires as a consequence of group membership. These are emotional feelings of attachment, belongingness, and communion with the group. Lastly, group-based self-esteem and other evaluative responses form a component of social identity. This refers to judgments of importance or value as a member of the group (sometimes characterized as the evaluative dimension of social identity). Bagozzi (2000)

also argues that when an individual indulges in intentional social action, the membership is necessarily conscious and is both affected by as well as affects group action. Social identity helps a person to identify who he/she is in terms of defining features of self-inclusive social category. Bagozzi and Dholakia (2002) and Bagozzi and Lee (2002) propose that social identification not only helps an individual develop we-intentions to maintain a positive self-defining relationship with virtual community members or the friendship groups to which one belongs, respectively, but also boosts one's self-esteem. Hence, an individual will be motivated to engage in group-oriented behavior. On this basis, we offer the following proposition:

> Proposition 10: Stronger social identity leads to stronger implementation desires for participation in a small group's buying and consumption activities and thereby is an indirect determinant of we-intentions.

The Role of Regulatory Fit

Regulatory fit means a match between a person's self-regulatory orientation and goal pursuit strategies (see Higgins et al. 2003). People feel right about what they are doing when they are in a regulatory fit condition. Such an experience affects the subsequent judgements made by that individual. Finally regulatory fit facilitates the whole goal pursuit process. In the same way, in a reverse situation, i.e., when regulatory non-fit exists, then there will be less facilitation or more difficulties in the path toward goal pursuit. In such a situation, forming we-intentions should generate greater beneficial effects in regulatory non-fit than regulatory fit. Therefore, the following proposition arises:

> Proposition 11: Higher levels of we-intention lead to higher levels of participation behavior when regulatory fit is low versus high.

DISCUSSION AND CONCLUSION

Based on the extant review of literature in the broad domains of social psychology, psychology, philosophy and consumer behavior, particularly related to decision making and goal-directed behavior, it is realized that social processes influence consumer decision making to a large extent. Hence, it is high time that collective concepts and social variables are integrated in the existing models to explain consumer behavior. The need is dire for explaining small group's buying and consumption behavior. This is really a lacuna in the field, as the power system in marketing has mostly stressed individual behavior. In addition to this, group behavior in marketing has been studied sporadically. No existing study in marketing or in the broader field of business has used ideas from plural subject theory yet.

The present paper is, therefore, an attempt in this direction. We sought to advance the existing models for predicting consumer behavior by incorporating social variables like group norms, subjective norms and social identity as key social determinants of consumer action along with some of the established individual variables found in theories like TRA, TPB, MGB, and MAP. An important implication of our study is that it generates a number of testable research propositions. Given this intent to offer a testable model, an important next step involves the operationalization of constructs. Regulatory fit has been measured in numerous studies and has an established measurement history (see Higgins et al. 2001). There is strong foundation for operationalizing the social identity construct (see Bergami and Baggozi 2000; Dholakia, Baggozi, and Pearo 2004), and the subjective norms construct (see Sheppard, Hartwick and Warshaw 1988). Preliminary operationalization and validation of constructs like that of group norms, goal desire, goal intention, we-intention and participation behavior have begun to appear in literature (see Bagozzi and Dholakia 2002; Bagozzi and Lee 2002; Bagozzi, Dholakia, and Basuroy 2003). Our proposed framework can be tested in two ways. First, it can be tested be in a controlled environment. Second, one could use survey method to test it in which responses can be collected from all the members of a group and insights can be gained.

The current study is expected to make three distinctive contributions to the existing pool of knowledge. First, we advance the concept of consumers' social decision making and behavior in small groups. While consumer participation behavior is an important construct, it is one that has sporadically been studied and has not been considered from strategically crucial marketing perspective. We, therefore, delineate consumer decision making and behavior in social context from the one displayed in individual context. We suggest that theories and research concerning consumer behavior should include conceptual frameworks that incorporate social-level variables in addition to individual ones. We further argue that a consumer should not be studied in isolation but in situations when other consumers are also acting. Our framework enables the construction of a stronger explanation of reasons for action when a consumer acts in a small groups like family and uses collective intentions more often than personal intention in his/her behavior. Second, it provides greater insight in understanding the influence of various variables from disciplines like psychology and social psychology on consumer behavior. This would further help in bridging the gap between the three key disciplines. Thirdly, and importantly, such a study would enable marketers, who have been following the traditional system of measuring personal intentions in order to predict all kinds of consumer behavior, to fine tune their strategy formation by being more close to the better understanding of consumer's behavior when acting in a social context.

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RESOLVING AESTHETIC INCONGRUITY

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SUMMARY

In this research we investigate the role of aesthetic harmony in consumption environments and develop a framework to explain and predict how consumers resolve aesthetic incongruity, that is, the mismatch between a new acquisition and the consumption environment. Consumers' existing possessions constitute the consumption environment; more specifically, those possessions amongst which the new acquisition will be introduced and used. For instance, the existing wardrobe may be the consumption environment for a new shirt, while the bedroom and all the furniture and decorations therein may be the consumption environment for new curtains or blinds. Thus, the consumption environment is defined as the set of pre-existing possessions amongst which the new acquisition will be introduced and utilized.

The main focus of this research is to investigate when and why aesthetic incongruity between a new acquisition and the consumption environment leads to additional purchases. We theorize that this result is dependent on the intrinsic product appeal of the new acquisition. Additional purchases result from aesthetic incongruity involving a new acquisition with high product appeal, while a new acquisition with low product appeal is more likely to simply be returned. We assert that the emotions resulting from the appraisal of the incongruity explain this differential influence of incongruity on the intent to buy more or return the product. Specifically, incongruity between the consumption environment and a low-appeal product leads to regret for having made the purchase, while incongruity with a high-appeal product leads to frustration with the mismatch. While regret results in a motivation to simply let the product go, frustration spurs the consumer to take action to integrate the new product into the consumption environment. We present a set of three studies to investigate these issues.

Study 1 was a 2 x 2 experiment in which aesthetic congruity (high vs. low) and product appeal (high vs. low) were manipulated. One hundred and nine participants read a scenario in which while shopping at the mall they had purchased a shirt that was either high or low in appeal. The scenario indicated that upon returning home with the shirt, the shirt either matched very well or did not match anything in their wardrobe. A 2 x 2 ANOVA with product appeal (high vs. low) and congruity (high vs. low) as the independent variables and behavior (return vs. buy more) as the dependent variable revealed a main effect of appeal

$(M_{(high)} = 4.19$ vs. $M_{(low)} = 3.00, F(1, 105) = 11.19, p < .005)$ and a congruity x appeal interaction $(M_{(high, high)} = 3.56$ vs. $M_{(high, low)} = 3.00$ vs. $M_{(low, high)} = 5.14$ vs. $M_{(low, low)} = 3.00$, $F(1, 105) = 3.82, p = .05)$. Contrast analysis revealed no differences between the high and low appeal products in the high congruity condition, but a significant difference between the high and low appeal products in the low congruity condition, supporting the notion that aesthetic incongruity polarizes the influence of product appeal on intent to return versus buy more. Further, a one-way ANOVA using the low congruity data, with product appeal on the frustration – regret difference score, also revealed significant results $(M_{(high)} = 1.55$ vs. $M_{(low)} = -1.56, F(1, 52) = 48.96, p < .001)$. Finally, mediation analysis reveals that the frustration – regret difference score fully mediates the influence of product appeal on intent to return versus buy more.

Study 2 was a 2 x 2 experiment in which product appeal (high vs. low) and consumption goals (consummatory vs. instrumental) were manipulated between-subjects. The study was designed to demonstrate the influence of product appeal on the intent to buy more, as well as the mediating role of emotions, and to do so in the context of consumption goals that were either relevant or irrelevant to product aesthetics. In this study, participants were given a scenario in which they bought either curtains (58 participants) or blinds (63 participants). Pretesting revealed that while curtains are purchased based on their look and capacity to decorate a bedroom (consummatory goals), blinds are likely to be purchased to simply keep the sun out (instrumental goals). To further emphasize these goals, participants in the curtains (blinds) scenario were told that they bought the product to decorate the room (shade the room from the harsh morning sunlight).

For the curtains scenario, a one-way ANOVA with product appeal on behavior (return vs. buy more) revealed the expected main effect $(M_{(high)} = 2.12$ vs. $M_{(low)} = 1.24$, $F(1, 56) = 7.42, p < .01)$. A similar ANOVA on the frustration – regret difference score also revealed significant results $(M_{(high)} = 1.08$ vs. $M_{(low)} = -.97, F(1, 56) = 26.39, p < .001)$. Further, mediation analysis revealed that the frustration – regret difference score fully mediates the influence of product appeal on the behavioral response. The same pattern of results was repeated for the blinds scenario, in which a one-way ANOVA with product appeal on behavioral response revealed the expected main effect $(M_{(high)} = 2.04$ vs. $M_{(low)} = 1.14, F(1, 61) = 9.58, p < .005)$. A similar ANOVA on the frustration – regret

difference score also revealed significant results ($M_{(high)}$ = .74 vs. $M_{(low)}$ = -.97, $F(1, 61) = 14.68$, $p < .001$). Further, mediation analysis revealed that the frustration – regret difference score fully mediates the influence of product appeal on the behavioral response.

These two studies demonstrate the importance of product appeal in determining whether a new acquisition results in either returns or additional purchases and reveals the emotional drivers underlying each of these outcomes. Study 2 also suggests that, regardless of the consumption goal, once a product is within a consumption environment, the product appeal determines how aesthetic incongruity is resolved.

The final study is designed to validate these findings with real consumer experiences. A critical incident technique was used in which consumers were asked to recall instances when they returned or bought more because a new acquisition did not fit with the consumption environment. One hundred and eighteen participants completed 65 critical incidents for the return condition and 53 critical incidents for the buy-more condition. Consistent with our theorizing, a one-way ANOVA with behavior (return vs. buy more) as the independent variable and product appeal as the dependent variable revealed that products were reported to be significantly higher in appeal in the buy more versus the return condition ($M_{(buy\ more)}$ = 5.92 vs. ($M_{(return)}$ = 2.06, $F(1, 113) = 259.43$, $p < .001$). Further, a one-way ANOVA with behavior (return vs. buy more) as the independent variable and the frustration – regret difference score as the dependent variable revealed a higher score in the buy-more (vs. return) condition ($M_{(buy\ more)}$ = .77 vs. $M_{(return)}$ = .12, $F(1, 115) = 6.73$, $p < .05$). Notably, there were no differences in the product categories mentioned that resulted in buying more versus returns.

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SAY "I LOVE YOU" OR SHOW "I LOVE YOU": THE EFFECT OF CULTURE ON EXPRESSIONS OF ROMANTIC LOVE

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SUMMARY

Research has shown that expressions of love differ significantly in distinctive cultures (Wilkins and Gareis 2006). Unfortunately, cross-cultural studies on expressions of love are still rare (Wilkins and Gareis 2006). Moreover, few scholars in marketing have explored this area.

Hence the purpose of this study is to examine how East Asians and Westerners differ in expressions of love and how such differences influence their consumption behaviors.

Culture and Expressions of Love

Expression of one's inner thoughts and ideas is a common activity in cultures in which internal attributes are regarded as the core of the self. It is regarded as one of the most important components of freedom and individuality, as an important way to express one's inner thoughts, values, preference, feelings, and attitudes (Kim and Sherman 2007). Seneca (5 BC – 65 AD) said: "Speech is the mirror of the mind." So, for Westerners who have an independent view of self, it is the individuals' responsibility to "say what's on one's mind if one expects to be attended or understood" (Markus and Kitayama 1991, p. 229). Research also shows that verbal expression of thoughts and attitudes makes Westerners believe in those thoughts and attitudes more (Higgins and Rholes 1978). As a result, self-expression through verbal expression is emphasized and is a common and habitual practice of Westerners (Cunningham 1981). Written messages are also very common in expression of inner thoughts (Kim and Sherman 2007).

In contrast, direct verbal expression is not valued in East Asian cultures (Chen 1995). East Asians tend to maintain social harmony and balance, and not to reveal their inner feelings (Joy 2001). East Asians are not required by convention to verbally express their internal thoughts, because such expression is independent of and implies nothing about relationships (Potter 1988). They believe that existence of continuous social order requires behaviors, not verbal expression of inner emotions. In East Asian cultures, the communication involves "more of the information in the physical context" (Hall 1976, p. 79).

Hypotheses

Given that verbal expression and written messages are valued by Westerners but not valued by East Asians, we hypothesize:

H1: Westerners will be more likely than East Asians to express their love through (a) verbal expression and (b) written messages.

East Asians believe that feelings of love should not be voiced freely (Solomon 1971). East Asians also believe that everything should be concrete (Cousins 1989). As a result, East Asians use gifts instead of verbal expression to express their love because gifts can make individuals' deepest feelings concrete, tangible, and measurable. Moreover, for those who do not value verbal expression, it is easier to express love through gifts.

In contrast, money is often problematic in romantic relationships (Belk and Coon 1991) in Western cultures. Western informants in Belk and Coon's study (1991) often felt threatened if they paid. Women often felt guilty or indebted from having money spent on them. Therefore, we hypothesize:

H2a: East Asians will be more likely to use gifts than to use verbal expression to express their love.

H2b: East Asians will be more likely than Westerners to use gifts to express their love.

H2c: Westerners will be more likely to use verbal expression than to use gifts to express their love.

Study 1

In this study, subjects were asked to answer a question: "How do you express your love to your romantic partner or spouse?" Using an open-ended survey allow us to explore the most significant cultural differences in expressions of love within distinctive cultures without imposing demand characteristics (Kim and Sherman 2007).

Moreover, using an open-ended survey can also reduce problems associated with the reference group effect (Heine et al. 2002).

Forty-four undergraduate students in the U.S. and fifty-four undergraduate students in China participated in this study.

Our results show cultural differences in expressions of love. Westerners are more likely than East Asians to use verbal expression to express love, while East Asians are more likely than Westerners to use gifts. However, in contrast to our expectations, written messages constituted the least-listed method for both Americans and Chinese. This may be because Americans pay more attention to verbal expression and ignore the written message.

Study 2

Although Study 1 found cultural differences in expression of love, it has several limitations. First, it used students as research subjects. However, their responses may be different from others due to money constraints and/or youth. Second, Study 1 only asked participants to answer a single question. It did not explore the effect of culture on expressions of love in depth. In order to fix these problems and explore the effect of culture on expressions of love closely, Study 2 asked adults to answer how often they used/would use different ways in love expression, what kinds of gifts they bought/would buy for their loved one, etc. Eighty-six Americans and one-hundred and eleven Chinese answered the survey.

Results show that for East Asians, gifts are the most frequently used method, followed by verbal and written messages. For Westerners, verbal expression is the most frequently used method, followed by written messages

and gifts. East Asians use gifts more frequently than Westerners. Westerners use verbal expression much more frequently than East Asians. Westerners also use written messages more frequently than East Asians.

Gender can also influence the expression of love. For East Asians, males purchased gifts more frequently than did females; this tendency is reversed for Westerners. Age has a strong impact on expression of love. The older the people, the less frequently they express their love through verbal expression, written messages, or gifts. The effect of age is strong for East Asians but not significant for Westerners. The effect of age is stronger for males but weaker for females.

East Asians pay most attention to traditional and typical gifts of love while Westerners' selection is more diversified.

This study shed much light on cross-cultural research by showing cultural differences and similarities in expressions of love. It contributes much to the research of expression of love by using adults, while almost all others used only student samples. This study also shows that gender and age can influence expression of love.

Although this study found cultural differences in expression of love, it is still exploratory in nature. Moreover, Chinese samples are from a large city in China and American samples are from Tennessee, Virginia, and North Carolina. So findings may not be generalized to entire countries. Third, samples from some groups (e.g., high-income or low-income groups; doctorate-level group) were small. Fourth, the majority of American participants were Caucasian, so future study should explore expressions of love by using participants from other ethnic groups (e.g., Black or Hispanic Americans).

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BLINDED BY THE REAR VIEW MIRROR: HOW FRAMING MARKET UNCERTAINTY AFFECTS STRATEGY ADAPTATION

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SUMMARY

Many market research studies invest in the idea that calibrating the past will inform decisions for the future. When the situation is relatively predictable, making marketing decisions according to foreseeable changes in the environment is sensible. But what if the environment stops being predictable? What if outcomes become sufficiently unrelated to historical patterns that prediction becomes ineffective in informing managerial decision-making?

We respond to the call for more research on the processes behind imperfect managerial decision-making (Wierenga, Van Bruggen, and Staelin 1999) by further investigating managers' tendency to overweight prior beliefs (cf., Boulding et al. 1997; Biyalogosky et al. 2006) regarding environmental predictability while the decision situation changes to uncertainty. We expect that managers should perfectly match strategy to environment (Ex. Lawrence and Lorsch 1969), and more specifically that when presented with uncertainty managers should utilize strategies such as effectuation (Sarasvathy 2001; Read et al. 2008) which do not demand predictive inputs to function. But we are also warned of deep cognitive human biases (Schwenk 1984), specifically the impact of framing on an individual's objectivity regarding the changes in the environment. While framing aids the manager's sense-making process, it can produce intriguing paradoxical reactions to changes in the environment. The empirical evidence on the effects of threat and opportunity frames is far from conclusive. Threat-framing can lead to a "threat-rigidity" response (Staw et al. 1981), whereby decision-makers detrimentally limit strategy alternatives under consideration or become unwilling to change logic and behavior in order to manage the threat (e.g., Gilbert 2005). But that is not always the case (e.g., Bateman and Zeithaml 1989; Mittal and Ross 1998; Mittal et al. 2002; White et al. 2003). Opportunity framing (Sharma 2000) suggests that perceiving an event positively can generate quite the opposite reaction, guiding decision-makers to change and even shape new alternatives (Thomas and McDaniel 1990; Ginsberg and Venkatraman 1992, 1995; Sharma 2000).

Attempting to understand the contradictory findings regarding the threat-rigidity thesis we wonder if they exist because the phenomenon has not been investigated over time. We are led to the questions: Is threat-rigidity an immediate reaction to the threat presented by uncertainty that is overcome with time? Or does threat-rigidity wax and wane as a function of initial frame?

Our research model articulates a main effect of manager's response to uncertainty and two interaction effects. The main effect hypothesizes two directions. One is the normative expectation that managers fit strategies with the changing environment and adhere to a more effectual logic rather than a prediction-oriented one (Hypothesis 1a; Sarasvathy 2001; Read et al. 2008). Yet, threat-rigidity would suggest managers' response to uncertainty is to try harder to do what they know: predict better (Hypothesis 1b). Interaction effects concern how framing affects the speed of strategy adaptation. First, framing could delay strategy adaptation. Having framed the company-environment situation as predictable and having been presented with uncertainty (the combination creating a threat), managers will experience stronger threat-rigidity, slowing the choice of effectual actions over predictive action in uncertainty. Second, having framed the company-situation as shapeable, it could accelerate strategy adaptation.

To test these effects, we conducted a controlled experiment using an Internet-based business simulation. As preparation work for an executive development program, 147 subjects were asked to run the simulation. They were tasked with managing the business for 15 rounds (simulated months). Their objective was to optimize company performance by: (1) choosing strategic actions as they saw fit, and (2) setting production targets in order to manage inventory levels. The latter task was primarily designed to engage them. As for the actions, subjects could choose *one* action during each round from a set of 20 different actions presented in random order; 10 were based on prediction, and 10 were based on an effectual approach. After each round, subjects received a market update and were asked to start the subsequent round. To avoid undesirable end-game effects, the simulation terminated 5 periods earlier after 10 rounds. The experimental design is a 2 (predictable vs. uncertain) × 10 (period) full factorial design. Only uncertainty was manipulated by inter-period market updates. To check the uncertainty manipulation, we used an established scale (Archol and Stern 1988; $\alpha = .69$ (before) and $.83$ (after)). The pre- and post measures confirmed successful manipulation. To measure the managers' framing of the company-environment situation, subjects were asked to describe intended

strategies after reading the introductory information, but before starting the simulation. Two judges independently protocol analyzed the strategies (Ericsson and Simon 1993), coding on dimensions of threat, operationalized as strategies based on prediction, and opportunity, operationalized as statements about new markets, products, or segments. Inter-judge agreement was .92 and .75 respectively.

The study results show that in both predictable and uncertain conditions, the average number of effectual strategies declines; from 1.81 to 1.65 for managers in the predictable environment and from 1.61 to 1.32 for managers receiving an influx of uncertainty. To test our hypotheses, we conducted a series of multiple regression analyses adding interaction effects and time-lagged effects in steps. The dependent variables are the number of times an effectual strategic action was chosen over a predictive strategic action in a given time window. In the first step of our analysis, we only looked at the main effects and found a threat-rigidity response toward the influx of uncertainty.

Managers faced with uncertainty are significantly *more* inclined to persist in choosing prediction-oriented actions in uncertainty ($b = -.37$; $p < .05$), than their peers in a predictive environment. As for the framing and time effects, we find that when managers frame the situation as predictable but are confronted with uncertainty, that threat frame *does* delay a shift in strategies in the beginning time periods ($b = -.70$; $p < .05$). Later, this effect disappears, but is replaced by an opportunity framing effect of growth opportunity ($b = .77$; $p < .01$).

From this study, we highlight three important findings. The first finding is that managers struggle with matching strategy to an uncertain environment. Our participants rely more heavily on prediction when facing uncertainty. The second is that threat-rigidity is a phenomenon that builds as managers wrestle with the threat of uncertainty over time. The third finding is a short-term retarding effect and a longer term accelerating effect of environmental framing.

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MARKET SENSING FOR ENHANCING INNOVATIVENESS AND PERFORMANCE OF NEW VENTURES: AN EMPIRICAL STUDY OF JAPAN

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ABSTRACT

Three market sensing activities are proposed and how their use affects new venture innovativeness and performance are empirically tested using data collected from 184 new venture companies in Japan. The results indicate that all activities enhance the use of market information, which in turn positively affects innovativeness and performance.

INTRODUCTION

Market orientation has been regarded as one of the central concepts and the effective predictors of firm performance in marketing literature (Kohli and Jaworski 1990; Narver and Slater 1990, etc.). In their recent meta-analysis on market orientation, Kirca, Jayachandran, and Bearden (2005) observe that the marketing strategy literature emphasizes the role of specific capabilities in creating and sustaining a market orientation. Day (1994) argues that market-sensing and customer-linking capabilities are essential for enhancing market orientation at the organizational level and, in turn, attaining superior performance.

In this paper, we focus on market-sensing activities in new venture companies for three reasons. First, while most companies are small (Connor 1999), the prior studies on market orientation tended to focus on large companies. Although the volume of entrepreneurship research is increasing (Ireland, Reutzel, and Webb 2005), few studies have explored the impact of market sensing in small new ventures (Keh, Nguyen, and Ng 2007; Hart and Tzokas 1999).

Second, it is also theoretically important to explore the market sensing activities in new ventures. Based on the resource-based view of the firm (Wernerfelt 1984; Barney 1991), market orientation is defined as one of the several firm capabilities (Day 1994; Hult and Ketchen 2001). For new ventures that face rapid environmental changes under significant resource constraints, it is critical to enhance the capabilities of exploring new market information to cope with changes than exploiting their existing knowledge (Atuahene-Gima 2005). In spite of this importance, entrepreneurs often forgo costly marketing research such as surveys and statistical analyses (Andreasen 1983). In addition, entrepreneurs may be less aware of alternative research techniques that might be less

expensive including customer observation, market experimentation, and selective partnering with the most demanding customers (Lukas and Ferrell 2000).

Third and finally, investigating market sensing activities in new ventures provides complementary perspective that enhances our understanding of the relationship between market orientation and innovation. Past research offers conflicting views on the impact of a market orientation on firm innovation (Christensen and Bower 1996; Connor 1999; Hult and Ketchen 2001). Several studies suggested that a market orientation can lead a company to be more innovative and successful (e.g., Kohli and Jaworski 1990; Narver and Slater 1990). However, even before Christensen and Bower's (1996) article, others argued that a market orientation will result in less innovative, me-too products and slight modifications to existing products (e.g., Bennett and Cooper 1979; Tauber 1974). According to Christensen and Bower (1996), listening to existing customers too carefully contributes to the failure of larger companies as they tend to overlook the opportunities of disruptive discontinuous innovation. However, it remains unclear whether this argument applies to new venture companies.

For smaller companies with severe resource limitation, retaining existing current customers helps reduce the investment necessary to maintain long-term growth (Conner 1999). In reality, new ventures have to survive and are not allowed to ignore customers who support their current growth. This necessity raises the following question: consistent with the Christensen and Bower argument for large firms, is it possible for new ventures to be too close to their customers? Existing studies have not addressed the ways in which new venture companies should explore customers' expressed needs as well as latent needs. As Slater and Narver (1999) call for more research to fill out the existing gaps in the market orientation literature, we attempt to add empirical evidence by addressing this question (Hult and Ketchen 2001).

CONCEPTUAL MODEL AND HYPOTHESES

Figure 1 is our conceptual model. The marketing strategy literature suggests that a market sensing capability for constantly monitoring customers' needs is essential for firms to be market-driven and successful in their business (Day 1994; Keh, Nguyen, and Ng 2007). The

essence of a market sensing capability is generating/ acquiring, disseminating and utilizing market information at organizational level, which corresponds to the behavioral definition of market orientation (Day 1994; Kohli and Jaworski 1990). The main purpose of our study is to extend the boundary of this well established theory by applying it to new venture companies that are recognized as playing an important role in innovation (Schumpeter 1934).

Market Sensing Activities

In our exploratory email interviews, one entrepreneur who has been quite successful in starting companies noted: "Marketing research is very important . . . but not the formal market research that you buy – the kind of market research that I find valuable is the direct kind – talking to customers and hearing their answers to questions." Another successful entrepreneur in IT business said: "Marketing research is very necessary for entrepreneurs. However, traditional means of market research (focus groups, surveys etc.) are out of range for companies in the start-up stage. Instead, they need to be creative. Traveling to trade shows, personally visiting customers, cross marketing with larger firms are all options. On top of that, most entrepreneurs need to prepare to make more decisions with less information than larger firms." He also added, "Most entrepreneurs I know enter the market because they have a passion for a product/service that a lot of people tell them is a good idea. A lot of times, if they did more market research and knew the obstacles, they would never go and try to do it." Another entrepreneur who is a founder of a successful confectionary shop chain said, "Actually, my best customer is my wife and close friends. I always let them try our new products whenever I create and ask their opinions first."

Based on these exploratory qualitative studies and other case studies from business magazines such as *Nikkei Venture,* a monthly magazine about new ventures in Japan, we examine three market sensing activities in this study; personal interviews, online market research, and behavioral-based research. Personal interviews are easily conducted at less scale than questionnaire surveys or focus group interviews and therefore supposed to be more efficient for new venture companies. Personal interviews can be conducted with customers, friends, colleagues, family, relatives, and other professionals in the industry. Second, online market research is also beneficial to new venture companies because collecting data online either via emails or through websites not only reduces costs and time but also broadens and enriches the sources and contents of information gathered (Craig and Douglas 2001; Ilieva, Baron, and Healey 2002; Kozinets 2002; Urban 2003). Third and finally, behavioral-based research involves the observation of the ways customers react to, acquire, and use existing and new products. The

observations of customer behavior can help firms identify and define both latent needs and needs that customers have difficulty in articulating. By definition, the development of a breakthrough product or service occurs when the target market is either potential or emerging. In this kind of situation marketing sensing activities need to be more creative and proactive than the mere collection of customer statements regarding their perceived needs (Atuahene-Gima, Slater and Olson 2005; Keh, Nguyen, and Ng 2007; Narver, Slater, and MacLachlan 2004). Prior research also suggests that market information process consists of plural stages (Moorman 2005; Ottum and Moore 1997). Therefore, we conceptualize that marketing sensing activities affect organization-wide market information use as the next stage of market information processing.

H1: Personal interviews are positively related to market information use in new venture companies.

H2: Online market research is positively related to market information use in new venture companies.

H3: Behavioral-based research is positively related to market information use in new venture companies.

Market Information Use and its Consequences

In their meta-analysis, Kirca, Jayachandran, and Bearden's (2005) identified four categories of market orientation consequences: organizational performance consequences, customer consequences, innovation consequences, and employee consequences. As the consequences of market information use, we focus on new venture innovativeness and performance in this paper.

According to Kirca, Jayachandran, and Bearden's (2005), most prior research on the effects of market orientation on innovation and performance reported significant positive results (for an exception, see Lukas and Ferrell 2000). Given the lack of research on market orientation consequences in small firms, we hypothesize that prior research on large firms generalizes to start-up ventures. Furthermore, Moorman (1995) reported that the effect of information acquisition on performance is mediated by information utilization process. Consistent with this finding, we hypothesize that the relationships between market sensing activities and new venture innovativeness and performance is mediated by market information use.

H4: Market information use affects new venture innovativeness positively.

H5: Market information use affects new venture performance positively.

H6: Market information use mediates the effects of market sensing activities on new venture innovativeness and performance.

The relationship between innovation and performance has been the subject of some debate. In their meta-analyses, Szymanski, Kroff, and Troy (2007) report that the average correlation of innovativeness with performance is 0.24. In the context of new venture companies, differentiating their business from other companies by developing innovative products/service is fundamental for their existence and success. Therefore, we hypothesize that;

H7: New venture innovativeness affects new venture performance positively.

RESEARCH METHODOLOGY

Survey on Japanese New Venture Companies

Most studies of Japanese firms focused on large companies in part because of the difficulties in data collection. Therefore, collecting data of Japanese new ventures in itself has significant contribution to the literature. Japanese new ventures are relatively small in numbers and slow in growth compared with the counterparts of United States, United Kingdom, France, etc.

According to White Paper of the Japan Small and Medium Enterprise Agency, there are 4.3 million SMEs as of 2007, which account for 99 percent of all enterprises in Japan. In spite of their importance to the Japanese economy, the entry rate for new SMEs was 4.6 percent in 2006, well below by10 percent compared with the U.S., U.K., and France. In contrast, exit rates have hovered around 7.5 percent, exceeding entry rates by an average of 2.5 percent per year. According to the Global Entrepreneurship Monitor (GEM) study, the index of early stage entrepreneurial activity (EEA) is the second lowest after Hungary (Japan 2.2%, U.S. 12.4%, U.K. 6.2%, France 5.4%, etc.).

After the interviews with entrepreneurs, venture capitalists, etc. in 1999, Feigenbaum and Brunner (2002) concluded that the Japanese "habitat" negatively affects the rate of new venture formation. Japanese entrepreneurs tend to prefer low-risk low-return businesses to high-risk high-return ventures. One reason for this is probably because the top-ranking motivations for Japanese entrepreneurs are not to gain a higher income, but to have free reign over their work, to gain personal satisfaction through work, and to work without regard to age (Japan Small and Medium Enterprise Agency 2007). Despite the continuous Japanese government policies, this negative spiral might strengthen the nature of existing "habitat" which disturbs the establishment and growth of new ventures in Japan.

Measurement Development

Our survey followed the procedures recommended by Dillman (1978) and Douglas and Craig (1983). We developed new measures for market sensing activities based on our literature review and qualitative studies (Churchill 1979). For the other constructs, we used existing measures adapted from literature with slight adjustments and validations to fit with the context of Japanese

FIGURE 1
Summary of Hypotheses Testing
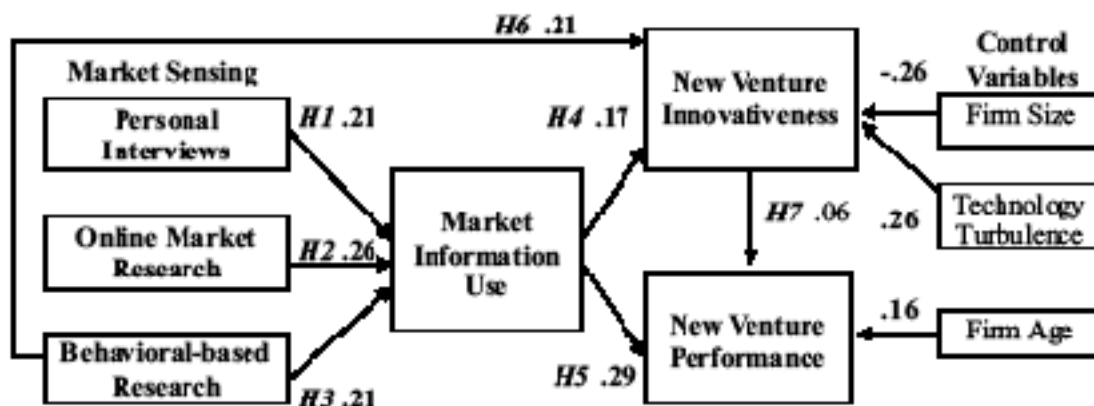
Note: Chi-square = 23.7, d.f. = 12,
GFI=.97, AGFI=.90, CFI=.96, NFI=.93, IFI=.96, RMSEA=.07. * p<0.05.

new venture companies. First, we developed an English version following the parallel-translation/double-double translation procedure (Douglas and Craig 1983). Three people were involved in the process. First, a Japanese researcher translated the English version into Japanese. Second, a professional translator translated it back to English. Third, an American researcher checked the differences between the original and the translated English versions and a Japanese researcher revised the questionnaire slightly based on the discussion.

Data Collection

There are few official statistics about startups in Japan. We defined our sampling frame using the most recent version of *Nikkei Almanac of Venture Business* (2004). We constructed our sampling frame by selecting firms from the following 12 industry categories; food, chemical, metal, machine, electronics, precise machines, software, IT, biology and medical, environment, materials, and others. Selected firms satisfied the following two criteria: each firm had 300 or fewer employees and was established after 1980. After cleaning up the companies that had moved or entered bankruptcy, our sampling frame consisted of 787 companies. Following the survey process outlined by Dillman (1978), we collected 184 responses (23.4% response rate).

To check for non-response bias we compared first wave (N = 129) and the second wave (N = 55) in terms of

their revenue and net income for three years (2002 to 2004), number of employees etc. We found no significant differences between the first wave and second wave respondents.

RESULTS OF ANALYSES

Comparison Between New Ventures and Large Companies

Before testing the hypotheses, we performed an exploratory analysis about market sensing activities in new ventures. Figure 2 is the comparison of market sensing activities between new ventures and large companies. The data from large companies was collected from 48 strategic business units in 2007. The details are available from authors upon request. As Figure 2 indicates, the means of all 10 market sensing activities are lower in new ventures. This clearly illustrates the difficulties new venture companies encounter in performing market research with limited resources and capabilities.

Measurement Model

Following the two-step approach outlined by Anderson and Gerbing (1988), we evaluated our measurement model. First, we tested the constructs of market sensing activities; *personal interviews, online marketing research and behavioral-based research. Personal Interviews* is measured by four items asking if the respondent company

FIGURE 2
Comparison of Market Sensing Methods Used in New Ventures and Large Companies
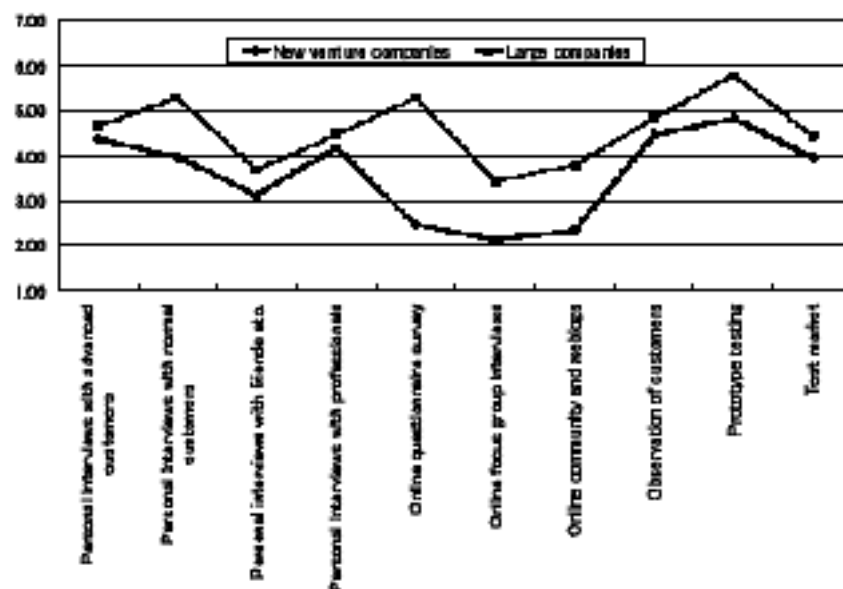
Note: Measured by 7 point Likert scale (1 = strongly disagree, 4 = neutral, 7 = strongly agree).

collects customer information personal interviews with advanced customers, with normal customers, with friends, colleagues, family and relatives, and with professionals in the industry (alpha = .73). Online Marketing Research is measured by three items asking if the respondent company collects customer information through online questionnaires, online focus group interviews, and the analyses of online community and weblogs (alpha = .82). *Behavioral-Based Research* is measured by three items asking if the respondent company collects customer information by observation of customers, by prototype testing, and by test market (alpha = .81). Diagnostic statistics indicate that a 3-factor confirmatory factor analysis model fits the data well (Chi-square = 103.58, d.f. = 32, GFI = .90, CFI = .90, IFI = .90). Each item loads significantly on the appropriate construct (the smallest t-value is 5.60). The discriminant validity is confirmed by Fornell and Larcker's (1981) test.

We also tested the measurement model for the three dependent constructs. Market information use is measured by four items asking if the respondent company has formal processes that rely heavily upon market information to make decisions, has formal processes that use market information to solve specific problems, values market information as an aid to decision making, and systematically processes and analyzes customer information (alpha = .78). New venture innovativeness is measured by two items asking if the new business was new to customers and markets, and new in technology (alpha =

.86). New venture performance is measured by three items asking about market share, sales and profit margin relative to the venture's stated objectives (alpha = .91). As the proposed factor structure fits the data well, we conclude that our measurement models possess sufficient convergent and discriminate validity (Anderson and Gerbing 1982). We control for firm age and size (Coviello and Jones 2004) and for technology turbulence. We measure technology turbulence with four items that ask if the technology in the new venture's industry is changing rapidly, if the technological changes provide big opportunities in the venture's industry, if it is very difficult to forecast where the technology in this industry will be in the next five years, and if a large number of new product ideas have been made possible through technological breakthrough in the new venture's industry (alpha = .83).

Hypotheses Testing

Since we have validated the measurement models, we test the hypothesized path relationships in Figure 1 using structural equation modeling (SEM) (Anderson and Gerbing 1988). The model fits the data quite well (Chi-square = 23.7, d.f. =12, GFI = .97, AGFI = .90, CFI = .96, NFI = .93, IFI = .96, RMSEA = .07, *p < 0.05). We summarize the results in Table 1. Hypotheses 1 through 3 regarding the market sensing activities are supported. The standardized path coefficients are .21 for personal interviews, .26 for online marketing research, and .21 for behavioral-based research respectively (p < .05). As for

TABLE 1
Results of Analyses

	Market Information Use (MIU)	New Venture Innovativeness (NVI)	New Venture Performance (NVP)
Market sensing activities			
Personal interviews	**.21***	.07	-.09
Online marketing research	**.26***	-.15	.04
Behavioral-based research	**.21***	**.21***	.10
Market information use	–	**.17***	**.29***
Technological turbulence (TT)	–	**.26***	-.07
Firm age - .04 **.16***			
Firm size (Number of employees)	–	**-.26**	.07
New Venture Innovativeness	–	–	.06

Note: Chi-square = 23.7, d.f. = 12, GFI = .97, AGFI = .90, CFI = .96, NFI = .93, IFI = .96, RMSEA = .07
Cell entries are the standardized coefficients. * p < 0.05.

Hypotheses 4 through 6, the path coefficients from market information use to new venture innovativeness and new venture performance are positive and significant (.17 and .29 respectively, p < .05). We do not observe any direct relationships from market sensing activities to new venture innovativeness or performance except for the path of behavioral-based research to new venture innovativeness. Therefore, both Hypotheses 4 and 5 are supported while Hypothesis 6 is partially supported (except for one path). Hypothesis 7 is not supported as we don't see a significant positive relationship between new venture innovativeness and performance.

CONCLUSION

As our results show, all three market sensing activities have a positive impact on market information use which, in turn, affects innovativeness and performance. To our surprise, innovativeness doesn't affect performance directly in Japanese new ventures. This is understandable as innovative products also bear the higher risk of failure. This tendency could be stronger for new ventures that tend to take more risks than large companies do. Another interpretation for this is that we need to consider some moderators between innovativeness and performance. Future research should explore the possibilities of contingency model.

This study contributes to the literature by adding empirical evidence about the reality of market orientation in new venture companies. However, our study also has some limitations. First, more suitable marketing research methods for new ventures need to be explored. Future research should include more complete lists of market sensing methods for guiding new ventures to success with richer information about emerging markets and customers' latent needs.

Second, our results may be influenced by some cultural factors that are unique to Japan. For this reason, replications in other countries can help determine the degree to which our results can be generalized to contexts outside of Japan.

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THE STRATEGIC ROLES OF MARKET-BASED LEARNING AND CUSTOMER ORIENTATION IN SHAPING EFFECTIVE SELLING BEHAVIOR AND EFFORTS

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SUMMARY

Weitz (1978) proposed adaptive selling behavior (hereafter ASB) concept for understanding the characteristics of effective salespersons. Following this seminal research, a series of various studies have found various determinants of ASB: psychological variables, organizational characteristics, learning, goal, and performance orientation, cognitive process of adaptiveness, and demographic variables. Some studies highlighted learning orientation among the determinants, suggesting that learning orientation, as the motivation to improve skills, increases salespeople's willingness to modify their sales strategies. Though salespersons have a willingness of learning, it may not connect to a behavior. In order to get over this limitation, we use market-based learning (hereafter MBL) concept instead of learning orientation, because MBL may be more appropriate for explaining effective salesperson behavior than learning orientation.

Relationship efforts are another important variable in the contexts of strategy and sales. Both academics and practitioners have paid an increasing attention to relationship management. According to Slater and Olson (2000), a relational selling strategy is based on an exchange of critical information between a salesperson and a customer. MBL influences salesperson to create and use customer information, making sales grow. In previous studies, the effects of effective selling behaviors and relationship efforts on performance have been examined. In this research, these relationships will be re-visited.

The purposes of this paper are: (1) to review the existing effective selling (ASB) and relationship efforts; (2) to identify determinants (MBL and CO) and outcome (performance) of ASB and relationship efforts; and (3) to provide additional insights for future research direction.

For achieving the purposes, we propose the following hypotheses:

H1: Market-based learning is positively related to adaptive selling behavior.

H2: Customer orientation is positively related to adaptive selling behavior.

H3: Customer orientation is positively related to market-based learning.

H4: Market-based learning is positively related to relationship efforts.

H5: Customer Orientation is positively related to relationship efforts.

H6: Adaptive selling behavior is positively related to relationship efforts.

H7: Adaptive selling behavior is positively related to salesperson performance.

H8: Relationship efforts are positively related to salespersons' performance.

Data collection consisted of a convenience sample of salespersons from Korean companies. A questionnaire and a personal letter were mailed to 600 salespersons. Our usable responses were 326 (54.3%). The hypotheses were examined in structural model using LISREL8.8. In the results, all the hypotheses are statistically significant except for H3 and H6.

This research has some important implications for both researchers and practitioners. First, our research found that MBL plays an important role in effective selling. Whereas learning orientation is related with a willingness of information processing, MBL as a market information process behavior helps salesperson to use the right information and the information right for effective selling. Second, for an effective customer relationship management (herearfter CRM), it is important for salesperson as well as organization to gather, interpret, share, and memorize information and knowledge about a customer. Learning orientation needs the requirements such as managerial support to be transformed into learning behavior. Finally, results of this study may suggest that ASB is an important determinant for the success of sales, not necessarily for relationship management efforts. Therefore, it merits further research efforts such as finding and examining some moderating variables that affect the relationship between ASB and relationship efforts. More detail discussion of the results and full list of references will be available on personal requests

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MANAGING BUYER-SELLER RELATIONSHIPS: THE ROLE OF INFORMATION COMMUNICATION, KNOWLEDGE, AND TECHNOLOGY

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SUMMARY

In recent years the marketing literature has witnessed a greater emphasis on relational exchanges (Palmatier, Dant, Grewal, and Evans 2006).

Similarly, in the selling context, Anderson and Dubinsky (2004) popularized the concept of consultative selling, where salespeople act as experts and offer their advice to solve customers' problems. Supporting this standpoint, findings of a worldwide survey conducted by Development Dimensions International (Thomas, Mitchell, and Rosa 2007) suggest that more than half of the industrial buyers perceive their sales contact as a business partner and expect to receive quality advice about products or services; but, unfortunately, one third of respondents reported receiving insufficient support from salespeople. In short, managers are faced with a compelling question of how to make sure salespeople participate in the cocreation of value in exchange processes.

The fundamental conceptual rationale of this study is aligned with the service-centered perspective as described by Vargo and Lusch (2004). This conceptual notion proposes a broad definition of "service" that is "the application of specialized competences (knowledge and skills) through deeds, processes, and performance for the benefit of another entity or the entity itself" (Vargo and Lusch 2004, p. 2). Based on this definition, we argue that salespeople can excel in an exchange process by applying their specialized competence (i.e., knowledge about the product and its usage) along with the use of technology.

Mohr and Nevin's (1990) marketing channels communication model provides insights about marketing channel communication channels that also apply to the buyer-seller exchange process. The service-centered view fits here as well since it views the customer as a "coproducer" in a value creation process and an internal entity within an organizational loop. Based on this theoretical groundwork, we postulate a model that investigates the indirect effects of a salesperson's knowledge about the product and its applications and technology use on customer satisfaction through the information communication process. We hypothesized that product knowledge and sales technology utilization directly influence information communication which in turn, had a positive influence on customer satisfaction with a salesperson. Additionally, we argue that salesperson experience will moderate the links from knowledge and technology use to information communication.

For this research, we collected data from a medium-sized pharmaceutical company. Data were collected from written salesperson surveys and written customer (physician) surveys. Our initial analysis utilized exploratory factor analysis (EFA) to confirm significant loadings and to identify cross-loadings. Next, we conducted a series of hierarchical regression analyses to assess aforementioned relationships and the role of mediation in our conceptual model. The effect of salesperson's knowledge about product and its usage (H1: $\beta = 0.338$, $p < 0.001$) and technology use (H2: $\beta = 0.222$, $p < 0.001$) demonstrated strong positive relationships with information communication. Information communication had a significant positive influence on customer satisfaction (H5: $\beta = 0.189$, $p < 0.05$). It was evidenced that salesperson experience as a moderating variable had no significant effect on links from technical knowledge (H3: $\beta = 0.000$, ns) and technology use (H4: $\beta = 0.013$, ns) to information communication. Information communication as a mediator between technical knowledge and technology use linkages to customer satisfaction was not supported.

Conclusively, information communication is a key component of the value exchange process; without it, relationships may be broken since interactions between buyers and sellers are not supported. Successful relationships are paramount to customer satisfaction and enduring relationships. The evidence generated in this study on the role of technology in supporting information communication empirically reinforces ideas proposed by other researchers. Exploratory findings from the study provide interesting insights on the role of salesperson experience on information communications and implications for performance in sales encounters, especially in terms of ability to adapt to unexpected situations and decision-making regarding product and service offerings. For managers, this study shows investment in sales training should include not only product knowledge, but also training in effective communication skills. References are available upon request

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IMPROVING THE PROPRIETY OF DISCOUNTING BY THE SALES FORCE THROUGH RECIPROCAL INFORMATION EXCHANGE

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SUMMARY

Successful implementation of a strategic plan requires that the firm also develop and deploy a suitable strategic pricing plan. When some pricing authority is delegated to the sales force, however, the strategic pricing plan may be overridden by tactical pricing concerns. The sales force may find that the immediate desire to close a sale is more pressing than supporting a strategic plan built around goals they may only vaguely comprehend, much less connect with their own goals. This strong potential for perceived goal incongruence may well lead to improper discounting by the sales force with reduced profits for the firm and lower long-term sales compensation. Appropriate reciprocal information exchange can improve the propriety of discounting by the sales force in two ways. First, the sales force will be more aware of price-cost-volume-profit information, which will allow more informed discounting decisions that maintain margins, more persuasive price negotiating against price reluctance and competing offers, and an increased ability to bundle solutions that maximize both customer value and the firm's net margins. Second, the firm can gain information from the sales force on customer price sensitivity. This information can be used to set initial prices nearer to customer reservation prices, obviating the need for many discounts.

Propriety of Discounting

Proper Discounting. The firm with a sales force that has pricing authority faces occasions when discounting is proper and profitable. This occurs when the discounts accurately reflect lower customer value received from the product or an altered cost the firm incurs to provide the product. Some examples are customers who do not receive as much value from the good as other customers, obsolete products, cancelled orders, or production overruns.

Improper Discounting. Improper discounting occurs when the salesperson reacts to perceived price resistance or competitive pressure with tactical discounts. These discounts do not reflect value or costs but rather are intended to help close specific sales. They are not tied to the price-cost-volume-profit realities of the firm but are motivated instead by perceptions that the sale will be facilitated by a price reduction.

Difficulty of Overcoming Discounts. The increased revenue required to compensate for a discount can be very large. Since the price elasticity may need to reach three or four to one to recover the margins lost by discounting, recoupment of losses is unlikely to be attained. A 1 percent increase in price might typically yield a 7 percent increase in profits as opposed to a 1 percent cost reduction, which could improve profits by about a third as much.

Agency Theory

Researchers exploring the delegation of pricing authority issue have typically used frameworks relying on agency theory. The results have suggested that firms will use elaborate contracts to elicit the private knowledge the sales force gains about customer price sensitivity. The use of elaborate contracts is not empirically supported, however, and other researchers raise doubts that the contracts can be negotiated and maintained in a manner that is not prohibitively costly for firms.

Reciprocal Information Exchange

Other researchers have noted that the firm enjoys more price-cost-volume-profit information than the sales force. This presents the opportunity for reciprocal information exchange between the firm and the sales force utilizing the norm of reciprocity. The firm can make available price-cost-volume-profit information to the sales force, which can facilitate negotiation of sales at improved margins, with less stress on salesperson/buyer relations and with fewer causes for competitors to retaliate against discounts. Alternately, the firm can receive improved information about customer price sensitivity from the sales force. The firm can use this information to set initial prices nearer reservation prices and thus reduce the need for discounts. Fewer discounting events will move the emphasis from price to value, which should result in improved relations with customers and reduced friction with competitors over price. The improvement in margins will benefit the firm's bottom line and the sales force's long-term compensation will rise.

Moderators

The effects of reciprocal information exchange may be moderated by the following four constructs. (1) The perceived risk of knowledge sharing by the firm. The firm may fear the leakage of sensitive price-cost-volume-profit information to competitors. (2) The relationalism of the sales force. The sales force may not have the relationship with the firm to believe that a mutual exchange would be beneficial. (3) The firm's confidence in the customer

price sensitivity information provided by the sales force. If the firm believes the price sensitivity is accurate, they will be more inclined to base initial prices on the information than if they are skeptical. (4) The congruence of sales compensation with net margins. The more nearly the sales force's compensation is based on net margins, the more they will see their goals as congruent with the firm's goals of profit maximization. References are available upon request.

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THE ROLE OF COMMUNICATION IN SALES MANAGER EFFECTIVENESS

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SUMMARY

The need for effective sales management has never been greater.
Shipley and Kiely (1988), p. 17.

Sales researchers have investigated a wide variety of constructs related to the effective performance of the sales force. One area that has been found to be critically important is communication between the sales manager and salespeople (Garrido, Pérez, and Antón 2005; Johlke et al. 2000). Unfortunately, this research area has only studied sales force communication from the sales person's perspective; sales manager's viewpoints have not been investigated. The contribution of this research is to advance the understanding of the role of communication quality and its importance to sales outcomes by building upon previous findings, but examining this critical construct through survey data from a new perspective – that of the sales manager.

Communication Quality and its Antecedents

We define communication quality as the extent to which communication flows occur in a timely manner and are relatively accurate, relevant, clear, and effective (O'Reilly 1982; Stohl 1987; Stohl and Redding 1987). Drawing from Deeter-Schmelz, Kennedy, and Goebel (2002) and additional research findings, we consider the antecedent variables of *participative leadership, organization and time management skills,* and *empowerment*.

According to House (1996), participative leader behavior involves ". . . consulting with subordinates and taking their opinions and suggestions into account when making decisions" (p. 327). Previous research in sales has established that participative leadership plays a role in the sales process in general (Schul 1987; Teas 1980, 1981, 1983). However, research has not established the influence participatory leadership might have on communication processes between the sales manager and sales representative, although logic suggests a linkage.

Second, Dubinsky and Ingram (1983) reported that time management ability ranked higher in importance than performance on net profits, sales volume, percent of quota, gross margin, and expense/sales ratios when promoting a sales representative to a sales manager position.

Finally, to the extent that sales managers are willing to empower their representatives, it is more likely that sales managers will make communication a priority, ensuring that the communication itself is accurate, relevant, clear, and effective (Deeter-Schmelz, Kennedy, and Goebel 2002).

Based on our literature review, *sales managers' participative leadership skills* (H1), *organization and time management skills* (H2), and *willingness to empower sales representatives* (H3) will positively affect their perceptions of communication quality.

Outcomes of Communication Quality

Model outcomes of communication quality include *manager job satisfaction*, *goal achievement*, and *manager satisfaction with sales representatives*. Extant research in sales has explored the link between communication and job satisfaction among sales representatives (i.e., Churchill, Ford, and Walker 1976; Johlke and Duhan 2001). Churchill, Ford, and Walker (1976) found that greater frequency of communication with the sales manager influenced salesperson job satisfaction positively. However, we could find no study examining the impact of communication on *sales manager* job satisfaction.

Qualitative data indicate communication quality improves the extent to which managers believe they have attained set goals (Deeter-Schmelz, Kennedy, and Goebel 2002). To the degree managers find communications timely, relevant, clear and effective, they are more likely to perceive that favorable work outcomes have been attained (Alexander, Helms, and Wilkins 1989; Keller 1994; Schuler 1979).

Job satisfaction is an oft-investigated construct. Yet few studies have explored manager's satisfaction with subordinates. Still, logic suggests that if managers perceive the quality of their communication with sales representatives is high, they are more likely to be satisfied with those sales representatives.

Consequently, our literature review suggests that sales managers' perceptions of communication quality will positively affect their reported *job satisfaction* (H4), *perceptions of goal achievement* (H5), and their *satisfaction with sales representatives* (H6).

Methodology

The sample for this study is sales managers who attended sales manager training programs offered throughout the United States. The scales utilized were taken from extant literature with minor modifications to fit the current study's context. Standard tests for measure reliability and validity were conducted with those tests indicating adequate results (Anderson and Gerbing 1988; Bentler and Chou 1987; Menon et al. 1999).

The model and the related hypotheses were tested with multiple regression. The results indicate support for hypotheses 1 and 2 but not hypothesis 3. Regression results also indicate support for hypotheses 4, 5, and 6. The findings indicate that from the perspective of sales managers, the quality of communications between sales managers and sales people impact important job outcomes. Study implications and limitations will be discussed at the conference. References are available upon request.

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IDENTITY ACCESSIBILITY AND CONSUMERS' EVALUATIONS OF LOCAL VERSUS GLOBAL PRODUCTS

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SUMMARY

We investigate the effect of a newly conceptualized local-global identity on consumers' evaluations of local versus global products, the effect's boundary conditions, and a process mechanism of the effect in this research.

First, we show that when the identity is accessible, identity-consistent products are evaluated more favorably.

Second, we show that this identity accessibility effect is stronger when primed and chronic identities are compatible versus incompatible and when the accessible identity is more versus less diagnostic for product evaluations. We examine diagnosticity through a direct manipulation and an indirect operationalization for which we argue that diagnosticity is lower when product preferences are more heterogeneous.

Third, we show that identity-salient consumers' spontaneous self-categorizations underline the identity accessibility effect. These results contribute to the social-identity literature by providing a stronger test of the moderating role of diagnosticity, highlighting a novel determinant of diagnosticity, and offering evidence for the previously proposed mediating role of self-categorizations.

These results can also help to reconcile divergent findings regarding consumers' preference for local versus global products. For example, some authors (Alden et al. 1999; Batra et al. 2000; Steenkamp, Batra, and Alden 2003) indicate that consumers like a global product more than a local product, others indicate that consumers like a local product more than a global product (De Mooij 1997; Shimp and Sharma 1987; Swaminathan, Page, and Gürhan-Canli 2007; Zambuni 1993). We believe that an unexamined factor in these studies may be consumers' local-global identity and it may help to explain the divergent findings. For instance, in the survey conducted by Batra et al. (2000), we believe that participants' global identity may have been salient (participants were from urban regions of developing countries where global products were associated with prestige) and thus they preferred global to local products. Similarly, in the survey conducted by Shimp and Sharma (1987), we believe that participants' local identity may have been salient (partici-

pants were from small- to medium-sized U.S. cities at a time when buying local was thought of as being helpful to resisting global competition) and thus they preferred local to global products.

These results can help managers make the positioning and segmenting decisions in the global market. For new products as well as positioning changes to existing ones, our results suggest that it is important to consider whether a local or global strategy is more likely to appeal to consumers. As companies enter new markets, they may want their products to be seen as locally rooted if the local identity is dominant, but they may want to highlight that their products reflect global tastes if the global identity is dominant. Our results regarding the boundary conditions of the identity accessibility effect can provide clues to marketers seeking to beneficially manage their consumers' local-global identity. As the compatibility results show, a local or global product positioning strategy may be more effective if marketers can situationally enhance their consumers' local or global identity. A situational enhancement of identity can be effected through advertising, PR events, and sponsorships among others. As the results from the direct manipulation of diagnosticity show, situational molding can also be achieved by conveying to consumers that it is appropriate to act in an identity consistent manner (e.g., be American, buy American). Similarly, as the assimilation versus differentiation study indicates, a situational shaping of local-global identity can also be attempted by priming consumers' feeling of closeness (or the opposite, distance) toward their salient identity type.

Marketers may sometimes want to counter identity accessibility effects which are harmful for their products. The reversal of the identity effect under low diagnosticity (Study 2) and under the differentiation processing mode (Study 3) indicates that consumers can be influenced to act in an identity-*inconsistent* manner and thus offers hope to those marketers who must appeal to consumers with an unfriendly chronic identity.

Our results provide implications for global segmentation decisions as well. Using information about consumers' local-global identities, companies can segment consumers as locals or globals and position their products in an identity-consistent manner within each segment. That despite only a slight difference in the local and global

products' descriptions, the locals segment (higher local score) found the local product more appealing and the globals segment (higher global score) found the global product more appealing indicates the viability of market segmentation based on measuring consumers' local-global identity.

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I BOUGHT IT FROM A GOVERNMENT ENTERPRISE: CONFUCIAN INFLUENCES ON CHINESE CONSUMER PERCEPTIONS OF PRODUCTS WHEN GOVERNMENT IS INVOLVED IN THE BUSINESS

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SUMMARY

In Western laissez-faire economics, government involvement in business is not generally seen in a positive light. Few consumers would perceive this involvement as conducive to quality products and services. In fact, many would see it having the opposite effect.

By contrast, due to recent political and economic history in China, there is still a high degree of government involvement in business (Meyer and Lu 2005). How do consumers in China perceive the quality of products from enterprises that have some degree of government involvement? This study tries to answer that question from a Confucian perspective.

Confucianism has been considered a core philosophy that influences the political, social and economic system in East Asian societies. With the rise of economies and profitable markets in East Asia, the study of Confucianism has become of more interest to scholars. Research has examined the role of Confucianism in economic development (Franke et al. 1991; Hofstede and Bond 1988; Jacobs et al. 1995; Zhu et al. 2006), business ethics (Chan 2008), corporate management (Park et al. 2005; Smith and Jones 2007) and sociological studies like gift-giving (Park 1998; Wang et al. 2001). Very few of them examine consumer decision making (Pervan and Lee 1998), which is the focus of this study.

In this paper it is suggested that due to the influence of Confucianism in China, government involvement in a business enterprise can become a type of endorsement that is respected by consumers. This endorsement means that government involvement will positively affect evaluation of the products produced by these enterprises. Three major ideas of Confucianism are important in influencing consumer perceptions of government enterprises, including meritocracy, loyalty to superior, and separation of responsibilities.

We hypothesize that if a company is related to the government, consumers from a Confucian culture will: (1) perceive a company's products with more desirable functional attributes, and (2) show more preference toward a company brand and that this relationship is mediated by perceptions of products from the company.

To test the hypotheses, a survey was conducted with 1440 Chinese automobile consumers. The pre-designed questionnaire included measures of familiarity with the brand "FAW-Volkswagen," perceived relationship between the brand and its government, perceived values of functional attributes of the brand, and preference for the brand. Linear regression of the consumers' perception of FAW-Volkswagen's product attributes on the extent of its relationship with its government was performed to test H1.

The overall model was statistically significant (*adj. R^2* = 0.198, F = 286.674, $p < 0.001$) and the government-related variable was statistically significant (*Std. β* = 0.446; $p < 0.001$). This meant that the degree of FAW-Volkswagen's relationship to its government had significant positive effect on consumers' perception of FAW-Volkswagen products' attributes. Therefore, H1 was supported.

An interaction term was created to test H2. Based on the procedure suggested by Baron and Kenny (1986), another linear regression analysis was conducted and results supported the mediation effect. Therefore, we can conclude that the more Chinese consumers think a company is related to its government, the more likely they would prefer the company brand and that this relationship is mediated by their perceptions of the company's products.

The findings of the present study suggest that enterprises in China may benefit from getting the government involved in their business, even though this may not be perceived in a positive light in the West. Involving government in business may lead to higher consumer trust in the corporate brand and products, enhanced purchase intentions and positive word-of-mouth behavior. This is especially important for foreign investors who are not connected to globally recognized brand names. It would be helpful for them to take the time to cooperate with the Chinese government and to build a positive relationship with the appropriate government agencies.

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THE EFFECT OF POWER-DISTANCE BELIEF ON CONSUMERS' IMPULSIVE BUYING

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SUMMARY

We propose a systematic impact of power-distance belief on consumers' impulsive buying and demonstrate in three studies that collectively exhibit high internal and external validity. We also investigate the moderating roles of the availability of self-control resource on this relationship. Our results indicate that two factors model of impulsive buying (motivation to control and resource to control) is better able to explain the findings than the one factor model of impulsive buying (either motivation to control or resource to control only).

Impulsive buying behaviors are very common, with some estimates attributing impulse buying to over four billion dollars of annual sales in the U.S. (Agins 2004). Recently, research has explored the relation between culture orientation and impulsive consumption. Kacen and Lee (2002) provided correlational evidence of an interrelation between individualism – collectivism (and independent – interdependent self-construal), trait buying impulsiveness, and impulse buying behavior. They reasoned that consumers from individualistic societies may exhibit more impulsive consumption than those from collectivistic societies, because collectivistic members suppress the impulse more than do individualistic members. Consistent with this hypothesis, they found that measures of trait impulse buying were more predictive of actual impulse buying behavior for individualistic than for collectivistic members.

These results are correlational, and thus vulnerable to many possible alternative interpretations, but they also have some interesting implications. For one implication, they suggest that cultural constructs related to individualism and collectivism such as power-distance belief should have corresponding influences on impulsive buying tendency. Building on the literature on power-distance belief and the control thesis proposed by Baumeister (2002) to explain impulsive buying tendency, we hypothesized that consumers with high power-distance belief are less likely

to display impulsive buying tendencies than those with low power-distance belief. We further propose the moderating roles of the availability of self-control resource on this relationship.

Three studies were run to test these hypotheses. Study 1 includes four different sub-studies to demonstrate the effect of power-distance belief on impulsive buying. Study 1A and B test hypothesis 1 using existing secondary, field data obtained at the country level, we use Hofstede's country score to operate the construct of power-distance belief. Study 1C measures the power-distance construct as a dispositional trait construct to test its relationship with consumers' impulsive buying tendency. Study 1D experimentally manipulates power-distance belief and measures its impact on impulsive buying tendency. Study 2 tests hypothesis by manipulating power-distance belief to see whether this construct is closely related to control-related associations. Study 3 tests hypothesis by manipulating power-distance belief and control resources and testing their interactive effect on impulsive buying tendencies.

Our results have important implications for the development and refinement of impulsive consumption theories. For example, earlier studies on impulsive consumption have suggested two main theoretical frameworks: the control thesis, a cognitive perspective, proposed by Baumeister (2002) and hedonic-visceral thesis, a motivational perspective, proposed by Hoch and Loewenstein (1991) and Loewenstein (1996). For example, Hoch and Loewenstein (1991) propose that impulsive buying is a conflict between the desire for immediate gratification and willpower to resist and defer consumption. Empirical evidence based on U.S. consumers, thus far, has not examined the complementary and enmeshed nature of these two approaches in explaining empirical regularities. We hope more and more cross-cultural research will follow this approach to not only provide cross-cultural replications of consumer-behaviors but also provide stronger test of the basic theories (Nisbett 2003).

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AMBIDEXTROUS INNOVATION APPROACH AND FIRM PERFORMANCE

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SUMMARY

Ambidextrous firms achieve efficiency in their current operations while also adapting effectively to changing environmental demands (Atuahene-Gima 2005). Marketing scholars propose that market orientation has a key role to play in the creation of ambidexterity (Menguc and Auh 2007). Prior research suggests that ambidextrous organizations are collectively capable of operating simultaneously for short-term efficiency as well as long-term innovation (Adler et al. 1999). Tushman and O'Reilly (1996) suggest that when it comes to exploratory and future-oriented activities, firms are actors that should pursue discontinuous innovations, alter the basis for competition, and render old products obsolete. In terms of market exploitation, they turn to processes that represent reactive, incremental, and competence-enhancing development.

From the perspective of creating ambidextrous short- and long-term performance, marketing scholars have emphasized the importance of market orientation in general and customer orientation in particular (Deshpandé et al. 1993; Han et al. 1998). Yet, the relationship between market orientation and firms' performance has often been uneasy. Since the seminal works of Narver and Slater (1990) and Kohli and Jaworski (1990), a considerable number of studies have examined the effect of market orientation on firm performance and several other variables. However, there is little research demonstrating *how* market and customer orientation could generate ambidexterity and further firms' short- and long-term performance.

In this paper, we demonstrate how market orientation and innovation intermingle to produce ambidexterity, and, thereby, the performance of industrial firms. Pure market-oriented strategies have been criticized for their overemphasis on customers and competitors. Consequently, some researchers propose that besides their market and customer orientation, organizations need an orientation to promote innovation and adventurism (Gatignon and Xuereb 1997). Other researchers have similarly argued that innovation is, in fact, the main antecedent of performance, and that the role of market orientation is to augment innovativeness and ambidexterity (Atuahene-Gima 2005; Im and Workman 2004).

We identify three marketing strategies that portray different approaches to exploration and exploitation. These strategies are: price-winning, value-adding, and value co-creation. In price-winning strategy the organization reaps the benefits of pure exploitation but neglects exploration [H$_1$]. In addition, accepting the idea that market orientation can potentially enhance ambidexterity, we examine market orientation from cultural (value-adding strategy) and behavioral perspectives (value co-creation strategy) (cf., Homburg and Pflesser 2000).

Customer value-adding strategy emphasizes norms and values that support market orientation. The freedom from formal structures and mechanisms fosters ambidexterity, built on cognitive capabilities to adapt and to align (Deshpandé et al. 1993; Gibson and Birkinshaw 2004). Accordingly, the advantage of this kind of market orientation is that it enhances both incremental and radical innovation (Atuahene-Gima 2005). We hypothesize that this increases innovativeness [H$_{2a}$] and product leadership [H$_{2b}$]. In value co-creation strategy, a firm is explicitly committed to formal and tangible co-operation with its customers. Openness to the external environment enables organizations to accomplish high levels of innovation orientation. However, being close to the customer may impact negatively on a company's ability to adapt to the latest market trends. Therefore, we hypothesize that value co-creation has a positive impact on firms' innovation orientation but a negative impact on product leadership [H$_3$]. Evidence from various sources suggests that innovation orientation has significant effects on different measures of corporate performance (Manu and Sriram 1996; Simpson et al. 2006). Thus, we hypothesize that innovation orientation has a positive effect on product leadership [H$_4$]. Furthermore, we suggest that product leadership is a key driver of financial performance [H$_5$] and market excellence [H$_6$]. That is, ambidextrous firm performance.

A set of quantitative data was collected through a mail survey in 2005. The survey was aimed at the CEOs and senior development managers of 354 Finnish industrial companies. A total of 130 managers responded. Our

hypotheses were tested using structural equation modeling (SEM) via LISREL 8.72. Scale construction and validation were completed using exploratory and confirmatory factor analysis. We followed the two-step procedure recommended by Anderson and Gerbing (1988), and conducted two types of assessment: the measurement model assessment and the structural model assessment. Overall, the fit indexes of the measurement model ($\chi^2 = 278.09$; df = 168; p = .00; RMSEA = .068; GFI = .83; NNFI = .85; CFI = .88) indicate that the scale structures fit the data acceptably and the developed proxies perform well in the context concerned. The fit indexes for the structural model ($\chi^2 = 282.41$; df = 176; p = .00; RMSEA = .068; GFI = .83; NNFI = .86; CFI = .88) indicate that the model fit is acceptable.

Our model support the hypothesis H_{2a}, as value-adding strategy had a strong positive impact on firms' innovation orientation (β = .43). Second, value co-creation had strong positive impacts on innovation orientation (β = .30) and a strong negative impact on product leadership (β = -.31), thus, supporting our hypothesis H_3. Third, supporting our hypothesis H_4, innovation orientation had a very strong positive effect on product leadership (β .71). Finally, as expected in our hypotheses, product leadership had a positive impact on financial performance (H5; b = .55) and market excellence (H6; β = .81). However, our model did not support hypothesis H_1 as the impacts of price-winning strategy on financial performance, innovation orientation, and product leadership was not statistically significant. Moreover, no support for hypothesis H_{2b} was found, as the path from value-adding strategy to product leadership was insignificant.

The results indicate that customer-oriented companies need innovation orientation and product leadership to enhance their ambidextrous performance. Innovation orientation is strongly driven by value-adding strategy, in which the guiding principle is to serve the customer. Our model revealed a hypothesized positive relationship between value-adding strategy and innovation orientation but no direct relationship between value-adding strategy and product leadership. Although value co-creation strategy enhances innovation orientation, it also weakens product leadership. This highlights the concern that being too close to the customer may, indeed, inhibit firms' ability to create innovative products and services (e.g., Hamel and Prahalad 1994). We thus conclude that the best way to achieve ambidexterity is to pursue a value-adding strategy which enhances product leadership through its positive impact on innovation orientation. We take this finding further, demonstrating the role of product leadership mediating the relationships between innovation and short- and long-term performance. The role of product leadership is essential because innovation orientation does not always translate into superior products and services. References are available upon request.

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THE EFFECTS OF FUNCTIONAL CAPABILITIES AND STRUCTURAL FACTORS ON FIRMS' PRODUCT AND PROCESS TECHNOLOGY EMPHASIS

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SUMMARY

This study extends the current literature stream on knowledge acquisition by focusing on international knowledge sourcing and its effect on innovative performance among electronic companies in Singapore and Taiwan. The technological capabilities of a firm are conceptualized as having two strategic dimensions: product technological capabilities and process technological capabilities. Viewing a firm's technological capabilities in terms of these two dimensions is important as the underlying learning processes that underscore these two technological routes are distinctly different. Since many latecomer firms in Asia initially started as original equipment manufacturers (OEMs), they would have accumulated at least some initial process technological capabilities. In contrast, few of these firms had prior experience in developing and commercializing products. Thus, whether a firm pursues product or process technological learning processes depends on the core competence at the *firm* level and the characteristics of the innovation environment at the *national* level. Figure 1 presents the conceptual framework that links the firm's functional capabilities (from the resource-based view) and structural factors (from the institutional perspective), through absorptive capacity, to technology strategy and firm performance.

FIGURE 1
The Conceptual Model
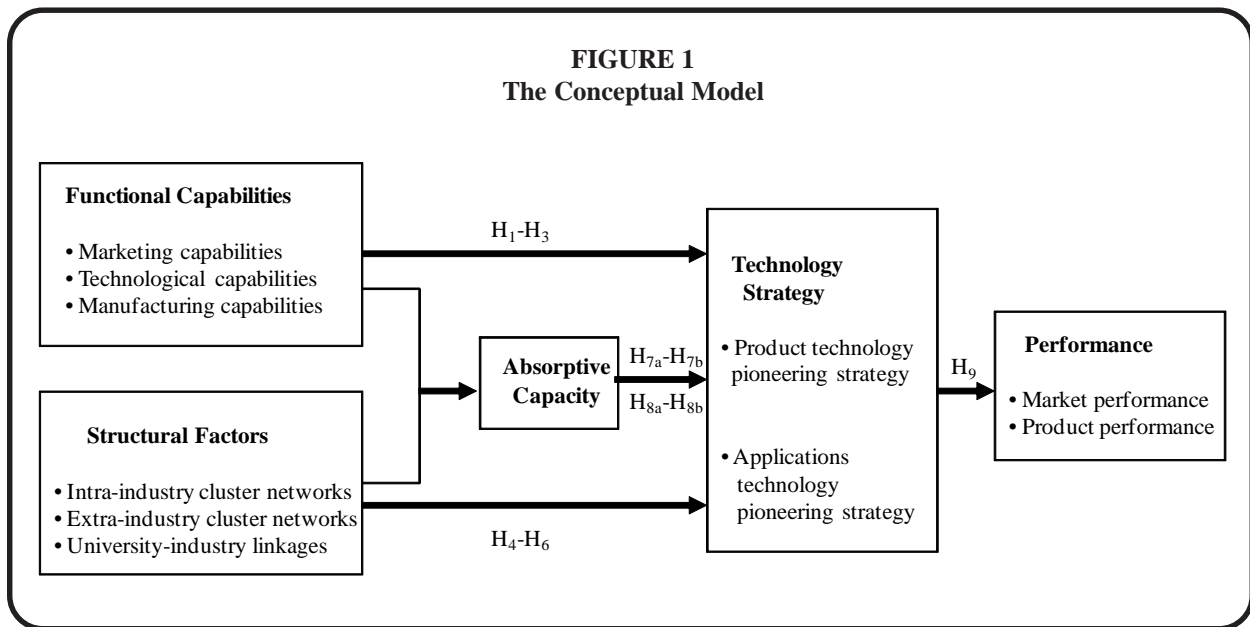
Three critical organizational capabilities are expected to influence the performance of firms' choice of technological strategy: marketing, technological, and manufacturing. From the institutional perspective, this study addresses the role of the local government in the two Asian countries in promoting and supporting technological spillovers from three types of "network" clusters: (a) intra-industry cluster networks (within the firm's specific industry) (b) extra-industry cluster networks (outside a firm's industry), and (c) university-industry linkages. The absorptive capacity construct was included in the model to better uncover the process through which firms' strategic orientations affect organizational outcomes. Finally, while both types of technology strategies positively impacted performance (i.e., product and market performance), product technology strategies have a greater impact on product performance, possibly because of firms' stronger marketing capabilities.

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THE INTERACTION BETWEEN NEW INFORMATION AND EXISTING KNOWLEDGE IN NEW PRODUCT DEVELOPMENT

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SUMMARY

The use of new information is central to marketing as evidenced in research concerning market orientation (Kohli and Jaworski 1990) and organizational learning (Sinkula 1994). Yet a key element that impacts the ability to acquire new information has been largely ignored – existing knowledge. As a component of organizational memory, existing knowledge is an integral outcome of organizational learning but also a key moderator of future learning efforts and is acknowledged to impact all aspects of the learning process (Huber 1991). Existing studies in marketing have examined the associated between memory and economic and innovative outcomes (Moorman and Miner 1997; Hanvanich, Sivakumar, and Hult 2006) and propensity to collection information (Brockman and Morgan 2003), but not the impact of memory upon the ability to learn from acquisition of new information. Extant work suggests prior exploratory activities can enhance learning from the external environment, but that existing capabilities and routines can inhibit adoption of innovative alternatives (Levitt and March 1988; Leonard-Barton 1992). In the current study we integrate these contrasting perspectives of knowledge absorption and assert the impact of new information is most beneficial when firms exhibit moderate levels of existing knowledge. We empirically test our assertions using survey data obtained from 451 firms undertaking new product development.

Empirically linking prior knowledge to current learning is challenging as the location and content of stored knowledge impacts the ability to retrieve it for application and therefore current learning. This study utilizes the epistemological concept of knowledge as an action-based concept to measure the influence of prior knowledge upon current organizational activity. Prior knowledge is measured via the utilization of prior marketing and technical activities in current new product development. Learning is modeled as the use of market and technical information to improve product advantage and achieve positive economic return.

The regression results upon product advantage support a negative curvilinear interaction hypothesis between new information and existing knowledge, and suggest that during the search, firms should ascertain the need for new information developing more or taking measures to reduce resistance to change, as high or low levels of existing knowledge are associated with a reduced benefit of new information. Results for economic outcomes are consistent with prior empirical studies, where existing knowledge enhances economic outcomes. References are available upon request.

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"WELL . . . JUST CREATE A SURVEY": DEVELOPING AN EXIT INTERVIEW TO HELP ASSESS AN UNDERGRADUATE MARKETING PROGRAM

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ABSTRACT

Accreditation bodies in higher education now require program assessment at the departmental level. These requirements are recent, and they may be unknown to institutions that are between accreditation reaffirmations. The assessments require direct measures of program learning objectives (e.g., undergraduate student proficiency exams). They also require indirect measures of these objectives (e.g., undergraduate student exit surveys). Because suitable undergraduate student exit surveys are not available commercially or by example, this paper describes the development of such a survey for a departmental undergraduate marketing program.

INTRODUCTION

Authors have commented on the "quality movement" in higher education (e.g., Al Bandary 2005; Rhodes and Sporn 2002; Soundarajan 2004; UNESCO 2005; Van Vught 1988; Vidovich 2002). Accreditation agencies in higher education now require multiple assessments of student learning outcomes – what students should know, and increasingly what students should be able to do (e.g., Bloom 1956).

These requirements mandate assessment plans. These plans should have three components: statements of student learning objectives and outcomes, assessments (measures) of whether students are achieving the learning objectives and outcomes, and a process where assessment leads to improvements (interventions) (e.g., Engineering Accreditation Commission 1998, (NCA) Handbook of Accreditation 2003; UNESCO 2005) (also see Soundarajan 2004). The assessment plan should have multiple assessments (measures): direct measures such as student proficiency exams, and their papers and presentations; and indirect measures, such as student exit questionnaires, student focus groups, employer surveys, and alumni surveys.

The Association to Advance Collegiate Schools of Business (AACSB) does not require assessment at the departmental level. However, assessment at the departmental level is now required by regional university-wide accreditation bodies such as the Council for Higher Education Accreditation's (CHEA) regional accreditation body, the Commission on Institutions of Higher Educa-

tion, North Central Association of Colleges and Schools (NCA).[1,2] Nevertheless, even without a mandate for departmental assessments from the AACSB, they will be necessary to implement and control departmental-level responses to the college-level program assessments that are mandated by the AACSB.

While direct undergraduate program assessments (e.g., proficiency exams) are obviously desirable, indirect assessments such as exit surveys also have attractive attributes. They provide useful insights into student attitudes about their marketing preparation, which direct and other assessment techniques do not provide. For example, if undergraduate student attitudes suggest they do not believe they are prepared for graduate school, they may not attempt this additional education, even if their proficiency scores are high.

Academic program assessment has received attention recently (e.g., Banta, Lund, Black, and Oblinger 1996; Banta 1999; Boyer 1990; Elphick and Weitzer 2000; Glassick, Huber, and Maeroff 1997; Loacker 2000; Mentkowski 2000; Palomba and Banta 1999, 2001; Palomba and Palomba 1999; Schneider and Shoenberg 1998; Shulman 1999) (also see the influential older cites in Van Vught and Westerheijden 1994). However, this literature provides little guidance for creating an indirect assessment, departmental student exit surveys.

The firm, Educational Benchmarking (EBI), provides an exit "interview" (a survey) for assessing undergraduate students attitudes at the degree level such as the College of Business. However, we could find no such "off-the-shelf" offering for student exit surveys at levels below that, such as our undergraduate marketing program.

A search of the World Wide Web, including North Carolina State's web site devoted to higher education assessment (www2.acs.ncsu.edu/UPA/assmt/resource.htm), suggested student exit "interviews" at the department level were either in a developmental stage or not well-documented.

After exhausting the known resources, we discontinued our search for an off-the-shelf exit survey for departmental level program assessment, or a survey that could be used as a benchmark for such an assessment, and we

decided to create our own exit interview/survey. Influenced by the EBI Undergraduate Business Exit Survey mentioned above, we elected to use a survey for our exit "interview." This format is familiar to students, it was judged to be easily implemented, and it facilitates quantitative period-by-period comparisons.

UNANTICIPATED ISSUES

Creating a student exit survey initially appeared to be just a survey development exercise. However, several unexpected developmental issues quickly surfaced. Our marketing program had multiple objectives and outcomes. These objectives and outcomes were to be measured with valid and reliable items so that any programmatic "gaps" they detected would be "real," and not a measurement artifact. To gauge reliability, multiple-item measures of objectives and outcomes were required. And, reliability statistics such as coefficient alpha assume that each measure is unidimensional. However, determining the unidimensionality of dozens of multiple-item measures of objectives and outcomes would require samples that were larger than the number of graduating seniors produced by most marketing departments, even across multiple years.

Obvious alternatives, such as pooling samples collected across time, were problematic. Pooling risks confounding reliability and aspects of validity, with program changes (e.g., new faculty, textbook changes, etc.) that occur across time. While there is a methods literature on small samples, we could find little practical guidance on how to determine reliability and validity using small and infrequent samples.

Further, the time required to develop a valid and reliable exit survey using the available small and infrequent samples was likely to exhaust the patience of others who may not appreciate the above survey development "details." The required time also was likely to exceed the time available until "progress needed to be shown" (e.g., for accreditation reaffirmation reviews).

There were additional issues. The testing and measurement literature is dominated by the domain sampling model (see Nunnally and Bernstein 1994; however, also see MacCallum and Browne 1993) which assumes an unobserved variable (e.g., knowledge, attitude, etc.) has a "domain" of multiple observed "instances" of that unobserved variable which can be measured (e.g., Bagozzi 1984; Nunnally and Bernstein 1994). However, the departmental goals each had many (unobserved) objectives and outcomes (e.g., able to create marketing plans) that would require measures in an exit survey.[3] As a result, the construction and validation of multiple observable "instances" (items) for dozens of objective/outcomes using a domain sampling approach was impractical because of the time and resources required. (At least three items are

required for each objective/outcome for trustworthy factor analysis.) For these and other reasons, "just develop a survey" was becoming a non-trivial undertaking.

The present research discusses the development of a departmental exit survey that begins to address the knowledge gaps in this area. Specifically, it documents the development of a valid and reliable exit survey under the unusual and likely recurrent circumstances just described, which should be useful in others' development of similar assessment instruments.

APPROACH

Because we had previously developed programmatic goals for student learning (e.g., obtain employment), along with student-learning objectives linked to these goals, and learning outcomes linked to these objectives, the remaining tasks were to develop a questionnaire, and develop the rest of the survey protocol (the administration procedures). Several of the resulting tasks were comparatively easy. Because we would be measuring students' opinions, beliefs, and attitudes, we elected to use Likert-scaled items in our questionnaire. Because pencil-and-paper tests were familiar to students, these Likert-scaled items were placed on a pencil-and-paper questionnaire (web-based testing could be used later).

The approach used to develop the exit survey was a synthesis of suggestions made by authors primarily in the theoretical model (hypothesis) testing venue. It consisted of: (1) Define the constructs to be measured, (2) Generate item pools, (3) Validate the measures, and (4) Optimize the questionnaire length.

Several of these steps had sub-steps: (2a) Item judge the item pool to gauge face or content validity, (3a) Administer the items to a development sample of students, (3b) Verify reliability, (3c) Verify other aspects of validity,[4] (4a) Remove low reliability items, and (4b) Choose between single-item measures and multiple-item measures (see DeVellis 1991; Fink 2005; Hopkins 1997; Nunnally and Bernstein 1994; Patten 2001; Peterson 2000; Ping 2004a, 2004b). For emphasis, these development details were required to ensure that any program interventions were based on valid and reliable measures.

Since most of these development steps are familiar, we will discuss in detail only those steps that address unanticipated development issues for which there is little or no guidance. For example, there is little practical guidance for Steps 1 and 2 (define the constructs and generate items) when there are dozens of unobserved variables (learning objectives and outcomes), so these steps are discussed in detail. For completeness, however, we also will sketch the other steps.

Steps 1 through 3a, while important, are a little arid, and they have been placed in an Appendix. In summary, in Step 2 we overcame the problem of writing dozens of multi-item measures of the departmental goals, objectives and outcomes in a short period using a "bloated-specific items" approach (Cattell 1973). These items were placed on a questionnaire, and in Step 3a initial protocol refinement was conducted.

STEP 3b

After the protocol was developed and partially refined (see the Appendix) it was administered in the next capstone marketing course, and it produced 30–35 usable questionnaires depending on the statistical analysis (see Exhibits A and B). Because this provided enough cases to (very) preliminarily factor up to 7 items at a time (using 1 case per variance-covariance matrix entry – 28 entries), we used this data to roughly gauge the reliabilities, etc. of subsets of items. These analyses hinted that each set of items originally item-judged to tap a learning objective was unidimensional using maximum likelihood exploratory common factor analysis. This also enabled rough estimates of convergent validity determinations using Coefficient Alpha and the "Variance Explained" (percentage) statistic produced in each objective's factor analysis (see Fornell and Larker 1981). The reliabilities were 0.70 or above. The estimated explained variances were 0.50 or above, hinting that each objective's items had percent or more common or shared, error-free variance (again see Fornell and Larker 1981).

SUBSEQUENT ADMINISTRATIONS

The unchanged first-administration protocol was then re-administered in the next offering of the capstone-marketing course. Pooling the resulting cases with the first protocol administration, we repeated the (rough) factor analysis, reliability and validity determinations. (Pooling two sets of cases was judged to be acceptable for these rough analyses – the administrations were less that six months apart, and the student cohort, faculty, syllabi and pedagogy did not change materially in that time.) With few exceptions, the items clustered as expected, hinting that the items measured the appropriate learning outcomes. Reliabilities and convergent validities for the items in each learning outcome were also deemed acceptable – above 0.70 and 0.50 respectively.

To gauge our a priori assumptions regarding the higher order-factor structure of goals that were "indicated" by objectives, which were in turn indicated by outcomes, the items in each learning outcome factor were summed. The resulting summed items, one per factor, were factor analyzed again to investigate how they clustered: did they cluster into factors that approximated the a priori learning objectives? While these summed items

clustered into fewer factors than there were learning objectives, the resulting factors were judged to be acceptable learning objectives, and likely to be attributes/requirements for the a priori program goals. Reliabilities and convergent validities for these (summed) learning objective items were computed, and they were above 0.70 and 0.50 respectively, and thus judged acceptable.

NEXT STEPS

To finalize steps 3 and 4 (i.e., compute reliabilities, etc. and optimize the questionnaire length), we might have used the reliabilities, etc. at hand, but these results were based on fewer than 100 cases. Alternatively, high reliability items could be (dis)confirmed using further protocol administrations, and low reliability items could be dropped later.

However, the protocol administration windows were six months apart which presented several obstacles besides possibly requiring years to attain an adequately large sample size – additional administrations would yield fewer than about 100 more cases per year. The sources of variation that could affect averages by facet, learning outcome and learning objective are legion.[5] Ideally, these sources of variation should be controlled while the survey protocol is shown to be valid and reliable. (Without reliability and validity, and controlled sources of variation, changes in key statistics could be due to the lack of stability in the items, or changes in the program, etc., or both.)

Thus, several additional administrations with about the same reliabilities, etc. would have been desirable to assure that reliability and convergent validity were acceptably stable. (Reliability and convergent validity are sampling statistics, with unknown confidence intervals, that will vary across samples.) In the meantime, the marketing program should be "frozen" to the extent possible to minimize sources of variation while the assessment protocol is shown to be psychometrically stable.

However, freezing the marketing program was impractical. Thus, more administrations to finalize the protocol were judged risky because of the increasing potential for confounded results posed by the uncontrolled sources of variation in an unfrozen program.

In addition, because the exit survey development process had already entered its second year, there was faculty and administrative dissatisfaction with the prolonged development activity, and the lengthy measure development questionnaire which took considerable classroom time and student effort to complete. There was also a growing interest in showing assessment "progress" that extended beyond these development activities.

FINALIZING STEPS 3 AND 4

Facing the prospect of at least another year of additional development, with the difficulties just mentioned and the possibility of chasing a "moving target" with an unfrozen marketing program, we elected to finalize Steps 3 and 4 using a "bootstrap" (subsamples) of the data at hand (see Efron 1981).[6] In this case we were interested in identifying potentially low reliability and low convergent validity items, which would be candidates for deletion to reduce questionnaire length. We judged this approach to (roughly) provide a statistical equivalent of additional administrations to the target population as it currently existed, unaffected by changes from the above sources of variation (these matters are discussed later).

After using the bootstrap/subsampling process to identify candidate items for deletion, we administered the first administration protocol once more to disconfirm the bootstrap results. The resulting disconfirmation results from this additional administration were investigated further by bootstrapping the additional administration cases. This bootstrap identified items with low reliability and convergent validity.

Then we deleted the "confirmed" low reliability/low convergent validity items to reduce the size of the questionnaire, and retained the higher reliability/higher convergent validity items and those items for which there was some question about their reliability because of variation between the samples. The result was a comparatively more compact questionnaire with an acceptable risk of reliability and validity determination errors.

Specifically, the bootstrapping approach was judged acceptable because we were confident that a sufficiently valid and reliable protocol *for the present* had resulted. In particular, since a marketing program and its environment are dynamic rather than static, we anticipated redeveloping our questionnaire periodically. Stated differently, just as a marketing plan is expected to respond to a non static market and thus it should be revised, it may be unrealistic to expect an exit survey to effectively measure a "moving target" for very long.

DISCUSSION

With the items judged to adequately measure the appropriate (unobserved) learning outcomes (i.e., they had acceptable reliabilities and convergent validities), we factored the set of, in some cases summed, outcome items, again using maximum likelihood exploratory common factor analysis, to subsequently gauge the reliabilities, etc. of each learning objective (unidmensionality is assumed for reliability). Specifically, did the set of (in some cases summed) outcome items cluster into factors that approximated the a priori learning objectives? Again, these summed items clustered into fewer factors than there were learning objectives, but the resulting factors were judged to be acceptable learning objectives, and likely to be attributes/requirements for the program goals. Reliabilities and convergent validities for these (in some cases summed) learning objective items were recomputed, and again were above 0.70 and 0.50 respectively and thus judged acceptable.

To gauge the factor structure of the learning objectives versus the program goals, the (in some cases summed) items in each learning objective factor were summed again, and they were factor analyzed again to investigate how they clustered: did the learning objectives cluster into factors that approximated the program goals? However, these learning objectives were multidimensional (i.e., they clustered into several learning objectives factors). Nevertheless, the resulting factors were judged to be acceptable attributes/requirements for our "higher-order objectives." Repeating this process, the sums of the items in each of the "attributes/requirements for higher-order objectives" factors were unidimensional, but their "Variance Explained" (percentage) statistic was low, less than 0.50. This suggested that more work was needed to determine the important attributes, features, benefits, etc. (i.e., learning objectives and outcomes) of each goal.

The details of steps 3 and 4 (i.e., compute reliabilities, etc. and optimize the questionnaire length) were as follows. Unreliable items were identified, for example, using standardized factor loadings (the square of this loading is an estimate of that item's reliability – see Bollen 1989). A low convergent validity measure would have a "Variance Explained" (percentage) statistic produced in a maximum likelihood exploratory common factor analysis of less than 0.50. The convergent validity of a set of items should be gauged by factoring just those items (i.e., without other items present). Convergent validity for a single item is defined to be its reliability in domain sampling theory (see Nunnally and Bernstein 1994).

Items having reliability confidence intervals from bootstrapping with a comparatively high likelihood of containing a reliability value of 0.8366 (= the square root of 0.70), and items having convergent validity confidence intervals with a comparatively high likelihood of containing the convergent validity value of 0.50 were candidates for retention. (With sufficient bootstraps the standard error of reliability or convergent validity, the square root of their variance divided by the square root of the number of bootstraps, was small, so average reliability or convergent validity values could also have been used instead of confidence intervals.)

For measures that were judged likely to be convergent valid (the confidence interval was judged to have a comparatively high likelihood of containing 0.50), the

most reliable item (i.e., the item with the largest standardized loading) was chosen as a single-item measure of the target facet. (In multi-item measures, acceptable convergent validity is sufficient to establish acceptable reliability (see Fornell and Larker 1981)). For measures that were judged not likely to be convergent valid, items were deleted to improve reliability if possible. If the resulting measure had a reliability that was approximated by an item's standardized loading (an estimate of its reliability), this item was chosen as the single item measure of the target facet. If the measure was judged substantially more reliable than any of its items, the measure was used.

The approach used to produce items for the facets of the learning outcomes amounted to slight verb changes in Likert items such as "I can develop appropriate marketing strategies," "I can propose appropriate marketing strategies," "I can describe appropriate marketing strategies," etc. This approach has been criticized in the psychometric literature because it produces "bloated specific" measures, operationally narrow instances of their target construct (Cattell 1973, 1978). However, in the present case this was judged to be desirable for several reasons. The work required to write conceptual definitions, phrase these conceptual domains, then write the operational definitions of scores of facets, so that item pools could be created, was judged to be overwhelming. In addition, a "bloated specific" itemizing approach was judged to be more appropriate than a domain sampling approach in this case because the ideal questionnaire was to be composed of single items with minimum measurement error. Anecdotally, this approach is sometimes used in the marketing research industry, and it is similar to finding the "best" (most reliable) Likert item that asks about overall satisfaction.

Calls to truncate questionnaire development and "just come up with some questions" surfaced early. The elapsed time required threatened the need to report "real" assessment progress, and the length of the questionnaire used to debug the exit survey measures was excessive. As previously implied, this was the primary reason for using bootstrapping. For emphasis, the logic behind using bootstrapping was that bootstraps simulate sampling variation (see Efron 1981). It also enabled the creation of slightly finer grained criteria for item deletion (confidence intervals).

Computing mean attitudes toward learning outcomes was done next, and the lowest-scoring learning outcomes were targeted for intervention. Because of space limitations, these matters are not discussed further in this paper. (However, an intervention progress report is available from the author – see http://home.att.net/~rpingjr.)

SUMMARY AND CONCLUSION

(Omitted – see http://home.att.net/~rpingjr)

ENDNOTES

1. The other five regional accreditation bodies in higher education are: the New England Association of Schools and Colleges (NEASC), the Middle States Association of Colleges and Schools (MSA), the Southern Association of Schools and Colleges (SACS), the Northwest Commission on Colleges and Universities (NWCCU) and the Western Association of Schools and Colleges (WASC).
2. These departmental-level requirements may be unknown to some business schools because they are recent and accreditation reaffirmation cycles are lengthy.
3. See for example Chonko (1993), Chonko and Caballero (1991), Floyd and Gordon (1998), Granitz and Hugstad (2004) and the citations therein, Koch (1997), Lamont and Friedman (1997), and Porter and McKibbin (1988) for more on undergraduate marketing programmatic objectives and outcomes.
4. There is little agreement on the aspects of validity. We were primarily interested in face or content validity – how well items matched their learning objectives and outcomes--and convergent validity – the amount of common (error-free) variance in a set of items.
5. They include random differences in each protocol administration. Sources of variation also may include faculty hiring and retirements; changes in global, departmental, or individual class grading standards; and changes in textbooks. Global or local changes in course rigor, variations in attitudes toward instructors, global or local changes in contact time such as changing a three-hour course to a four-hour course, changes in class size, and global or local changes in student-course involvement may also produce variation in results by facet, learning outcome and learning objective. Variations also may result from longer-term changes in student cohorts such as changes in admission standards and student ability, student preparedness, and changes in pedagogy such as "teaching to the test" and focused instruction in below-average scoring facets.
6. A bootstrap involves randomly removing 10–20 percent of the cases from a data set and analyzing the remaining cases. Then, the removed cases are replaced, a second set of cases is randomly removed, and the remaining cases are analyzed. This process is repeated and reliability, validity, etc. are examined across the resulting set of subsamples.
7. Our faculty believed they were competent to determine

these attributes or objectives, and there is a considerable literature on "business higher education objectives" (see Endnote 3 for citations).

8. In effect we were defining goals as third-order unobserved variables that were "indicated" (measured) by the second-order unobserved variables, "objectives," that were in turn "indicated" by the first-order observed variables, "outcomes" (see Gerbing and Anderson 1984; Gerbing, Hamilton, and Freeman 1994; Rindskopf and Rose 1988 for more on higher-order unobserved variables).

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APPENDIX
Development Steps 1 Through 3a Details

STEP 1

In Step 1, Define the Constructs, we had previously developed marketing undergraduate programmatic goals, objectives, and outcomes. These goals primarily involved student employment or graduate work in Marketing, and included, for example, statements such as ". . . hold an entry-level marketing position in a business or nonprofit organization." To identify specific objectives beneath these goals, we were guided by Ajzen and Fishbein's (1980) writings involving attitudes. Specifically, we elected to view goals as *attitudes*, such as "I am qualified to hold an entry-level marketing position. . . ." Ajzen and Fishbein (1980) argued that overall attitude toward a target is mentally

"determined" by attitudes toward important attributes, features, benefits, etc. of that target. Thus, the important attributes, features, benefits, etc. of each goal were identified. Because students were unable to reliably determine these attributes, departmental faculty identified the important attributes of each goal, and labeled these "learning objectives."[7] Repeating this process for each learning objective, we developed the important attributes of attitude toward each learning objective, which we termed "learning outcomes"[8] (examples are provided next).

STEP 2

The resulting learning objectives and outcomes typically were compound statements containing conjunctions (e.g., "suggest appropriate marketing strategies *and* tactics for both domestic *and* global business situations"). In the literature search we found no specific guidance for measuring these compound statements. Thus, to generate item pools for Step 2, each of these compound statements was separated into its nouns with their modifiers, which we will term "facets," by dropping verbs and substituting punctuation for conjunctions.

This produced, for example, facets such as "appropriate marketing strategies," "appropriate marketing tactics," "appropriate marketing strategies for domestic business situations," and "appropriate marketing tactics for global business situations" for the above objective.

Next, for each of these facets (sentence fragments), at least three items were generated in order to produce "trustworthy" (exactly- or over-identified) facets for factor analysis. This produced for the facet "appropriate marketing strategies," for example, "I can develop appropriate marketing strategies," "I can propose appropriate marketing strategies," "I can describe appropriate marketing strategies," etc. (these "bloated specific" items were discussed earlier – see Cattell 1973, 1978).

COMMENTS

We judged verb choice to be important (see www.ncgia.ucsb.edu/education/ curricula/giscc/units/format/outcomes.html for suggestions), and we gave preference to "doing" verbs over less action-oriented verbs (e.g., "describe" versus "learned").

There appears to be little agreement on the use of polar items (i.e., "I am *certain* that I can define strategic planning," versus weaker phrasings), and the use of negative phrasing (e.g., "I do *not* believe I can do strategic planning," etc.). Our choices were to avoid polar and negative statements. (Anecdotally, there is evidence that negative items tend to cluster in their own factors, and polar phrasing tends to produce high variances). The result was a very large pool of items (i.e., 5 learning objectives, each with multiple facets from conjunction removal, and up to 5 learning outcomes per learning objective facet, each with 3 or more items per facet).

STEP 2A

The resulting items were item judged by four terminally degreed departmental members to gauge the content or face validity of the items – how well the items tapped into the learning outcomes. The result was a document from each judge containing each learning outcome with the item numbers of the items that appeared to tap into the learning outcome penciled in.

COMMENTS

Since we were measuring learning outcomes, the item-judging document did not contain the learning objectives. Even though there were items measuring facets of learning objectives, restricting item judging to outcomes assumed that outcomes are the attributes for the objectives, which in turn are the attributes of the goals, all of which would be verified later using factor analysis.

There was little agreement among the judges on the items assigned to a learning outcome, so we excluded items that were not assigned to the same learning outcome by at least three out of the four judges. Because, in some cases, fewer than three items per facet resulted from this exclusion criterion, we added a few items that were minor rewordings of items that were not excluded.

APPENDIX (CONTINUED)

STEP 3

Then, a questionnaire containing these items was constructed (see Exhibits A and B). Each item used a five-point scale (i.e., Strongly Agree, Agree, Neutral, etc.) that appeared opposite the item.

COMMENTS

There is little agreement on the use of five-point scales with Likert items versus seven-point scales, but the use of a neutral scale point was deemed important because it produced an "equal interval-like" scale so that analytical techniques which assume at least interval data could be used (e.g., factor analysis). (Without a neutral point the perceptual distance between agree and disagree is greater than the perceptual distance between strongly agree and agree, for example.) A "Not Applicable" response was not provided because all the items were deemed "applicable." ("Not applicable" also produces multivariate analysis difficulties.)

Experience suggests the choice of font may affect non-response rates in long questionnaires, and font judging was conducted for "tone" and readability (Exhibit B uses Letter Gothic). There is also little agreement on whether to "block" items together, or to mix them up randomly throughout the questionnaire. Blocking was chosen because it focuses the respondent on the learning area (e.g., Consumer Behavior), which may increase reliability. It also provided the visual effect of items punctuated with a paragraph of text instead of a monotonous sequence of items. Each block of items was preceded by a "prompt" to prepare for the next block of items (e.g., "Now think about what you have learned about Consumer Behavior. . . .") (see Exhibit B).

STEP 3A

Next, the rest of the protocol was designed, and it was administered to several graduate students for "protocol testing" to uncover wording (validity) problems (see Dillon, Madden and Firtle 1994). In a protocol test a respondent completes and turns in the questionnaire, and then the respondent is interviewed by the test administrator for the respondent's response to each item (e.g., "On the item, 'I can describe strategic planning,' what was your response?"). The administrator compares the verbal response to the written response, and a discrepancy usually indicates a problem with an item.

In addition, the protocol was administered to the introductory marketing course (at the end of the course) to uncover any administration problems, to provide estimates of the non-response rate due to incomplete and blank questionnaires, and to provide an estimate of the completion time for the questionnaire.

COMMENTS

We had hoped to use the data from the introductory marketing classes (very) roughly to gauge reliability and convergent validity. However, the psychometric results (e.g., reliabilities, etc.) across the sections of the introductory marketing course were sufficiently different that they were not used.

Nevertheless, keying the resulting data and the attempted psychometric analyses uncovered several problems with the questionnaire and the rest of the protocol that would not have been discovered until much later. For example, items on the questionnaire were blocked by subject, but items with similar wordings sometimes appeared one-after-another, which tended to produce response "echeloning" (i.e., marking the same response for all the similarly worded items). Several students also asked about items related to strategic planning, which suggested item validity problems. One of the factor analyses also suggested that the ethics items tended to cluster together regardless of where they appeared on the questionnaire.

The questionnaire also contained demographic information, which in a few cases caused difficulty during administration because students thought it might be used to identify them. As a result, the demographic items were reduced to minimum, except for "Grade Average in Marketing" and GPA, which were necessary for regression analysis later, and students were instructed to skip any worrisome demographic items.

The protocol was designed to include no response incentive (e.g., no extra credit), and it was administered during class in the capstone marketing course. While several students turned in blank questionnaires, several questionnaires were echeloned, and some had missing items, the lack of a response incentive (i.e., no extra credit) was judged to not have materially affected response rates.

EXHIBIT A

Exit Survey Cover Letter (Omitted – see http://home.att.net/~rpingjr).

EXHIBIT B

Exit Survey Questionnaire (Page 1 of 7).

INSTRUCTIONS

The statements below ask for your views on what you've learned in your marketing classes. Please respond to these statements by **CIRCLING A LETTER to indicate your response on scales like the following:**

Strongly Agree SA	Agree A	Neutral (Neither Agree nor Disagree) N	Disagree D	Disagree SD

Some of the statements below may seem redundant. Actually, redundancy is important to finding the highly reliable statements. PLEASE DO NOT TRY TO REMEMBER HOW YOU RESPONDED TO SIMILAR STATEMENTS EARLIER. Please make each response a separate and independent judgement. Also, please work at a fairly high speed through this inventory and do not worry or puzzle over individual statements. It's your first impression, your immediate "feeling" about each statement, that we want. On the other hand, please do not be careless in your responses because we want your true responses.

The questionnaire is a little longer than we would like, and subsequent versions should be much shorter once we figure a few things out. Please be patient with the questionnaire and WORK RAPIDLY, BUT PLEASE RESPOND TO EACH ONE OF THE STATEMENTS.

Now, please think for a moment about the topic of CONSUMER BEHAVIOR. In your marketing classes did you learn about consumer behavior? Did you learn about the consumer decision-making process? Did you learn how consumer behavior affects marketing decisions?

Here are some statements about what you learned about CONSUMER BEHAVIOR. Please circle your degree of agreement or disagreement with each statement.

	Strongly Agree SA	Agree A	(Neither Agree nor Disagree) N	Disagree D	Disagree SD
3a. I understand consumer behavior.	SA	A	N	D	SD
t1. I have learned the different personal, societal, and situational influences on consumer behavior.	SA	A	N	D	SD

	Strongly Agree SA	Agree A	(Neither agree nor disagree) N	Disagree D	Disagree SD
7a. I understand the variations of consumer behavior patterns across markets and products.	SA	A	N	D	SD
6a. I understand the consumer decision-making process.	SA	A	N	D	SD
u1. I have learned the different consumer behavior patterns across markets and products.	SA	A	N	D	SD
4a. I understand how consumer behavior affects marketing decisions.	SA	A	N	D	SD
5a. I understand the personal, societal, and situational influences on consumer behavior.	SA	A	N	D	SD
u2. I know about the consumer behavior patterns across markets and products.	SA	A	N	D	SD
t2. I am aware of the personal, societal, and situational influences on consumer behavior.	SA	A	N	D	SD

Please go on to the next page ⟶ (etc.) . . .

EXPLORING SATISFACTORY AND DISSATISFACTORY STUDENT-PROFESSOR ENCOUNTERS: THE STUDENT'S PERSPECTIVE

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SUMMARY

A few years ago, universities in Germany started charging student tuition fees for the first time. Thus, German universities will be forced to pursue a more student oriented approach with the particular aim of retaining students for postgraduate study. The new environment will compel German universities to monitor the quality of the educational services they offer more closely to retain current students and attract new ones. As students in Germany will probably become more demanding and selective due to the introduction of tuition fees, universities should thus prioritize the understanding of student quality experiences.

Oldfield and Baron (2000) identified higher education as a "pure" service and stressed the importance of the quality of personal contacts. Based on these findings, the underlying assumption of this paper is that for students, the qualities and behaviors of professors have a significant impact on their perceptions of quality during personal (service) encounters. In the context of higher education, findings by authors such as Hansen, Hennig-Thurau, and Wochnowski (2000) indicated that the instructional quality of the professor is the main influence on the perceived quality of modules. Knowing more about student experiences may enable professors to adapt their attitudes and behavior to their students' underlying expectations, which should positively influence students' perceived quality and their satisfaction levels.

The Study

The focus of the study was on the quality elements in higher education that students themselves regard as important. Given the need for more research on classroom (service) encounters (Swanson and Frankel 2002), the research study was exploratory in nature. To be more specific, the research study used the critical incident technique (CIT) to develop a framework for understanding satisfactory and dissatisfactory student-professor encounters that students experienced. These experiences may improve or weaken the student's learning experience. Knowing what students regard as satisfactory and dissatisfactory student-professor interactions help professors improve the classroom experience by, e.g., changing course policy or improving interpersonal skills or by

just having a better understanding of the student's perspective (Davis and Swanson 2001).

Researchers can collect CIT data in several ways. Traditionally, researchers conduct interviews or hand out questionnaires. CIT method has more recently also been conducted online using web-based CIT questionnaires (e.g., Warden et al. 2003) to ensure that participants are not influenced by an interviewers' appearance, tone of voice and body language as they could be during CIT interviews. We decided to use an online approach and the address of the website hosting the CIT online questionnaire was mentioned in five business and economics education courses with a total of 322 postgraduate students at a large German university. The online questionnaire began by asking respondents to give details regarding age, gender, and course of study. Students then had to think of a specific situation in which they were extremely satisfied or dissatisfied with the teaching experience and the professor. In particular, students were asked the following questions: (1) Briefly describe the incident! (2) When and where did the incident happen? (3) What was done or said during the interaction? (4) What resulted that made you feel extremely satisfied or dissatisfied with the professor in the particular situation? For each question, students could type in their answers in a large textbox and respondents could describe up to three positive and/or negative incidents using their own words. Ninety-six students took part in the study on a voluntary basis and reported 164 incidents. Respondents were aged between 19 and 24 years (X = 23.2) and slightly more female students (52%) filled in an online CIT questionnaire than male students (48%). Each student provided between one and four incidents with an average of 1.7 incidents. The collected student-professor incidents were categorized and quality dimensions of professors were then developed.

Results

The sorting process of the collected critical incidents confirms the three major groups suggested by Swanson and Davis (2000) that accounts for all satisfactory and dissatisfactory incidents. (Group 1: Professor response to service delivery system failures. Group 2: Professor response to students needs and requests. Group 3: Unprompted and unsolicited professor action). Out of the

164 answers, more were relating to negative (95) than to positive incidents (69). By far the largest number of both satisfactory and dissatisfactory incidents were categorized in Group 3, with the next largest proportion falling into Group 2 followed then by Group 1. This distribution of incidents corroborates previous work by Swanson and Davis (2000) and Davis and Swanson (2001). Based on the analysis of the incident summaries, 10 quality dimensions of professors were classified (Expertise, Reliability, Fairness, Friendliness, Empathy, Teaching Skills, Approachability, Helpfulness, Enthusiasm, Openness). The most frequently mentioned quality dimension for both positive and negative incidents is "Teaching skills." While respondents particularly pointed out the helpfulness, openness and enthusiasm of professors in the positive incidents, they mainly stressed the lack of friendliness and fairness in the negative incidents. Two attributes of professors were only mentioned in negative incidents: expertise and reliability. Thus, students either only remembered situations in which professors showed a remarkable lack of competence or were particularly unreliable or they just have not experienced professors with outstanding competence and reliability yet. All the other quality dimensions were mentioned in both satisfying and dissatisfying incidents to varying degrees. References are available upon request.

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STUDENTS' EVALUATION OF TEACHING: CONCERNS OF DIAGNOSTICITY VERSUS VALIDITY

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SUMMARY

Introduction

American Universities have been collecting student teaching evaluations since the early 1900s. At most Colleges and Universities these ratings are used for decisions regarding faculty tenure and promotions and therefore the validity of these ratings is a crucial issue. Greenwald (1997) identified 182 published research studies between 1971 and 1995 addressing the validity of student ratings. Forty-two percent of the studies reported that the student ratings were valid, while 36 percent reported that the student ratings were biased. Grading leniency is a common assertion for why the teaching evaluations are biased. In defense of the use of student evaluations Greenwald and Gillmore (1997) argue that, if nothing else, the ratings provide information about how well students like a course. If the ratings simply indicate an overall impression as to how much the students like a professor, whether for lenient grades or any other global reason, then the items are not tapping separate dimensions of instructional effectiveness. Thorndike is credited with calling this phenomenon of performance ratings halo error. If the motivation for collecting students' evaluation of teaching is to determine whether students liked or disliked a course, halo may not a problem. Halo can be problematic if the goal is to analyze responses to individual items.

The goal of the present research is to use the approach introduced by Dillon et al. (2001) to decompose teaching evaluation ratings into the two sources of response: Professor Specific Association (PSA) and the Global Professor Impression (GPI). PSAs reflect a student's perception of the performance of a professor on a specific aspect of teaching, while GPIs reflect the portion of the evaluation due to a global evaluation or a halo response.

Method

Participants in the study were drawn from students enrolled in first-year core courses in a Professional MBA program. The students rated three professors on twelve items. Following the decomposition of the observed scores using the constrained components analysis, two analytical methods were used to assess these issues: analysis of variance and regression analysis. The ANOVA compared the performance of the three professors based on the raw scores and the decomposed scores. For the regression analyses the dependent variable was whether the students would recommend the professor. Beta coefficients for the 12 items were estimated using the raw scores and the decomposed scores.

Results

The results indicate that the evaluations are dominated by the GPI or halo response. The average variance extracted for the PSA score across the three professors is .12, while the average variance extracted for the GPI score is .54 for the three professors. Therefore, the raw scores for the teaching evaluation items lack diagnosticity. The Bonferroni comparisons using the raw scores indicated that professor one and two differed on only one item. However, when the PSA scores were used for the Bonferroni comparisons these same professors differed on all twelve items. Inspection of the scores indicated that each professor was rated higher on six of the twelve items.

When the dependent variable, would you recommend this professor, was regressed on the raw scores the R^2 values for the three professors were .88, .87, and .91. However, for the 12 independent variables there was one significant beta for one professor and four significant betas for the other two professors. These results indicate a high degree of association among the items. One potential source for this association among the individual items is a halo response. When the dependent variable was regressed on the PSA scores for the 12 items, and the average GPI score for the 12 items the R^2 values were, as expected, the same. Consistent with the notion that these evaluation items are influenced by a halo response, the coefficient for the GPI score was significant for all three professors however, only one of the 12 PSA score coefficients was significant for one professor. Interestingly, when the raw scores were used the item for the professor was significant and positive; however, when the decomposed scores were used the coefficient was significant but negative.

The items used here do show evidence of convergent validity (all Alphas > .93); however, one may question the difference between convergent validity and halo. Validity means that the items are measuring what is purported to be measured. However, there is clearly a different interpretation when using the observed and decomposed scores. References are available upon request.

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GROUP-BASED ASSESSMENT AS A DYNAMIC ASSESSMENT TECHNIQUE IN MARKETING EDUCATION

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SUMMARY

Today's business environment is challenging. In order to survive and prosper in this challenging environment, firms have an obligation to respond continuously to opportunities and threats posed by the marketplace. In this challenging scenario, marketing professionals need to take responsibility for interpreting the environment and making significant choices such as which customers to target, competitors to compete, and new products/services to offer (White 2003). Since this is a complex process, marketing professionals are expected to possess the ability to identify problems; search out related information; analyze, synthesize, and evaluate the diverse information; and describe solutions in a critical and reflective manner (Hunt and Laverie 2004; Laverie 2006; Young 2005).

Most marketing professionals are marketing graduates; therefore marketing educators need to develop the necessary abilities in these students. How do we expect new marketing graduates, with little or no supervision, to handle such a challenging task? What responsibilities do marketing educators have in this process? We all agree that in order to succeed, marketing students should be able to define and creatively solve the problems, to efficiently and effectively work in teams, and to provide and receive critical feedback (Hernandez 2002; Laverie 2006; Smart, Kelley, and Conant 1999). Students need to learn how to be process focused rather than product focused to be able to offer value to their employers after graduation. Therefore, marketing educators need to change the students' perception of learning. Students should be equipped to learn beyond the academy and understand that the raison d'etre of higher education is to provide a foundation for lifelong learning (Boud and Falchikov 2006). One way to shape students' perception of learning is assessment (Bloxham and west 2004; Stefani 1998). The question is that how can marketing educators link assessment and learning objectives and outcomes such a way that strengthens the assurance of learning process?

Marketing educators have encountered limitations in their assessment techniques and tools. Traditional assessment does not provide much information about students' propensity for learning or transferring their knowledge from classroom settings to the business world. Assessment techniques should measure not only what students learn, but also their propensity to learn (Day and Cordon 1993; Jeltova et al. 2007). Based on the Dynamic Assessment Theory (Feurstein 1990; Vygotski 1978), the purpose of this manuscript is to propose a new pedagogical tool, Group-Based Assessment (GBA), and investigates its effectiveness in turning students into competent, intrinsically motivated, autonomous, independent, and self regulated learners. We conceptualize GBA as a dynamic assessment technique and define it as an active and dynamic feedback process that occurs in a team environment. The basic features of GBA are introduced as inclass team learning, giving and receiving feedback, and students' involvement in the assessment process. It is defined as a tool that fits into new learning paradigm and, thereby, transforms the marketing education in response to the call to improve the readiness of marketing graduates for the competitive business world. It is also proposed to add value to students' learning experiences. As Karn (2006) indicates, students learn more and have quality learning experience, when the inclass activities are enjoyable, challenging, and real world based.

We investigated the effect of GBA procedure on students' perceived autonomy, intrinsic motivation, self regulated learning strategies, perceived competence, actual performance, and task mastery orientation. The medium for this empirical study was 16 weeks long, three hours a week contact time module in two sections of Introduction to Marketing class. 127 students from a Southwest University participated in this study. Due to the theoretical framework (e.g., dynamic assessment theory) of this study, dependent variables were measured at pretest and, after the intervention, at posttest. Since the same units (e.g., students) are used in both the pretest and posttest sessions, the research design is one group pretest posttest quasi experimental design. Since the main objective is to compare mean values of specified variables on the same subject in two different time periods, paired ttest is chosen as the statistical analysis. According to the hypotheses testing results, all hypotheses are strongly supported. It may be indicated that GBA procedure, as an active learning/ assessment technique, assists students to boost their intrinsic motivation, feel autonomous, use deep and meta learning strategies in their study, increase their perceived competence, and be task mastery oriented. Supporting Kahn's claim (2006), GBA procedure is ex-

pected to provide marketing students opportunities to express themselves, to enjoy the camaraderie of their teammates, and to increase their survivability in the competitive business world. References are available upon request.

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CONSUMER MOTIVATIONS TO BUY AND CONSUME LUXURY GOODS

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SUMMARY

This paper focuses broadly on consumer motivations to buy and consume luxury goods. Objectives are to summarize relevant empirical and conceptual literature in marketing and related fields and to suggest propositions to guide future research.

Introduction

Consumer motivations to buy and consume luxury goods can be described in terms of satisfaction of innate human needs, based on objective product/competitive characteristics and on consumers' perceptions of value gained through private and public consumption experiences. Luxury goods range from premium yet common products affordable to many consumers to exotic, rare, and unique products affordable only to the elite. From perspectives of economics, product/competitive characteristics, consumers' value perceptions, and beliefs of the general public, luxury goods are different. Compared to standard goods, luxury goods are relatively expensive and scarce; regularly possess superior design, quality, and performance; offer their users a subjective value in use that cannot be easily quantified; and provide their users with social and economic status as ascribed by others.

Marketing Literature on Consumers and Luxury Goods

Research on the consumption of luxury goods appears in several disciplines, including historical analysis, econometric modeling, economic psychology, and marketing. Accumulated knowledge remains quite limited with respect to a marketing understanding of consumers of luxury goods (Dubois and Duquesne 1993). The marketing literature emphasizes attitudes and perceptions about luxury goods rather than motivations to buy and consume: The literature overlooks five relevant, domain specific consumer motivations to buy and consume luxury goods.

Domain Specific Motivations to Buy and Consume Luxury Goods

Ten domain specific consumer motivations explain why people buy and consume luxury goods. The first three – uniqueness, conformity, and self-esteem – are widely recognized and have been termed "traditional" motivations based on interpersonal or social effects (Vigneron and Johnson 1999). The next two – pleasure/hedonism and utilitarianism – are newer and based on personal or private effects (Vigneron and Johnson 1999). The last five – materialism, legacy, investment, habit, and variety seeking – have received limited or no recognition in the literature.

A review of the ten consumer motivations suggests that three conceptual domains categorize the purchase and consumption of luxury goods: product/competitive characteristics of the product offering, consumers, and relevant others. Initial motivations to purchase and consume luxury goods often begin with consumer perceptions of objective characteristics of a product offering. Characteristics include superiority, distinction, and scarcity connected to product performance and quality (features, operation, durability, and reliability), product design and style, product warranty and service, price, and features associated with retail stores where the luxury good is sold. Combinations of objective characteristics result in consumers' subjective perceptions of a luxury product's value. These perceptions are aggregated over discrete choice criteria or holistically integrated and vary depending on whether the person is a luxury good consumer or a relevant other. Relevant others include potential buyers (first-time buyers, discontinued buyers), others who associate with consumers of luxury goods (friends, family, colleagues), and still others as the general public. Relevant others assign public meanings to nonowned/nonused luxury objects based on their perceptions (Richins 1994a).

Propositions for Future Research

Following are seven propositions as directions for future empirical research:

1. A selected product category can contain both traditional luxury goods and new luxury goods as perceived by luxury good consumers and relevant others.

2. Propensities to buy luxury goods and to consume luxury goods are neither identical nor monotonic with respect to consumer age. Relationships between the two propensitites vary by luxury good product categories.

3. Motivations to buy and consume luxury goods vary depending on whether the luxury good is perceived as a traditional luxury good or a new luxury good and

whether the luxury good is a durable or nondurable luxury good.

4. The relative importance of motivations to buy and consume luxury goods depends on the relative saliency of the self and relevant others in a consumption situation.

5. Within a luxury good category, motivations to buy and consume luxury goods will vary by luxury good consumers and relevant others. Meaningful segments of luxury goods consumers and relevant others can be identified based on motivations to buy and consume luxury goods.

6. Understudied motivations (materialism, legacy/immortality, investment, habit, variety seeking) to buy and consume luxury goods will explain consumer behavior and behavioral intentions as well as estab-

lished motivations (uniqueness, conformity, self-esteem. pleasure/hedonism, utilitarianism).

7. Consumers evaluate product/competitive characteristics of a luxury good using different psychological processes based on the ten motivations.

Summary and Conclusions

Consumer decisions to buy and consume luxury goods depend on ten domain specific motivations, product/competitive characteristics, consumers themselves, and relevant others. A review of relevant literature finds five well-recognized motivations and five that are not. The ten motivations produce seven propositions intended to guide empirical research. No motivations have been studied empirically as explanations of consumer behavior and consumer intentions related to the purchase and consumption of luxury goods. References are available upon request.

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PREDICTING FUTURE PRODUCT FAILURES: THE EFFECTS OF MENTAL UNPACKING AND REGULATORY FOCUS

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SUMMARY

While making product use or purchase decisions, consumers often make explicit or implicit judgments regarding potential product failures in the future (Folkes 1984). In a related vein, through advertisements and other actions, managers and regulators often have the flexibility to influence what types of information are presented to consumers, and can even provoke consumer thoughts. For instance, in several of their commercials, AllState reminds consumers about the different possible ways of getting into an accident. Similarly, in their printed advertisements, Liberty Life Insurance asks readers to think about all the possible causes of death, and then lists all the possible causes of deaths that a reader might have overlooked (e.g., bicycle accidents, choking, falling from a ladder, electrocution, etc.).

Extending prior literature, we are proposing that a consumer's probability judgment of future product failures would depend on the potential number of product failure-related problems that the consumer can think of (Tversky and Koehler 1994) and her regulatory focus while thinking of such problems (Higgins 1997, 2002).

In our studies, we gave participants a priming task whereby at the start of the experiment, they were asked to generate (i.e., list) causes of product failure. In Study 1, we hypothesized that consumers will have higher probability judgment of future product failures when the generation of unpacking variables (i.e., causes of product failure) is relatively easier (versus difficult), due to relatively fewer (versus greater) number of unpacking variables being asked to generate in the priming task. Moreover, the effects predicted by this hypothesis would become stronger under high (vs. low) need for cognitive closure. The results of a 3 (priming task: packed condition – no priming vs. unpacked with 4 variables generated – priming task with participants listing 4 causes of product failure vs. unpacked with 12 variables generated – priming task with participants listing 12 causes of product failure) X 2 (need for cognitive closure: high vs. low) between-subjects experiment supported these hypotheses.

In Study 2, we examined the moderating effects of regulatory focus. We hypothesized that consumers will have higher probability judgment of future product failure when primed to generate relatively fewer (versus very high) number of causes of product failure, in a prevention focus, with the differential effects getting diminished in a promotion focus. We also hypothesized that in the priming task, consumers are likely to generate a greater number of causes of product failure, but with lower accuracy, under a promotion (versus prevention) focus. The results of a 3 (priming task: packed condition – no priming vs. unpacked with 4 variables generated – priming task with participants listing 4 causes of product failure vs. unpacked with 12 variables generated – priming task with participants listing 12 causes of product failure) X 2 (regulatory focus: promotion vs. prevention) between-subjects experiment supported these hypotheses.

In sum, the results of the two experiments show that when consumers are primed to generate causes of product failure, they would tend to have higher probability judgments of future product failures, but only when they can generate the causes of failure with relative ease. That is, there is a positive correlation between the number of causes generated and perceived probability of future product failure, but only when consumers are able to generate the causes with relative ease. The results of the experiments show that when asked to generate 4 causes of product failure, consumers have higher probability judgments of future product failure than when no such causes of product failure are generated. However, when asked to generate a very high number of causes of product failure (i.e., 12), participants have equivalent levels of probability judgments for future product failure as when not asked to generate any causes of product failure. Moreover, this pattern of results gets moderated by the need for cognitive closure and the regulatory focus of the consumer.

In terms of managerial implications, choices for products such as insurance policies and warranties would be strongly influenced by consumers' probability judgments of future outcomes and product performances. Hence, it is not surprising that Insurance companies such as Allstate and Liberty Life Insurance have advertising

campaigns that encourage such thought priming. However, marketers should be careful not to prime consumers to generate an extremely high number of causes of product failure, as such an approach can lead to relatively diminished probability judgments. In a related vein, regulators need to be aware of potential scope for abusing such priming through advertisements. References are available upon request.

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REGULATORY FOCUS, MORTALITY SALIENCE, AND MATERIALISM

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SUMMARY

Consumers surround themselves with material goods and experiences for many different reasons. Possessions can serve as security against fears and anxiety. This study investigates how possessions mitigate against such anxiety, particularly that existential anxiety of our own mortality. Our concern is two-fold: how do consumers orient and cope with mortality; and how does materialism, or the emphasis placed on possessions, help with this coping.

Existential philosophers such as Søren Kierkegaard (1844/1980) and Martin Heidegger (1926/1962) present anxiety as inescapable aspects of the self. Humanity lives in anxiety, and it is a core component of our being. Terror management theory (TMT; Solomon, Greenberg, and Pyszczynski 1991) explicitly addresses the issue of psychological anxiety associated with mortality through the *mortality salience hypothesis,* which states that awareness of mortality creates a response for greater cultural salience and increased emphasis on cultural norms and values (see Pyszczynski, Greenberg, and Solomon 1997). As individuals become aware of death, they turn toward their cultural worldview and ethnic identifications to engage in increased self-esteem functions to buffer against these feelings anxiety and dread toward death. According to this *cultural-anxiety buffer* hypothesis, validation is required from peers and society to uphold self-esteem. By strengthening self-esteem, anxiety toward death is reduced (see Harmon-Jones et al. 1997). As consumerism is a strong part of the cultural worldview (at least for capitalistic societies, like the United States), it is proposed that materialistic tendencies increases in light of mortality salience (MS) (Arndt et al. 2004).

H1a: Mortality salient subjects will evaluate products higher than low mortality subjects.

H1b: Mortality salient subjects will rate high status items higher than low mortality subjects.

Regulatory focus (Higgins 1997) takes a step back from this, asking how individuals orient themselves and their goals toward pleasures and pains. Regulatory focus looks at how individuals are oriented toward overcoming mortality, whereas TMT looks at the mechanism through which these goals are achieved. Regulatory focus indicates how well the consumer creates an anxiety buffer through increased self-esteem and bolstering of worldviews. Thus, promotion focused individuals are more focused on achieving life goals; whereas prevention focused individuals are more concerned with avoiding thoughts of death. We would expect promotion focused individuals to be more goal-orientated and less concerned with material objects to supplant personal goals. Prevention focused individuals will try to avoid thinking about death and thus will search for something else to supplant these thoughts and fears. Thus:

H2a: Prevention focused subjects will evaluate products higher than promotion focused.

H2b: Prevention focused subjects will rate high status items higher than promotion focused.

H3: Regulatory focus will moderate the relationship between MS and materialism.

Two studies were run. The purpose of the first study is to determine if there is an effect of MS and regulatory focus on the evaluation of advertisements. The second study looked at the effects of chronic promotion/prevention and MS on advertisements. Undergraduate students at a Midwestern university filled out an experimental packet measuring mortality salience, materialism and promotion/prevention. A 2 (focus) x 2 (MS) between-subjects MANCOVA was used to analyze the study. We would expect high MS subjects to rate high-status products higher. Subjects with a prevention focus to rate high-status items higher and those with a promotion focus to rate items lower.

Repeated measures MANCOVA revealed that high-status items are rated lower than low-status items for all subjects, except for prevention focused, non-MS individuals, providing no support for H1b. Promotion focused consumers who are MS rate ads as more effective than prevention focused individuals. Low-status, ad interest is higher for prevention-focused individuals who are MS than high-status items, providing mixed support for H2a and H2b. This relationship is switched in prevention focused non-MS individuals, and in promotion focused MS individuals. Purchase intention is higher for promotion focused MS individuals, and prevention focused MS individuals for low-status products. This relationship is switched for non-MS individuals, providing support for H3.

This study investigated the relationship between MS and materialism. MS has a pronounced effect on per-

ceived advertising effectiveness and higher purchase intentions providing mixed support for H1. The relationship between high MS behavior and the control group reflected that those who are, in general not concerned with their own mortality, are more drawn to the ads. However, the high MS group did rate purchase intentions higher than the control group, indicating that the thought of purchase had a stronger influence that the advertisement itself in addressing MS thoughts. Individuals who were prevention focused were more interested in the advertisements and their effectiveness, whereas promotion focused individuals exhibited higher purchase intentions regarding these products, providing support for H2a and H2b.

These results are surprising in that those who are more aware of their death are less concerned with advertisement effectiveness or interest. However, they do exhibit higher purchasing intentions. Thus, MS removes personal involvement within advertisement evaluation, but the act of purchasing and acquiring items is still of importance in addressing the existential anxiety resulting from awareness of death. Through this chronic awareness of death, consumers are not drawn into advertisements; however, they do find solace in purchase intentions.

These results provide support to Rindfleisch and Burroughs (2004) criticism of TMT and materialism. They question that materialism may not be a viable path for addressing MS. Thus, it is not involvement in the advertisements that helps support the underlying world-view of these consumers, but the purchase intentions. As cultural and world-views change coping mechanisms may change. The current paper addresses this limitation by proposing that regulatory focus may serve as an appropriate indicator toward how TMT serves to reduce MS.

While many studies investigate the effects of MS on materialistic tendencies (Kassar and Sheldon 2000; Mandel and Heine 1999), to our knowledge no studies have investigated the relationship between MS, regulatory focus and materialism. These studies begin to address the effects of regulatory focus as a mechanism for addressing MS within the consumer. In particular, these results highlight how promotion focused individuals are less inclined to avoid thoughts of death through materialistic responses, whereas prevention focused individuals find solace in possessions as escape from thoughts of death. References are available upon request.

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ANALYZING THE FEASIBILITY OF COMPENSATING THE NEGATIVE CONSEQUENCES OF ABANDONING UNPROFITABLE CUSTOMERS

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SUMMARY

Browsing through popular and business press over recent years, it becomes obvious that more and more firms decide to focus on their most profitable clients and to weed out the unprofitable ones. However, despite its increasing use in business life, unprofitable customer abandonment is still a relatively recent phenomenon and not much academic work has been conducted in this area. Although the benefits of such a strategy have received some academic interest (Haenlein et al. 2006), the drawbacks of customer abandonment appear to be less well understood. Our study intends to provide a contribution in this area by focusing on the likely reactions toward customer abandonment and the feasibility of compensating potential negative consequences.

We analyze how (existing and new) customers perceive unprofitable customer abandonment. Two perspectives emerge from the literature: On the one hand, customers could see abandonment as so severe and negative that they decide to immediately leave or not to join the abandoning firm. This implies that abandonment would be considered as a "deal breaker" that could not be compensated by other offer components. Such a perspective is in line with price fairness literature (e.g., Kahneman et al. 1986), observations in the context of the "ultimatum game" (e.g., Oosterbeek et al. 2004) as well as choice literature, esp. the interpretation of consumer choice as a hierarchical elimination process (Tversky and Sattath 1979). On the other hand, customers could react in a more balanced way and consider the news of customer abandonment as one offer component, next to others. This is consistent with the theoretical foundations underlying conjoint analysis (e.g., Green and Srinivasan 1978; Green and Srinivasan 1990), studies of boycott participation (e.g., Sen et al. 2001), and literature in the area of critical incidents (e.g., Maxham and Netemeyer 2003; Maxham and Netemeyer 2002).

For the second case in which abandonment is perceived as an offer component, we investigate which strategies are likely to be most successful in compensating for its negative effects. According to Zeithaml (1988), price and perceived quality of a product jointly influence perceived product value and, ultimately, purchase intent. Within this framework, customer abandonment can be considered as a factor lowering the perceived quality of the product. To compensate for this effect the company can either lower the perceived sacrifice (price) associated with the purchase or improve other product attributes so that perceived quality remains unchanged. In both cases the perceived value of the whole offering would be the same before vs. after abandonment, which should lead to similar levels of purchase intent. Finally, we also investigate how abandonment process characteristics and consumer covariates influence the relative importance attached to price vs. perceived quality in this compensation process.

Our analysis is based on a survey among 773 U.S. customers. Data collection was carried out using two experiments, one focusing on existing and one on new customers. In each experiment respondents were asked to read a scenario about a hypothetical phone call in which we described different manipulations of tie strength (between the abandoned customer and the person subject to negative WOM) and abandonment strategy (direct vs. indirect). Subsequently, we used a full-factorial conjoint design to analyze the relative importance of different factors influencing the respondents' decision to leave or not to join the abandoning company. For this we systematically varied three components of the offer (price, network quality, handset attractiveness) on two levels, leading to $2^3 = 8$ different stimuli to be evaluated. Within this conjoint design, we asked existing customers how likely they would be to leave their current provider if the alternative provider had the same (a higher) price, an equal (worse) quality network and as attractive (less attractive) handsets. Similarly, we asked new customers how likely they would be to join Cell Phone, Inc. (an imaginary mobile phone provider implementing an abandonment strategy) if it had the same (a lower) price, an equal (better) quality network and as attractive (more attractive) handsets as their current provider.

Our results indicate that companies can overcompensate a potential negative impact of WOM spread by abandoned customers by modifying other characteristics of the offer. Customer abandonment does not therefore seem to be perceived as a "deal breaker," but as one dimension of the offer, together with other elements. Regarding the relative importance of price, network quality and handset attractiveness in compensating a potential negative effect due to customer abandonment we obtained a mean importance of 41.2 percent (32.2%) for network

quality, 37.0 percent (43.6%) for price and 21.8 percent (24.3%) for handset attractiveness for existing (new) customers respectively. The two most important factors for both customer types in compensating customer abandonment are, therefore, price and core service (i.e., network) quality, albeit in different order. Regarding the influence of abandonment process characteristics and consumer covariates, we show that customers do not differ significantly in the relative importance they attach to the three offer components included in our study, except for the difference between existing and new customers discussed above. Summarizing, this indicates that the modifications in offer attractiveness that companies may need to conduct to compensate for a potential negative effect of customer abandonment are likely to be the same, independent of abandonment process characteristics and consumer covariates.

Our analysis can only be seen as a first step toward a better understanding of strategies companies can implement to limit the negative consequences of WOM spread by abandoned customers, and more research is needed in this area. Specifically, we see two promising areas of future research: First, it would be interesting to obtain a better understanding about the detailed improvements in price and/ or core service quality necessary to create an overall attractive offer. For example, is a 5 percent price discount enough to compensate for abandonment, or do customers require a 10 or 15 percent reduction? Using such information, it would then be possible for companies to build a business case that weights the positive consequences of abandoning unprofitable customers (Haenlein et al. 2006) with the cost associated to limit the drawbacks of such a strategy. This would help to decide under which circumstances (and for which companies) abandonment is an overall recommendable option. Second, there may be reasons to keep a customer although the relationship itself is unprofitable, for example if the customer is able to refer new customers to the company. However, the question that needs to be answered in that context is to what extent unprofitable customers are likely to have profitable friends. Further research is needed to better understand these social network effects on customer-level profitability.

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LINKING A MULTI-COMPONENT MODEL OF COMMITMENT TO CUSTOMER PROFITABILITY

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SUMMARY

Firms heavily invest in Relationship Marketing (RM) activities in the belief that such programs initiate a chain of effects leading to enhanced commitment and customer profitability (Palmatier, Gopalakrishna, and Houston 2006). This applies especially to service firms where relational variables like commitment are in focus as service delivery constitutes an interactive process (Verhoef, Franses, and Hoekstra 2002). However, researchers have begun to question the relationship between commitment and the bottom line. Moreover, studies find that more intensive and longer relationships do not necessarily result in loyal customers costing less to serve and paying higher prices (Reinartz and Kumar 2000). One explanation may lie in the fact that measuring commitment as a monolithic construct may be a gross oversimplification. Bansal, Irving, and Taylor (2004) emphasize that the psychological states underlying commitment need to be considered in order to understand customers' behavior, hence proposing a three-component conceptualization of commitment. Thus, examining the link between the multiple commitment construct and profitability could be a much more fruitful avenue for investigating the patterns of leveraging profits in RM. However, this has not been studied so far. A next unresolved issue is how the impact of commitment constructs on profitability evolves over time. To our knowledge no study has addressed the issue of dynamics between multiple commitment constructs and profitability measures so far. This is crucial for adapting RM efforts to the specific drivers of value creation for novice vs. long-term customers. The issue of relationship stage-specific RM activities lead directly to the question on how the commitment constructs can be managed effectively by specific RM instruments like special treatments and brand communications.

We estimated our structural equation model using data from a service context, i.e., hair salon customers (n = 695). In this way, we succeeded in linking a four-component model – consisting of affective, calculative, locked-in, and normative commitment – to customer profitability in terms of willingness to pay more (revenue-increasing) and co-production (cost-reducing) as the main drivers of customer profitability for service providers. Thereby, we demonstrate differential profitability impacts of the commitment constructs. We show that commitment-related investments are a double-edged sword: While affective commitment enhances the willingness to pay more, it inhibits co-production at the same time. This is because customers may feel emotionally kidnaped by the service employees. Further, locked-in customers are willing to pay more due to a lack of switching options, however, they refuse to co-produce. In this way they avoid to get proactively engaged in the relationship with the service provider in order to keep the option to have an easier exit. Contrary, normative and calculative commitment drives both profitability measures.

Further we reveal a moderating effect of relationship age on each commitment construct. Most strikingly, value consciousness becomes dominant as relationships evolve, i.e., customers are only willing to pay higher prices or to co-produce if they get more "bang for the buck," The ability to calculate the value of the relationship increases as customers learn about the company's procedures and offers; they are better able to precisely judge the economic trade-off between benefits and costs leading to the dominance of calculative commitment in driving purchase behavior. As the importance of cognitions increases, the influence of affect on profitability measures diminishes. In addition, normative commitment's influence on willingness to pay more declines the longer the customers do business with the service provider. Concerning locked-in commitment, the importance is diminishing over time from a strong to a non-significant effect on profitability constructs. Obviously, in later stages, the drivers of willingness to pay more and co-production shift from locked-in commitment to the calculative and normative counterparts.

Finally, as drivers of profitability vary across the relationship stages, we provide implications for the selection of appropriate RM instruments in both relationship stages. For novice customers special treatments have the highest total effect on willingness to pay more as this instrument positively influences both affective and normative commitment. However, managers of service providers must be aware that there are dark sides of investing in special treatments as this also strongly enhances affective commitment which in turn declines co-production. For long-term relationships special treatments also appear

to be the major instrument for boosting profits. In later stages our results imply a clear prioritization of special treatments, while for novice customers firms have to assess the trade-off between the positive effect of special treatments on willingness to pay more and the negative effect on co-production. Thus, for the early stage brand communication may be appropriate as the negative impact is smaller compared to special treatments.

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ASSET PRICING OR MISPRICING OF CUSTOMER SATISFACTION

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SUMMARY

This paper seeks to advance the red hot and burgeoning research stream in the marketing-finance interface. It ushers in an accepted set of measurements in the finance literature, i.e., Fama-French Portfolio-level asset pricing models. This set of measurements is quite important for marketing, because ill-specified models not based on strong theories of financial markets may lead to less persuasive and even misleading conclusions. In addition, it is non trivial because the nascent field of marketing-finance interface needs solid theoretical and empirical building blocks to recommend appropriate implications for not merely marketers on Main Street but also investors on Wall Street.

More specifically, this work using Fama-French Portfolio return models promotes a greater understanding of the magnitude of the stock return to marketing metrics (Gupta and Zeithaml 2006). We do so by modeling how customer satisfaction relates to stock prices, on the basis of abnormal portfolio returns compared against the market wide risk-adjusted benchmark portfolio. This paper adds more credibility to the results in Fornell et al. (2006) and supports the validity of customer equity theory with the Fama-French market model. It offers some resolution to the conflict between Fornell et al. (2006) and Jacobson and Mizik (2007). Also, with the Fama-French and Carhart market model, we fail to reject efficient market hypothesis and largely show that customer satisfaction is priced in financial markets. The results offer some unique implications for the satisfaction literature and the marketing-finance interface.

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AN OVERVIEW OVER POST-COMPLAINT BEHAVIOR

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ABSTRACT

This article is a quantitative review on post-complaint behavior. The results indicate that compensation is the most effective organizational response to customer complaints, followed by facilitation and attentiveness. The results also indicate that service providers should tie the amount of compensation to failure magnitude and prior experiences with the organization.

INTRODUCTION

Pertinent research on post-complaint behavior examines how organizations are able to control post-complaint customer reactions. Hereby, the literature distinguishes between the following *four reactions* to complaints: organizational response (e.g., compensation amount), customer perception of this response (e.g., perceived justice), post-complaint satisfaction, and customer behavioral intentions (e.g., positive WOM). Extant studies cover only some of these reactions. Moreover, each reaction consists of several dimensions which, in turn, are only partly considered. Homburg and Fürst (2005) and Maxham III and Netemeyer (2003), for example, focus on one of six organizational responses. With respect to customer behavioral intentions, Tax et al. (1998) examine trust and commitment, whereas Blodgett et al. (1997) and Maxham III and Netemeyer (2003) consider loyalty and word-of-mouth communication (WOM). Davidow (2003a) is the only one up to now who summarizes previous findings in a review. His contribution is to structure the different organizational responses (e.g., compensation, timeliness) and to capture their effects on post-complaint satisfaction and customer behavioral intentions.

However, the main purpose of Davidow's (2003a) review is to derive managerial implications for organizational complaint handling. It is aimed at identifying the importance of idiosyncratic organizational responses for customer post-complaint behavior rather than illustrating and improving the *nomological network* of post-complaint behavior. In particular, the author does not distinguish between organizational responses and the customers' perceptions of these responses. He excludes studies, which deal exclusively with customer perceptions and their consequences (e.g., Tax et al. 1998). The perception of the organizational responses should, however, be regarded as a separate model element. This is because perceptions are a subjective, often biased interpretation of

reality which, rather than actual events, account for individual behavior (Griffin and Ross 1991). Hence, frontline employees do not only need to act "correctly" for a successful service recovery, but their actions also have to be adequate in the eye of the customer (Smith et al. 1999). Hence, we presume that customer perceptions may have a stronger – in any case, however, an independent – effect on post-complaint satisfaction and behavior.

Our study therefore presents an extended and refined review of organizational responses to a complaint and subsequent customer reactions displayed. Hereby, this study makes the following *contributions* to the literature. Firstly, it improves the nomological validity of all constructs relevant in post-complaint behavior and strictly distinguishes between organizational responses and their perception. In particular, we draw on the expectancy-disconfirmation paradigm as well as on justice theory to examine the role expectations/disconfirmation perceptions as well as perceived justice to play as antecedents of post complaint satisfaction and behavior. It will be explored whether it is more important to meet customers' expectations toward complaint handling or to treat customers in a way they perceive as fair. We also examine the influence of situational variables (e.g., type of failure) on post-complaint reactions which is addressed in an increasingly large body of literature (e.g., Goodman et al. 1995; Hess et al. 2003; Smith et al. 1999). This helps to put into perspective the importance of different organizational responses. Our review has important *implications* for theory building. Marketing theorists can use the refined nomological network of post-complaint behavior as a platform for future research, such as for instance the moderating role of situational variables in any of the relationships established in this review. This will also help practitioners to better understand the effect of organizational responses.

MODEL GENESIS

Overview

The review model contains *four central elements*: on one hand, the organizational response to a complaint and, on the other hand, three categories of customer reactions, the perception of the organizational response, post-complaint satisfaction and customer behavioral intentions (Figure 1). The above elements as well as the corresponding dimensions and/or constructs are discussed below.

FIGURE 1
The Review Model

Customer reaction

Organizational response — Perception of the organizational response — Post-complaint satisfaction — Customer behavioral intentions

- Compensation
- Facilitation
- Attentiveness
- Timeliness
- Explanation
- Apology

Expectation Disconfirmation

Distributive justice
Procedural justice
Interactional justice
General perception

Post-complaint satisfaction

Loyalty
Positive WOM

Situational variables

Failure related: Type and magnitude of failure, attributions (stability, controllability, locus of causality)
Customer related: Age, gender, prior experience with the organization, attitude towards complaining
Organization related: Industry, likelihood of success

- → Relationships analyzed in this study
— → Relationships analyzed by Davidow (2003a)   + / - … positive / negative direction of cause

Organizational Response

In general, it is assumed and documented empirically that an organizational response, which is favorable for customers, is perceived positively (Smith et al. 1999) and enhances post-complaint satisfaction as well as positive customer behavioral intentions (e.g., Davidow 2000; Davidow 2003a; Gilly and Hansen 1985; Sparks and McColl-Kennedy 1998; Wirtz and Mattila 2004). Davidow (2000, 2003a) groups organizational responses into six dimensions (Table 1).

The content validity of two categories is somehow limited, because Davidow (2003a) assigns quite different constructs to them. The bandwidth of *attentiveness* reaches from neutrality in the communication with customers (Sparks and McColl-Kennedy 2001) to the ability to listen sympathetically (Clopton et al. 2001). *Facilitation* varies from detailed organizational guidelines for complaint management (Homburg and Fürst 2005) to encouragement of customers to critically comment on the organization (Martin and Smart 1994).

Although the definitions of *compensation*, *timeliness*, *explanation,* and *apology,* on the contrary, are more precise, considerable inconsistencies exist in the operationalization of compensation and to a lesser degree of timeliness (Blodgett et al. 1997; Clark et al. 1992;

Garrett 1999; Gilly and Gelb 1982; Goodwin and Ross 1992; Halstead and Page 1992; McCollough et al. 2000; Megehee 1994). In spite of these limitations, Davidow's (2003a) categorization will be used throughout the review, because it is more refined than, for instance, Estelami's (2000) approach.

Across studies, it has been shown, that a compensation (e.g., 50% discount vs. no compensation), a facilitation of complaints (vs. policies and structures that impede a favorable complaint handling), a polite, respectful and empathetic communication with the customer (vs. coarse, impolite communication), a timely reaction (vs. a delayed one), an explanation (vs. no explanation), and an excuse (vs. no excuse) facilitate positive customer reactions, such as post-complaint satisfaction (Davidow 2000; Gilly and Gelb 1982; Sparks and McColl-Kennedy 2001).

Perception of the Organizational Response

The perception of the organizational response completely mediates the relationship between organizational response and post-complaint satisfaction (Maxham III and Netemeyer 2003; Smith et al. 1999). In other words, a positive perception of the organizational response is a necessary condition for its satisfying effect as well as an antecedence of post-complaint satisfaction.

TABLE 1:
Categories of Organizational Responses According to Davidow (2003a)

Organizational Response	Description	Exemplary Operationalization (High vs. Low Value of the Respective Response)
Compensation*	Benefits or response outcome, which customers receive from the organization in response to their complaint	Discount (e.g. 50%) or upgrade (better hotel room at same costs) vs. no discount
Facilitation	Policies, procedures or structures, that support customers engaging in complaints and communication	Provider acknowledged vs. denied responsibility
Attentiveness	Careful and polite communication between organizational representative and customer	Courteous and respectful vs. rude treatment
Timeliness	Speed with which an organization responds to or handles complaints	Immediate response vs. delayed response
Explanation*	Explanation or description of the problem	Present vs. absent
Apology	Acknowledgement of the complainants' distress	Present vs. absent

*Note: Two responses were re-labeled (redress → compensation, credibility → explanation), because the terms used by Davidow (2003a) are rather unusual in the pertinent literature (redress) or are not precise (credibility).

The relationship between perception of organizational response and post-complaint satisfaction can be explained by the disconfirmation model as well as by justice theory. According to the *disconfirmation paradigm* consumers form ex-ante expectations about a product or service. After purchase or use, they compare these expectations with the actual performance. This leads to satisfaction, if the actual performance is better than expected (positive disconfirmation) and to dissatisfaction, if it falls short (negative disconfirmation). Met expectations are referred to as simple confirmation (Oliver 1980, 1981; Oliver and DeSarbo 1988). Applied to a complaint situation, customers form expectations about complaint management, which is captured by *expectations* in Figure 1. *Disconfirmation* describes the subjective degree of expectation fulfillment by the organizational response. High expectations have a negative influence on post-complaint satisfaction, whereas (positive) disconfirmation has a positive effect (McCollough et al. 2000; Smith et al. 1999).

The *justice theory* (also fairness theory) is used in more recent studies to explain that customers who perceive the organizational response to a complaint as fair display higher levels of post-complaint satisfaction than customers who feel treated unfairly (Maxham III and Netemeyer 2002; Patterson et al. 2006; Smith et al. 1999).

Fairness is perceived, when the ratio of an individual's outputs (benefits) to inputs (financial and non-financial efforts) is balanced with the ratio of the other party (Adams 1963; Deutsch 1975).

Distributive justice (also results-oriented fairness) refers to the outcome of a decision or exchange. It embraces the allocation of organizational resources in response to a complaint, i.e., if and in what amount the company gave a refund or compensation (Patterson et al. 2006; Smith et al. 1999). *Procedural justice* refers to the means of decision making and conflict resolution (Lind and Tyler 1988; Thibaut and Walker 1975). A complaint procedure is considered to be fair when it is "easy to access, provides the complainant with some control over the disposition, is flexible, and is concluded in a convenient and timely manner" (Tax et al. 1998, p. 62). *Interactional justice* involves the way of treating customers (Bies and Shapiro 1987). A fair treatment comprises that frontline employees display respect, politeness, concern, and honesty toward the complainant. Moreover, they make meaningful efforts in finding a resolution for a customer's problem (Tax et al. 1998).

Smith et al. (1999) showed in a regression analysis that both the disconfirmation paradigm and the justice dimensions independently contribute to the explanation

of post-complaint satisfaction, but that the justice dimensions explain more variance than the disconfirmation perception. This may be, because, for intangible elements, such as complaint handling, it is more difficult to form expectations than for tangible product properties (Smith et al. 1999). Hence, post-complaint satisfaction may be primarily driven by an ex-post evaluation (i.e., perceived fairness) than by ex-ante expectations and their (dis)confirmation.

Some authors do not explicitly refer to the disconfirmation paradigm or a particular justice dimension, but to the fairness of organizational response in general or the perceived quality of service recovery. Such constructs are summarized under *general perception* in the review model. Studies in this category show that general perceptions have a positive effect on post-complaint satisfaction and customer behavioral intentions (Andreassen 2000; Blodgett et al. 1993).

Post-Complaint Satisfaction

Wirtz and Mattila (2004) show that *post-complaint satisfaction* completely mediates the relationship between organizational responses and customer behavioral intentions. Moreover, Maxham III and Netemeyer (2002) provide evidence that it partly mediates the relationship between perception of the organizational response and customer behavioral intentions. In all cases, post-complaint satisfaction leads to favorable customer behavioral intentions from the organization's viewpoint.

Strictly speaking, post-complaint satisfaction can be understood as "satisfaction with complaint handling" (Tax et al. 1998) or "satisfaction with recovery" (Maxham III and Netemeyer 2003). This conceptualization corresponds to the concept of transaction-specific customer satisfaction which refers to a *particular* product transaction, episode, or service encounter (Olsen and Johnson 2003). In a wider sense, post-complaint satisfaction covers an overall assessment of satisfaction with the product or service (Smith et al. 1999; Smith and Bolton 2002) or entire organization (McColl-Kennedy et al. 2003) which customers experience after their complaint or complaint handling. This corresponds with the concept of cumulative or overall customer satisfaction which is the judgment of the overall performance of a product or service provider to date (Johnson et al. 1995). Following Davidow (2003a), all satisfaction constructs are subsumed under post-complaint satisfaction, because some of them (e.g., satisfaction with the product) are examined rarely, so that no meaningful conclusions could be drawn in this review.

Customer Behavioral Intentions

The most important constructs of customer behavioral intentions are word-of-mouth communication

(WOM) and loyalty, which have, for a long time, been discussed in post-complaint literature (Gilly and Gelb 1982; TARP 1981). WOM refers to the exchange of information on a company, product or service among customers which can be favorable or unfavorable (Arndt 1967; Richins 1983). In post-complaint literature, it is usually defined as the intention to talk to others about one's experiences with a specific company after a complaint (Blodgett et al. 1997; Maxham III and Netemeyer 2003). We refer to *positive WOM* which can be seen as a continuum with two extreme poles, i.e., positive vs. negative WOM. This is because both positively and negatively worded items show a high internal consistency with a coefficient alpha between .85 and .89 in different studies (Kau and Loh 2006; Swanson and Kelley 2001). Similar concepts, such as valence or WOM activity are also subsumed under positive WOM. Valence means whether consumers would recommend or warn their friends about an organization (Swanson and Kelley 2001). WOM activity (Davidow and Leigh 1998) refers to the number of persons with whom customers talk about their experience, which is an approximation of WOM (Davidow 2003b; Lewis 1983).

Loyalty refers to a customer's intention to continue to do business with an organization (e.g., de Ruyter and Wetzels 2000, p. 108: "I plan to remain a customer of this service provider"). It is also referred to as repurchase intention (e.g., Blodgett et al. 1997, p. 195: "If this had happened to me I would still shop at this store in the future") or commitment (e.g., Tax et al. 1998, p. 74: "I wanted to continue dealing with this organization"). We also subsume the actual repurchase under repurchase intention, because an intention naturally precedes an action. Moreover, the actual repurchase is examined very rarely (e.g., Chebat and Slusarczyk 2005; Gilly and Gelb 1982), which would not allow any meaningful conclusions when considered separately.

Other customer behaviors are hardly ever examined and thus not included in the review model: trust (Kau and Loh 2006; Tax et al. 1998; Weun et al. 2006), perceived product / service quality (Nyer 2000; de Ruyter and Wetzels 2000; Sparks and Callan 1996) and the image of the organization (Andreassen 2001; Bear and Hill 1994; Clark et al. 1992; Megehee 1994).

Situational Variables

Situational variables can be sub-divided into three groups: complaint, customer, and organization related ones. *Failure-related variables* are *magnitude, type of failure,* and *attributions of failure*. It is generally presumed that post-complaint satisfaction decreases with failure magnitude. The type of failure can either be monetary / tangible or non-monetary/intangible. However, it cannot be specified whether one or the other failure type

has a greater impact on post-complaint satisfaction (Gilly and Gelb 1982; Smith et al. 1999).

An influence of *attributions* on post-complaint reactions can be derived from attribution theory. According to this theory, consumers search for reasons, why a service outcome turned out the way it did. Hereby, they assess the locus of causality, the stability and the controllability of an event (Weiner 1979). With respect to a complaint situation, consumers have been found to be less disappointed, and thus more satisfied, if they hold themselves (internal attribution) rather than the provider (external attribution) responsible for a service failure (Hocutt et al. 1997). In the case of unclear attribution, satisfaction increases if the organization admits the failure (Goodwin and Ross 1989). A stable failure lets the customer believe that the company has refrained from taking measures against the cause and thus approves of the failure occurring again in future. This leads to dissatisfaction. The same is valid if an organization has control over a failure, but does not undertake anything to improve the situation (Bitner 1990; Blodgett et al. 1993). Attributions of failure have to be distinguished from customer perceptions, such as the justice dimensions, because they do not refer to organizational response, but to the underlying failure. However, they might somehow fall in between failure-related and customer-related variables.

Customer-related variables are age, gender, prior experience with the organization and attitude toward complaining. For *gender* and *age*, no general effect direction can be specified from previous studies (McColl-Kennedy et al. 2003; Smith and Bolton 2002). *Prior experiences* and a positive *attitude towards complaining* are presumed to positively affect customer behavioral intentions and/or post-complaint satisfaction (Blodgett et al. 1993; Estelami 2000; Tax et al. 1998). Prior experience, however, is conceptualized in a very heterogeneous way. Some researchers have examined the quantity of previous experience, that is the number of previous contacts or the length of time since the customer does business with this specific company (Duffy et al. 2006; Hess et al. 2003). Others draw on the quality of experience, such as quality of past service performance (Tax et al. 1998), satisfaction with past service encounters (Forrester and Maute 2001; Kelley and Davis 1994), personal rapport with a specific service employee (Dewitt and Brady 2003), or involvement of the customer within the organization (Goodman et al. 1995). Notwithstanding these different conceptualizations customer behavioral intentions have been found to be more favorable, the more often (quantity) and the more intense (quality) positive prior experiences occur.

Organization-related variables are the industry of an organization, the likelihood of success of a complaint and attributions of a failure. As for *industry*, it can hardly be said which type has a particular effect on post-complaint reactions (Smith and Bolton 2002), whereas the *likelihood of success* of a complaint has a positive effect on customer behavioral intentions (Blodgett et al. 1993).

REVIEW METHODOLOGY

The search for relevant studies covers the whole time span of research on post-complaint behavior ranging from the 1980s when the first studies were published until March 2007, when the sample generation was completed. We proceeded in *three steps*. Firstly, we searched articles on post-complaint behavior in leading marketing journals, namely the *Journal of Marketing Research, Journal of Marketing, Journal of Consumer Research, Journal of the Academy of Marketing Science, International Journal of Marketing Research*, *Journal of Service Research,* and *Journal of Consumer Satisfaction Dissatisfaction and Complaining Behavior*. In the second step, the electronic database *Business Source Premier* was searched for pertinent articles. The search for quoted articles formed the third step completing the sample generation.

In total, 87 studies on post-complaint behavior were found. To be incorporated into the review, the studies have to fulfill two criteria. It has to be an empirical study. For this reason, seven articles were excluded (e.g., Bitner et al. 1990; Gruber et al. 2006). Moreover, the authors have to report significance levels, which was not the case for six studies (e.g., TARP 1981; Blodgett and Anderson 2000). We also excluded Shapiro et al. (2006) due to the possibility of an experimental error and Richins (1983) as well as Bolfing (1989) due to the focus on behavior before the complaint. The final sample thus covers 72 studies with 76 samples (marked with an * in the bibliography).

Looking at the industries examined, the majority of studies (70%) had been conducted in the service industry, the remaining referred to consumer goods (23%), or both, services and consumer goods (7%). The service industries most commonly investigated are hotels, restaurants, and tourism (e.g., airlines). Some studies referred to bank, auto repair services, electronic services, and haircuts. Homburg and Fürst (2005) are the only ones to provide a B2B sample.

Two independent *coders* assigned the constructs in the studies to one of the categories in the review model displayed in Figure 1. To minimize coding errors, they received a coding form with an overview over all categories including their description. Both coders worked independently of each other and received a short training. The intercoder reliability according to Perreault and Leigh (1989) is 0.89 and thus lies above the required level of .8. Inconsistencies were discussed by the coders and solved in cooperation. Based on this, 570 relationships could be extracted.

For our quantitative review, we used vote counting procedure which counts the number of studies confirming an expected effect to be significant vs. non-significant (or significant, but contrary to the predicted direction) (Bushman and Wang 1996). A meta-analysis would have provided more insights in terms of effect size (Szymanski and Henard 2001), but there is a considerable variety of analyses (ANOVA, MAN(C)OVA, (multiple) regression analyses, t-tests, chi-square tests) and research designs, such as between subject design (e.g., Mattila and Patterson 2004a) and within subject designs (Smith et al. 1999). Missing effect-size estimates pose a serious problem in meta analysis. In order not to discard studies and to cover an utmost range of studies we decided to conduct a quantitative review using a vote counting procedure instead of meta analysis.

We examined the *main effects* in the review model based on two criteria: the level of significance and the direction of the relationship assumed in the review model (positive or negative). If the assumed direction of the relationship is correct and significant on a level of $p < 0.1$, then a relationship is regarded as being confirmed. The number of confirmed relationships is then compared with the number of unconfirmed relationships. When ten or more observations (expected cell frequency at least 5) exist for the relationship between two constructs, a chi square test is used, in order to capture the statistical significance of this ratio.

A homogeneous association measure exists for the effect of *justice dimensions* on post-complaint satisfaction, because in nearly all studies, this relationship is examined using regression analyses. Thus, the mean standardized regression coefficients could be calculated across 14 samples. Through that, it is possible to examine, which one of the three dimensions has the strongest influence. We only included studies, which reported standardized regression coefficients for all three justice dimensions (e.g., Smith et al. 1999 was excluded). When no values were indicated for non-significant paths, these were entered with a value of .0 into the analysis.

A separate procedure is necessary for the analysis of *situational variables,* because they have been examined in an exploratory rather than a theory-driven way. For that reason, we initially examined, whether there are significant effects of a situational variable on *any* customer reaction. The number of significant effects is then compared with the number of insignificant effects. This reveals to what extent situational variables are generally relevant. Then, more detailed observations are presented on a qualitative basis to detect particular effects on customer reactions.

RESULTS AND DISCUSSION

Main Effects

Table 2 shows the ratio of confirmed vs. unconfirmed main effects. *Overall,* the assumed relationships are confirmed. Organizational responses positively influence customer perception of these responses as well as post-complaint satisfaction. Perceived justice and positive disconfirmation, in turn, foster post-complaint satisfaction. Post-complaint satisfaction increases loyalty (25 confirmed vs. 2 unconfirmed results) and positive WOM (14 vs. 2).

Looking at the results in detail, the most effective organizational responses are compensation, facilitation, and attentiveness. *Compensation* facilitates post-complaint satisfaction (23 vs. 6) and loyalty (13 vs. 4). *Facilitation* also has positive consequences. Helpful guidelines for complaint handling initiate rather than prevent complaints which enables frontline employees to correct failures flexibly and with a certain latitude of judgment. This fosters perceived justice (6 vs. 1 for each justice dimension) and post-complaint satisfaction (11 vs. 5). Similarly, *attentiveness* (polite and respectful communication with the customer) facilitates post-complaint satisfaction (10 vs. 1) and particularly interactional justice (7 vs. 0). The positive effect of the other three organizational responses (timeliness, explanation, and apology) is less clear.

Several findings result from the separation between the organizational responses and the *perceived justice* of these responses. *Firstly,* Table 2 shows that the positive effect of distributive justice on post-complaint satisfaction (24 vs. 0) is the clearest. For procedural (16 vs. 4) and communicational justice (19 vs. 4), there are some counterclaims. This result is supported by the mean standardized regression coefficient of the three justice dimensions. Distributive justice has the strongest effect on post-complaint satisfaction (+.37), while the effect of procedural (+.21) and interactional justice (+.19) is weaker. Distributive justice, in turn, is mainly affected by compensation (12 vs. 0). To sum up, complainants are satisfied, when they consider the outcome of the complaint as fair, and this can be primarily achieved by a compensation.

Secondly, the four counter-claims concerning the relationships interactional justice   post-complaint satisfaction and procedural justice   post-complaint satisfaction deserve attention. They may be due to the specific conceptualization of post-complaint satisfaction in the respective studies. Maxham III and Netemeyer (2002) measure both, satisfaction with complaint handling and overall satisfaction with the organization. They find that

TABLE 2
Main Effects Between the Model Elements

Independent Variables		Dependant Variables			
		Justice Dimension			General
	Direction	Distributive	Procedural	Interactional	
Organizational response					
Compensation	+	**12 / 0**	3 / 2	6 / 3	8 / 0
Facilitation	+	6 / 1	6 / 1	6 / 1	1 / 0
Attentiveness	+	4 / 1	2 / 1	7 / 0	5 / 0
Timeliness	+	2 / 2	3 / 0	3 / 0	0 / 2
Explanation	+	1 / 1	–	2 / 0	2 / 0
Apology	+	2 / 0	2 / 0	2 / 0	0 / 1
		Post-complaint satisfaction	Loyalty	Positive WOM	
Organizational response					
Compensation	+	**23 / 6**	**13 / 4**	8 / 1	
Facilitation	+	11 / 5	4 / 6	2 / 4	
Attentiveness	+	**10 / 1**	6 / 2	4 / 0	
Timeliness	+	7 / 3	0 / 3	1 / 2	
Explanation	+	4 / 2	4 / 0	1 / 1	
Apology	+	5 / 3	0 / 4	0 / 2	
Perception of the organizational response					
Distributive justice	+	**24 / 0**	4 / 3	6 / 2	
Procedural justice	+	**16 / 4**	3 / 3	3 / 2	
Interactional justice	+	**19 / 4**	7 / 1	6 / 2	
Disconfirmation (positive)	+	**12 / 1**	–	–	
Expectations	-	4 / 1	–	–	
General perception	+	**10 / 0**	5 / 0	2 / 0	
Post-complaint satisfaction	+	–	**25 / 2**	**14 / 2**	

Notes: The figures indicate the ratio of confirmed vs. not confirmed relationships. For cell frequencies ≥ 10, chi-square-tests were performed (bold numbers $p \leq 0.05$). Cell frequencies < 5 are depicted in gray.

distributive justice most strongly accounts for satisfaction with complaint handling whereas overall satisfaction with the organization is more strongly influenced by interactional and procedural justice. A possible reason for this is that satisfaction with complaint handling is affect-driven because service failures trigger negative emotions such as anger (Bonifield and Cole 2007). Smith and Bolton (2002) show that perceived distributive justice has a cathartic effect on complainants with negative emotions: Their frustration is vented off when their complaint leads to an acceptable outcome. In contrast, overall satisfaction is presumably less affect-driven because it does not refer to individual, affect-laden events. Hence, the judgment is made with a greater distance to single service failures. Hence, customers lose their "tunnel vision" and include procedural and interactional justice in their judgment.

Thirdly, 13 results contradict a positive relationship between the justice dimensions and customer behavioral intentions (loyalty: 7 counter-claims, positive WOM: 6 counter-claims). Nine of them can be explained by the partial mediator role of post-complaint satisfaction in these relationships (Davidow 2003b; Maxham III and Netemeyer 2002). This may lead to insignificant paths

coefficients between the justice dimensions and customer behavioral intentions as soon as post-complaint satisfaction is integrated into an analysis. Only the direct influence of interactional justice on loyalty appears to be established (7 vs. 1). Hence, a respectful and empathetic complaint handling leads to customer retention, regardless of satisfaction judgment.

Fourthly, a more detailed look at the results enables us to compare the explanatory power of the justice dimensions to positive disconfirmation as forecasters of post-complaint satisfaction. Table 2 shows that the influence of disconfirmation (12 vs. 1) is just as established as that of the justice dimensions. Four studies, however, directly compare the influence of both model elements. Smith et al. (1999) and Smith and Bolton (2002), show that the justice dimensions explain 58 percent up to above 60 percent of the variance of post-complaint satisfaction, whereas disconfirmation only reaches 17 percent and less. Martínez-tur et al. (2006) and Patterson et al. (2006) report on beta-coefficients showing that, in some cases, the effect of a single justice dimension itself is greater than that of disconfirmation. This supports that in interpersonal communications, such as complaint handling, perceived fairness is largely responsible for satisfaction,

whereas disconfirmation plays a more important role in explaining satisfaction with a product.

Situational Variables

Table 3 shows the ratio of significant vs. insignificant effects of situational variables on any customer reaction. In the cases, in which an effect direction could be identified, the respective direction and effects are also displayed.

The *failure magnitude* (23 vs. 11) and *prior experiences* with the provider (9 vs. 2) turn out to be important factors influencing customer reaction. Positive WOM decreases with failure magnitude (4 vs. 0), and loyalty tends to be greater when customers have prior experiences with the provider (3 vs. 0). In detail, Tax et al. (1998) show that prior experiences mitigate the negative effect of dissatisfaction on loyalty. However, they also show that prior experience is less important for the prediction of loyalty than satisfaction with complaint handling.

For the *attribution* dimensions (stability, controllability, locus of causality), no predominant influence on customer reaction can be identified. Only the fact that

TABLE 3
Influence of the Situational Variables

Independent variables	Customer Reaction	Effect Direction	Post-Complaint Satisfaction	Customer Behavioral Intentions	
				Loyalty	Positive WOM
Problem-related					
Magnitude of failure	**23 / 11**	–	7 / 5	4 / 3	4 / 0
Type of failure	6 / 5				
Customer-related					
Age	3 / 1				
Gender	3 / 6				
Prior experience with the business	**9 / 2**	+	3 / 2	3 / 0	0 / 1
Attitude towards complaining	1 / 6				
Organization-related					
Industry	7 / 7				
Likelihood of success	3 / 4				
Stability	7 / 6	–	2 / 1	3 / 0	1 / 3
Controllability	7 / 3	–	1 / 2	3 / 0	1 / 2
Locus of Causality (internal)	6 / 4				

Notes: The effect direction is only declared when a trend can be seen in the results. For cell frequencies ≥ 10, chi-squaretests were performed (bold numbers $p \leq 0.05$).

stable and controllable failures lead to lower loyalty (Blodgett et al. 1993; Blodgett 1994; Blodgett et al. 1995) seems relatively clear (3 vs. 0). Bitner (1990) points out that perceived stability and controllability of the failure can be effectively reduced by an explanation that names an external failure cause. The *other situational variables* were rarely examined and/or did not play a clear role. The effect of industry, for instance, remains unclear (7 vs. 7). Homburg and Fürst (2005) were the only ones to include a B2B sample into their study finding that the impact of facilitation (complaint-handling guidelines) is smaller for B2B relationships rather than for B2C relationships.

SUMMARY AND IMPLICATIONS

Overall, the postulated review model could be confirmed providing evidence of the suggested nomological network. This network can be used as a platform for future research. *Firstly*, organizational responses trigger various customer reactions, but their content validity is rather poor in some cases. Facilitation, for instance, covers rather heterogeneous issues, such as quality of internal guidelines (Homburg and Fürst 2005), shared organizational values of employees (Maxham III and Netemeyer 2003) or empowerment (de Jong and de Ruyter 2005). In future studies, organizational responses should therefore be further refined.

Secondly, the organizational responses exert a positive influence on the justice dimensions as well as on post-complaint satisfaction, and previous research also suggests that justice dimensions mediate the relationship between organizational responses and post-complaint satisfaction (Maxham III and Netemeyer 2003; Smith et al. 1999). This sequencing should be a basis for further examining possible interaction effects of *situational variables*. Such variables may, for instance, affect the relationship between the justice dimensions and post-complaint satisfaction (Hoffman & Kelley 2000). Prior research provides some support for this view (Holloway et al. 2004; Weun et al. 2004). However, based on previous findings, it seems more likely that situational variables moderate the relationship between organizational responses and justice dimensions. Smith et al. (1999), for instance, showed that the effect of compensation on distributional justice shifts dramatically based on the type of failure. Mattila and Patterson (2004a) and Patterson et al. (2006) found that culture influences the justice perception of the organizational response, but not the relationship between the justice dimensions and satisfaction.

Other potentially interesting situational variables are emotions which have recently been found to influence customer reactions (Bonifield and Cole 2007; Chebat and Slusarczyk 2005; Smith and Bolton 2002). Furthermore, the question arises, how complaint handling in the Internet differs from the classical complaint handling which has only been addressed by a few studies up to now (Holloway und Beatty 2003; Harris et al. 2006).

Thirdly, further research should clarify the role of different concepts of post-complaint satisfaction (i.e., transaction-specific vs. cumulative). The results of individual studies indicate that these single constructs may have different antecedents and consequences and/or that the influence of individual antecedents and consequences is of differing strength.

Fourthly, most extant studies measure behavioral intentions (e.g., repurchase intentions) instead of actual customer behavior. However, it is known from the intention-behavior framework that intentions do not necessarily lead to a corresponding behavior (Ajzen and Fishbein 1980). Hence, further research should put more focus on actual behavior (i.e., switching, actual WOM communications) rather than on behavioral intentions alone.

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THE COMPLAINT HANDLING ENCOUNTER: HOW MALE AND FEMALE COMPLAINANTS PERCEIVE VALUE

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SUMMARY

Vargo and Lusch's (2004) service-dominant (S-D) logic model emphasizes the role of value as a customer experiential phenomenon. This model sees customers as experiencing "value-in-use" during interactions with service or product bundles rather than value being embedded in products or services themselves (Woodruff and Flint 2006). This means that companies can only make value propositions and "at best create the potential for value" (Flint 2006, p. 356), while it is the customer who decides what is of value to them. In line with the "value-in-use" approach this paper investigates what complaining customers value in personal complaint handling service encounters and seeks to identify whether male and female complainants differ in what they value in such situations. Although several research studies have already demonstrated that male and female customers have different preferences and different information processing and decision-making styles (e.g., Iacobucci and Ostrom 1993), only few studies (e.g., Kau, Richmond, and Han 1995) have investigated whether male and female customers differ in their complaining behaviour.

The Study

In light of the limited knowledge in the area of complaint handling service encounters we wanted to investigate how contact employees should behave and which qualities they should possess and to understand the underlying benefits that male and female complainants look for. An exploratory qualitative research study was conducted with the aim of developing a deeper understanding of the attributes (qualities and behaviors) of effective customer contact employees that male and female complainants value. This study uses the mean-end approach to investigate what male and female complainants value in personal complaint handling service encounters. This follows Woodruff and Flint's (2006) recommendation that customer value research should focus more on means-end theory as it supports Vargo and Lusch's (2004) "value-in-use" concept. The means-end approach (Gutman 1982) which Vargo and Lusch (2004) directly refer to in their seminal work, reveals the attributes of products, services or behaviors (the "means"), the consequences of these attributes for the consumer, and

the personal values or beliefs (the "ends"), which are satisfied by the consequences. Attributes are the characteristics of a product or service while the consequences are the reasons why an attribute is important. Values are personal and general consequences which people strive for and as such are more universal concepts. It is the links between attributes, consequences and values which form the means-end chains, the mental connections that link the different levels of knowledge (Reynolds, Gengler, and Howard 1995).

It is recommended that to give a significant understanding of the main concepts, laddering studies should include at least 20 respondents (Reynolds, Dethloff, and Westberg 2001). We conducted 40 laddering interviews with 19 male and 21 female respondents with complaining experience. We broke off further data collection at this point due to the fact that we had achieved theoretical saturation, in that no new or relevant data emerged, and all concept categories were well developed, with the linkages between categories well established (Strauss and Corbin 1998).

The study was carried out amongst postgraduate students aged between 20 and 45 years ($X = 24.8$) enrolled in a business management course at a European university. As we were interested in the behaviors and qualities of contact employees and the majority of behaviors of service employees are the same across different service industries (Winstead 2000), we did not ask respondents to think of a specific industry. Interviewees were asked the question "Given that a service or product failure has occurred, what qualities should customer contact employees possess and what behaviors should they exhibit to create complaint satisfaction during personal complaint handling service encounters?"

Results

The results of the study indicate that above all both male and female complaining customers need to be taken seriously as individuals. The results revealed similar concepts for female and male respondents, for example, both groups want contact employees to be competent, friendly and to actively listen. The analysis of the hierarchical value maps, however, also uncovered some gender

differences that should be further investigated: Female customers were more able than male respondents to develop strong associations on the highest level of abstraction and to link consequences with several values. The consequence "take someone seriously" was strongly linked with three values ("justice"; "well-being"; "self-esteem"). It was also related to a fourth value ("security"), which indicates that female complainants want to have certainty and to be freed from doubt. Female customers especially want to be treated fairly ("justice"). Having spent money on a product or service that has not met their expectations female complainants are now investing their time and effort in bringing the problem to the attention of the company and so expect reciprocation in the time and effort of the employees of that company. Therefore, contact employees need to show effort, to solve the problem and to compensate female customers for all costs incurred. Female customers also tended to be more emotionally involved than male customers as they wanted employees to apologize for the problem and as they sometimes need time to calm down and relax. By contrast, male complainants were interested in a quick solution. References are available upon request.

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MAKING A VIRTUE OF NECESSITY: HOW FIRMS CAN BENEFIT FROM PRODUCT FAILURES

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SUMMARY

Product failures are critical incidents in customer relationships. They annoy customers and cause customers bad will. Yet, literature suggests that product failures can also induce positive customer evaluations in case of effective recovery measures. As put forward by the Service Recovery Paradox (SRP), recovery after a failure may procure a situation in which a customer's post-failure satisfaction exceeds pre-failure satisfaction (McCollough and Bharadwaj 1992). Drawing on the implications of the satisfaction profit chain (Anderson and Mittal 2000), such a leverage effect on satisfaction leads to higher customer retention which is in turn positively linked to profitability. Thus, by initiating effective recovery measures, a firm could even benefit from a failure episode: "A good recovery can turn angry, frustrated customers into loyal ones. It can, in fact, create more goodwill than if things had gone smoothly in the first place" (Hart, Heskett, and Sasser 1990, p. 148).

So far, literature has focused on investigating the recovery paradox with respect to service failures (de Matos, Henrique, and Rossi 2007). This is surprising given the fact that differences in the perception of service vis-à-vis product recovery have been found empirically (Maxham and Netemeyer 2002). Most importantly, studies suggest that the harmful impact of negative quality experience (in terms of negative word-of-mouth, reduced repurchase intention and decreased stock returns) is significantly higher for products compared to services (Aaker and Jacobson 1994; Gale 1992; Goldenberg et al. 2007). Moreover, negative product-related experiences pass through the market much faster (Ward and Ostrom 2006). Thus, *product* failure-related activities should be of highest priority for research on recovery. In view of this, we add the following contributions to the recovery literature.

Our first contribution is to explore whether the findings of the SRP can be transferred to a product failure context. More specifically, we investigate if a recovery paradox is created by simply restoring the products pre-failure state. For services, literature reports evidence for the recovery paradox already in situations where a 50 percent refund was given to compensate for the failure (McColl-Kennedy, Daus, and Sparks 2003). In contrast, we propose that a mere (or even partial) compensation is not sufficient to create a recovery paradox in product contexts.

Second, due to the limited effectiveness of standard recovery measures in product contexts, we propose that proactive activities are necessary to generate the desired leverage effect on satisfaction. Thus, we investigate the impact of proactive behavior on customer evaluations. Proactive behavior includes soliciting suggestions from customers and taking unexpected actions. No study has investigated so far the role of proactive behavior in failure and recovery contexts. Finally, we investigate the described issues both on an aggregated and disaggregated level as customers are aware of more than one channel member in many buying situations (O'Malley 1997). This is especially true in product-related failure episodes, where recovery efforts are predominantly conducted by intermediary partners of the manufacturer as dealers, contractors, or subsidiary service companies (Verhoef, Langerak, and Donkers 2007).

To test our hypotheses, we applied a quasi-experimental design in the automotive market using a two (no product failure versus product failure) by two (with proactive service and without proactive service) between-subjects design. Product failure was defined as a malfunction of a car making a significant repair effort necessary. The proactive service was represented in form of a free pick-up service which was either performed by a car dealer or by providing a taxi voucher. In the quasi-experimental study, real-life data of 1027 customers was analyzed.

Our findings indicate that the implications of the SRP cannot be readily transferred to the product failure context. Standard recovery measures (i.e., restoring the car's pre-failure state) only reestablish satisfaction on a dealer but not on manufacturer level. This indicates that customers thoroughly differentiate in attributing failure controllability to the responsible channel members and seem to blame the manufacturer for the failure but not the dealer. In addition, we found a significant positive influence of proactive behavior on post-failure satisfaction. This im-

pact is even strong enough to create a recovery paradox on both manufacturer and dealer level. Obviously, investing unexpected situational effort pays off for all channel members. Customers seem to feel delighted because of the dealers extra efforts put into their specific situation which apparently outweighs the negative feelings triggered by the product failure. Although this situational effort is exclusively conducted by the dealer, the manufacturer also benefits from the positive effects of these efforts. Thus, it would be economically viable for manufacturers to invest resources in order to support their dealers' proactive efforts. These findings contribute to the recent call of Verhoef, Langerak, and Donkers (2007) to explore effects of activities taken on disaggregated level (dealer) on the aggregated level (manufacturer). Finally, we can show that proactive efforts yield a higher impact on satisfaction in the failure than in the non-failure situation. Apparently, as customers seem to be highly activated by the failure, the dealers extra efforts are rewarded with bonus points.

To sum up, the SRP can be transferred to the product failure context only partly. First, our findings show that by providing standard recovery, the recovery paradox can neither be achieved on dealer nor on manufacturer level. While on dealer level, satisfaction can at least be recaptured, this holds not true on manufacturer level. These differential effects indicate the necessity for a distinction between the described aggregation levels as well as the distinction between standard (i.e., reactive) and proactive recovery. This contrasts findings in service research in two ways. First, the SRP was primarily explored on dealer level. With respect to this limited focus, a SRP could already be proved for standard recovery or even less than 100% compensation. Second, if manufacturing firms want to create a recovery paradox, standard recovery has to be advanced by proactive behavior. Only if the resulting advanced recovery is offered, a recovery paradox can be created on the dealer as well as the manufacturer level. As we could isolate the impact of the failure situation and show that the response to proactive services in failure episodes exceeds the response to proactive service provision in non-failure episodes, especially dealers should regard the product failures as highly promising opportunities. They yield the potential to strengthen their customer relationships if managed right, i.e., displaying proactive behavior which includes to go "the extra-mile" for the customer.

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ATTITUDES TOWARD ADVERTISEMENTS: ROLE OF THINKING ORIENTATION

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SUMMARY

We investigate how the thinking orientation (analytic versus holistic) of individuals accounts for advertising effectiveness. Specifically, we show that advertisement with attribute information (e.g., ads with attributes information; henceforth described as analytic advertisement) will be effective for analytic thinkers, whereas, advertisement with holistic information (e.g., ads with holistic information; henceforth described as holistic advertisement) will be more persuasive for individuals with holistic thinking orientation.

Culture and Advertising

A large body of work provides a broad and compelling account of how cultural values and ideas are reflected in advertisements. For instance, the U.S. advertisements rely heavily on individualistic appeal which emphasizes individuals' uniqueness, personality, and achievements while the majority of ads in the East Asian cultures use collectivistic themes which emphasizes one's relationship with others. Also, U.S. advertising relies predominantly on the appeal of product characteristics, whereas ads in East Asian cultures are found to be more informative.

Culture and Thinking Styles

Research in cross-cultural psychology has shown that individuals from East Asian (e.g., Chinese, Japanese, and Koreans) and Western (e.g., Americans) cultures vary greatly in terms of thinking orientation (Nisbett et al. 2001). An analytic approach to information processing is predominant among individuals from Western culture, whereas East Asians adhere more to holistic thinking orientations.

On the one hand, analytic thinking is defined as "involving detachment of the (focal) object from its context, a tendency to focus on attributes of the object in order to assign it to categories, and a preference for using rules about the categories to explain and predict the object's behavior" (Nisbett et al. 2001, p. 293). On the other hand, Holistic thinking is defined as "involving an orientation to the context or field as a whole, including attention to relationship between a focal object and field, and a pref-

erence for explaining and predicting events on the basis of such relationships" (Nisbett et al. 2001, p. 293).

Glenn, Witmeyer, and Stevenson (1977) assert that to persuade others, one should "select approaches consistent with their own past experiences within the cultures to which they belong, and that they are selected, in part, on the basis of their ability to handle a style congruent with the culture" (p. 53). Thus, normative assumption suggests that ad appeals congruent with cultural orientations should be more persuasive and evoke more favorable attitudes compared to ads with incongruent appeals.

Since holistic ads are congruent with their holistic way of thinking, we argue that when reading holistic ads, East Asians will tend to generate more favorable attitudes. In contrast, analytic ads enhance persuasion from Westerners because such ads are congruent with their analytic way of thinking. Therefore, we posit:

H1: Individuals in East Asian cultures will likely to find holistic ads to be more persuasive compared to analytic ads.

H2: Individuals from Western cultures will likely to find analytic ads to be more persuasive compared to holistic ads.

Study 1

Study 1 was based on a 2 (culture: East vs. Western) x 2 (ad: analytic vs. holistic ad) between-subjects factorial design. Sixty-one Caucasian American students and fifty-eight Chinese students were recruited at a large Midwest university in the U.S.

The analytic ad contained four pieces of product attribute information. Holistic ads contained price, availability, and company information. Attitude toward the ad was measured on a three-item seven-point scale with end points of "bad" "not at all likable" and "unfavorable" (1) and "good" "likable" and "favorable" (7).

As expected, Chinese generated more favorable attitudes toward holistic ads than toward analytic ads and when exposed to the analytic ad, Americans generated more favorable attitudes than Chinese. However, in con-

trast to hypothesis 2, Americans generated more favorable attitudes toward holistic ads than toward analytic ads. These findings are surprising and this is what we investigate in the next study.

Study 2

As predicted, study 1 found that compared to holistic ads, East Asians generated less favorable attitudes toward analytic ads. It could be argued that cognitive elaboration requires a large amount of time and as such, greater cognitive elaboration undermines the favorableness of ads (Anand and Sternthal 1989; Kisielius and Sternthal 1984). This study is designed to examine this possible alternate explanation. If cognitive elaboration has a role, East Asians should hold similar attitudes toward analytic and holistic ads if a time limit was imposed. If culture matters, Chinese still will generate less favorable attitudes toward analytic ads than toward holistic ads under a time limitation.

The respondents, fifty-seven Chinese students who were in the U.S. for less than six months, were recruited. The study utilized a 2 x 2 between-subject design, crossing speed (fast vs. slow) with Ad (analytic vs. holistic).

Although participants generated more favorable attitudes toward ads in the fast condition than in the slow condition, the effect of culture on attitude was not affected by limiting cognitive elaboration. Participants in the slow condition generated less favorable attitudes than those in the fast condition. Therefore, these results provide further support to our contention that culture, not cognitive elaboration, causes less favorable attitudes toward analytic ad.

Study 3

Study 3 was designed to show further support for our basic proposition that thinking orientation affects ad attitude. Unlike the prior studies, this study contained four pieces of information for both analytic and holistic ads. Holistic ads contained one piece of attribute information, vibration reduction, and three pieces of holistic information: price, availability, and company information. Ana-

lytic ads were the same as those used in previous studies. In addition, we used subjects from Peoples Republic of China.

Forty Chinese students at a large Southwestern university in China and Forty American students at a Southeastern university in the U.S. participated in this study.

The findings show that Chinese prefer holistic ads to analytic ads even when the quantity of information is the same in both kinds of ads. This is in consonance with what we have found in study 1 and provides further support for hypothesis 1. We did not find significant difference between analytic and holistic ads when holistic ads contained less information.

General Discussion

This study shed much light on consumer psychology and adverting by showing that the ways of thinking can influence consumers' attitude toward ads. That is, ads with different types of information may have different persuasion effect in distinction cultures.

Limitations of the current study merit attention and they also afford opportunities for future work. First, we did not consider some common executional cues like emotional cues, humor, and creativity. Future research might investigate how these ad elements interact with thinking orientation. Second, the external validity of our study is limited as our ads were presented to respondents as a single presentation without other ads surrounding it to control for cross advertising effects (Lee and Labroo 2004). A related direction for further research is to use a series of ad to represent the cluttered marketplace. Third, for the first two studies, we used overseas Chinese students as research subjects. It is possible that they may display systematically different characteristics from those in the home country, even though they had been in the U.S. for a short period of time. Another worthwhile direction could be to examine whether there is any systematic difference between overseas Chinese and Mainland Chinese.

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INTERACTION EFFECTS OF FATIGUE LEVEL AND ADVERTISEMENT COMPLEXITY ON CONSUMER'S ADVERTISING PROCESSING

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ABSTRACT

Our research studies interaction effects of fatigue and ad complexity on advertising processing variables, namely memorization and persuasion. We draw upon Resource Matching Theory to build our hypotheses. Our first results show that fatigue interacts with complexity on memorization scores but there is no such interaction effect for attitude scores.

INTRODUCTION

Huge advertising budgets are invested by firms to reach and convince potential consumers to buy their products. To optimize these investments, it is fundamental not only to ensure that appropriate consumers will be reached, but also that they will be in appropriate conditions to receive and understand the message correctly. Marketing research has focused on consumers' response to advertising (e.g., Olney et al. 1991), as well as on some individual and contextual factors that could mediate or moderate the ad impact on consumers (e.g., motivation and ability to process information (Cacioppo and Petty 1985; MacInnis and Jaworski 1989) or attitudes toward advertising (MacKenzie, Lutz, and Belch 1986)). But an important factor influencing consumers' reaction to advertising has not yet been studied in marketing research: fatigue. However, fatigue has some influence on key factors of ad message reception such as cognitive resources availability (see Edell and Staelin 1983; Kitchen and Spickett-Jones 2003; MacInnis and Jaworski 1989). Moreover, studying fatigue is useful because it can easily be taken into account by media planning, being closely related with time of day.

In this article, we examine how fatigue and advertising complexity interact together and impact consumers' persuasion and memorization of the ad. Drawing upon Resource Matching Theory, we hypothesize that matching cases of fatigue and complexity levels lead to higher attitude and memorization scores than mismatching cases. We report the results of an experiment that support these hypotheses.

LITERATURE REVIEW

Resource Matching Theory

According to Resource Matching Theory (Anand and Sternthal 1989, 1990), an ad is at most persuasive when the resources required processing it match the resources the viewer is willing and able to provide. Anand and Sternthal show that when the required resources exceed the available resources, the message is not entirely processed by consumers. And when there are too many available resources compared to those required, viewers elaborate critical or unrelated thoughts, lessening persuasion. The level of resource demanded by an ad can be high or low, and is mostly determined by the ad's layout (Peracchio and Myers-Levy 1997). On the other side, the resource availability of the viewer is determined by lots of contextual and individual variables. Viewers with few available resources try to limit their processing effort to minimal resource requirements, relying on overall impressions at first glance. It is easier for them to decode the message when ads are very simple. On the contrary, the most effective ads for viewers with plenty of resources are complex enough to draw attention and fully benefit from the available resources. The challenge of successful media planning and advertisement creation is to match available and required resources.

Advertisement Complexity

Some research about consumers' response to advertising claim that complexity is a fundamental element to take into consideration. Complexity determines cognitive efforts consumers must provide to understand the message (Putrevu et al. 2004). Within the Resource Matching perspective, we suggest that ad complexity level determines the level of required resources. Previous literature on ad complexity level shows contradictory results on its impact on consumers' responses. Putrevu et al. (2004) review some studies finding that simple ads are more efficient. In this case, consumers want to minimize cognitive efforts to process information within the ad; hence the less complex, the better. This is the vision shared among advertising practitioners. They think that the simpler the message is, the more the consumer will be cognitively and emotionally touched. On the other hand, Morrison and Dainoff (1972) found that complex ads are efficient in attention getting and ad processing since they generate curiosity, imagination and novelty seeking. Those studies show ambiguous results regarding ad complexity effects on cognitive efforts since they don't take into consideration some individual and contextual variables that impact the level of cognitive effort, fatigue is a good illustration of one of those variables.

Fatigue

Fatigue is a multidimensional concept. It is hard to find a single and global definition succeeding in taking into consideration each and every aspects of fatigue. Studies aiming at examining fatigue focus on a single aspect of the concept in general. For example, some medical research focuses on severe fatigue, fatigue which can't be compensated by rest anymore. Other articles in this field study fatigue symptoms of diseases such as cancer or Cystic Fibrosis. In ergonomics research, fatigue is studied once it can be harmful to the individual, or at least when it becomes annoying. Transportation and security is also an important research field studying fatigue.

Literature in cognitive psychology has shown that fatigue influences cognitive performances (Lieury 2004), ability to cope with emotions (Larivey 2002), and the way an individual assesses experiential moments (Lieury 2004). The difficulty stands in finding a unique and exhaustive definition of the fatigue concept. This concept is multidimensional. Gledhill (2005) reports three main dimensions: physical, affective and cognitive. Those three dimensions can be intertwined according to situations. Type and magnitude of fatigue vary throughout time of day and according to individual characteristics (age, illness, professional activity . . .). We are still able to find common elements for experienced fatigue: fatigue is felt after the excessive work of a muscle or an organ. It is explained by a temporary loss of work abilities after a prolonged effort. Efficiency is decreasing and we need to increase efforts to execute the initial task with the previous performance. Fatigue manifestations (eyelids heaviness, loss of balance . . .) are warnings for the body that resources will lack pretty soon and that the individual has to stop the actual activity to get some rest. Those resources can be either physical or cognitive. In this study, we examine the daily fatigue (a global feeling felt nowhere in particular but everywhere in general). This type of fatigue can influence processing abilities as well as emotion and impression management. Within the Resource Matching perspective, we suggest that fatigue level determines the level of available resources.

MODEL AND HYPOTHESES

According to ergonomics and medicine literature, fatigue impacts cognitive performances of individuals. Murata et al. (2005) found that it decreases cognitive processing abilities. Gledhill (2005) reports some concentration and attention problems as symptoms of fatigue, as well as some memorization difficulties. For Schmidtke (1969), fatigue drives to troubles in information reception, in perception, in coordination, as well as in thinking. Markle (1984) finds that fatigue decreases memorization and communication abilities. Moreover, it increases time reactions and number of errors.

According to Resource Matching Theory (Anand and Sternthal 1989, 1990), the few available resources of the tired subject will render him more receptive to simple ads. When viewing more complex ads, the level of required resources exceeds the level of available resources, hence the ad can't be processed entirely and optimally. We suggest that scores of cognitive responses will be higher with simple ads than with complex ads. When the subject is not tired, his available resources will render him more receptive to complex ads, which are resources demanding. When viewing simple ads, the level of available resources exceeds the level of required resources, hence the subject tends to elaborate counter-arguments or unrelated thoughts. We suggest that scores of cognitive responses will be higher with complex ads than with simpler ads.

Hence we propose the following hypotheses:

H1a: When the subject is tired, memorization scores are higher with simple ads than with complex ads.

H1b: When the subject is not tired, memorization scores are higher with complex ads than with simple ads

H2a: When the subject is tired, attitudes are more positive with simple ads than with complex ads

H2b: When the subject is not tired, attitudes are more positive with complex ads than with simple ads

EXPERIMENT

Sample

Forty-three undergraduate students enrolled in an introductory marketing course and living on the campus participated in the experiment. We chose this population for its heterogeneity: they are roughly the same age, same educational background, same daily issues, same schedules . . . we then minimize personal characteristics variance, at least social and cultural dimensions, allowing control for external factors that can affect fatigue level.

Design

We run a 2 x 2 experiment: fatigue level (low – high) x ad complexity level (simple – complex). Participants were asked to perform the experiment three times within 24 hours (morning: 8–9:30 a.m.; afternoon: 4–5:30 p.m.; night: 10–11:30 p.m.). They were assigned a beginning moment and we rotated the order (e.g., participant one began the experiment on the morning, and came back on the afternoon and on the evening; whereas participant two began in the afternoon and came back on the evening and the following morning; and participant three began in the evening and came back the next day on the morning and

on the afternoon, etc.). We chose to test subjects at various moments of the day to manipulate their fatigue level. We select moments where the respondents' fatigue levels are low and those where they are high. Ad complexity level is a between-subject variable since each subject views only one level of complexity (simple ads or complex ads).

Stimuli

We have designed our own ads in order to keep aspects other than complexity equal (Cox and Cox 1988). Our mock ads share the same layout. There are four areas: headline, picture, copy and logo. We guide the viewer's gaze from top to bottom with a vertical layout: headline at the top, picture below, copy under the picture, and logo at the bottom right. We chose a vertical layout instead of a horizontal one (picture and copy side by side) in order to avoid some hemispheric laterality effects (Janiszewski 1988). We pre-tested[1] the mock ads on a sample of 235 students in July 2007 to check for significantly different levels of advertising complexity. Each ad was assessed through the Resource Demands scale (Keller and Bloch 1997) and was rated on complexity items as in Morrison and Dainoff (1972) to check for our complexity manipulation. We found two significantly different levels: simple ads with low aggregated complexity scores vs. complex ads with high aggregated complexity scores.

Regarding product categories of the promoted items, we selected categories that are familiar to our respon-

dents, but they should not be bought on an everyday basis (*see* Mountain Dew choice by Anand and Sternthal 1990). We wanted the products appeal not to vary with moments of the day, to avoid any fallacious conclusion on fatigue effects rather than interest or motivation for the product. Other product criterion is innovation level. We chose products with medium level. We needed innovative products to better manipulate copy complexity level with arguments linked to product benefits. But we didn't want too much of innovation in order to avoid too much of motivation to process the ad, too much of involvement. We pre-tested several categories and products on innovation and involvement items before we designed our ads.

Measures

Fatigue. First of all, participants perform the experiment three times in 24 hours (8am–9:30am/4pm–5:30pm/10pm–11:30pm), those moments were selected according to performance peaks and lows studied in chronopsychology literature (Lemai 2003). We try to maximize variance of fatigue highs and lows this way. The chronopsychology literature has shown that young adults around twenty reach their performance peak during late afternoons, around 5pm (what we expect for our subjects). Each moment of the day, participants assess their fatigue level through two fatigue scales: KSS (Karolinska Sleepiness Scale) (Akerstedt and Gillberg 1990) and VAS (Visual Analogue Scale) (Lee et al. 1991). Those scales have been pretested in July 2006 on a sample of 129 individuals. A

FIGURE 1
Conceptual Model
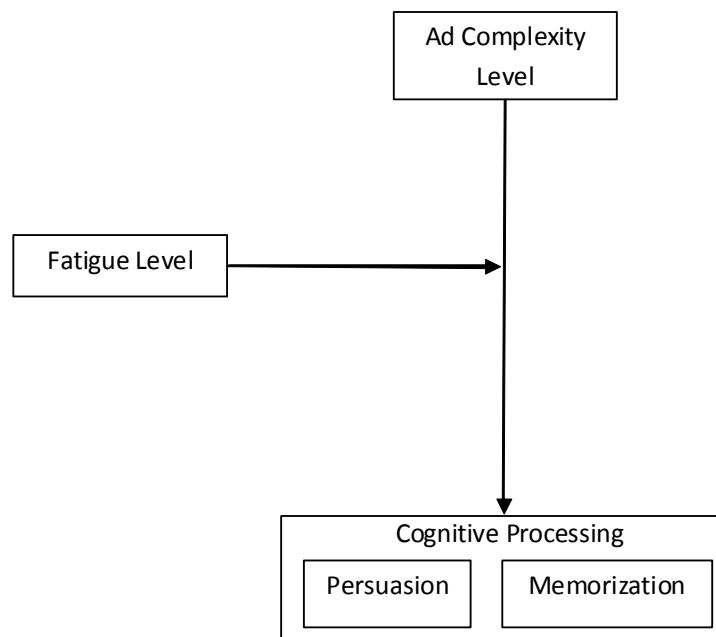
factor analysis indicates that the scores of these two variables load on a single factor. We use the aggregate factor as an index of fatigue. To obtain two levels of fatigue, we run a hierarchical cluster analysis. A first cluster gathers scores higher than 8.9 on the index of fatigue [score range: 1 to 19]. There are forty-three cases. We label this cluster "High fatigue," where we find the tired respondents. The second cluster gathers the other seventy-three cases, we label it "Low fatigue," where we find the non tired respondents. Moreover, respondents were asked to list their activities of the day according to their resting or tiring nature (Alberts et al. 2001; Schwartz et al. 1993).

Advertising Complexity. We manipulate the level of required resources using two levels of ad complexity (simple – complex) from Putrevu et al. (2004): we manipulate the number of pictorial elements (one vs. several), the number of words in the headline and in the copy (few vs. many), the presentation style of the copy (facts with bullet-points vs. story paragraph), and the technical level of the vocabulary in the copy (low vs. high).

Match Variable. We then created a match variable to take into consideration match and mismatch cases of available and required resources, to test our hypotheses. Match cases correspond to available and required resources be the same (high fatigue – simple ads or low fatigue – complex ads) and mismatch cases correspond to

available resources being above or below required resources (low fatigue – simple ads or high fatigue – complex ads).

Persuasion and Memorization. Regarding measures of cognitive processing, we have persuasion measures and memorization measures. For persuasion measures, we use brand attitude scales adapted from Agrawal and Maheswaran (2005), Anand and Sternthal (1990), and Kardes (1988). And we use product attitude scales adapted Kang and Herr (2006), and Meyers-Levy and Peracchio (1995). For memorization measures, we create an aggregate score from recall scores derived from Meyers-Levy and Peracchio (1995) and from recognition scores derived from Kang and Herr (2006). This aggregate score equals to 0 when the subject doesn't remember anything at all (no recognition and no recall); it equals to 1 when the subject recognizes the brand among five others but doesn't recall the ad spontaneously (recognition but no recall); and it equals 2 when the subject recalls the brand spontaneously and recognizes it among other foil brands (recognition and recall).

Protocol

Before the experiment, subjects previously filled a Morningness/Eveningness questionnaire (Horne and Ostberg 1976) in class, in order for us to control the fatigue level by morning type or evening type of the respondent.

FIGURE 2
Chi-Square Difference Test on Fatigue-Complexity Match and Memorization Scores
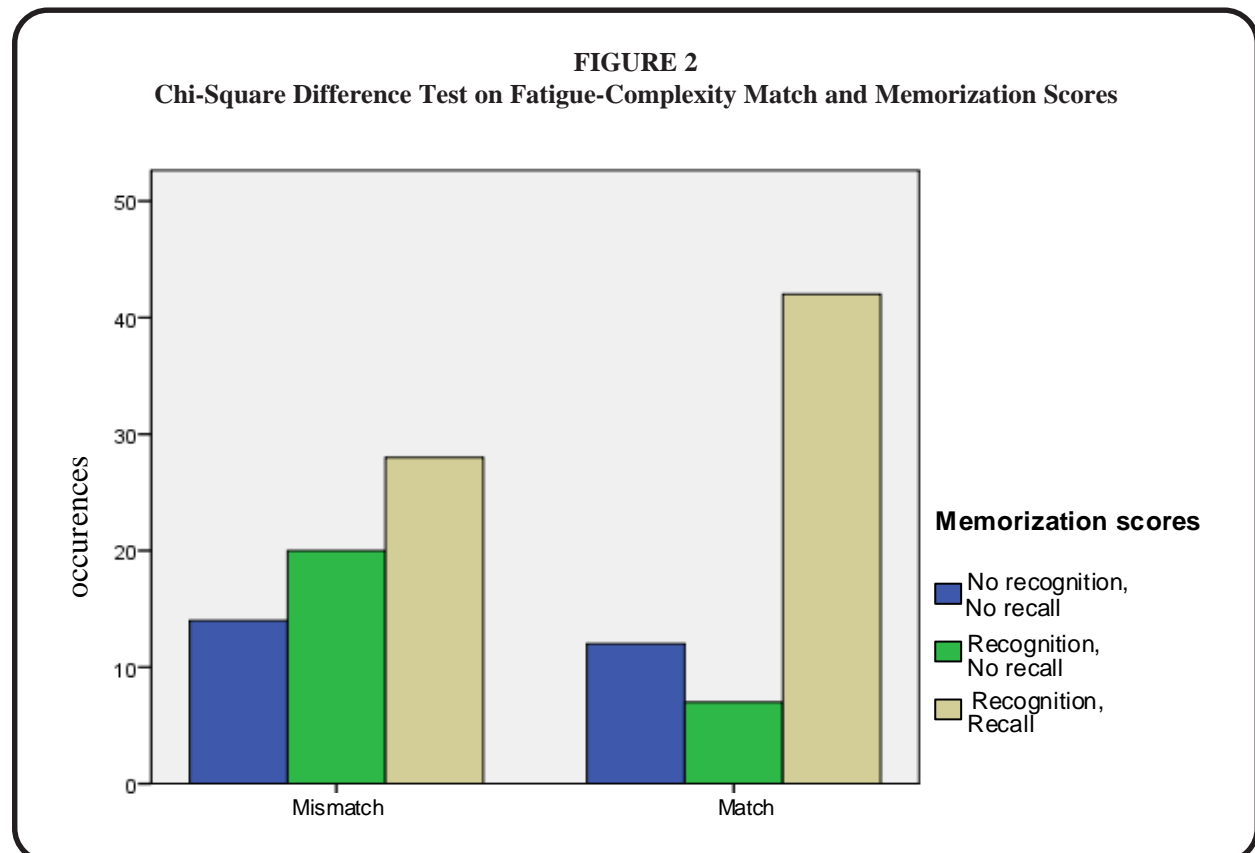
When the experiment begins, the subject views two or three ads on a computer screen. Some are mock ads that we designed in order to manipulate the complexity level (3 simple ads, 3 complex ads) and the two other ads are real ones taken from specialized magazines (data storage/ protection and plasticine for children). It is important that our test ads are mock ads in order to avoid any bias due to respondents' prior knowledge or familiarity with an existing brand. We end the experiment with questionnaires for each ad seen. And respondents are asked to list their activities of the day, and to qualify them as resting or tiring.

FIRST RESULTS

Interaction Effect of Fatigue and Ad Complexity on Memorization Scores

A chi-square difference test shows that there is a significant link at $p < .10$ between the fatigue-complexity match variable and the memorization aggregated factor ($\chi^2 = 9.206$; p = .069). This means that when available and required resources match (*low resources match*: high fatigue – simple ads or *high resources match*: low fatigue – complex ads), memorization scores are higher than when there is a mismatch (*mismatch type I*: low

fatigue – simple ads or *mismatch type II*: high fatigue – complex ads) as hypothesized from Resource Matching Theory (see Figure 2). H1a and H1b are then supported.

More precisely, (1) we obtain higher recall and recognition scores for match cases than for mismatch ones, but (2) when we look at recognition scores only, it is noteworthy that mismatch scores are higher than match ones. Decomposing match and mismatch situations will allow us to better explain this situation.

Even if a chi-square difference test shows no significant link when the match variable is decomposed ($\chi^2 = 16.119$; p = .397), the results pattern is very insightful. We observe that (1) recall and recognition scores are in general very high for complex ads, when they are quite low for simple ads, whatever the match or mismatch situation. When ads are complex, as hypothesized by Resource Matching Theory, memorization scores are higher for match cases than for mismatch ones. But when ads are simple, the theory seems not to apply so well since recall and recognition scores are similar for match and mismatch cases; (2) when recognition scores only are taken into consideration, nobody recognized the brand in the *low resources match* situation. In the three other situations (high resources match, mismatch type I and

FIGURE 3
Chi-Square Difference Test with Decomposition of Fatigue-Complexity Match Variable
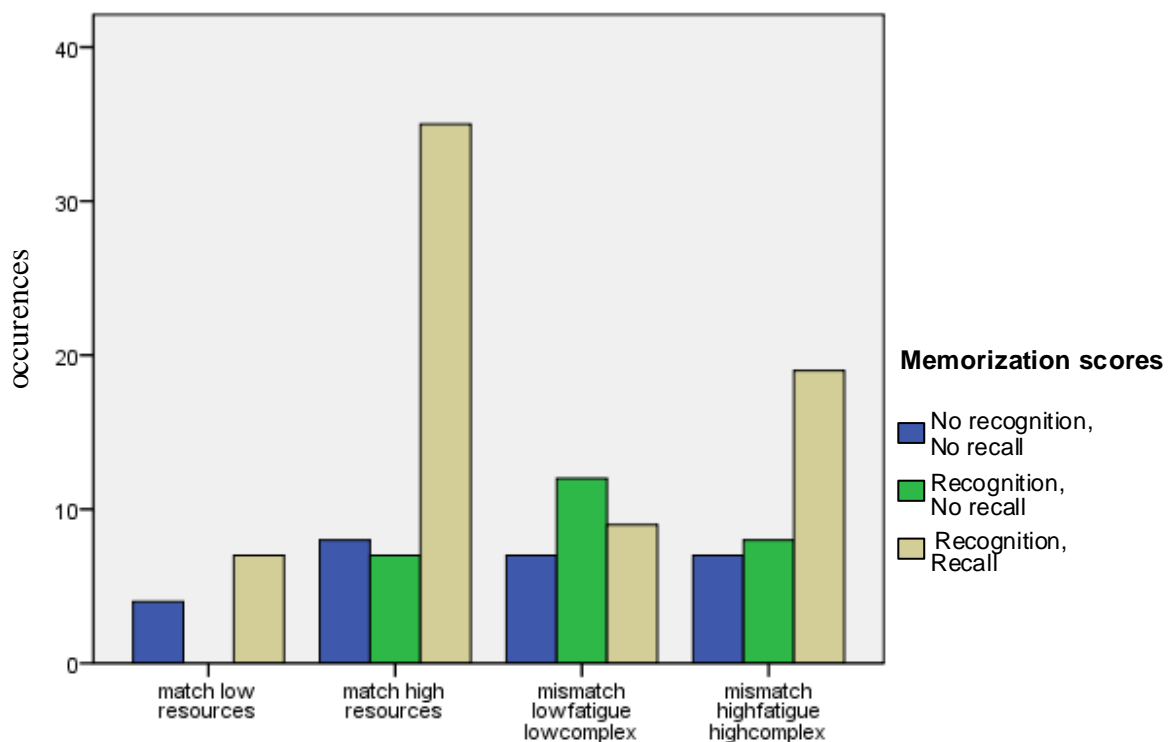
mismatch type II), scores are similar. Contrary to our expectations with Resource Matching Theory, low resources seem to be penalizing.

When complexity level is not taken into consideration, a chi-square difference test shows no significant link between fatigue level alone and memorization scores ($\chi^2 = .939$; $p = .625$). Tired respondents and non tired ones have the same memorization scores.

Interaction Effect of Fatigue and Ad Complexity on Attitude Scores

A mean comparison of brand attitudes according to the fatigue-complexity match variable shows no significant difference ($F = .303$; $p = .583$). We obtain the same non significance for the mean comparison of product attitudes according to the match variable ($F = 1.501$; $p = .223$). Thus, H2a and H2b are not supported. Contrary to our hypotheses from Resource Matching Theory, attitudes seem not to be influenced by fatigue-complexity interaction.

Regarding the main effect of fatigue on attitudes, a mean comparison of fatigue level with brand attitudes shows no significant differences ($F = .760$; $p = .385$); mean comparison of fatigue level with product attitudes also shows no significant differences ($F = .021$; $p = .884$), we don't find any main effect of fatigue on attitudes.

DISCUSSION

Our results show that fatigue alone doesn't have any impact on cognitive processing of advertising information. Attitudes and memorization scores do not differ significantly according to respondents' level of fatigue. In line with Resource Matching Theory, memorization scores are significantly influenced by fatigue and advertising complexity levels. When available and required resources match (*high resources match*: low fatigue – complex ads), memorization scores are significantly higher than when available and required resources do not match (high fatigue – complex ads or low fatigue – simple ads). Indeed, when there is a high resources match, participants significantly recognize the brand among five foil brands and recall the brand spontaneously. But when available and required resources do not match, respondents do not recall the brand and they even do not recognize the brand. It is also noteworthy that with mismatch type II (high fatigue – complex ads), memorization scores are quite high. Memorization scores being higher for complex ads than for simple ads, it is more efficient to show complex ads, even to tired individuals, than showing simple ads, even to non tired individuals. Those results are interesting since they are quite counter-intuitive. We would expect to avoid fatigue in any case to be sure consumers' cognitive abilities are at their best.

Our study stresses out the interest in examining fatigue more deeply, within the theoretical framework of unconscious and/or low attention marketing stimuli processing. More surprisingly, our results with attitude scores are not in line with studies on Resource Matching Theory. We can argue that the cognitive dimension of attitudes did not play a major role here and that the emotional part of attitudes may be more important. We will run a second study to disentangle the emotional part of attitudes from the cognitive one, and see how fatigue can influence this emotional dimension instead of just looking at a cognitive resource perspective. It is interesting to notice that fatigue does not only lead to a reduction of cognitive abilities, it can also influence emotions felt.

Another aspect of fatigue we want to explore with our analyses to come relates to visual strategies being used to extract information from advertisements. We collected eye-tracking data during the experiment and we want to look at the way fatigue may influence the visual strategy being adopted: an analytical strategy is more resource demanding and a global strategy is less resource demanding. These visual strategies may explain low or high attitude and memorization scores if they match with available resources (derived from fatigue level) and advertising complexity.

Theoretical and Managerial Implications

On a theoretical level, our study allows to deepen current knowledge on fatigue. This transdisciplinary concept (physiology, psychology, ergonomics, education sciences, etc.) highly influences consumers' daily life. Henceforth we think it is really important and insightful to import fatigue into the consumer behavior field. Moreover, we want to improve our comprehension of cognitive processing. Eye-tracking (for the forthcoming analyses) is highly relevant for that since it allows a non obtrusive observation of cognitive phenomena, without any auto-elicitations by respondents.

On a managerial side, we should be able to apply our results to media-planning and advertisement design. Once the consumer target of the ad is selected, it is possible to determine the time of consumers' performance peak and then we can adapt the message to be transmitted. Practitioners are then able to improve advertisement layouts according to fatigue state. They will choose layouts that suit best with the message the advertiser wants to be remembered.

ENDNOTE

1 Before that, we pretested in May and April 2007some new product concepts to be advertised in the mock ads (e.g., anti-perspiring socks, a body temperature regulating tee-shirt, a sun captor lamp, etc.). We chose to advertise new products in order to avoid subjective knowledge of products biasing responses.

Moreover, it is easier to write a technical and/or narrative copy for a new product concept. We only selected concepts with average scores on innovation and implication scales, in order to avoid an over-weight attention on advertisements with very appealing products, which would lead to compensation for effects of fatigue and hide our focal effects.

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A CONCEPTUAL STUDY ON WEB-BASED REVENUE-SHARING COLLABORATION SYSTEMS

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SUMMARY

This paper studies the collaboration problem in supply chain management from a different prospective. Mechanism design for aligning each entity's optimization from the local to the global level with the IT progress, have not been fully explored. By applying an economics theory of revenue-sharing collaboration, we show the guidance in designing such a collaboration mechanism. Because the ultimate goals for each entity in the supply chain are revenue- or profit-oriented, we focus on the role of revenue-sharing and transferring, in fostering the relationship, trust, and commitment. We show that, along with relationships, trust, contract, and other social factors, revenue-sharing and reallocation is critical for establishing collaboration among different business entities. With the IT progress in the digital economy, we propose Web-based revenue-sharing collaboration systems, which have four indivisible components: performance measurement; performance monitoring and revenue reallocation; global optimization; and system reconfiguration.

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HOW PRODUCTION COSTS AFFECT CHANNEL RELATIONSHIPS

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SUMMARY

Production costs are critical in every business. In this paper we try to understand what impact production costs have on channel relationships. Manufacturers and retailers in our model have various choices of *pricing variables:* manufacturers can choose among absolute wholesale price, absolute manufacturer margin, and percentage manufacturer margin, while retailers can choose among absolute retail price, absolute retail margin, and percentage retail margin. The manufacturers' production cost function significantly affects both the manufacturer's profit and the retailer's profit, and consequently their preferences regarding the pricing variables. We have three major findings. *First,* when the manufacturer is Stackelberg follower, she is indifferent to the choice of the pricing variables. However, when she is Stackelberg leader or a Bertrand-Nash competitor to her retailer, her choice of pricing variable depends on the production cost function. If the per unit production cost function is increasing because of diseconomies of scale, the manufacturer strictly prefers wholesale price to manufacturer margins. If the per unit production cost function is decreasing because of economies of scale, the manufacturer prefers an absolute manufacturer margin over wholesale price. Furthermore, if the per unit cost function is decreasing and the elasticity of the cost function is less than unity, then manufacturers prefer percentage manufacturer margin. *Second,* when the retailer is a Stackelberg follower, he is indifferent to pricing variables. However, if he is a Stackelberg leader or Bertrand-Nash competitor to the manufacturer, he prefers the percentage retail margin if the manufacturer's per unit cost is a decreasing function of production quantity, or, the manufacturer's per unit cost is an increasing function of production quantity but the elasticity of the cost function is less than the manufacturer margin; otherwise, he would rather choose an absolute retail margin. *Third*, if the manufacturer is Stackelberg leader and his per unit production cost is a decreasing function of production quantity, when the manufacturer switches her pricing variable from the absolute wholesale price to the absolute manufacturer margin, the total channel profit will increase. Overall, our results shed new light on channel outcomes in the presence of production costs.

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IS SUPPLY CHAIN PROCESS INTEGRATION A MISSING LINK?

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SUMMARY

Since integration has been considered the key to supply chain management (SCM), this study empirically explores the role of supply chain process integration in the well-recognized customer orientation – innovation – performance framework. In particular, this study makes important contributions by addressing several research gaps. First, there is little research that explores any missing links between a firm's customer orientation and its innovative capability. Second, though customer orientation has gained attention as an important and relevant concept in SCM literature, its impact on supply chain process integration has not been empirically investigated. Third, though it has been suggested that integration occurs both within and across firms, few studies have empirically tested the relationship between internal and external integration. Fourth, innovation literature to date focuses mainly on product innovation, with little attention dedicated to the emerging service innovation concept.

We ground our study in two widely applied theoretical frameworks: the strategy – structure – performance (SSP) framework and the resource-based view of firms (RBV). Combining the basic tenets of these two theoretical frameworks, we propose that the fit between strategy and structure can help improve firm performance by enabling it to develop necessary capabilities. Whereas customer orientation represents a corporate culture that reflects the firm's strategy, supply chain process integration refers to the set of restructuring activities that realigns the firm's internal and external structures so that it may better allocate its resources. Thus, a conceptual model is proposed with following hypotheses.

H_1: A firm's internal process integration leads to its external process integration.

H_2: A firm's customer orientation has a positive impact on its internal process integration.

H_3: A firm's customer orientation has a positive impact on its external process integration.

H_4: A firm's customer orientation has a positive impact on its service innovative capability.

H_5: A firm's internal process integration has a positive impact on its service innovative capability.

H_6: A firm's external process integration has a positive impact on its service innovative capability.

H_7: A firm's service innovative capability has a positive impact on firm performance.

H_8: A firm's internal process integration has a direct positive impact on its performance.

H_9: A firm's external process integration has a direct positive impact on its performance.

Survey data collected from managers in the Chinese electronics manufacturing industry serve to test the proposed model. Since China has emerged as one of the world's key electronics manufacturing hubs, its electronics firms play increasingly important roles in global supply chains. Thus, China provides a viable and meaningful research context. A total of 304 usable responses were obtained, for a 33.8 percent response rate (304/900).

Confirmatory factor analysis (CFA) using maximum likelihood estimation (MLE) was conducted to assess and validate the operational constructs. Structural equation modeling (SEM) was used to test the hypotheses. H_1 is supported, suggesting that internal integration precedes external integration. Although the supported path between customer orientation and internal process integration (H_2) is consistent with existing literature, the expected direct impact of customer orientation on external process integration (H_3) is not supported. The lack of a direct link between customer orientation and external process integration may be due to the necessary sequence of internal and external process integration. H_4 is not supported, indicating that customer orientation does not have direct impact on innovation when integration constructs are included. Although H_6 is supported, we find no support for H_5. The reason may be that the focus herein is the firm's service innovative capability. A high level of service innovative capability is unlikely with only an internal perspective and internal process integration. This result does not indicate that internal process integration is not important; rather, it is a prerequisite for external process integration's ability to affect the firm's service innovative capability. The direct impact of internal process integration on firm performance is not supported (H_8), suggesting that it is not enough to optimize internal structures and infrastructures through internal process integration. The support for both H_7 and H_9 indicates that

the relationship between a firm's external process integration and its performance is partially mediated by its supply chain innovative capability. That is, a firm may achieve better performance through external process integration or other capabilities, but supply chain innovative capability plays a critical role in contributing to firm performance.

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A MODEL OF THE CUSTOMER'S PERCEIVED COSTS AND BENEFITS OF PRODUCT CUSTOMIZATION IN THE CAR MARKET

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SUMMARY

Many companies have recognized the need to involve customers in product specification in order to gain a competitive advantage on saturated markets (Piller 2006). With mass customization, customers can, typically by using Internet-based configuration systems, choose from a flexible set of modules to design a product close to their ideal configuration rather than choosing from a set of prefabricated variants of a product. Then they ideally purchase the product they have configured at a price of a comparable standard product (Pine 1993). Innovations in manufacturing and communication technologies, notably the Internet, form the backbone of mass customization (Pine 1993; Gilmore and Pine 1999).

From the marketing perspective the main objective of customization is to provide superior value to the customer (Tseng and Jiao 2001). However, customers are often faced with a substantial additional effort required for information search, the increased cognitive load associated with configuring products (Schweizer, Kotouc, and Wagner 2006; Dellaert and Stremersch 2005; Piller, Moeslein, and Stotko 2004; Bettman, Luce, and Payne 2001; Iyengar and Lepper 2000; Huffman and Kahn 1998), higher costs for customized products, and sometimes also longer delivery times (Salvador and Forza 2004). Thus, the optimal degree of customization from the customer's viewpoint does not only depend on the perceived benefits of customization, but also on its perceived costs.

Previous research analyzed the pros and cons of adopting mass customization from the company's point of view (Piller 2006; Tseng and Jiao 2001; Wind and Rangaswamy 2001; Pine 1993), the profit potential for companies, and the customer's willingness to pay (Syam and Kumar 2006; Syam, Ruan, and Hess 2005; Franke and Piller 2004; Kamali and Loker 2002). To date, no comprehensive model including more than one aspect of a customer's perceived costs and benefits of product customization has been tested or proposed. This paper develops and empirically tests a model of the customer's perceived costs and benefits of product customization. It includes different types of (1) perceived benefits (symbolic, functional, and experiential benefits) from product customization and (2) additional costs of customization pertaining to time, cognitive effort and money. The model
is tested in the product category of automobiles as one of the most prominent, advanced, and economically important instances of mass customization. This paper contributes to the understanding of the effects of mass customization by testing a comprehensive set of costs and benefits of product customization from the customer's point of view, thus (1) uncovering potential barriers to the success of mass customization, and (2) comparing the relative importance of different types of benefits of customization.

Method

In cooperation with a large European car manufacturer, computer-assisted face-to-face interviews with 507 Austrian car owners were carried out in January 2005 based on two qualitative pilot studies. Sampling procedures insured a demographically heterogeneous sample in terms of age, education and gender. On average, respondents were 38.63 years old, with 50 percent of them being female. In the course of the interviews, a car configuration software was integrated into a computer-based questionnaire with mostly standardized questions. A standard automobile, which customers could enhance by adding features, and a set of optional car features were defined in a pilot study. Subjects were told to choose a car in the configuration they plan to buy for their next purchase. The software tool for automobile configurations (Car Configurator) recorded the product configuration for each respondent, including the type and number of optional features chosen to enhance a predefined standard model. The car-configuration data were combined with the personal data from the survey. The interviews and the car configuration took an average of 58.2 minutes. The central endogenous variable of the model, i.e., the preferred extent of product customization, was measured by the number of additional product features selected for the final car configured by the respondent. Validated scales were used to consider the independent variables in question (Schweizer, Kotouc, and Wagner 2006; Tepper, Bearden, and Hunter 2001; Sweeney and Soutar 2001; Park, Jaworski, and MacInnis 1986). The proposed model was tested using a structural equation modeling with AMOS 5.0. All items loaded significantly on their corresponding latent factors. All overall fit indicators (Hu and Bentler 1998; Marsh, Hau, and Wen 2004) are within a satisfactory range and show that the model accounts for a substantial amount of variance.

Findings of the Study

Overall, the results of the study suggest that, in the product category of automobiles, the success of customized products depends on the customer's cost-benefit ratio of customization such that both the costs (money, time, and cognitive effort) and the benefits through concrete experiential and functional advantages of specific product features and through a more abstract need to own a unique car influence the extent of customization chosen by the customer. Interestingly, this more abstract need to own a unique car which itself is increased by a general need for unique products and brands turned out to be the most important driver of the customization of cars. Not only does it exert the strongest direct influence on the preferred extent of customization, it also reduces the perceived complexity of choice, thereby cushioning one of the potential barriers to customization. According to the study, money constitutes another barrier to customization as the preferred extent of customization increases with the pre-purchase budget for a new car.

Interestingly, experiential benefits and functional benefits turned out to be equally strong drivers of the extent of customization chosen by the car buyers surveyed in the study. Contrary to the expectations, symbolic benefits exerted no significant impact on customization. However, this may be different for other product categories such as clothing where changes in the product features may be more visible and important means of communicating values, personality, and status to significant others. References are available upon request.

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GIVE ME POWER AND I'LL GIVE YOU LOVE: EXPLORING CONSUMER BRAND ATTACHMENT IN MASS CUSTOMIZATION

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SUMMARY

More and more firms are empowering their customers by offering mass customization (MC) toolkits which allow them to self-design products according to their individual preferences. Switching from the role of a passive consumer to that of an active co-designer of new products, the customer engages in a trial-and-error experimentation process until she/he finds a satisfactory product design (von Hippel 2001; von Hippel and Katz 2002). The final design is then automatically transferred into the firm's production system and individually produced with almost mass-production efficiency (Piller, Moeslein, and Stotko 2004; Pine 1999; Tseng and Jiao 2001).

As noted by Dellaert and Stremersch (2005), marketing researchers have only recently begun to explore the consequences of MC strategies from the consumer's perspective. Most empirical studies to date have focused on the interaction between users and toolkits and on the resulting outcome, i.e., the self-designed product. Conceptual work in this field also points to MC as a promising strategy to improve a firm's relationship with its customers (Peppers and Rogers 1997; Pine, Peppers, and Rogers 1995). In particular, it has been suggested that customers might reward MC companies with increased loyalty in exchange for the better fit between the self-designed product and individual preferences (Ansari and Mela 2003; Simonson 2005). In contrast to the customer-product dyad, however, there is a lack of empirical evidence to this end.

We draw on attachment theory to conceptionalize the customer-company relationship. An attachment is defined as "an emotion-laden target-specific bond between a person and a specific object" (Thomson, MacInnis, and Park 2005, p. 77–78). It is associated with intense feelings of love, affection, passion, and connection (for a recent review, see Thomson, MacInnis, and Park 2005). Although attachment theory does not specifically look at brands, emotional attachment has been proposed as an important marketing variable (Fournier 1998). Thomson (2006, p. 105) posits that "understanding how to create or intensify attachments might offer both an effective and economical means of achieving stronger marketing relationships."

In a pilot study we conducted an experiment with the Swiss brand FREITAG, which is well-known for their shoulder bags made out of used truck tarpaulins (www.freitag.ch). Fifty-three management students were randomly assigned to one of the following two groups: one group was given the task to design their own bag using the FREITAG online tookit, participants in the control group chose a bag from the online shop. After this task, we measured preference fit (i.e., satisfaction with the self-designed [standard] product), brand attachment, and willingness to pay. We find that customers who design their shoulder bag themselves report significantly stronger brand attachments than customers who choose a standard product. However, contrary to previous findings (Franke and Piller 2004; Randall, Terwiesch, and Ulrich 2007; Schreier 2006) results also show that neither preference fit nor willingness to pay is higher in the MC group. In this context, this could be due to the fact that consumers in the control group could choose from a great range of different unique products in the online shop whereas the solution space in the toolkit was rather narrow. Nevertheless, also with this constraint in mind, there is strong evidence that a better fit between product attributes and individual preferences cannot be the only antecedent to brand attachment: there must be other variables that determine attachment strength.

The aim of this paper is to further explore these preliminary findings from the pilot study. We hypothesize that the mere fact that the customers are empowered in the MC setting leads to higher brand attachments. Psychologists have advocated the idea that fundamental human needs such as autonomy, competence, and pleasure stimulation (Pittman and Zeigler 2006) constitute important antecedents to person-object attachments (La Guardia et al. 2000; Ryan and Deci 2000). Research has also shown that it is not the general need that impacts one's attachment to an object, but the fulfillment of these needs through the relationship (referred to as needs responsiveness). The more an object fulfills a person's fundamental needs, the more intense the attachment will be (La Guardia et al. 2000; Ryan and Deci 2000). Therefore, companies which respond these fundamental needs might in return gain customers who feel strongly attached to the brand. Only recently, Thomson (2006) provided empirical support for this idea in the realm of human brands.

We conducted a scenario-based experiment (n = 183) to explore potential differences between customers' brand attachment to MC versus non-MC companies. The pretested scenarios were illustrated by means of a comic strip in which the protagonist experiences an online purchasing process with an unknown brand. Such projective scenarios are a widely accepted means of depicting consumption situations (e.g., Bateson and Hui 1992; Bendapudi and Leone 2003; Voss, Parasuraman, and Grewal 1998). First, we manipulated the purchasing process (MC [self-design] versus non-MC [choosing a standard product]), then we manipulated the outcome (preference fit) to be either high or average. We thus generated four scenarios (comics). After reading the purchasing scenario, participants were asked to put themselves in the protagonist's place and then complete a questionnaire. All key constructs (needs responsiveness, brand attachment, and behavioral intentions) were operationalized using existing scales from the literature.

In line with our predictions, we find that MC companies generally attain significantly higher levels of consumer brand attachment compared to non-MC companies. Stronger brand attachments can be attributed to both a higher preference fit and, more interestingly, to the design process per se. Effects are independent of each other. Irrespective of the achieved preference fit (i.e., also if we keep preference fit constant), customers in the MC setting feel more empowered than customers of standard products. "Doing it yourself" elicits stronger needs responsiveness than the conventional task of choosing a standard product. This leads to stronger brand attachments in the MC setting, also if the preference fit is not higher compared to a standard product – which should constitute the worst case in practice.

In a follow up study, we conducted another scenario-based experiment (n = 343) to generalize findings from Study 1. We show that results are also robust if we manipulate the product category (hedonic [bag] versus utilitarian product [PC]) and product category involvement (low versus average). Our findings have important implications for companies which offer or plan to offer MC toolkits, since stronger strong brand attachments in turn impact favorable behavioral intentions, such as commitment and loyalty, the willingness to spread positive word of mouth, and higher willingness to pay. References are available upon request.

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MULTIDIMENSIONAL CUSTOMER CONTACT SEQUENCES: A NEW APPROACH FOR CUSTOMER SEGMENTATION

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ABSTRACT

We used a multidimensional sequence alignment method to cluster customers according to their customer contacts, their functions and importance ($N = 151$). In doing so, we obtained four clusters. Customer segmentation based upon demographic or psychographic variables would not have been able to enrich the customer knowledge in this manner.

INTRODUCTION

Knowledge of one's customers is a strategic success factor for any supplier. The fundamental element for the attainment of customer knowledge is the contact between the retailer or service provider and her/his customers in the different channels of the marketing and distribution system. Not only are the kind and number of the customer contacts in a specific process phase relevant to this, but also their functions and importance to the customer, not to mention the sequence of these three dimensions during the purchase process. Such multidimensional sequences have practically been ignored in previous marketing research, especially the problem of collecting, connecting and analyzing the relevant data from the different marketing and distribution channels in all phases of the purchase process to present a single, unified view of the customers.

However, it can be assumed that multidimensional customer contact sequences (MCCS) are of great relevance to marketing: for example, it can be expected that different contact sequences are accompanied by different product purchases or, e.g., in the tourism industry through the booking of different journeys and that different customers have different sequences according to their individual behavior. Knowledge of these connections facilitates the purposeful control of the customers throughout the purchase process by the retailer or service provider and thus extends his/her commercial possibilities to interact with customers within the bounds of marketing. Furthermore, such sequences can provide important insights into potential existing cross-channel synergies. Hence, an analysis of the multidimensional sequence of the customer contacts (dimension 1), their functions (dimension 2) and their importance (dimension 3) could provide crucial insights into customer behavior, as well as the needs and preferences of the customers over time, as it has become routine for the consumer to use different channels

in the purchase process to approach a retailer or a service provider (Rangaswamy and van Bruggen 2005). Therefore, this study contributes to the marketing literature by addressing how the MCCS can be measured and form the basis for customer segmentation. Besides this we are also interested in evaluating possible determinants and effects of the customer contacts, their functions and importance.

CONCEPTUAL BACKGROUND

Customer Touch Points and Customer Contacts

It is increasingly common for firms to employ online distribution channels alongside its offline distribution channels and further marketing channels to rely on these complex combinations as a source of competitive advantage and better serve their customers needs and preferences (Geykens et al. 2002). In such environments, many customers have become multi channel users. They realized contacts between the firm and themselves at different contact points (e.g., store, agency, homepage) in the different phases of the purchase process. Therefore, there are many opportunities to establish contacts between a supplier and customers in the different process stages.

In retailing, we can differentiate the pre-purchase, purchase and post-purchase phases, but in other branches or when we are interested in specific problems or research questions it is more meaningful to use a more detailed modeling of the process. For example, with regard to tourism industry a differentiation into five successive process phases (the pre-booking, booking, pre-journey, journey, and post-journey phase) including all customer contacts is reasonable. Furthermore, we can distinguish the variability of the contact points (personal, semi-personal, and impersonal contacts) (Silberer et al. 2006).

During the process customers will subsequently find it easier to establish contact with a supplier in a way that best fits their needs. This requires that the respective channels and their combination to be capable of fulfilling customer needs and preferences concerning the desired functionality in the different process phases.

Functions and Importance of Customer Contacts

According to Payne et al. (1993) concept of adaptive decision-making, a customer shifts between the pre-pur-

chase to the purchase phase from an attribute-based search to an alternatives-based search as she/he progresses in the decision-making process. Thus, the customers will be less focused on information gathering but more focused on comparing the alternatives they have decided to consider. In the case of complex products or services such as vacations, these alternatives are complex bundles of attributes and benefits that need to be processed. In cases where many relevant aspects of the decision cannot be controlled, customers seek some kind of help in the decision-making, and hence the customer is more likely to use the desired benefit as the basis to evaluate the characteristics of the different contacts points and the importance of the specific contact in the purchase process (Frambach et al. 2007). However, there are channel related differences in fulfilling customer's needs and preferences across the purchase process, including richness of information presented and accessibility or convenience (Ward 2001). For example, on the internet products cannot be physically examined, which leads to less product information than in the case of brick-and-mortar stores (Venkatesan et al. 2007). Therefore, the internet is often considered to be risky for purchasing (Alba et al. 1997). Conversely, the offline channels are amongst other things characterized by richer information on the product (Venkatesan et al. 2007). Customers can benefit from these differences within the process by using the channels according to their individual channel behavior, because channels do not differ in their functionality but also in their ability to fulfill individual customer needs to the same extent across the different process phases. Research also shows that benefits and therefore the importance of the several contacts sought change across the process phases (Mittal et al. 1999).

Concerning the booking of a vacation, we can expect personal contacts in offline channels to be more likely and more important to the customer then semi – or impersonal contacts because personal advisors are in the best position to help the customers identify and explain the important aspects in the pre-purchase and purchase phase. Because of the limited functionality of the mostly impersonal contacts in online channels compared to face-to-face contacts in offline channels, many customers commonly use the internet as an information source in the purchase process. Especially in the case of complex products or services, customers have to come to categorize it in their minds as an important information source, not a shopping revenue (Verhoef et al. 2007). The previous comments show that not only does the usage of the different contact points by the customers differ during the purchase process, but it also supports the assumption that the functions, as well as the importance of the customer contacts, also change during the purchase process. We assume that this is reflected in the multidimensional customer contact sequences (MCCS).

Customer Segmentation

For our study, research regarding different approaches for customer segmentation is of particular interest. Ruiz et al. (2004) and Ganesh et al. (2007) provide an overview of a large number of empirical studies on this topic. In these studies, the constituted customer groups reveal *who* is buying in the investigated stores and *why*. The customer's actual buying behavior during and after purchase, however, is hardly taken into account, i.e., *how* the customers inform themselves prior to purchase, *how* the purchase in the store goes and *how* the relationship between retailer and customer is organized after the purchase. Only a few studies take the customer's behavior in the formation of segments into account (Kim and Park 1997). Although they had partially different results in the end, the aforementioned studies show the usefulness of customer segmentation based on their customer's behavior. However, different essential aspects not taken into account: the specified studies only examine the behavior in a specific channel of a supplier *in* the purchase phase. It should be expected that different behavior during the purchase is reflected in different behavior *prior* to and *after* the purchase. Another aspect deals with the variables used in the segmentation analysis: to consider only the behavior leads to the neglect of other contacts between customers and suppliers. However, as shown by studies mentioned first, such contacts are important influential factors for customer behavior.

According to Hägerstrand (1970) customer behavior can be viewed as a sequence of interdependent actions over time. However, customer behavior in the studies mentioned is mostly treated as a chain of independent activities. Thus, the sequential order and obvious relations of the activities are often neglected. Therefore, Abbott's (1995, p. 94) statement "We assume intercase independence even while our theories focus on interaction" regarding social science is also largely true for marketing research concerning the segmentation of the customers with regard to their individual behavior through the phases of the purchase process. Therefore, in the aforementioned approaches important aspects reflecting the customers' behavior are not addressed. For marketing purposes, Larsson et al. (2005) for example used a sequence-analytical clustering approach to evaluate the shopping behavior in a supermarket for the foundation of customer segments. Silberer et al. (2006) used the sequence of the customer contacts in retailing to evaluate differences in the customer's behavior with regard to the whole purchase process. Segmentation of this kind can give a retailer or service provider important insights into the requirements, preferences and behavior of the customers over a period of time. By tracking the multidimensional customer behavior across channels, firms can improve their understanding of their customers' decision-making and de-

velop a basis for creating strong relationships and improving retention (Dholakia et al. 2005).

The previous discussion shows that not only do the customer contacts (dimension 1) differ across the successive phases of the purchase process, them also support the assumption that the functions (dimension 2), as well as the importance (dimension 3) of the customer contacts, also change during the purchase process. The actual behavior of the customers over a period of time is taken into account for the customer segmentation through the use of the multidimensional customer contact sequences. This facilitates a differentiation of customers that is not possible on the basis of demographic or psychographic variables.

METHOD: MULTIDIMENSIONAL CUSTOMER CONTACT SEQUENCES

Measures

The aim of this segmentation is to identify powerful customer clusters which are very similar with regard to their individual behavior reflected in their multidimensional customer contact sequence in the purchase process. We investigated multidimensional customer contact sequences regarding the five different phases of the purchase process in the tourism industry (pre-booking, booking, pre-journey, journey and post-journey phase) with a German tour operator in mailing surveys based upon a structured questionnaire (comparable to Silberer et al. 2006). The multidimensional sequences included the different customer contacts (dimension 1: e.g., advertising, travel agency staff), their functions (dimension 2: e.g., general and selective information, price comparison, booking) as well as the importance (dimension 3) of the different customer contacts across the purchase process. Only those customers were recruited who had actually finished a journey booked with the tour operator in the 6 to 8 months prior to the study to ensure that they could still remember it well. In the final questionnaire, not only were the multidimensional customer contact sequences actually realized examined but also final variables (customer satisfaction, intention of recommendation, intention of purchase, etc.).

Procedure

A total of $N = 151$ customers of the tour operator took part in the mailing survey. Every participant in the survey was entered in a lottery, where two wellness weekends and tickets to a German leisure park were drawn. Women represented 44.2 percent of the sample. The average age = 51.12 ($SD = 13.52$) years.

Multidimensional Sequence Alignment and Sequence Clustering

The Sequence Alignment Method (SAM) was originally developed in molecular biology to compare DNA or protein sequences. The idea of the SAM is to equalize two different sequences with regard to the operations insertion, deletion and substitution. Mostly the weight of one is assigned to the operations insertion and deletion, for substitutions the sum of the consecutive operations deletion and insertion (Joh et al. 2002). The minimal sum of the weighted operations, the Levenshtein distance (Levenshtein 1966), is commonly used as similarity measure for the considered sequences (Joh et al. 2002).

In this study, the customer behavior is not represented as the customer contacts by a single attribute. To gain deeper insights in the differences of customer behavior and powerful clusters, the multidimensional customer contact sequences were characterized by aforementioned three dimensions. The easy way to compare such sequences is to calculate the Levenshtein distance for each dimension separately and then add up the measured distances of all the dimensions. This approach is based on the assumption that all attributes are independent. In our case, this clearly is not true because there are obviously dependencies between the customer contacts, their functions and their importance. Therefore, the calculation of measured attributes for each dimension would distort the result. To avoid such distortions with regard to the different measurement scales of the dimensions, we used a multidimensional approach which identifies elements that can be aligned simultaneously without calculating the costs twice, called "optimal trajectory multidimensional SAM" (OTMSAM). For a detailed description, see Joh et al. (2002). The distances were calculated with the Software DANA[1] as a basis for our cluster analysis using the Ward Method. The results of our cluster analysis show that the differentiation into four clusters proved to be the optimal cluster solution (Cluster 1: $n = 45$; Cluster 2: $n = 32$; Cluster 3: $n = 45$; Cluster 4: $n = 29$; we obtained no significant differences concerning average age and women's quota).

RESULTS: MULTIDIMENSIONAL SEQUENCE CLUSTERS

Description of the Clusters Using Constituent Variables

In order to describe the clusters, the active variables that have entered the cluster analysis are cited. The clusters identified are therefore described using the customer

contact sequences (centroids) typical for them (see Table 1).

The typical representative of the first cluster has two contacts with the travel agency staff in the booking phase. These contacts were used for "selective information" and for the "booking" of the desired journey. In virtue of the minimal customer contacts in this cluster, it is not surprising that they were rated as "very important" contacts. The centroid of cluster 2 shows that these customers realized contacts in all different phases of the purchase process. They sought contacts for "general and selective information" as well as for the "booking" of the desired journey. Most contacts were "very important" to the customers. The customers in the third cluster sought their first contacts in the booking phase. They used the tour operators catalog combined with the travel agency staff for obtaining "general and selective information" about the travel destination and different hotels as well as the "booking" of the considered journey. It is noticeable that the catalog is of much lower importance to these customers compared to cluster 2. During the journey and in the post-journey phase, these customers display a similar behavior regarding their realized contacts than the customers in cluster 2. Customers in cluster 4 used the tour operators catalog for obtaining "selective information" and a "price comparison" of the tour operator's different offers and only contacted the travel agent only for the "booking" of the desired vacation. During their vacation they sought contact with the tour guide for "general and selective information" and the "booking" of recreational activities. In the post-journey phase they used their travel vouchers and the catalog for "advisory" functions or, maybe, finding a telephone number to contact the tour operator, but such contacts are only of low importance.

Description of the Clusters Using Contact-Related Variables

The results in Table 2 describe the clusters by way of different customer contacts in the purchase process. Overall, the customers in the first cluster realized the fewest number of contacts with regard to the whole purchase process as well as concerning the proportion of contacts in different process phases, except the booking phase, compared to the other clusters.

In the pre-booking phase the high proportion of contacts with the tour operators-advertising in the travel agency is remarkable for the customers in cluster 3. The customers of the other clusters realized such contacts significantly less. We obtained similar results for catalog

TABLE 1
Description of the Clusters by Centroid Sequences

Cluster 1	Contacts			Travel Agent		Travel Agent				
	Functions[a]			SI	→	B				
	Importance[b]			6		6				
Cluster 2	Contacts	Travel Agent	Catalog	Travel Agent	Catalog	Travel Voucher	Tour Guide	Travel Agent		
	Functions	SI →	GI →	SI & B →	GI & SI →	GI →	P →	A		
	Importance	6	6	6	6	6	3	3		
Cluster 3	Contacts	Catalog	Travel Agent	Catalog	Travel Vouchers	Tour Guide	Travel Agent			
	Functions	GI →	SI & B →	GI & SI →	GI & SI →	GI & SI →	A			
	Importance	4	6	5	5	4	3			
Cluster 4	Contacts	Catalog	Travel Agent	Tour Guide	Travel Vouchers	Catalog				
	Functions	→ GI & P →	B	→ GI, SI & B →	A →	A				
	Importance	5	5	5	2	2				

Note: [a] GI = "general information," SI = "selective information," P = "price comparison," B = "booking," A = "advisory"; [b] inquired on a six-step rating scale, 1 corresponds to *entirely unimportant*, 6 corresponds to *very important*

TABLE 2
Cluster Description Using Selected Contact Points

	Cluster 1	Cluster 2	Cluster 3	Cluster 4	
Number of Contacts	*M* = 5.1 (2.4)	*M* = 12.7 (4.6)	*M* = 10.2 (4.5)	*M* = 9.9 (3.3)	*p* < .001
Pre-booking phase	*64.4%*[a]	*93.8%*	*93.3%*	*93.1%*	*p* < .001
Advertising in the travel agency	2.2%	3.1%	22.2%	6.9%	*p* < .05
Tour operator's catalog	33.3%	68.8%	62.2%	48.3%	*p* < .01
Booking phase	100.0%	100.0%	100.0%	100.0%	n.s.
Tour operator's catalog	28.9%	78.1%	45.5%	55.2%	*p* < .001
Other websites	8.9%	34.4%	15.6%	13.8%	*p* < .05
Booking-channel					
Travel agency	*86.7%*	*75%*	*73.3%*	*72.4%*	
Internet	*11.1%*	*21.9%*	*15.6%*	*20.6%*	n.s.
Other	*2.2%*	*3.1%*	*11.1%*	*7.0%*	
Pre-journey phase	51.1%	98.9%	91.1%	86.2%	*p* < .001
Tour operator's catalog	8.9%	68.8%	42.2%	20.7%	*p* < .001
Travel documents/vouchers	31.1%	68.8%	57.8%	32.5%	*p* < .01
Travel agency staff	17.8%	53.1%	24.4%	48.3%	*p* < .01
Journey phase	48.9%	98.9%	82.2%	89.7%	*p* < .001
Tour operator's catalog	11.1%	40.6%	8.9%	10.3%	*p* < .05
Tour guide	37.8%	81.3%	71.1%	65.5%	*p* < .001
Post-Journey phase	51.1%	75.0%	62.2%	82.8%	*p* < .05
Tour operator's catalog	13.6%	31.3%	22.2%	51.7%	*p* < .001
Travel documents/vouchers	9.1%	28.1%	24.4%	51.7%	*p* < .001
Travel agency staff	25.0%	56.3%	28.9%	48.3%	*p* < .05

Note: [a]100 % correspond to the customers in cluster 1; SD in brackets; all significant differences between the four clusters were calculated with a chi^2 adaptation test or F-Test; n.s. = not significant.

contacts in the booking phase. The customers in all clusters mostly booked the desired journeys in the travel agency having personal contacts with the travel agency staff. Prior to the journey the customers in the second cluster had the highest proportion of contacts concerning the stated contacts. We obtained similar results in the journey phase. In the post journey phase, the customers in cluster 2 only had considerably more contacts with the travel agency staff compared to cluster 1 and cluster 3. Customers in cluster 1 hardly had any contact with the stated contact points. The customers in cluster 4 used the catalog and the travel vouchers most often, the proportions distributed equally across the stated contact points here. All these results are reflected in the first dimension of the centroid-sequences of clusters.

The differences in the functions of the customer contacts provide important findings regarding the inten-

tion of the contacts during the overall purchase process. In the pre-booking phase we obtain highly significant differences regarding the function "general information" of the tour operator's catalog (*p* < .001). Customers in cluster 1 and cluster 4 used the catalog the least for this function, but the customers of cluster 1 used the catalog for more differentiated functions than the customers in cluster 4. They also used the catalog for "selective information" and "price comparison." The same behavior was obtained for the customers in cluster 2. Concerning the catalog functions we obtained a similar result in the booking phase (*p* < .01). There are no significant differences between the clusters regarding the functions of the travel agency staff in this phase, but it is remarkable that these contacts had to fulfill most different functions. The customers of all clusters used them for "general and selective information" regarding the tour operators offers, the travel destination, and recreational activities, as well as for "price compari-

son," "advice," and, of course, for the "booking" of the desired journey. We did not obtain any significant differences in the functions of all contact points during the journey. In this phase the customer contacts, especially contacts with the tour guide, were mostly used for "selective information" and the "price comparison" of recreational activities as well as for "advice" and "complaining." After the journey, our results show significant differences in the functions of the contacts with the travel agency staff ($p < .01$). The customers of cluster 2 and cluster 4 mostly used this contact point for "advisory" functions, while the customers in cluster 1 and cluster 3 mostly had contact for "complaints" in this phase.

Overall, the customers of cluster 2 evaluated the contacts as most important compared to the other clusters ($p < .05$). Interestingly, this is the only cluster that evaluated the contacts in the pre-booking phase as the most important, while for the customers in the other clusters the contacts in the booking phase were of the highest importance. Prior to the journey, we obtained significant differences with regard to the importance of the tour operator's homepage ($p < .01$). For the customers in cluster 1, this contact point was of considerably lesser importance compared to the other clusters. During the journey the tour guide was the most important to cluster 2, these results differed also significantly between the clusters ($p < .05$). After the journey our results show significant differences in the importance of contacts with the tour operator's catalog ($p < .05$) and homepage ($p < .01$). In this phase the contacts with the travel agency staff were of great importance to all customers, probably due to the fact that this contact point was mostly used for "advice" and especially for "complaining."

Determinants and Effects of the Multidimensional Customer Contact Sequence Clusters

As we have already illustrated, different factors can determine contact sequences. In this context, the duration of the purchase consideration, the price of the journey and the journey category are conceivable. Furthermore, the time of day and the day of the week can be regarded as determinants for customer contacts. We obtained significant differences concerning the percentage of previous bookings (CL 1: 93.9%; CL 2: 65.6%; CL 3: 77.8%; CL 4: 89.7%; $p < .01$) as well as regarding the duration of the booking consideration (in days) (CL 1: $M = 32.6$ (28.4); CL 2: $M = 48.9$ (38.9); CL 3: $M = 79.2$ (36.7); CL 4: $M = 53.5$ (52.2); $p < .05$). Besides the determinants, the effects of the MDCCS on final variables such as customer satisfaction with the tour operator's prices, the journey, and the

tour operator's service across the successive phases of the purchase process are also of great interest. We obtained significant differences concerning the satisfaction with the journey and the tour operator's prices ($p < .05$), the willingness to recommend ($p < .05$), and the willingness for repeat bookings ($p < .01$).

DISCUSSION AND CONCLUSIONS

The results of our study demonstrate that the customers can be classified with regard to their multidimensional contact sequences. These indicate differences in the purchasing process, as for example our results on differences in the customers' behavior concerning the usage and functions of the different contact points across the purchase process suggest between the customer clusters identified. Customer segmentation based upon demographic or psychographic variables would not have been able to enrich the knowledge of the customers in this manner. This new kind of information puts a supplier in a position to adapt the establishment of individual customer contact points to the different customer segments and guide customers via contacts in the purchase process. Knowing these segments and their sequences enables the retailer to anticipate further contacts and offer suitable measures. If the supplier pursues a particular strategy with regard to the sequence of the contacts, these results provide information on the proportion of the customers who behave accordingly. Therefore, the balance between the aspired and actual sequence of the customer contacts could be used to monitor the marketing strategy. This knowledge and knowledge regarding the effects of customer contacts will contribute to an approach toward the optimal multi-channel mix and also a successful CRM.

There are also important implications for marketing science as individual customer contacts or parts of the purchasing process have primarily been explained through partial theories in previous research (e.g., Kumar and Venkatesan 2005). However, the differences identified in the sequence of the customer contacts and their functions cannot be explained with such approaches. A comprehensive theory is necessary which, ideally, would integrate all the individual phenomena from the purchasing phases and can explain the differences of the customers in their contact sequences. Besides this, our results also imply the application of other sequence analytical methods, such as Markov-Models, for predicting customer behavior based on the contacts and their functions. Furthermore, we only analyzed customer contacts and contact sequences in one branch with one tour operator, so a lot of research in other branches is necessary to generalize our findings.

ENDNOTE

1. Dissimilarity Analysis of Activity-Travel Patterns, Developed by C.H. Joh, T.A. Arentze, and H.J.P. Timmermans, Urban Planning Group, Faculty of Architecture, Building and Planning, Eindhoven University of Technology (http://www.bwk.tue.nl/urb).

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EFFECTS OF RELATIONAL POLICIES IN EXPORT CHANNELS

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SUMMARY

Two key causes of failure for exporters are (1) the availability of adequate resources at the point of entry, and, (2) the quality of the exporter-foreign distributor relationship. Generally, export research has found that, as foreign distributor relationship-specific investments increase and as relational bonds are established, performance improves (e.g., Bello and Gilliland 1997). However, investments and the quality of the relationship are challenged by the foreign distributor's motivation to participate in the relationship. One way exporters deal with this issue is by developing trade policies, which we refer to as "relational policies," that are intended to motivate relational behaviors on the part of the foreign distributor.

Conceptual Development

Relational policies are the exporter's perception that it offers a package of procedures and incentives that motivate bonding behaviors (Blattberg and Neslin 1990; Gilliland 2003). These policies act as a pledge to develop a longer-term relationship. Typical relational policies include targeted marketing support, promotional programs, and generally favorable rules of engagement (Coughlan et al. 2006). We believe these policies are important in establishing bonded relationships. Our conceptual model of relational policies and outcomes is described in Figure 1.

Effects of Relational Policies. Anderson and Weitz (1992) have shown how pledges of investments by one party motivate counter-pledging by the other. The foreign distributor interprets relational policies as a signal of the exporter's long term commitment because the pledges in the agreement lock the exporter into the relationship. Also, clauses in the channel trade contract that encourage conflict reduction and shared goals motivate relationship quality because the foreign distributor is more likely to anticipate extending the relationship into the future and cooperate (see Ganesan 1994; Ring and Van de Ven 1994). Thus, we believe that,

H1: Relational policies are positively related to the foreign distributor's relationship specific investments.

H2: Relational policies are positively related to relationship quality.

The Moderating Effect of Psychic Distance. When psychic distance is high, relational policies are important because extra-contractual safeguards are generally unavailable. Thus the relationship between these policies

FIGURE 1
Conceptual Model
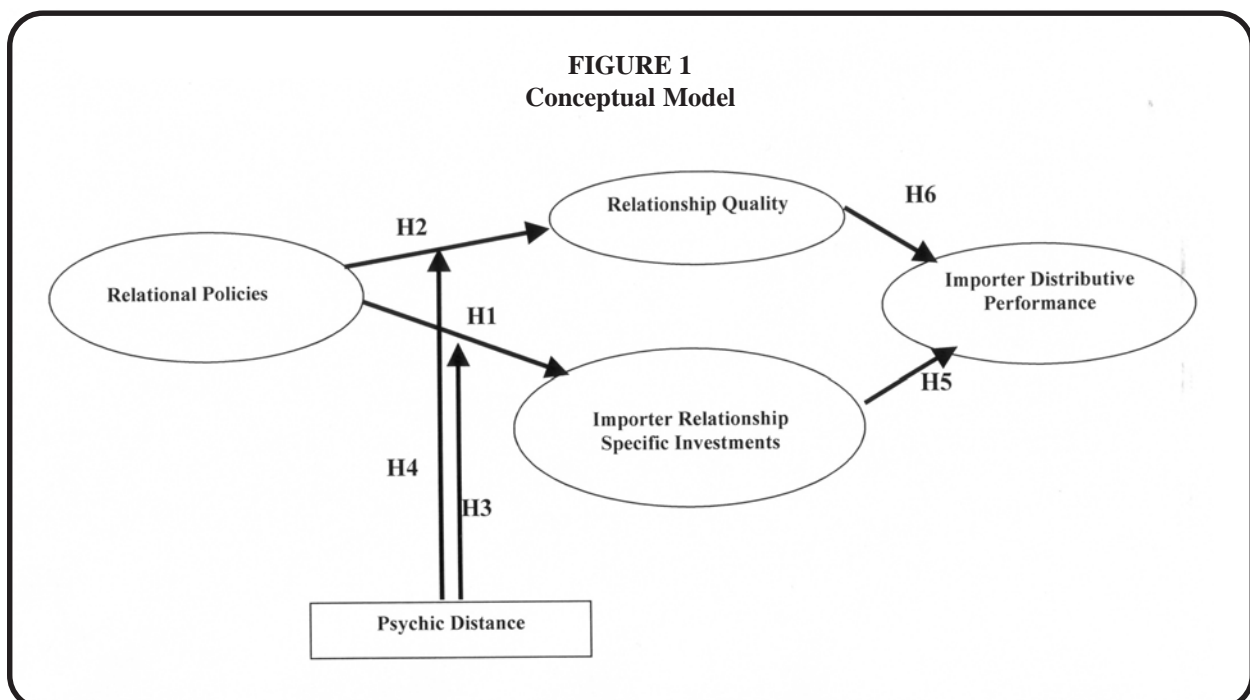
and the foreign distributor's investments and relationship quality is particularly strong. However, when psychic distance is low extra-contractual safeguards such as shared goals and reciprocity are available to protect the importer. With other alternatives available, the relationship between relational policies and outcomes is less strong.

H3: The positive relationship between relational policies and importer investments is stronger when psychic distance is high than when it is low.

H4: The positive relationship between relational policies and relationship quality is stronger when psychic distance is high than when it is low.

Foreign Distributor Performance. Specific investments are the means mobilized by the foreign distributor to perform delegated marketing tasks. On the other hand, relationship quality has been shown to increase the performance of the parties in an exchange (Lages et al. 2005). Hence:

H5: Relationship specific investments are positively related to foreign distributor performance.

H6: Relationship quality is positively related to foreign distributor performance.

Methodology

With the exception of relational policies, all constructs were operationalized from the existing literature. Regarding data collection a random and representative sample was developed from a database of the 32,500 French exporters. A total of 283 questionnaires (response rate of 26.8%) were included. Nonresponse bias was assessed following Mentzer et al. (2001).

A confirmatory factor analysis was conducted (χ^2 = 98.6, df = 67, p = 0.01; NFI = 0.96; TLI = 0.98; CFI = 0.98; RMSEA = 0.04). All reflective constructs exhibited indexes that indicated good reliability, and convergent and discriminant validities. The structural model was evaluated to test the hypothesized relationships and it indicated a good fit to the data (χ^2 = 215.5, df = 71, p = 0.00; NFI = 0.98; TLI = 0.98; CFI = 0.99; RMSEA = 0.08). All the hypotheses of the based model were supported. These results are summarized in Table 1.

TABLE 1
Results for the Structural Model

Hypothesis				Standardized Path Coefficients	t-Value	Results
H1	Relational Policies	→	Importer Specific Investments	0.47	7.08*	**Supported**
H2	Relational Policies	→	Relationship Quality	0.56	7.40*	**Supported**
H5	Importer Specific Investments	→	Importer Performance	0.41	6.25*	**Supported**
H6	Relationship Quality	→	Importer Performance	0.57	7.82*	**Supported**

*Significant at $p \leq 0.05$ if $|t| \geq 1.96$.

To examine the moderating effect of psychic distance (H3 and H4) we used a two-group analysis. Support was not found for H3 ($\Delta\chi^2$ = 1.4 < 3.85), however, the results fully support H4 ($\Delta\chi^2$ = 4.4 > 3.85) showing that relational policies' effectiveness increases during high psychic distance.

Discussion

The core contribution of this study is in the conceptualization, operationalization and testing of a novel construct: relational policies. Relational policies enhance relationship quality and increase distributors' investments, which ultimately results in stronger performance. This study of relational policies represents a shift from previous channel studies which consider psycho-sociological phenomena as the by-products of the firms' daily interaction. Moreover, our results suggest that relational policies are a uniquely powerful tool for developing social bonds in case of high psychic distance between channel members. References are available upon request

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HOW DO FIRMS CHOOSE AN ENTRY MODE WHERE IN FACT THEY HAVE ONLY ONE CHOICE? EVIDENCE FROM AUTOMOBILE INDUSTRY

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SUMMARY

This paper offers a conceptual and empirical analysis of the effects of a firm's asset power and the market attractiveness of the host country on foreign entry in the form IJVs. Drawing from the OLI Framework (Dunning 1993), this study analyses the impact of ownership, location and internalization advantages on firm's decision about the type of IJV and the amount of investment in a given country. Using complete data on the manufacturing and marketing IJVs formed by U.S. companies in automotive industry, between 1985 and 2001; this study tests the proposed relationships between firm's asset power and market attractiveness of the host country.

The objective of this study is to reassess the validity of previous findings of entry mode literature with regard to a particular entry mode. This study contributes to the literature in two different ways, First, as suggested by (Erramilli, Agarwal, and Kim 1997), not all firms have the potential to consider all types of entry modes while entering a foreign market. Therefore, taking the firm as the unit of analysis, and including all entry modes may introduce bias in the analysis. Zeroing on IJVs, this study was a modest attempt to unveil, if any, a different pattern in the dynamics of market entry, given a specific entry mode. Second, we tried to extend the inquiry on IJVs by focusing on their role as an entry mode in a single industry. In doing so, industry effects were nullified, giving way to better understanding of the impacts of other firm and country specific covariates. The results provided general support for the hypothesized effects of ownership and location advantages on the mode of ownership.

The findings of this study imply that although firms want to increase their control on, and gains from, a joint venture via forming a majority IJV, their capability to realize this goal is limited by their size. Besides, findings also suggest that firm size, in and of itself, is an important determinant of entering a foreign market via forming IJVs. This finding is reasonable in the sense that entering a foreign market necessitates extra resources, which may not be necessary as investing in domestic market, and only the larger firms may meet these extra resources.

Results indicate that firms tend to favor majority IJV over others in attractive markets, and are more likely to prefer minority IJVs in relatively less attractive markets.

Such caution should not be unexpected. Long-term success of any foreign investment requires significant level of resources (Agarwal and Ramaswami 1992). Firms may not want to jeopardize these resources by investing in lee attractive markets, and canalize them to less risky markets. The positive relationship between FDI inflow to a country and the likelihood of majority IJV formation may be attributed to the same reason. As described in bandwagon effect on FDI flows (Knickerbocker 1973), firms, regarding other firm's investments in a country as an indicator of less risky and lucrative environment, may prefer to invest to that country.

Managers, who are considering, or about, to enter a new market, can draw beneficial insights from this study. Before entering a foreign market, managers evaluate different entry modes, about which extant IME literature provides various directions. However, deciding on the entry mode is not the end of the process of market entry. Should a collaborative entry mode be selected, then the issues about control arise. Focusing on the ownership mode in IJVs, this research provides the managers with a model to determine which ownership mode they should implement.

Cultural distance was found to have a contradicting effect on the choice of ownership mode. Nonetheless, this contradicting finding does not contradict with the previous studies (Brouthers and Brouthers 2001; Contractor and Kundu 1998; Madhok 1998; Shenkar 2001), therefore we may argue that cultural distance has no significant impact on the entry mode choice of the firms. However, on the other hand, the implications of these results may also lend support to Shenkar's (2001) reservations on measurement cultural dimensions (Hofstede 1980) and operationalization of cultural distance (Kogut and Singh 1988).

An implication of this study for theory development might be its focus. Extant theories of entry mode choice rest heavily on the conditions in the host country or the resources of the firm (Contractor and Kundu 1998). However, it will be an oversimplification to assert that such an important decision is just a set of discrete transactions, and are not contingent upon an existing strategy. Global companies have long-term strategies and decide where, and how, to enter according to these strategies. Therefore, a broader theory which also incorporates the

impact corporate strategy on entry mode choice is needed. This study, with its focus on the very final step on the hierarchical modal of entry mode decisions may inspire initial thoughts on inductive theory building. References are available upon request.

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IN SEARCH OF PATHS TO INCREASE MARKET RESPONSIVENESS: EVIDENCE FROM FOREIGN SUBSIDIARIES

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SUMMARY

Increases in the pace of globalization and the explosive growth of information technology have imposed unprecedented challenges and opportunities for MNCs, making the outcomes of learning and knowledge unpredictable. The adoption of information technology significantly influences the practice of information and knowledge sharing world-wide. To increase our understanding on the impact of information technology, we study information system integration and knowledge codification, and examine how they individually influence the market responsiveness of foreign subsidiaries. In addition, because knowledge embedded across an MNC's business units may be complementary to each other, we investigate how knowledge complementaries increase market responsiveness with the presence of information system integration and knowledge codification.

Conceptual Outline

Knowledge complementarities are essential to engage various business units of an MNC. It is suggested that more complementary knowledge should result in increased knowledge codification and more integrated information system. Because information system integration serves as a mechanism to encourage communications and knowledge sharing between a subsidiary and its headquarters, it facilitates the subsidiary to codify knowledge acquired from other business units such as its headquarters. In addition, knowledge codification by itself allows the subsidiary to make sense of external knowledge and convert it into its learning system, making the subsidiary more responsive to market challenges. In sum, we hypothesize that knowledge complementarities influence information system integration and knowledge codi-

fication; and these two platforms are critical to the subsidiary's market responsiveness.

Data and Results

We collected data from 140 foreign subsidiaries located in Shanghai, China with assistance from a major local university. Measurement items were developed based on existing literatures. The questionnaire was constructed in English and translated to Chinese. Back translation was then administered to ensure that the quality and content of the questionnaire remained. We followed established procedures to conduct a confirmatory factor analysis and found that the convergent and discriminant validity, and construct reliability of each construct passed the suggested threshold values (Anderson and Gerbing 1988; Bagozzi and Yi 1988; Nunnally and Bernstein 1994). To test the hypotheses, we used structure equation modeling. A positive relationship is found between knowledge complementarities and knowledge codification, and information system integration. Our results also reveal that information system integration influences knowledge codification, which in affects market responsiveness. In contrast to our expectation, information system integration has no effects on market responsiveness.

Conclusion

Our findings indicate that complementary knowledge by itself does not lead to market responsiveness. Rather it must be codified before a firm can deploy it to enhance market responsiveness. With the presence of information system integration as an IT structural support and knowledge codification as a deliberate learning mechanism, more complementary knowledge allows a subsidiary to outperform its competitors by being more responsive to its local host market.

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AN ATTITUDINAL MODEL OF PRODUCT CUSTOMIZATION

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SUMMARY

From a consumer perspective, product customization has mainly been motivated by the benefit of increased preference fit of customized products over regular "off-the-rack" products (Gilmore and Pine 1987). However, the emerging body of consumer research on product customization has recognized that an explanation of consumer adoption solely based on the benefit of improved preference fit may be too narrow (e.g., Huffman and Kahn 1998; Fiore, Lee, and Kunz 2004; Dellaert and Stremersch 2005; Simonson 2005; Kaplan et al. 2007). Various additional explanatory variables have been proposed, but a consolidated view of consumer behavior in the context of product customization does not yet exist. Our objective is to derive and test an integrated attitudinal model of product customization, which captures consumers' holistic evaluations as innovative shopping mode and disentangles specific benefit beliefs about product customization.

The nature of product customization as technology-driven innovation becomes evident in the co-design process that assigns a new level of input to consumers. Rather than passively choosing from large assortments of ready-made products, consumers specify some or all components and features of a product under consideration. Co-design usually takes place within technical, often internet-based and completely remote interaction systems, known as configurators. Consumers are likely to evaluate product customization by assigning benefits and costs to both the co-design process and the customized product to be purchased (Franke and Piller 2003). While mass customization has evolved as a business model for small Internet-based new ventures, currently a new wave of mass customization companies is emerging as a group of established manufacturers (Piller 2006). These developments suggest that firm dispositions, e.g., distribution channel, firm reputation, seem to be of general importance to consumers in addition to customization specific benefits.

Research Hypotheses and Method

Drawing upon attitudinal research on self-service technologies (e.g., Dabholkar 1996; Dabholkar and Bagozzi 2001; Matthew et al. 2005), we extend and apply a technology acceptance model (TAM) to consumer adoption of product customization. We adapt two process related benefit beliefs ease of customizing (EA) and enjoyment of customizing (EN) from general TAM constructs. We propose two new outcome related benefit beliefs to capture both the utilitarian and hedonic consequences of product customization. Utilitarian customization value (UT) refers to the utility from those anticipated consequences that arise after co-design and relate to product purchase. On the basis of customer value (Woodruff 1997), UT is conceptualized as a formative construct to tap into different value facets (Sheth et al. 1991). Customized product attachment (PA) refers to those anticipated sensory benefits of consumers' relationship with their customized product that is established through a person-object interaction during co-design. PA is conceptualized as a reflective construct on the theoretical basis of material possession attachment (Kleine and Baker 2004) and pseudo-endowment (Ariely and Simonson 2003). These four benefit beliefs are hypothesized to influence attitude formation toward product customization.

Furthermore, we investigate both firm and consumer dispositions as possible antecedents and moderators in the process of attitude and intention formation. We propose perceived website (WQ) and merchandise quality (MQ) to be important firm dispositions, as consumers might use these more general quality perceptions as evaluative cues in addition to customization specific benefits (cf., Teas and Agarwal 2000). It is hypothesized that WQ is entirely mediated by customization specific benefit beliefs (Montoya-Weiss et al. 2003; Schlosser et al. 2006), whereas MQ, which forms the basis of what is customized, also exerts a direct effect on purchase intention (e.g., Sirohi et al. 1998). MQ is also hypothesized to strengthen the relationship of attitude toward the customization option and purchase intention, because high initial perceptions of MQ allow consumers to make additional positive inferences about the benefits of customizing. This is based on evidence of a complementary relationship between base products and added options or features; rather than just simply added benefits interactions occur in consumers' evaluation of the combined offering (cf., Nowlis and Simonson 1996; Bertini et al. 2008).

In terms of consumer dispositions, we investigate the role of consumers' attitude toward the Internet channel (AI), desire for unique products (DU) and product expertise (PE). According to the categorization approach (Mervis and Rosch 1981; Sujan et al. 1986), we hypothesize that consumers retrieve and use their AI and DU to evaluate product customization, as these affects are associated

with the related behavioural categories of shopping over the Internet and shopping for rare products. However, we hypothesize that these effects should diminish when benefit beliefs are considered in the attitude formation process, as cognitive elaboration has previously been found to have higher explanatory power than category-based affect (Dabholkar 1996). Furthermore, we hypothesize moderating effects of DU and CE with respect to certain benefit beliefs in the attitude formation process based on prior research (Eagly and Chaiken 1993; Snyder 1992; Dabholkar and Bagozzi 2002; Monsuwé et al. 2004; Ames and Iyengar 2005). The model is tested using data from 300 respondents that were sampled among website visitors of a Swiss watch manufacturer that sells both standard and customized watches. We establish reliability and validity of our measures using confirmatory factor analysis and tetrad tests. To test our hypotheses we conduct a series of PLS path analyses and moderated regressions.

Results

In the model with core benefit beliefs, UT is the strongest predictor of attitude followed by PA and EN, whereas EA is only marginally significant. Taking a closer look at different facets of UT, it is not only increased preference fit, but also transaction value and epistemic value that matter to consumers. As hypothesized, WQ is a consistent antecedent of benefit beliefs, but is fully mediated by them, whereas MQ also directly impacts purchase intention with considerable effect size. However, the strengthening effect of MQ on the attitude-intention link cannot be confirmed. In the model including category-based affect, our hypotheses are confirmed for DU, but AI remains a strong additional predictor of purchase intentions, even if we remedy the concerns about common method bias. Hence, a considerable number of consumers evaluate Internet-based product customization on the basis of their regular Internet shopping experience. In terms of significant moderating effects we find that EN is less important for expert consumers and the importance of EA decreases with DU. Additionally, we find two unexpected three-way interactions between EN, CE, and DU, such that EN is less important especially for those experts with low DU, and between UT, CE, and DU, such that the importance of UT increases with DU only for expert consumers. References are available upon request.

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CONSUMER ACCEPTANCE OF DYNAMIC PRODUCT IMAGERY FOR ONLINE SHOPPING

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ABSTRACT

This study investigated functional and hedonic roles of dynamic product imagery by applying a modified e-TAM to the dynamic product imagery adoption process and tested model invariance among shoppers in three different age groups when using dynamic product imagery for shopping seven product categories.

INTRODUCTION

Wide spread fast speed Internet connection in home and office as well as the advances of product virtualization technologies has made dynamic product imagery is becoming more widely available in the online retail environment. In order to provide more accurate product information and entertaining shopping experience, many online retailers are turning to dynamic product imagery that allows a shopper to interact with a product and examine the product on screen. Shoppers now can zoom in on product features, rotate the product from 360 degree angles, see inside and outside, and open and close as if it's right in front of the shopper. Thus, dynamic product imagery can deliver more accurate product information than the information obtained from static image and standard descriptors, thus reducing product risk. In addition, the interactivity and customer involvement created by dynamic product imagery can enhance the entertainment value of the online shopping experience.

This study investigated online shoppers' use of dynamic product imagery to reduce product risk and/or increase shopping enjoyment in online shopping. We extended the electronic Technology Acceptance Model (e-TAM) by adding two external variables (innovativeness and technology anxiety) to examine the process of dynamic product imagery acceptance. As previous research has shown age differences in trial and use of technology (Meyers-Levy and Maheswaran 1991; Venkatesh and Morris 2000), there may be differences in the process of dynamic product imagery acceptance among different age groups. In order to answer this important research question, first, we examine the possible age differences in the dynamic product imagery adoption process by testing the multiple model invariance for three different age groups (18–30; 31–50; over 50). Then, a single model path-to-path comparison is conducted to detect the differences in the structural model. Finally, marginal means for different age groups across the seven different product categories (apparel, shoes, jewelry, small consumer electronics, home appliances, furniture, and car) were compared and presented to find out the most favorable product category for using dynamic product imagery when shopping online.

THEORETICAL BACKGROUND

According to the Diffusion of Innovation Theory, most individuals first try a new technology on a partial basis, and only if they perceive advantages in using it will they adopt the innovation (Rogers 1995). Perceptions of innovation characteristics such as relative advantage (usefulness and entertainment value) and complexity (ease-of-use) (Rogers 1995; Venkatraman and Price 1990) and also differences in individual shoppers (e.g., age, levels of innovativeness and technology anxiety) (Manning, Bearden, and Madden 1995; Meuter, Bitner, Ostrom, and Brown 2005; Meuter, Robinson, Marshall, and Stamps 2004; Peck and Childers 2003) have been shown in adoption literature to predict adoption behaviors. Additional adoption research has shown that respondents with higher levels of technology anxiety use fewer self-service technologies, and that innovativeness influences the way new technologies are perceived (Ostrom, Bitner, and Roundtree 2003).

The Technology Acceptance Model (TAM) enjoys wide support as a tool for investigating and predicting user acceptance of information technology (e.g., Chau 1996; Davis 1989; Pavlou 2003; Taylor and Todd 1995). TAM focuses on the role of ease-of-use and usefulness in predicting attitudes toward using a new technology (Davis 1989). The enjoyment construct was added to TAM to explain the role of intrinsic motivation in the adoption of a new technology (Davis, Bagozzi, and Warshaw 1992; Heijden 2004). Heijden (2000) adapted the original TAM for a website context proposing the eTAM framework and found the concepts of perceived relative usefulness and perceived relative enjoyment were strong influential variables to usage. Whereas perceived usefulness and perceived enjoyment are strong indicators of website revisit intentions, perceived ease-of-use indirectly affects website revisit intentions by influencing the perceived relative usefulness and perceived relative enjoyment (Heijden 2000). The eTAM model is consistent with previous research on retail shopping behavior and supports the presence of both functional and hedonic motivations for online shopping (Babin et al. 1994; Childers et al. 2001).

Within the eTAM framework, perceived usefulness of a technology reflects functionality, and enjoyment reflects hedonic aspects of the online shopping process. While some consumers may use dynamic product imagery primarily for functional purposes, such as improved multidimensional examination of a product, others may use it primarily for hedonic purposes (cf., Childers et al. 2001), by manipulating the dynamic image provided (e.g., turning it around, changing colors, opening doors, seeing inside, etc.). As online shoppers find dynamic product imagery to be effective in reducing product risk and/or increasing shopping enjoyment, they will be more likely to adopt it. In addition, shoppers with high level of technology anxiety may skip the dynamic imagery without trying and prefer to see a static image with a standard descriptor. By contrast, for those who have high level of innovativeness may look for adventurous new technologies, such as dynamic imagery, to try out.

RESEARCH HYPOTHESES

The proposed model of dynamic product imagery acceptance (see Figure 1) extends the e-TAM and explains the adoption process of dynamic product imagery for online shopping. The proposed model allows us to examine (1) the relationships between perceived usefulness, ease of use, and entertainment value of dynamic product imagery, (2) the influence of these beliefs (perceived usefulness, ease-of-use, and entertainment value) on attitudes toward using dynamic product imagery, (3) the relationship between the attitudes toward using as well as the actual use of dynamic product imagery, (4) the direct influence of innovativeness and technology anxiety on the use of dynamic product imagery, and (5) post use

evaluation of dynamic product imagery for online shopping.

In the proposed model, perceived ease-of-use influences shoppers' attitudes toward using dynamic product imagery and indirectly influences their attitudes through its influence on perceived usefulness and entertainment. Shoppers' positive attitudes toward using dynamic product imagery are expected to favorably influence their actual use of dynamic product imagery. Most TAM-based research examining users' technology acceptance has not gone beyond the behavior or behavioral intention of using the system/technology, but in order to examine the true acceptance of dynamic product imagery, it is important to also consider post-use evaluation of the shopping experience aided by dynamic product imagery.

Based on the proposed model, research hypotheses are posited regarding the relationships between perceived usefulness, perceived ease-of-use, perceived entertainment value, attitude, use, and pose-use evaluation as well as the effect of innovativeness and technology anxiety on the use of dynamic product imagery. In addition, possible age differences in the dynamic product imagery adoption process are examined.

H1: Perceived usefulness of dynamic product imagery will have a positive influence on attitudes toward using dynamic product imagery.

Insufficient information on product attributes and shoppers' inability to accurately evaluate the quality of the product online results in increased product risk. Online shoppers can use dynamic product imagery to reduce the

FIGURE 1
Dynamic Product Imagery (DPI) Acceptance Model
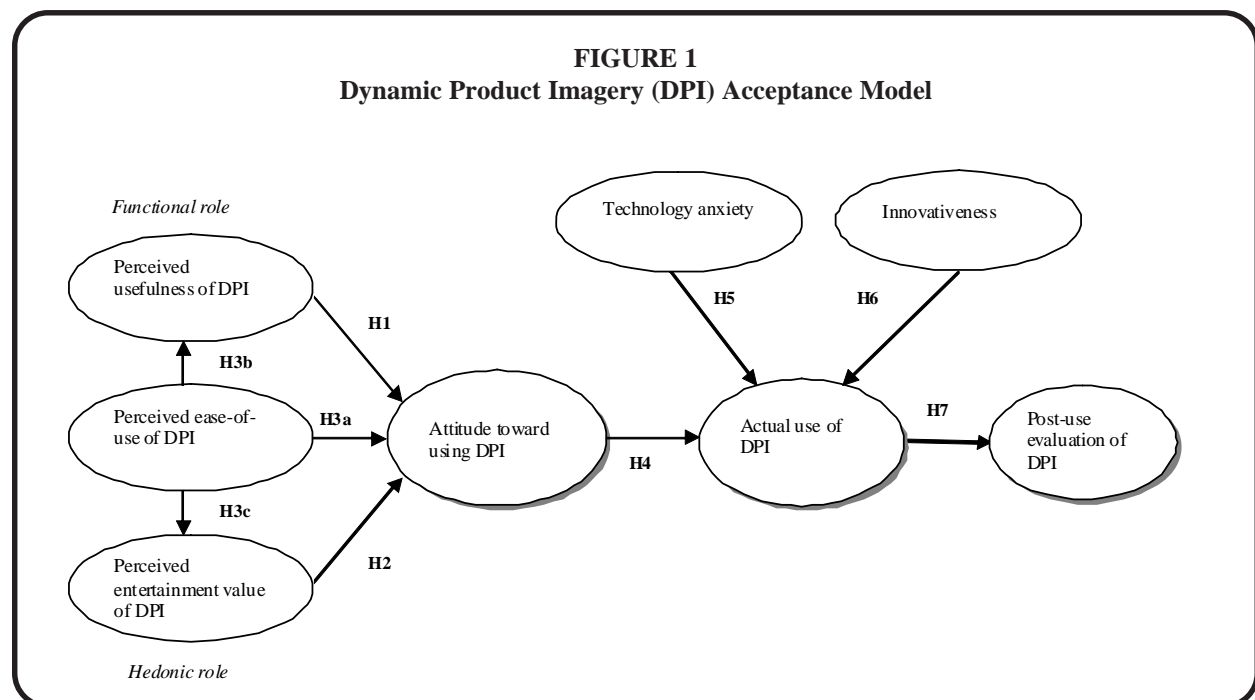
probability of a poor choice through better evaluation of the online product prior to purchase. Purchasing a product online is considered to be risky because many of the characteristics of different products that are important in consumer decision making are difficult to present on screen and standard descriptors of a product are often insufficient for product evaluation (Grewal, Iyer, and Levy 2004; Kartsounis, Magnenat-Thalmann, and Rodrian 2001). Therefore, using dynamic product imagery as a proxy for physical examination may be especially important when shopping for a product (Citrin, Stem, Spangenberg, and Clark 2003) as it provides proxy sensory experiences that can serve as a surrogate for direct product examination when evaluating a product products online.

H2: Perceived entertainment value of dynamic product imagery will have a positive influence on attitudes toward using dynamic product imagery.

The entertainment provided by shopping has been found to be an important motivator both in traditional shopping environments (Bloch, Sherrel, and Ridgway 1986; Babin et al. 1994) and online (Hoffman and Novak 1996; Childers et al. 2001). Manipulating a dynamic product image can provide entertainment in addition to facilitating product evaluation. Given that hedonic use of the Internet plays an important role in online shopping (Childers et al. 2001; Menon and Kahn 2002), the entertainment value provided by interaction with dynamic product imagery is likely to create more positive attitudes toward using dynamic product imagery when shopping for a product online.

H3a: Perceived ease-of-use of Dynamic product imagery will have a positive influence on attitudes toward using Dynamic product imagery.

Research has confirmed that ease-of-use is an important factor in predicting attitudes toward technology-based self-service (Dabholkar 1996; Davis et al. 1992; Heijden 2000). According to Rogers (1995), complexity, the antithesis of ease-of-use (Agarwal and Prasad 1997), reduces an individual's willingness to adopt the system. Previous researchers found that perceived ease-of-use had a positive influence on users' attitudes toward using the Internet for different functions (Szajna 1996; Gefen and Straub 1997). Liao, Shao, Wang, and Chen (1999) reported that the easier it is to use an Internet banking service, the more positive the attitude toward using this service. Therefore, perceived ease-of-use is expected to have a positive affect on consumer attitudes toward using dynamic product imagery.

H3b: Perceived ease-of-use of dynamic product imagery will have a positive influence on perceived usefulness of dynamic product imagery.

Previous research demonstrates strong empirical support for a positive relationship between perceived ease-of-use and perceived usefulness (Davis 1989; Adams, Nelson, and Todd 1992; Segars and Grover 1993). Thus, the easier dynamic product imagery is to use, the more useful it will be perceived to be (cf., Heijden 2000).

H3c: Perceived ease-of-use of dynamic product imagery will have a positive influence on the perceived entertainment value of dynamic product imagery.

Igbaria, Parasuraman, and Baroudi (1996) found support for a positive relationship between perceived entertainment value and system usage. By contrast, perceived complexity (the opposite of ease-of-use) was negatively correlated with perceived entertainment value (Igbaria et al. 1996). These findings lead to the expectation that the easier dynamic product imagery is to use, the greater the perceived entertainment value for online shopping using the dynamic product imagery.

H4. Attitudes toward using dynamic product imagery will have a positive influence on actual use of dynamic product imagery.

The innovation literature specifies that an individual's attitude toward using an innovation influences adoption of the innovation (Rogers 1995). Therefore, an individual's use of a technology is a function of his/her attitude toward its use (Moore and Benbasat 1991). The Theory of Reasoned Action, on which TAM is based, suggests that the more positive the attitude to perform a behavior, the more likely an individual is to perform that behavior (Ajzen and Fishbein 1980). Thus, consumers who have a positive attitude toward using dynamic product imagery are expected to be more likely to use dynamic product imagery for online shopping.

H5: Regardless of attitude, consumers' technology anxiety will have a negative influence on their use of dynamic product imagery.

Online shoppers are not likely to use dynamic product imagery unless they feel comfortable with the technology even when they see its benefits. Ajzen (1991) asserted that behavior is strongly influenced by perceived ability to perform that behavior, while Rogers (1995) noted that people are more likely to adopt an innovation they are comfortable with. Technology anxiety, the fear and apprehension people feel when thinking about or actually using technology-related tools (Cambre and Cook 1985; Meuter et al. 2003; Scott and Rockwell 1997) is expected to negatively influence use of dynamic product imagery.

H6: Regardless of attitude, consumers' innovativeness will have a positive influence on their use of dynamic product imagery.

Innovativeness, the latent underlying preference for new and different experiences (Hirschman 1980), motivates a search for new experiences that stimulate the mind and/or senses (Pearson 1970; Hirschman 1984; Venkatraman and Price 1990). In a technology context, innovativeness is defined as the willingness of an individual to try out new technology (Robinson, Marshall, and Stamps 2004). For example, adoption of in-home shopping methods is not only a function of attitudes, needs, and experiences, but also personal characteristics such as innovativeness (Eastlick 1993; Robinson et al. 2004; Shim and Drake 1990). Consumers with high levels of innovativeness are more likely to seek multiple sources of information and new experiences that stimulate their senses as they form their perceptions about a technology (Agarwal and Prasad 1998; Flynn and Goldsmith 1993; Midgley and Dowling 1978; Hirschman 1984). Therefore, it is expected that innovative consumers will be more likely to use dynamic product imagery.

H7: Use of dynamic product imagery will result in a positive evaluation of dynamic product imagery for online shopping.

Post use evaluation is defined as an individual's subjectively derived evaluation of any outcome and/or experience associated with using technology (Westbrook 1980). Individuals will be more likely to adopt a specific behavior if they perceive that it will lead to positive outcomes (Compeau and Higgins 1995). Therefore, if their experience with using dynamic product imagery for online shopping is satisfactory, shoppers are likely to evaluate dynamic product imagery favorably. Schlosser (2003) found that both browsers and searchers reported more positive attitudes and purchase intentions after visiting a web site with interactive virtual product presentations. Therefore, the use of dynamic product imagery is expected to result in positive post use evaluations.

METHODS

Sample and Online Survey

Seven separate online surveys were developed for seven different product categories with dynamic product imagery (apparel, shoes, jewelry, small consumer electronics, home appliances, furniture, and car). The constructs were measured using 7-point Likert-type scales ranging from 1 (strongly disagree) to 7 (strongly agree). Each survey contained the same items but referred to a particular product category with dynamic product imagery assigned. The seven online surveys (and corresponding stimulus website) were randomly assigned to a U.S. national panel of online shoppers randomly selected from a pool of participants included in the database purchased from a survey company. Upon clicking the hyperlink provided in the survey, respondents were lead to the

stimulus site for the assigned product category with dynamic product imagery. After completing the online shopping simulation using the dynamic product imagery, respondents completed the survey questions with respect to their simulated shopping experience aided by with the dynamic product imagery.

There were 2,415 valid and complete responses from 5,000 online survey requests, for a 48.3 percent response rate. Of these, 54 percent were male and 46 percent were female. Thirty two percent of the respondents were 18–30 years old, 39 percent were 31–50 years old, and 29 percent were older than 50 years. Forty nine percent of the respondents had cable, 40 percent had moderate to fast DSL, and the remaining 11 percent had slow modem for Internet connection. Majority of the respondents (77%) had been shopping online for three or more years, indicating the sample characteristics were suitable for this study. Detailed Internet usage of the sample is presented in Table 1.

RESULTS AND DISCUSSION

The results of the reliability tests showed that all the construct measures were reliable, with Cronbach alphas greater than .8. Principal component analysis showed satisfactory discriminant validity among the nine constructs and good internal consistency, with all constructs' Eigenvalues over 1. CFA item factor loadings for the latent constructs (greater than .6), indicated the scale items were a good manifestation of the constructs (Marsh and Hau 1999). Based on a rule of thumb for the incremental goodness-of-fit indexes (Hu and Bentler 1999), the model fit for eight measurement models was good, with all CFI and GFI values greater than .9.

The hypothesized model was assessed by maximum likelihood estimation and evaluated by three fit measures – the comparative fit index (CFI), the goodness of fit index (GFI), and the root mean square error of approximation (RMSEA) – using Amos 5.0. According the threshold suggested by researchers (Browne and Cudeck 1993; Hu and Benler 1999), the fit indexes indicated an acceptable model fit for the proposed model across the groups, with CFI = .8, GFI = .9, and RMSEA = .05.

After the initial model assessment for the proposed model, we conducted multiple-group Structural Equation Modeling to see if there are significant age differences when testing the invariance of path parameters across three different age groups simultaneously. The invariance test for the model was achieved by comparing Chi-square (χ^2) values and degrees of freedom (*df)* for the base model and the constrained model. In this comparison, the increase in χ^2 values due to the equality constraints was used as a significance test (Byrne and Campbell 1999; Byrne 2001; Kline 1998; Raju, Lafitte, and Byrne 2002). All

path parameters were constrained to be equal across two groups to test whether or not the constrained model was invariant between the groups. Then, the fit of the base model (free parameter estimation) and the constrained model (equality constraints imposed on parameter estimation) were compared. The summary of the χ^2 values and $\Delta\chi^2$ values (differences of χ^2 values between the base model and constrained model) for the series of analyses involved in testing invariance are presented in Table 2.

The first entry shows the difference between the fit (χ^2) of the initially hypothesized structural model (when tested simultaneously across three groups with no equality constraints) and the fit of the invariant model (when equality constraints were imposed on all path parameter estimations). The model fit difference from the first test (three-group) results indicated that all structural paths' parameters are not invariant across the groups ($\Delta\chi^2 = 40.11$, $\Delta df = 18$, p = .002), indicating significant differences among groups.

Given this difference and that the researchers were working with three groups in the present application, one approach is to determine if the constrained model is invariant across any two of the three groups. Thus, three sets of two-group Structural Equation Modeling were conducted for pair-wise comparison of the models for two of the three age groups. The model fit comparison for the first two groups (18–30 vs. 31–50) was not significantly different, indicating the base and constrained models were invariant ($\Delta\chi^2 = 10.32$, $\Delta df = 9$, p = .33) with alpha level at .05. Given this finding, it is expected that any inequality of parameters across the three groups, as determined in the first tests for invariance, must logically lie between over 50 and 18–30/31–50 groups. As expected, the results for the next two tests revealed statistically significant differences of path parameter estimates between over 50 group and 18–30 group ($\Delta\chi^2 = 28.74$, $\Delta df = 9$, p = .001) as well as over50 group and 31–50 group ($\Delta\chi^2 = 24.60$, $\Delta df = 9$, p = .003). This leads to the conclu-

sion that the acceptance process of dynamic product imagery for over 50 group is significantly different from the other two groups with respect to estimated structural parameters.

Single-Group Structural Equation Modeling was next conducted to find out specific differences in tested hypotheses by estimating the structure coefficients for each group (18–30; 31–50; over50). The results in the proposed model are displayed in Figures 2, 3, and 4 respectively. This information is compared within an age group and among the three age groups in Table 3.

The results for both 18–30 and 31–50 groups showed that all the hypotheses were supported, providing a statistical support for the proposed model of dynamic product imagery acceptance. For the over 50 group, the results supported all the hypotheses except H5, the effect of technology anxiety on the use of dynamic product imagery (TA $\rightarrow$ USE) ($\beta = -.01$, p = .72). These results confirmed the perceived usefulness and perceived entertainment value of dynamic product imagery as strong predictors of attitudes toward using dynamic product imagery and are consistent with research supporting the presence of both utilitarian and hedonic motivations in retail shopping (Babin et al. 1994) and in online shopping (Childers et al. 2001). Interestingly, the standardized coefficients indicated that the hedonic motivation (PE $\rightarrow$ ATT) was a stronger predictor of the attitude for all three age groups then the functional motivation (PU $\rightarrow$ ATT) in the process of dynamic product imagery acceptance.

The attitudes influenced the actual use of dynamic product imagery positively, and the positive influence of use of the dynamic product imagery on the pose-use evaluation was supported. The innovativeness mattered for all age groups when using dynamic product imagery. However, the effect of technology anxiety differed by age. Unexpectedly, the technology anxiety had a significant negative influence on the use of dynamic product

TABLE 1
Sample Internet Usage

Internet Shopping History		Time Spent on Internet		Browsing Time		Searching Time	
Yrs	%	Hrs/week	%	Hrs/week	%	Hrs/week	%
Less than 1	13.1	Less than 1	.3	Less than 1	2.4	Less than 1	2.2
1–2	10.4	1–5	8.5	1–5	37.0	1–5	51.3
3–4	20.5	6–10	18.2	6–10	26.0	6–10	22.4
5–6	18.6	11–20	28.2	11–20	17.7	11–20	12.7
Over 6	37.4	21–30	22.6	21–30	9.5	21–30	5.6
		31–40	9.4	31–40	2.8	31–40	2.8

TABLE 2
Multiple-Group Structural Model Invariance Test

	Groups	Δχ²	Δdf	p	Sig.	Variance
Three-Group model comparison	18–30 / 31–50 / over 50	40.11	18	.002	**	Yes
Two-Group model comparison	18–30 / 31–50	10.32	9	.321	NS	**No**
	18–30 / over 50	28.74	9	.001	**	Yes
	31–50 / over 50	24.60	9	.003	**	Yes

** = sig. at p < .01

FIGURE 2
Dynamic Imagery Acceptance Model for Age Group 18–30
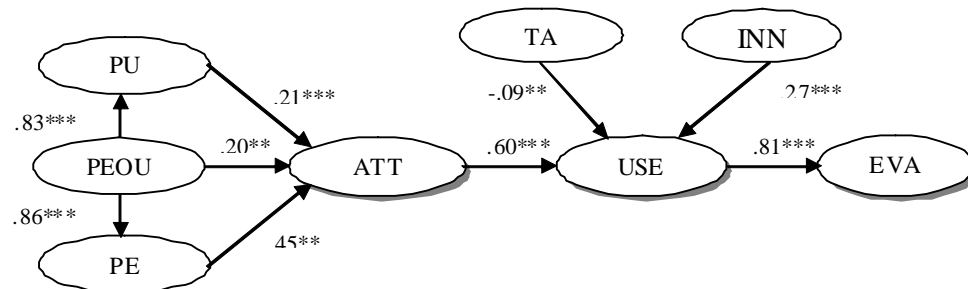
FIGURE 3
Dynamic Imagery Acceptance Model for Age Group 31–50
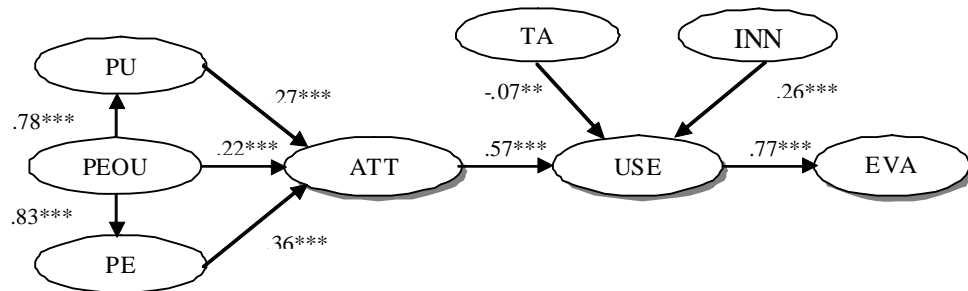
FIGURE 4
Dynamic Imagery Acceptance Model for Age Group Over 50
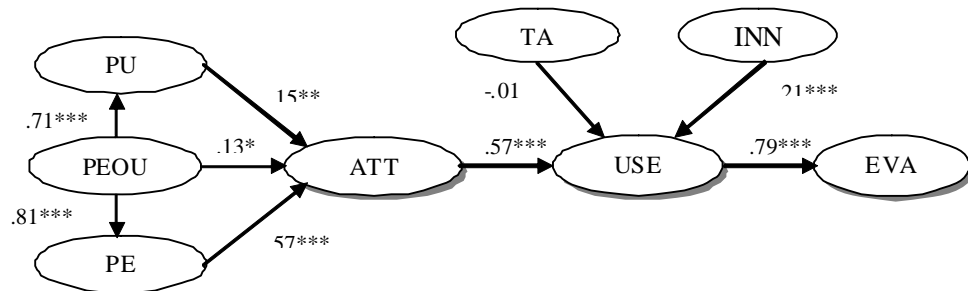
*** = sig. at p < .001, ** = sig. at p < .01, * = sig. at p < .05

TABLE 3
Within–Group Path Coefficients and Significance for Hypotheses

Hypotheses		Age 18–30		Age 31–50		Age over 50	
		Coefficients	Sig.	Coefficients	Sig. p	Coefficients	Sig.
H1.	PU → ATT	.21	***	.27	***	.15	**
H2.	PE → ATT	.45	***	.36	***	.57	***
H3a.	PEOU → ATT	.20	**	.22	***	.13	*
H3b	PEOU → PU	.83	***	.78	***	.71	***
H3c	PEOU → PE	.86	***	.83	***	.81	***
H4	ATT → USE	.60	***	.57	***	.57	***
H5	TA → USE	-.09	**	-.07	**	-.01	NS
H6	INN → USE	.27	***	.26	***	.21	***
H7	USE → EVA	.81	***	.77	***	.79	***

*** = sig. at p < .001, ** = sig. at p < .01, * = sig. at p < .05

imagery for two younger groups but not for the over 50 group. Hoffman and Novak (1996) related anxiety regarding ability to perform the behavior negatively to actual usage behavior. Additional research has shown that respondents with higher levels of technology anxiety use fewer self-service technologies, and that innovativeness impacts the way new technologies are perceived (Meuter et al. 2003). Our findings suggest that, in general, consumers with high technology anxiety will be less likely to use dynamic product imagery. Then, why would technology anxiety matter to younger online shoppers more than over50 online shoppers? Considering the fact that a fewer number of older people shop online, the over 50 year-olds, who use Internet for shopping, might generally be those more confident in using technologies. Also, the retiring baby boomers have been working with computers for long. Thus, the dynamic product imagery can provide them information and fun shopping experience without much worry of technology anxiety. On the other hand, the younger people are still learning to use new technologies although using Internet for shopping is a widely spread activity for them. Thus, like it or not, younger people are more exposed to new technologies everyday, getting more tech-related stress as compare to older people. This might be the reason why younger online shoppers have higher level of technology anxiety influencing the use of dynamic product imagery.

Last, the researchers compared the marginal means of attitude for seven different product categories to find out the most favorable product category for using dynamic product imagery when shopping online (see Table 4). The results showed most favorable attitude of using dynamic product imagery for apparel, car, furniture, appliances, and small electronics, and the least favorable for jewelry and shoes. This might be both jewelry and shoes need to be personally tried on before the purchases. Especially, jewelry shopping might involve more affective sentimental value that might make it more suitable for shopping at physical stores.

SUMMARY AND IMPLICATIONS

The results provided empirical support for eTAM in the context of dynamic product imagery acceptance for online shopping across seven product categories. In addition, two additional constructs – technology anxiety and innovativeness – showed significant influences in the use of dynamic product imagery. A significant difference was found between the over50 age group and the other two groups (18–30/31–50) in the acceptance process. Specifically, the negative influence of technology anxiety was found on the use of dynamic product imagery for 18–30 and 31–50 age groups only. Technology anxiety didn't have statistically significant influence on the use of dynamic product imagery for over 50 years old online shoppers. This provided online retailers gear toward silver market better idea of how to stimulate baby boomers' buying behavior. The actual use of the dynamic product imagery had positive influence on the post-use evaluation of dynamic product imagery.

Based on the findings of this study and the validation of the proposed model, future studies may be directed

Product	Apparel	Shoes	Jewelry	Small Electronics	Home Appliances	Furniture	Car
Mean	5.305	4.919	4.770	5.128	5.244	5.269	5.306

TABLE 4
Estimate Marginal Means of Attitude Across Seven Product Categories

toward more specific consumer characteristics such as time-consciousness, opinion leadership (Korgaonkar and Moschis 1987) or gender differences (Peck and Childers 2003). Thus, it will be important to identify consumer variables that may influence the dynamic product imagery acceptance. Also, the acceptance of dynamic product imagery may also be related to the specific product itself (Klein 1998). The effectiveness of dynamic product imagery may differ by product category. Identifying consumer characteristics under a specific product category may be useful to investigate.

The results of this study have several important implications for online retailers and are consistent with the findings of other researchers, who have reported that the enhanced experience provided by interactive technologies result in stronger purchase intentions than passive product presentations (Li, Daugherty, and Biocca 2002, 2003; Klein 2003; Schlosser 2003). Dynamic product imagery allows consumers to simulate the functionality and appearance of a product, creating a compelling online virtual experience. Thus, dynamic product imagery enables online marketers to provide more effective product information – reducing perceived risk, and engage consumers in the fun shopping experience – enhancing shopping enjoyment. Thus, dynamic product imagery has the potential to increase the number of unique and repeat traffic visitors to the site, increase online sales, and ultimately establish an online competitive advantage.

Many online shoppers use the Internet to search for product information but do not actually purchase online because of uncertainty regarding the product shown online. Other shoppers are not motivated to purchase online because they find the online shopping process to lack emotional appeal and entertainment value. Therefore, the success of online a product retailing will depend in part on the successful use of dynamic product imagery to reduce perceived product risk and/or to provide a more entertaining shopping experience. Our findings confirm the need for online retailers to place greater emphasis on employing dynamic product imagery to fulfill consumer needs for sensory information as a means of reducing product risk and enhancing shopping enjoyment.

Research in online advertising has shown that 3D virtual product demonstrations lead to higher buying intentions than when the product is displayed in 2D images alone (Li, Daugherty, and Biocca, in press; Schlosser 2003). Sales of Eddie Bauer's Daypack backpack showed a 25 percent increase when the product was featured online through interactive 3D technology (Mahoney 2001). An e-mail test run by Gifts.com found the conversion rate among consumers who viewed a Mother's Day pendant through a RichFX 3D video presentation was approximately seven times higher than among shoppers who viewed only the 2D version of the pendant (Mahoney 2001). Based on empirical and industry reports, there is reason to expect that the acceptance of dynamic product imagery will positively impact online purchase behaviors. Our findings contribute to a better understanding of the adoption process for dynamic product imagery by providing information regarding the factors that impact the consumers' dynamic product imagery acceptance for online shopping. Based on the findings of the current study, dynamic product imagery may provide a valuable tool that online retailers can use to enhance their consumers' purchase behavior, either by reducing the perceived risk through better online product evaluation or by enhancing consumers' enjoyment of the shopping process on their website.

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E-ASSIM: CONSUMER ASSIMILATION OF ELECTROIC-CHANNELS

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SUMMARY

As online consumers become more sophisticated firms are gearing up for a new generation of products and services that go beyond mere transaction execution. Retail banks are overcoming the technological hurdles that will allow them to offer a more comprehensive range of services on a mobile banking platform. These developments are taking service consumption to the "next stage" where certain services can be seamlessly integrated into consumer everyday routines without the need for physical location visits. The purpose of this paper is to examine the post-trial or continuance phase of electronic channel use. More specifically, the paper conceptualizes electronic assimilation and examines its antecedents and consequences. Electronic assimilation involves the gradual diffusion of channel utilities across consumer routines and consumption activities (Liang et al. 2007; Purvis, Sambamurthy, and Zmud 2001). Assimilation is an integrative process in which consumers recognize services benefits and match these with their evolving needs and the problems they encounter within their daily lives.

Consumer domain learning orientation and *consumer efficiency* are examined as antecedents of electronic assimilation. Research in instructional and organizational psychology has highlighted the importance of a goal or learning orientation as a determinant of individual success at mentally challenging tasks (Deweck and Legett 1998). Consumer efficiency as it relates to electronic channel services is concerned with the time and effort consumers save from using the service. Research using the TAM has demonstrated that the usefulness of a technology, which underlies the efficiency consumers achieve from it, is the most important predictor of an individual's behavioral intentions toward the technology for both trial and continuance (Davis 1989; Karahanna, Straub, and Chervany 1999). In order to demonstrate the relative importance of the antecedents of assimilation and the distinct value of electronic assimilation vis-à-vis trial, two determinants of trial from prior research are included in the model, namely *technology innovativeness* and *normative commitment to electronic channels*. Technology innovativeness reflects a willingness to initiate consumption and take risks with technology, which should enhance assimilation. Normative commitment to electronic channels is the degree to which consumers are psychologically attached to electronic channels on the basis of a perceived obligation to fulfill a role as a functioning member of society. It is hypothesized that these four proposed antecedents positively affect consumer electronic banking assimilation.

Two consequences of consumer electronic banking assimilation are examined: *information ambiguity* and *customer-firm identity*. Theories of consumer learning posit that learning from experience is likely to be more influential than learning by education (Hoch and Deighton 1989) and that technology allows consumers greater control over information flow leading to more effective learning (Ariely 2000). Consequently, electronic assimilation should reduce information ambiguity concerning the service category (financial services). Finally, customer-company identity is considered a consequence of electronic assimilation based on recent theory and research suggesting that consumers are attracted to firms by the sense of identity they achieve from associating themselves with the firm (Ahearne, Bhattacharya, and Gruen 2005; Bhattacharya and Sen 2003).

Data were collected from members of a regional credit union located in the Northwestern United States. In addition to offering the traditional credit union savings and loan products, this credit union (like many others operating in the United States) also offers a comprehensive portfolio of financial products from associated companies for cross-selling and up-selling to members. A survey of the total population of 2,745 members who used e-banking banking service was conducted via mail. The survey yielded 834 responses, representing a 30 percent response rate.

The result of hypotheses test using structural equations modeling confirms the essential role of electronic assimilation. Consumer efficiency, consumer learning orientation, technology innovativeness and normative commitment positively and significantly impact assimilation. Turning to the consequences, the study finds that electronic assimilation reduces information ambiguity and increases customer-company identity. The importance of electronic assimilation demonstrated by this study implies that the introduction of new online services or utilities may be more effective when the integration of the services into consumer routines is demonstrated. For instance, firms could offer self-diagnostic tools that allow consumers to evaluate their need for a service and determine what time of day or week is best for using the service. Advertising strategies that illustrate consumers becoming efficient through integrative use of multiple utilities may be more effective at improving consumer receptiveness to cross-selling and up-selling of services. References are available upon request.

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A CONCEPTUAL MODEL OF SATISFACTION FORMATION IN CONTINUALLY DELIVERED BUSINESS SERVICE CONTEXTS

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SUMMARY

This paper develops a conceptual model of satisfaction formation in continually delivered business service (CDBS) contexts. CDBS contexts differ from traditional exchange contexts in three important ways: (1) the core product in the exchange is a service rather than a good, (2) the customer is an organization rather than an end-consumer, and (3) service delivery occurs on an ongoing or continual basis rather than being more discrete in nature.

To gain a better understanding of how satisfaction is conceptualized in CDBS settings, a review of the empirical research in this context was conducted. CDBS satisfaction is considered to be an evaluation that is global and focused on the service provider which occurs during consumption of the service. The conceptual model of satisfaction formation in CDBS contexts integrates two theories commonly used to explain satisfaction: the expectancy-disconfirmation (E/D) paradigm and social exchange theory (SET). The theories are complementary and more effectively explain the satisfaction formation process in a CDBS context than either can individually, since E/D focuses mainly on internal processing and SET considers the interpersonal variables influencing satisfaction. Through unifying these theoretical frameworks, three distinct types of lower-level satisfaction assessments are identified: *performance satisfaction* from the E/D paradigm; *social satisfaction* and *economic satisfaction* from SET. The paper's first proposition is thus:

P1: Customers' lower-level satisfaction assessments (i.e., performance satisfaction, economic satisfaction, and social satisfaction) positively influence CDBS satisfaction.

Further propositions derived from research and insights related to the E/D paradigm were:

P2: In CDBS contexts, cumulative disconfirmation influences performance satisfaction.

P3: In CDBS contexts, positional performance positively influences performance satisfaction.

P4: In CDBS contexts, velocity performance positively influences performance satisfaction.

P5: In CDBS contexts, future expectations have a positive influence on a customer's performance satisfaction.

P6: In CDBS contexts, cumulative disconfirmation has a positive influence on a customer's future expectations.

P7: In CDBS contexts, positional performance has a positive influence on a customer's future expectations.

P8: In CDBS contexts, velocity performance has a positive influence on a customer's future expectations.

Further propositions derived from research and insights related to SET were:

P9: In CDBS contexts, economic outcomes have a positive influence on a customer's economic satisfaction.

P10: In CDBS contexts, social outcomes have a positive influence on a customer's social satisfaction.

P11a: In CDBS contexts, customer perceptions of economic outcomes given comparison level have a positive influence on economic satisfaction.

P11b: In CDBS contexts, customer perceptions of social outcomes given comparison level have a positive influence on social satisfaction.

P12a: In CDBS contexts, customer perceptions of economic value have a positive influence on economic satisfaction.

P12b: In CDBS contexts, customer perceptions of social value have a positive influence on social satisfaction.

P13a: In CDBS contexts, customer perceptions of the equity of economic outcomes have a positive influence on economic satisfaction.

P13b: In CDBS contexts, customer perceptions of the equity of social outcomes have a positive influence on social satisfaction. References are available upon request.

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INTERNATIONAL PERFORMANCE OF B-T-B SERVICES: THE ROLE OF QUALITY MANAGEMENT

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SUMMARY

In spite of its importance for international success, there seems to be a dearth of research focusing on the role of service quality management in the international context (Eriksson, Majkgard, and Sharma 1999; Kueh and Voon 2007). However, internationalizing services, the provision of a consistent service quality is especially difficult. First, the challenge in controlling for service quality lies in the unique characteristics of services. Second, by going international, the difficulties associated with service quality management are intensified as service providers in general have to deal with local, i.e., culturally different service personnel delivering the service and culturally different customers to be integrated in the service delivery process (Winsted and Patterson 1998). Therefore, strategies that help to manage service quality may help firms to be more successful with their internationalization venture.

Against this background, the first objective of this paper is to develop and empirically test a model of the influence of quality management strategies on the international performance of B-to-B services. Furthermore, this paper aims to examine the nature of the relationship between different service quality management strategies and international performance under varying contingency conditions, i.e., service type, intensity of competition and the similarity between home and foreign markets.

The model is built on the argumentation that a standardization of the service is not possible in terms of each customer getting the very same service as service failures cannot be eliminated completely for two reasons (Miller, Craighead, and Kirwan 2000; Zeithaml, Parasuraman, and Berry 1985; Hart, Heskett, and Sasser 1990; DeWitt and Brady 2003). First, the quality of the service delivery process and its outcome depend on the people who actually perform the services (Vázquez-Casielles, del Río-Lanza, and Díaz-Martín 2007). They differ in terms of their ability and willingness to actually perform a service in the desired quality. Second, customers take part in the creation of output and value of services as a co-producer (Groenroos 1990; Edvardsson, Thomasson, and Ovretveit 1994), or even as "partial" employees (Bateson 1985; Kelley, Skinner, and Donnelly 1992). The customer participation in the service delivery process may influence the service outcome and hence increase the uncertainty inherent in the service delivery process (Hsieh, Yen, and Chin 2004).

Consequently, if a service provider's objective is to ensure a consistent high service quality, two possibilities exist. First, a service provider may try to start off with the employees performing the service by (1) improving their qualifications which comprise their professional as well as their cultural competence or (2) by standardizing the service delivery process itself with blueprints etc. Second, it may tackle the issue from the customer's side by communications between the service provider and the customer in terms of its expectations with regard to the customer participating in the service delivery process. Therefore, it is hypothesized that the professional (H_1) and the cultural competence (H_2) have a positive impact on international performance. Both competencies are positively influenced by a international market-oriented training of service employees (H_3 and H_4). Hypothesis 5 supposes that the standardization of the service delivery process has a positive influence on the international performance of services. And finally, it is hypothesized that the communication of customer participation toward the customer has a positive influence on the international performance of services (H_6).

Research Design, Results, and Conclusions

The data was collected via an online survey (with personal invitation) in Germany in a survey among managers responsible for internationalization projects. Two hundred eight-nine usable questionnaires were received (response rate 15.2%) from which 146 firms (50.5% of the sample) offered B-to-B services and were included in the analysis. The questionnaire was developed using existing scales when possible. Convergent validity as well as discriminant validity is confirmed.

For data analysis, the partial least squares approach (PLS) was employed. The PLS results show first that both the cultural competence and the professional competence of service delivering employees have a significant positive impact on international performance. Interestingly, the influence of cultural competence ($\beta_1 = 0.25$) on international performance is slightly stronger than the impact of professional competence ($\beta_2 = 0.19$). Both, cultural competence and professional competence of service delivering employees are positively influenced by

international market-oriented training of service employees leading to the acceptance of H_3 and H_4. At this stage, the impact of the international market-oriented training on cultural performance ($\beta_3 = 0.44$) is slightly higher than the impact of the international market-oriented training on professional performance ($\beta_4 = 0.38$). The impact of the standardization of the service delivery process however, is relatively low ($\beta_5 = 0.17$) but statistically significant. Surprisingly, an influence of the communication of customer participation on international performance cannot be found. Therefore, H_6 must be rejected.

In order to test the moderating effects of service type, intensity of competition and the similarity between home and foreign market sub-group analysis was performed. For each moderating variable the sample was split in two groups. Each of the relationships in the model was tested for significant differences with a t-test. In summary, the similarity between home and foreign market does not seem to moderate the effects hypothesized in the model. The service type (pure vs. product-associated services) however moderates the relationship between cultural competence and performance. The cultural competence of the service staff has a very strong influence on the international performance of pure services ($\beta_{1ps} = 0.48$) while it is not significant for services that are closely associated with a product. The intensity of competition also has a moderating effect on the relationship between cultural competence of the service staff and performance. With $\beta_{1hic} = 0.40$ the impact of cultural competence on international performance is much stronger in highly competitive markets than in markets where the intensity of competition is low ($\beta_{1lic} = 0.12$). Furthermore, the intensity of competition moderates the relationship between the communication of the customer participation and international performance such that in low competitive markets the customer participation has a negative effect ($\beta_{6lic} = -0.24$) while in highly competitive markets it has a positive impact on international performance ($\beta_{1hic} = 0.17$).

Based on the study results, service providers are recommended to support their service staff with trainings that improve their cultural and professional competencies. A particular emphasis on the training and recruitment of culturally competent staff should be placed by firms that offer pure services or act in highly competitive markets. Under both conditions, the cultural competence of service employees seems to be a competitive advantage that leads to a better international performance.

Furthermore, service providers are advised to standardize the service delivery process. A standardization can be supported by defining quality standards and internalize these standards throughout the whole organization. A helpful tool for visualizing the processes is for example blueprinting. It accurately structures all activities of the service delivery process and helps the staff delivering the service to understand and deal with it objectively (Shostack 1981; Kingman-Brundage 1991). Also, process descriptions seem helpful to standardize the service delivery process.

The customer oriented strategy, i.e., the communication of customer participation, has no significant impact on international performance. However, the results show that in situations with high intensity of competition service providers should put an emphasis on communications with the customer in terms of task clarity and to develop customer expertise in terms of when to integrate with which factors in the service delivery and in which quality and quantity. In contrast, when the intensity of competition is low, service providers should refrain from communications with regard to customer participation.

Limitations of the study refer to the geographic area and the industry sectors examined in the study. Also, our research focused on three quality management strategies as determinants of international performance. In the literature several success factors of international performance were identified. It would be interesting to compare them with the quality management strategies looked at in this study. Finally, attention should be paid to the results interpreted in terms of the conceptualization of the study. References are available upon request.

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THE OPERATIONALIZATION OF MACNEIL'S RELATIONAL NORMS IN INTERFIRM EXCHANGES: A DESCRIPTIVE META-ANALYSIS

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SUMMARY

Over the past twenty years, interfirm exchanges have been investigated using Macneil's Relational Exchange Theory (RET) (Macneil 1974, 1978, 1980, 1983). By combining RET with Transactional Cost Analysis, researchers have studied interfirm exchanges within the context of Macneil's transactional-relational continuum. Whereas the transactional end of the continuum is characterized primarily by a discrete norm, price, the short-term, and formal contracts, the relational end involves cooperative, the longer-term and relational or social contracting norms. Despite their wide use, relational contract norms still present several methodological problems. First, the operationalization of relational norms is far from homogeneous and there are potential challenges arising with the operationalization or with the creation of testable hypotheses (Ivens 2006). The second difficulty encountered in examining the empirical research based on the work of Macneil is in the interpretation of the results. According to Blois and Ivens (2007), most authors fail to produce adequate justification with respect to the actual choice of the norms under investigation and their validation. In other words, they do not present clear definitions of these norms or they do not capture the subtleties in the transactional-relational continuum.

Therefore, the aim of this article is to present a descriptive meta-analysis, as proposed by Glass (1977), of studies using Macneil's relational contract norms. To date, a few meta-analysis have been performed on Macneil's norms. They vary with respect to the number of articles reviewed, the choice of references, the research methods, the analyses, as well as the overall conclusions.

Our meta-analysis takes into consideration 86 references covering 24 years of research (1984–2008). With regards to the type of publications, there are a large number of references from high caliber scientific journals (74 out of 86). The majority have been done in scientific reviews specialized in Marketing (56) and have been published in journals such as the *Journal of Marketing* (17). Empirical studies are dominating (73 out of 86 references) and in majority they are quantitative (54). Most of the time, the studies are completed in inter-organizational contexts (72). Furthermore, few studies emphasize both sides of the dyad (28 out of 86 references).

With regards to the type of industry in which studies were performed, 30 out 86 references are in the service sector of which, 11 from the financial services sector. A high majority of studies were undertaken in North American, mostly in the USA (34). In most cases, it was difficult to determine with certainty whether the transactional-relational continuum was used (59). The relational context seems to dominate (19 out of 86 references). Relatively few relational contract norms are used in a given study, especially in empirical research. Indeed, out of 86 studies analyzed, 22 used three norms, 11 used two norms, and 18 only used one norm. *Contractual solidarity* (58 out of 86 references), *flexibility* (56) and *mutuality* (36) are the three most employed relational norms. *Role integrity* is the fourth most popular in 35 out of 86 studies of which 30 are empirical. With regards to the methodology used in the empirical studies analyzed, fifty studies have used surveys. Where the data was available, the sample size was relative high in 56 studies (n = 260). Looking at the type of respondents, the majority are industrial buyers (15 studies), sellers (11), and account managers (8).

The results partly confirm Ivens and Blois (2004) meta-analysis and demonstrate how difficult it is to operationalize and test Macneil's norms empirically. In fact, if some studies developed a scale to assess the visible relational degree in an exchange, most of them did not take into account critical aspects of Macneil's work. The great majority of empirical references used Kaufmann and Stern without questioning the validity of the scale and Macneil's interpretation of the norms. Kaufmann and Stern assert only three of Macneil's five relational contract norms without giving justification to their conceptual support of Macneil works. Thus, Blois and Ivens (2006) infer that the use of a subset of Macneil' norms in the evaluation of the relational degree of an exchange produces above all results exaggerating the expanse in which an exchange is "discrete" while underestimating the "relational" degree. Consequently, there are problems with regards to the measure of Macneil' norms and in particular to the type of methodology used. To solve this difficulty, Durif and Perrien (2008) proposed the Cognitive Mapping technique. Results provide a first and rather encouraging answer in the understanding of contractual norms and suggest a better construct validation than other previous methods of data collection.

Consequently, further research is needed to understand the deeper meaning and interrelations amongst the norms since aspects of the same exchange can be characterized by different and complementary mechanisms. Most studies inventoried have used a framework of a single firm perspective that has been most often assessed with impersonal data collection methods often directed at only one party to the exchange. It would be recommended to use personal interviews, case studies, and dyadic assessments of the respective value gained by parties to the exchange. A deeper understanding of the different relational norms and their inter-relation could provide insights into why relational exchanges can be more or less effective. For example, the notion of role integrity has not been fully explored although there are interesting theoretical and managerial implications taking into consideration factors such as: national culture, organizational culture, service industry specificity, ethical governance, organizational behavior, and other relevant factors.

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CULTURE AND CONTEXT: INCONGRUENCE AND ADVERTISING EFFECTIVENESS

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SUMMARY

The global nature of today's marketplace enables firms to seek advantages based on their understanding of the cultural climate in which they operate. Research in cross cultural psychology has shown that differences in cultural orientations can influence attribution styles (Morris and Peng 1994), emotions (Matsumoto 1989; Bagozzi, Wong, and Yi 1999; Schimmack, Oishi, and Diener 2002; Markus and Kitayama 1991), behavior (Dutta-Bergman and Wells 2002; Kacen and Lee 2002; Triandis 1989), and persuasion (Shao, Bao, and Gray 2004; Aaker and Maheswaran 1997; Han and Shavitt 1994). Marketers seek to understand and persuade their potential customers through proper marketing messages, and cultural orientation is one important consideration that may influence responses and provide unique communication opportunities.

Matching the advertisements to relevant self-schema of the target market is one approach that advertisers have used to customize their marketing messages (Wheeler, Petty, and Bizer 2005; Wang 2000; Wang and Mowen 1997; Han and Shavitt 1994; Cacioppo, Petty, and Sidera 1982). Researchers have relied on the observed differences in self-concepts across cultures (Triandis et al. 1988) to guide their investigations of the effectiveness of ads based on how people define themselves. These studies have shown that communication messages that are congruent with the self-schema are used more often (Han and Shavitt 1994) and better received by the target group (Wang and Mowen 1997).

The media context is another important variable that may affect perceptions of the advertisement. Media context that is similar to the ad in mood or affect may have a variety of positive effects including increased recall and improved attitudes (Coulter 1998; De Pelsmacker, Geuens, and Anckaert 2002; Kamins 1991; Lord, Burnkrant, and Unnava 2001), yet the impact of context on the accession of cultural attributes has been overlooked. The purpose of this research is to discuss that the media context may influence which part of the self-schema (separated /connected) is salient in evaluating an appeal and its influence on attitudes and purchase intentions.

The following hypotheses were developed and tested:

H1: Individuals with a more connected self-schema will have more favorable (a) attitude toward the ad, (b) attitude toward the brand and (c) purchase intentions for advertisements with connected themes.

H2: Individuals with a more separated self-schema will have a more favorable (a) attitude toward the ad, (b) attitude toward the brand, and (c) purchase intentions for advertisements with separated themes.

H3: Individuals primed to think about their connected selves will have more favorable (a) attitudes toward the ad, (b) attitudes toward the brand, and (c) purchase intentions for the advertisements with connected themes.

H4: Individuals primed to think about their separated selves will have more favorable (a) attitudes toward the ad, (b) attitude toward the brand, and (c) purchase intentions for advertisements with separated themes.

Methodology

The hypotheses were tested using a 2 (story) x 2 (ad appeal) between-subjects design with two levels: separated or connected. Excerpts from *Reader's Digest* articles served as the contextual primes. The separated condition described how to prepare for a job interview focusing on the individual. The connected story condition discussed a man who survived a tragedy and the role that his family played in his recovery. The advertisements were created a fictitious brand of SUV appealing to either separated or connected schemas. The separated ad showed an individual sitting on the beach working on a computer with the ad copy about the individual, while the connected ad featured a family of four on the beach looking at the ocean with the ad copy about the family. All other aspects of the ad were identical.

A total of 121 student participants were recruited and randomly assigned to one of the four experimental conditions. First, they were asked to read a short story, and then they were exposed to the advertisement and answered a follow-up questionnaire.

The dependent variables in the study were attitude toward the ad, attitude toward the brand, and purchase intentions. Established scales from the literature were used for each of these measures (Holbrook and Batra 1987; Schlinger 1979).

Results and Discussion

Hypotheses 1 and 2 were tested using MANOVA. A median split was used to divide the dataset by self-schema (connected vs. separated). Hypotheses 1b and 1c were not significant which may be due to the fictitious brand used which required people to create attitudes and purchase intentions for a product without adequate information. Hypotheses 1 was supported ($F = 5.439$, $p < .05$). These results support previous research that the dominant self-construal would dictate attitudes that matched the self-schema congruent with their self-schema. The results did not indicate support for Hypotheses 2a–c, which may have occurred because the product scored overall more separated.

Hypotheses 3 and 4 were also tested using MANOVA. Again, the data set was split; this time according to the type of prime that the respondent viewed (connected or separated). The univariate tests support Hypotheses 3a-c with higher mean scores for ads that matched the editorial material. This indicates that when primed to use the connected self-schema, individuals had stronger attitudes toward the ad ($F = 11.18$, $P < .01$), attitudes toward the brand ($F = 4.007$, $p < .05$), and purchase intentions ($F = 3.79$, $p < .10$). Although the means for the outcomes were higher when the ads matched the editorial content, the differences were not significant when individuals were primed to use there separated self-schema (H4a–c).

While current research in this area has concluded that attitudes are more favorable when matched to the cultural level variable, our study found that the context in which the ad is embedded can also impact the attitudes used to evaluate communication messages. Our results indicate that the self-schema that is used to evaluate the message may be influenced by contextual information. Understanding how cultural variables both at the country and individual levels impact advertising effectiveness is an important stream of research, but it is even more important to understand how culture fits with other variables in the communication process. References are available upon request.

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DEMOBILIZATION OF THE CONSUMER? THE EFFECTS OF NEGATIVE PRODUCT ADVERTISING ON PURCHASE INTENTIONS

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SUMMARY

Negative advertising, as defined by Merritt (1984), names or identifies a competitor, just as comparative advertising does, but differentiates itself in that the goal of negative advertising is to accredit inferiority as opposed to stating or implying superiority. Advertisements of this variety are the exception in product marketing, not the norm, yet appear to occur with increasing frequency. Academic research on negative product advertising presents a relatively bare cupboard. The bulk of negative advertisement research has primarily investigated political ads, and little is known about how these findings transfer to product marketing. This study seeks to draw on negative political advertising research to formulate and test hypotheses in order to investigate the effects of negative product advertising on consumer attitudes and purchase intentions.

Hypotheses

Drawing on both political science and marketing literature, we formulated the following hypotheses.

H1: Overall ad evaluations will decrease as the level of negativity in the advertisements increases.

H2: Attitude toward the ad sponsor will decrease as the level of negativity in the advertisements increases.

H3: Attitude toward the ad target will decrease as the level of negativity in the advertisements increases.

H4: Purchase intentions will decrease for both the ad sponsor and the ad target as the level of negativity in advertisements increases.

Method

In an effort to align our study with previous research, we used identical advertisements to those used in Sorescu and Gelb (2000). The product category used in the ads is pain relievers. Subjects were presented with one of three ads categorized as: positive message, less-negative message, and more-negative message. Multi-item measures were used to evaluate attitude toward the ad, attitude toward the brand and purchase intensions. Manipulation checks and multivariate analysis of variance (MANOVA) with post hoc, multiple comparison tests (Tukey) were employed to test the proposed hypotheses.

Results

We found no support for H1 – Contrary to previous findings, there appears to be no significant difference in overall ad evaluation according to the level of negativity. Surprisingly we found results opposite those hypothesized in H2; something of an anti-backlash effect: the use of a more-negative advertisement increased sponsor brand evaluation as compared with a positive advertisement. H3 found some support; the mean evaluation of the ad target decreased in the more negative-ads as compared with the less-negative ads. Lastly, H4 found support in the opposite direction between two treatments; mean purchase intentions in fact rose significantly for the more-negative ad as compared with the positive ad.

Disscussion

Clearly what we found is not at all what we expected. By the accounts of our study, there is at least some evidence that negative advertising seems to work. With a high degree of negativity in the ad, we find lower purchase intentions for the ad target as compared with a less-negative ad. Moreover, the negative ads were not accompanied by a "backlash" effect. These findings interestingly make an unexpected argument in support of negative advertising's use in product marketing. References are available upon request.

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THE EFFECTS OF AD NOVELTY AND MEANINGFULNESS ON THE ADVERTISED BRAND

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SUMMARY

Advertising is well-known to be the primary communication strategy in marketing. A major objective of advertising is to be remembered in a positive manner. In other words, generating recall and positively influencing brand judgments (Keller 1993). Researchers have identified two primary ad factors that influence brand judgments – novelty and meaningfulness. Novelty refers to the ability of an ad to generate arousal (Berlyne 1971; Wells et al. 1993) by differing from pre-existing expectations (Hirschman and Wallendorf 1980). However, novelty is not sufficient for ad effectiveness. In fact, many ads are highly novel but ineffective. Meaningfulness refers to the ability of an ad to convey information relevant to the product and/or brand (Ang, Lee, and Leong 2007). Further, Smith and Yang (2004) define ad effectiveness as "the extent to which an advertisement diverges from expectations while remaining useful to the task at hand." As technological advances and reverse-engineering make product-based differentiation increasingly difficult to sustain, the role of advertising in building brands becomes more important than ever.

This brand boost by means of advertising is critical to the notion of ad effectiveness. According to Keller (1993), brand equity encompasses the awareness and beliefs consumers have about a brand, and the attitude they have toward the brand. Awareness is measured through brand recall, and beliefs include dimensions such as trust. Like Keller (1993), we examine brand awareness, beliefs, and attitude. Specifically, we examine the effect of novelty and meaningfulness on brand recall (e.g., awareness), attitude toward the brand (Ab), and brand trust, and the potential mediating role of attitude toward the ad (Aad). We explore brand trust because it is a central component of brand equity (Aaker 1991; Aaker 1997; Keller 2003; Kapferer 2004; Pappu, Quester, and Cooksey 2005) and is directly comparable across brands in different categories and thus maximizes generalizability.

Surprisingly limited research directly examines how novelty and meaningfulness together influence brands given the widely acknowledged need for greater accountability of advertising done on behalf of clients (Otnes, Oviatt, and Treise 1995; Johar, Holbrook, and Stern 2001; Till and Baack 2005). The research that does exist presents unclear and conflicting results. No other study we have seen has taken this dimensional approach to the study of advertising's effect on brands, and this is one of our key contributions in advancing our knowledge about the effect of advertising on brands. We take a comprehensive approach to the study of recall, unlike previous studies which have examined either ad recall or brand recall, but not both, and short term recall or long term recall, but not both. We examine the differential effects of novelty and meaningfulness on each of the four recall dimensions.

Hypotheses

H1a: Novelty and meaningfulness will influence Ab.

H1b: Only meaningfulness will influence brand trust.

H2a: Aad will fully mediate the influence of novelty and meaningfulness on Ab.

H2b: Aad will partially mediate the influence of meaningfulness on brand trust.

H3:   Novelty will lead to better short-term ad recall

H4:   Meaningfulness will lead to better brand recall, both short-term and long-term.

Results and Discussion

The studies in our paper contribute to a more in-depth understanding of how ad novelty and message meaningfulness from the perspective of the consumer influence important brand judgments. Across both studies (which used different stimulus sets), and confirming hypotheses H1a and H1b, ad novelty and meaningfulness predicted Ab, while only message meaningfulness predicted brand trust. This expands our knowledge of how advertising can strengthen brands (Keller 2003; Wansink and Ray 1996; El-Murad and West 2004). Ad novelty has often been considered a peripheral cue providing emotional benefits (Petty, Cacioppo, and Schumann 1983; Hirschman and Holbrook 1982; Aaker 1991). However, we provide empirical evidence that even such executional dependent peripheral cues can significantly influence brands by engendering positive Ab. Thus, not only the message

(central cue), but also how it is presented (peripheral cue), has a significant impact on the brand.

However, confirming hypothesis H2a, the effect of novelty and meaningfulness on Ab is fully mediated by Aad. This is expected due to similar findings showing a mediating effect of Aad on the relationship between ad beliefs and Ab (MacKenzie, Lutz, and Belch 1986; Homer 1990). Regarding hypothesis H2b, we obtained mixed results on the mediation of Aad on the relationship between meaningfulness and brand trust. Although we expected partial mediation, which we found in Study 1, we found full mediation in Study 2. One possible explanation for the conflicting results is stimuli differences in the two studies. Future research should examine how different types of ads may lead to different relationships among the key variables examined.

In terms of recall, and confirming hypothesis H3, novelty led to better short-term ad recall, but not better long-term ad recall or brand recall (short or long-term). The former result is consistent with prior research results that link executional elements of an ad, which can significantly influence perceived novelty, with ad recall (Silk and Vavra 1974; Mitchell and Olson 1981; Petty and Cacioppo 1986). However, whether the influence of novelty on ad recall was long lasting or not was not empirically addressed in prior research. Our results indicate that the effect of novelty on ad recall is purely short-term and not long-term. By contrast, and confirming hypothesis H4, the meaningfulness dimension influenced brand recall, as opposed to ad recall, both in the short and long term. To the best of our knowledge, this finding has not been reported in earlier literature. Researchers in memory, but not advertising, find thoughts about differentiation, positioning, and features influence brand recall (Chattopadhyay and Alba 1988; Dick, Chakravarti, and Biehal 1990). We extend this knowledge by finding it applies to message meaningfulness in an advertising context. This likely occurs because consumers encode meaningfulness verbally (Tulving 1979; Craik and Tulving 1975), implying it acts as a central cue producing more enduring perceptual shifts (Petty and Cacioppo 1986).

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CONTRACTUAL CONTROL AND RELATIONSHIP BUILDING MECHANISMS

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SUMMARY

This study examines the relationship between a buyer's perception of a supplier's commitment to the relationship, legal bonds in the relationship, buyer's satisfaction with the relationship, and buyer's level of commitment to the supplier. Two samples were collected to examine the hypothesized relationships. The first sample was conducted in a service setting and the second sample was conducted in a product setting. Results from both samples provided similar fit statics and both samples provided support or lack of support for the same hypotheses.

Hypotheses

H1: As legal bonds increase in the relationship, the buyer's perception of the supplier's commitment will decrease.

H2: As a buyer's perception of the supplier's commitment increases, the buyer's level of satisfaction with the supplier will increase.

H3: As the buyer's perception of the supplier's commitment increases, the buyer's level of commitment to the supplier will increase.

H4: As the buyer's level of satisfaction with the supplier increases, the buyer's level of commitment to the supplier will increase.

Implications

Findings from this study yield several interesting findings. First the study finds support for the linkage between buyer's perception of the supplier's commitment and buyer's level of satisfaction. The implication for suppliers is that a buyer's perception of commitment does impact the relationship and suppliers should work to enhance their appearance and/or level of commitment to buyers. In other words, suppliers that do not do a good job of letting the buyer know they are committed, should develop procedures to better inform buyers of their commitment. Second, if a supplier is not committed to a buyer and that buyer perceives the supplier as not being commit-

ted to the relationship, the duration and strength of the relationship may be in jeopardy.

Next, the relationship between buyer's level of satisfaction with the supplier and the buyer's level of commitment to the supplier is supported. Like previous research conducted by Abdul-Muhmin (2002) and Abdul-Muhmin (2005), this study further confirms the relationship within a business-to-business setting. One addition this study makes to the body of knowledge is the confirmation of the relationship in both service and product settings.

Another interesting finding is the lack of support for the relationship between buyer's perception of the supplier's commitment and the buyer's level of commitment to the supplier. Results from previous research (Anderson and Weitz 1992) suggest that this relationship does exist. While previous research suggests that this relation does exist, the previous research failed to assess buyer's level of satisfaction in the same study. In the current study, when assessing the relationship between a buyer's perception of a supplier's commitment and that buyer's commitment to the relationship, the linkage appears to be mediated by the buyer's level of satisfaction with the supplier. The implication for researchers is that studies examining perceived commitment in relation to commitment should also assess the impact of satisfaction.

Another important finding that needs further attention is the relationship between legal bonds and buyer's perception of the supplier's commitment. Findings from this study suggest that legal bonds have a significant and positive relationship with buyer's perception of the supplier's commitment. This finding is contradictory to the Jap and Ganesan (2000) study suggesting that the relationship is negative. While they state, "it is possible to speculate both positive and negative effects of explicit contracts on a supplier's commitment (p. 231)," the study only assessed the impact of explicit contracts as having a negative effect on perceived commitment.

Further, with the mixed findings from the Anderson and Weitz (1992) study, the results from the current study are not that unexpected. The implications drawn from this study is that the mere use of contractual bonds may not produce a negative impact on the relationship and possi-

bly can produce a positive impact if the bonds are not perceived as being a negative enforcement tool. The implication for suppliers is that contracts need to be positioned as a method to build the relationship by clearly defining the responsibilities in the relationship and not as a negative enforcement tool. References are available upon request.

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EXPLORING THE DIMENSIONS AND TRANSACTIONAL OUTCOMES OF INCOMPLETE BUSINESS CONTRACTS

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SUMMARY

With an increased emphasis on outsourcing and shortening business cycles, contracts between firms have become more important. Carefully written contracts contribute to the efficiency and longevity of inter-firm relationships as they may constrain opportunism and are often a less costly governance mechanism than maintaining complex social relationships (Larson 1992).

This exploratory examination adds to our understanding of how incomplete contracts affect interorganizational exchange. First, we consider the multiple dimensions of contract constraints (safeguards). We also investigate the extent that constraints affect decisions to enforce the relationship by delaying payments, and whether the decision is efficient. Finally, we examine the extent the constraints are effective (and ineffective) at reducing transaction problems associated with enforcement. Based on 971 observations of transactions using explicit, written terms and other secondary data in the context of IT transaction in The Netherlands we test our research propositions.

Research Propositions

Complete contracts, those that include constraints to cover all contingencies, are not possible to write nor are they necessarily desired. Given the difficulty of making contracts complete, actors seek the "optimally incomplete" solution (Crocker and Masten 1988). Business partners write constraints into contracts where they anticipate a particular need for protection. Because different hazards require different types of safeguards we expect to find patterns of contingent conditions addressed as constraints to safeguard business contracts.

Despite care taken in drafting contracts they often fail because of incompleteness, performance problems or unforeseen contingencies, requiring enforcement. We examine enforcement action in terms of the choice to delay payments. We believe that the constraints found in contracts may positively or negatively contribute to payment delay based on a variety of factors.

Constraints are typically written into contracts to reduce transaction costs (Tirole 1999). Despite a constraint's ability to reduce transaction problems there

are unanticipated side effects. Thus, over and above contract enforcement we believe that, due to the imperfect nature of ex ante contract construction, constraints may both reduce and increase ex post problems.

The underlying viewpoint of economic organization is that organizations attempt to economize on transaction costs. We apply this "discriminating alignment" proposition (Leiblein et al. 2002) to enforcement decisions and expect that under different circumstances organizations choose the action that is optimal for them. Thus, we anticipate the following relationships:

P1: Constraints in business contracts have multiple dimensions.

P2: Constraints will be both positively and negatively associated with delayed payment.

P3: Over and above delaying payment, constraints will be both positively and negatively associated with transaction problems.

P4: The choice of whether to enforce the contract will be made in an efficient manner.

Method, Model Estimation, and Results

Using a variety of data collection methods a final sample of 971 observations (59% response rate) was obtained. Nonresponse and reliability tests were passed. Measures of ex post transaction problems and delaying payments were derived from binary data indicating whether, and to what extent, these actually occurred in the transaction. Regarding transactional terms 24 items were chosen in consultation with attorneys and IT experts. Covariates were included.

Regarding P1, a tetrachoric correlation matrix was produced and factor analysis indicated four factors: buyer protection from product-related failures, after-delivery service and warranties, buyer protection from failure of the deal/agreement, and price and payment issues. To test P2 – P4 we use a two-staged self-selection model (e.g., Carson et al. 2006) consisting of a first stage where we estimate the decision to postpone payments as a sanction. In the second stage we use OLS to estimate the performance outcomes separately for cases where payments

were and were not postponed. Also, we correct for possible self-selection effects with the inverse Mills ratio (Hamilton and Nickerson 2003).

Using these procedures we find that, regarding P2, contracts impact the response of the buyer and that the contractual terms both reduce and increase the likelihood of delaying payments. A greater presence of contractual elements that protect the buyer from product-related failures results in a lower tendency to delay payments and a greater presence of contractual elements that protect the buyer from transaction-related failures results in a greater tendency. Regarding P3, we find that if payment is de-layed, after delivery service provisions and buyer protection from the deal/agreement reduce ex post transaction problems. If payment is not delayed, the role of buyer protection from failure of the deal/agreement has no effect. Interestingly, buyer protection from product-related failures is positively associated with ex post problems. Regarding P4, we find that the more likely the buyer is to postpone payments or to not postpone payments, the lower are its ex post transactual problems. This interpretation follows Leiblein et al. (2002) and indicates that postponement choice is not random in the sense that the choices made tend to decrease ex post transactual problems. References are available upon request.

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RETURNS TO CONSISTENCY: DYAD- VERSUS TERRITORY-LEVEL DETERMINANTS OF CHANNEL RELATIONSHIP OUTCOMES

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SUMMARY

Channel management is a significant determinant of competitive advantage, both for the individual firms that comprise a given channel, and for the system as a whole. (Dwyer and Oh 1988). Much of the existing literature, explicitly or implicitly, has taken a decentralized perspective on channel interactions, and sought to explain relationship outcomes based on the organizational properties of the particular dyad in question (e.g., Anderson and Narus 1984). While dyads constitute the building blocks of channel systems, this literature has generally not considered the possibility that outcomes in a particular dyad may depend *both* on (1) a reseller's perception of dyad-level characteristics, and on (2) the focal characteristic's (aggregate) pattern *across* reseller relationships in a territory.

We consider two different relationship characteristics, namely (1) *structural* relationship features like formalized rules (Reve and Stern 1986), and (2) economic *outcomes* (Anderson and Narus 1990). Consistent with past research, we posit that a reseller's perception of these two characteristics, as they pertain to a given dyad, will influence reseller satisfaction with the relationship in question. We go beyond past research to posit that satisfaction also depends on the consistency with which a particular characteristic manifests itself *across* reseller relationships within a territory. Specifically, we posit that a pattern of inconsistency across relationships will have a negative effect on dyad-level outcomes.

This analysis suggests that the nature of a given dyadic relationship is systematically influenced by *external* standards and considerations. We posit, however, that the specific effect of (in)consistency in a given situation depends on the *institutional context* (Carson et al. 1999; DiMaggio and Powell 1983; Grewal and Dharwadkar 2002) within which the focal relationship is embedded; namely on the channel configuration or transactional form (Dwyer and Oh 1988; Stern and Reve 1980). Specifically, we argue that the inherent equity norms of *channel cooperatives,* which distinguish them from other configura-

tions like national chains and independents (Dwyer and Oh 1988), represent a particular normative reference point, which in turn influences the relationship between consistency and relationship outcomes. The very notion of inconsistency is likely to represent a fundamental violation of the norms that guide reseller membership and on-going decision making. Lack of consistency is likely to undermine a reseller's affective evaluation of the supplier relationship in question. We also argue that the adverse effect of a lack of consistency in formalization and/or outcomes should be the greatest in newly established relationships, and that it should subsequently decrease over time.

We find support for our hypotheses in a sample of 792 observations corresponding to different resellers selling a manufacturer's product-line across 109 territories.

Collectively, we seek to make two broad contributions to the literature. At a theoretical level, we show how a channel dyad's institutional context influences channel outcomes. At a more pragmatic level, we seek to deepen our understanding of the particular processes that shape relationship outcomes. While industry evidence (1) acknowledges that "consistency is key to channel satisfaction" the specific nature of the linkage between consistency and relationship outcomes remains unclear. Moreover, empirical evidence is virtually non-existent. Our research paints a complex picture of channel interactions, where the consistency of a given relationship characteristic across resellers impacts dyadic outcomes above and beyond the *absolute* level of the focal characteristic within the dyad in question.

At a managerial level, our findings suggest that firms may need to deliberately *balance* (1) the benefits of a decentralized deployment regime with (2) aggregate or territory-level considerations. Finally, to the extent that a supplier's strategy does dictate differences in relationship characteristics across resellers, our research suggests the importance of appropriate implementation strategies that can explain the rationale for variations across relationships. References are available upon request.

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DOES FIRM SIZE MATTER IN INTERNATIONAL MARKETING?

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SUMMARY

This study investigates the relevance and importance of firm size as a current research variable while being cognizant of the reasons behind previous researcher's focus on firm size. Utilizing time-series data analysis and meta-analytical procedure as well as literature review, this study integrated existing studies on the effects of firm size variables on the decisions in international marketing into a general conclusion. The testable question is to whether the size variable is an important factor in explaining internationalization and entry mode choice. Our results suggest that size effect on internationalization becomes less significant or diminish over time, and that the effect of firm size on choice of ownership was significantly less than that of R&D intensity and advertising intensity, thus confirming that the strategic option was more related with a firm's unique assets than with organization's physical size.

Our first study questions whether size and internationalization are independent by analyzing a time-serial data. Based on the conflicting views in the literature, we test two working hypotheses. First, firm size does induce internationalization and, second, size effect on internationalization does not diminish over time. We collected data covering year 1985 through 2003 from Compustat Database. In order to determine the level of the firm's multinationality, we consider two variables among several candidates from Compustat Database. One variable is a foreign income ratio defined as the ratio of foreign income to comprehensive income, or simply foreign sales revenue (TFSALEP). The other variable is a firm's foreign tax ratio (FORTAXP), defined as a ratio of foreign income taxes to total income taxes. The final sample size with TFSALEP is 16,250 firm-year observations, or 4,869 firms. This study utilizes FORTAXP to demonstrate robustness of the results. FORTAXP is available for 111,991 firm-years and 8,697 firms. Univariate analysis initially demonstrates no statistical association between size of the firm-year and internationalization. The multivariate analysis also supports the same conclusion. We conduct a regression analysis with a response variable of TFSALEP and explanatory variable of asset and other control variables including year and industry dummies. Although we do not report specific results to save space, the coefficient of asset is not statistically neither economically significant. Most of dummy variables for year and economic sectors are significant, suggesting time and industry fac-

tors matter. For example, on average, in year 1998, an average firm-year foreign sales is about 22 percent less than year 2003, others holding constant. On average, telecommunication services (Sector code = 50) sells more abroad than utilities by 16 percent in TFSALEP. As a robustness check, we conduct regression analysis at firm level, and the result is consistent with that of the firm-year level. Furthermore, we run logistic regression and observe consistent results as the results of OLS estimation - asset variable not being significant. We conduct the same analysis with our alternative variable, FORTAXP, but the result is not sensitive to alternative variables.

In second study, we pursued a tentative conclusion in the literature on the relationship between firm size and ownership choice in foreign market entry. Collected from the existing empirical studies, effect sizes of the relationship between ownership choice and explaining variables (including firm size) were combined and compared. We also identified moderating factors, the sources of variability in results. If strong moderators are found in the relationship, internal validity of the relationship will be questioned. Studies reporting enough information that could calculate r were included in the meta-analysis. Each statistic was converted to this common metric, and each effect size was aggregated and weighted by sample size, so as to calculate combined effect-size estimate. Finally, 24 effect-size estimates were collected from 20 studies. In results, the fixed effect size of firm size weighted by pooled sample size (n = 14,091) was .03 ($p < .01$), which implies that firm size has a significant, positive effect on the level of ownership across the studies collected. Hence, the effect sizes of advertising intensity and R&D intensity were also significant at 0.1 percent level (The effect-size estimates were .06 and .05, respectively for advertising intensity and R&D intensity). The three effect-size estimates are significantly heterogeneous (Q-value = 6.25; $df = 2$; $p < .05$), which means the effect-size estimate of organizational size was relatively and significantly smaller than those of advertising intensity and R&D intensity. Moderators exist if the observed variance in the effect size is less than 75 percent and the Q statistic analogous to chi-square distribution is significant. Since, for firm size, the observed variance was only 12.89 percent and Q statistic was significant (101.78; $df = 21$; $p < .001$), moderators do exist. The moderators identified are measure types of firm size, measure types of ownership choice, and industry types (manufacturing vs. service).

The present study highlighted the current usages of firm size variables in the international marketing literature. Our first study directly and indirectly suggests that size effect becomes less significant or diminish over time in the context of internationalization. We found no empirical proof that size is an important factor in internationalization. Our second study draws a similar conclusion: firm size is less important in entry modal choice than other firm-specific variables such as R&D intensity and advertising intensity. Firm size constitutes no confidence in internal validity since most of the variance is attributed to sampling error. Conclusively, our results are in line with what transaction costs literature says: firm size does not capture the economies scale of transaction or relation-specific investment and the related governance costs while it might capture the economies of scale of production costs.

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OF SHAREHOLDERS AND INTERNATIONAL JOINT VENTURES: INSIGHTS TO VALUE CREATION AND HIGH PERFORMANCE

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SUMMARY

The epoch since World War II witnessed a paradigm shift from mass production, reliance on economies of scale and vastly integrated firms to "mass" customization, economies of scope and focus on core competence. Intensified in the very same epoch is the globalization phenomenon, characterized by the worldwide integration of markets as countries decrease their barriers to international trade, convergence of consumer preferences worldwide (Douglas and Craig 1989; Levitt 1983; Ohmae 1989). Stimulated by the advances in communication, information, and transportation technologies, privatization and deregulation in emerging markets, and emergence of the "global consumer" globalization rendered the world a huge, single, and virtually borderless marketplace. An obtrusive phenomenon of this era has been the increase in inter-firm collaborations. As Anand and Khanna (2000) points out, more than 20.000 joint ventures (JV) have been reported between 1998–2000. Inter-firm collaborations also extended beyond national borders and number of international joint ventures (IJVs) has saliently increased (Hanvanich et al. 2003).

Using event study methodology, this study attempts to build upon the previous studies via determining the antecedents of a successful IJV. In particular, we analyze the effects of ownership, location, and internalization advantages on the future performance of the IJV. In doing so, the market's reactions to different of international joint ventures are analyzed in order to figure out a pattern, which may serve as a guide for decision makers in firms (i.e., parent firms of the JVs) to foretell the performance of the IJV. To put another way, regarding as an indicator the increases (decreases) in the stock prices of a firm when it announces the formation of an IJV, the characteristics of a successful (unsuccessful) IJV are sought. While there are many studies, which examine the effects of a subset or all of the OLI advantages, to the best of our knowledge, most of the studies do not analyze the interactions between these advantages. Moreover, non-monotonic effects of these advantages on IJV performance have also been neglected in most of the studies. Therefore, this study contributes to the literature in a number of ways. First, it explores the individual effects of ownership, location, and internalizations on shareholder value creation. Second, it also explains how ownership, location, and internalization advantages interact with each other. Third, we analyze whether incorporating a "ceiling ef-

fect" in the model will help better explain the variance in shareholder value creation via IJVs. Through our study, we have gained greater knowledge about the nature of the market reactions to the IJV formations.

Our findings support the general view that larger firms reap more benefits from internationalization through IJVs. Evidently, market appreciates the asset power as a necessary means to compete with local competition in the host country, as well as to bear the high marketing costs, and to achieve economies of scale. This argument is also echoed in our results by the positive significant impact of marketing intensity on cumulative abnormal returns on the stock price of the U.S. parent of the IJV.

In terms of the effects of the location advantages, we found that FDI attractiveness of a country has a significant positive impact on shareholder value, which may be attributed to the bandwagon effect. Stated differently, stock market reacts positively to mimetic isomorphism and assumes that investing in a country which has already been attracting many other international investors should be offering some advantages. These advantages may involve cheap and/or skilled labor force, natural resources, less bureaucracy, and governmental incentives. Intuitively, we also found that forming IJVs in countries with more individual income are better in terms of shareholder value creation. Such countries offer the investors with less volatile market environment characterized by increased political and economical stability. Besides, such countries comprise customers with high purchasing power. Interestingly, we also found a positive impact of cultural distance. As suggested in by the high negative significant correlation, countries with higher cultural distance to the U.S. have less per capita income levels. These countries are also characterized by cheaper work force, with looser laws and regulations for protecting workers' rights as well as environmental pollution. Therefore, we may attribute the positive relationship between cultural distance and abnormal returns on the stock price to the market's expectation of a decrease in cost of production.

Analysis of the interaction effects of OLI advantages unveiled rather interesting results. We found a negative interaction effect for internalization advantages and location advantages, which suggests that no matter the locational advantages the host country has to offer, be it the customers with high income levels (as characterized by high GDP per capita), or less expensive work force and

other resources (as characterized by high cultural distance), the stock market favors benefitting from scale economies of the marketplace and penalizes bureaucratic engagements as necessitated in internalization. This result is also mirrored in the impact of the interaction of ownership and location advantages on shareholder value creation. References are available upon request.

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THE OUTSOURCING AND OFFSHORING OF CUSTOMER-FACING BUSINESS PROCESSES

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SUMMARY

The offshoring and outsourcing of customer-facing business processes has become widespread, despite well-established evidence of the strategic importance of customer orientation (Kohli and Jaworski 1990), customer relationship management (Day 2002), and customer service encounters (Bitner 1990). This raises the question: *If customer relationships lie at the heart of firm competitive advantage, how can theory explain why many firms offshore customer-facing business processes?* We introduce a conceptual model to explain the choices of governance structure (the outsourcing decision) and location (the offshoring decision).

Customer-facing services raise broader issues of "tech vs. touch tradeoffs" (Graf and Mudambi 2005), as managing the customer experience can be more important than managing data (Meyer and Schwager 2007).

The firm's challenge is to cut overall costs, provide superior customer value, and maintain high levels of customer retention, all in a very dynamic decision environment. Firms simultaneously use on-shore and offshore providers, spin off or snap up offshore facilities, and bring processes back in-house and back home.

Models of outsourcing have been built from transaction cost economics (TCE), and the make or buy decision (Geyskens et al. 2006; Heide 1994; Williamson 1975), although others have turned to the resource based view (RBV) of the firm (Barney 1991; Madhok and Tallman 1998). The term "transactional value" has been previously used to describe models that integrate TCE and RBV (Madhok 1997; Zajac and Olsen 1993). We further develop theory in a service setting, by taking an *international transaction value* approach, with an explicit consideration of location.

Customer-facing processes vary in their resource centrality to the firm, with variation across firms and over time, as firms learn by doing. CRM-related capabilities can be considered core, supplementary, or peripheral. The strategic resource centrality of CRM moderates the influence of transaction costs on the outsourcing (governance) decision and of location costs on the offshoring (location) decision. This leads to two propositions:

Proposition 1: When a customer process is seen as core to the firm's strategy, the more likely it will be sourced in-house at home locations. The objective is to maximize the returns (rents) to customer relationship management capabilities. The help desk of Rolls-Royce's commercial jet engine division was credited with increasing its competitive edge over rival GE (Reed et al. 2005).

Proposition 2: When a customer process is seen as peripheral to the firm's strategy, the more likely it will be outsourced and to be located offshore. The objective is to minimize managerial and production costs for the focal firm. Mortgage brokers turned to offshore service providers to place cold calls, pre screen customers, and verify information.

Customer-facing processes are commonly perceived as neither core nor peripheral, but supplementary. The processes satisfy customer needs but fall outside the firm's core activities. Distance is problematic, so the net value of the location and governance transactions is critical. Firms need to estimate the rents less costs of the sourcing decision, considering the transactional costs of the governance decision and the locational costs of the location decision. Thus,

Proposition 3: When customer-facing processes are seen as supplementary to the firm's strategy, the processes will be governed and sited in order to maximize transactional value. IBM and Accenture in India opted to offshore customer-facing processes but keep them in-house. SprintNextel outsourced with a mix of offshore and domestic sites.

Service encounters are not just about informational competencies. Customers also expect interpersonal competency from service employees. For customer-facing processes, the sourcing location and governance decisions depend on the relative importance of informational (tech) capabilities and interpersonal (touch) capabilities to the firm and its customers. These touch/tech issues come into play when customer-facing processes help the competitive advantage of the firm, but are not at the core of its strategic success. This leads to:

Proposition 4: The effect of transactional costs and location economics on the sourcing decision of cus-

tomer-facing processes is moderated by the perceived trade-off between tech and touch. Dell rerouted some corporate customer calls back to the U.S. due to customer complaints about a contact center in India.

At the outset, we asked: *If customer relationships lie at the heart of firm competitive advantage, how can theory explain why many firms customer-facing business processes?* Expected international transactional value provides the answer. Firms need to consider the transactional costs of outsourcing, the locational costs of offshoring, and the tradeoffs of tech and touch. Customer satisfaction, process improvement, capability enhancement and firm learning should also be considered. Firms need to continue to assess the financial importance of customer relationships, and to improve service and cost efficiency. In a high tech world, the human touch still matters – but not all customers are equally valuable. References are available upon request.

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CIVILITY, MANNERS, AND ETIQUETTE: SHOULD BUSINESSES BOTHER ABOUT SUCH GOBBLE-DY-GOOK?

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SUMMARY

The notion of civility, manners, and etiquette influence people differently. Some are intrigued, while others are vexed. Some lament that we are becoming more uncivil, while others cheer the loosening of social norms and codes of conduct. On the one hand, some feel that in order to succeed one must be almost uncaring of what others think and feel. On the other hand, firms spend large sums of money on customer relationship management (CRM). While popular press and trade journals are replete with writings focusing on how civility, manners and etiquette influence businesses (e.g., Brown 1995; McGrath 2006; Pratt 2006), only limited academic research attention has been given to these constructs, especially in the marketing literature (exceptions include the services and tourism/hospitality literatures). To begin to fill this gap this study focuses on two questions: (1) Do people distinguish between civility, manners and etiquette, in terms of the importance they place on these behaviors and their influence on success (personal and professional?); (2) Does the importance associated with civility, manners, and etiquette influence how people react to uncivil and rude employees?

In this study, **civility** is defined in terms of being kind, considerate, courteous, respectful, caring, and compassionate when it is not expected; civil even if others don't

acknowledge it; and tolerant of others even when they don't agree with you. **Manner** is defined in terms of following social norms and traditions even if it is slightly inconvenient to do so; using good posture, stance, walk, and table manners even if no one is watching; and behaving in a proper manner even if others consider it snobby. **Etiquette** is defined in terms of using proper etiquette, dress codes, and manners for different social settings; greetings and hand shake (firm, warm, etc.) when meeting people; and codes of conduct and etiquette in different social and cultural settings.

Further, we define **assertive** reaction in terms of likelihood (1) to demand an apology; (2) speak to a manager or contact the corporate office; and/or (3) confront the employee – while we define **acquiescent** reaction in terms of "you carry on" (1) because such behavior is commonplace; (2) because such behavior is acceptable; and (3) as though nothing has happened. Finally, we also examine whether assertive and/or acquiescent reaction influences **customer switching behavior**, defined in terms of likelihood (1) to go to another store/restaurant; (2) to walk away and not buy anything from the store/restaurant; (3) to tell others about your experience.

An extensive search of the extant literature found no usable established measures for civility, manners, and etiquette. As a result, we first conducted extensive explor-

FIGURE 1
Civility, Manners, and Customer Switching
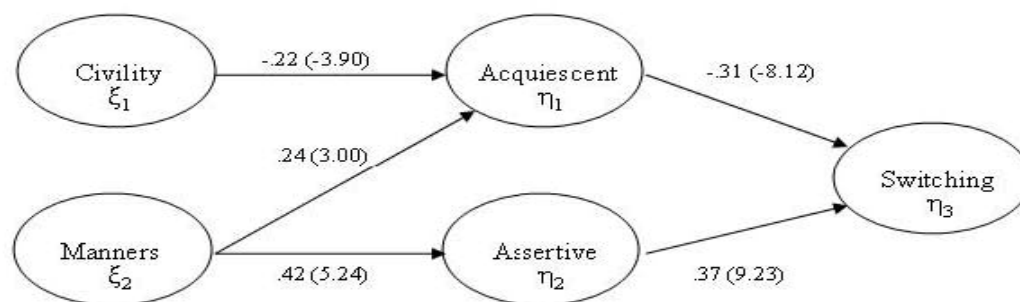
Chi-square = 1420.70 (*df* 363); RMSEA = 0.058; GFI = .90; AGFI = .88; NFI = .96; CFI = .97; IFI = .97.
The path estimates between Etiquette and Accepting/Assertive were not significant.

atory research of writings in this area. Based on findings from this exploratory effort, we used a word association technique involving 250 respondents to generate between 800–1000 words related to each of the domains of civility, manners, and etiquette. After a series of analyses and refinements the listed was reduced to 25 words across the three domains based on frequency of occurrence and comparison to extent writings in the associated literatures. These words formed the bases for the development of the scale items used in a survey-type questionnaire. A similar set of procedures was used to develop the 10 items used to measure reactions to uncivil and/or rude employees. The resulting 35 scale-item questionnaire was first used in a pilot study (n = 661) to assess scale reliability and validity; using established procedures and techniques. These procedures eliminated four items from the original survey instrument. Finally, data was collected from 901 respondents, residing in a southwestern metropolitan area, using the revised 31 scale-item questionnaire. Respondents were fairly diverse with regard to age, income, gender, occupation, and ethnicity (demographic questions were included in addition to the 31 scales-items). Results from both the pilot and the final studies (i.e., inter-item correlations; exploratory and confirmatory factor analyses) support the presence of discriminant and convergent validity among the constructs examined in this effort.

Additionally, scale reliabilities range from .762 – .915 (Cronbach alpha) across the six multi-item scales. Finally, SEM procedures (measurement and structural) indicate that the data fit the proposed model fairly well (see Figure 1).

As can be seen in Figure 1, the importance respondents place on manners has a significant positive influence on how they react to being treated in a rude and/or uncivil manner by employees. Interestingly, in some cases people react assertively, while in other cases they are acquiescent. This may be related to sub-group differences (i.e., age, income, etc.), and will be examined in future efforts. In contrast, the importance respondents place on civility has a significant negative influence on their tendency for acquiescent behavior when treated in an uncivil manner by employees. One might speculate that this is related to the concept of "do unto others" in that those who treat others with civility expect similar treatment in return. Finally, tendency toward acquiescent reaction to being treated rudely does not appear to lead to an inclination toward switching behavior. On the other hand, however, tendency toward assertive reaction to being treated rudely does appear to lead to switching behavior. References are available upon request.

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GRATITUDE WORKS: THE IMPACT OF "THANK YOU" FROM POST-KATRINA LOUISIANA

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SUMMARY

Louisiana's post-hurricanes expressions of gratitude significantly improved perceptions of Louisiana in the midst of its recovery. A national survey found that those who saw or heard "thank you" had more positive attitudes toward the state and its people, were more willing to share positive word-of-mouth about the state, and indicated a greater willingness to pay a premium for its products, services and travel to the state, thus justifying the use of public funds to support the campaign. Through analysis of survey data, the researchers identify the mediating role of *affective commitment* in driving the positive results attributed to expressions of gratitude.

Louisiana's "Thank You" Campaigns

In response to the tremendous outpouring of assistance from individuals across the country in the aftermath of hurricane Katrina, in August 2005 the Louisiana Department of Tourism launched the $7 million "Come fall in love with Louisiana all over again," campaign. In addition, a coalition of community, governmental, and business leaders developed the grassroots "Louisiana Thanks You!" campaign. While it might seem out of place for a beneficiary like Louisiana and its residents to thank others, direct expressions of gratitude are relatively common in practice: Microsoft, The NFL Network, ABC News, General Motors, and Citi all recently have implemented campaigns expressing gratitude.

A Brief Review of Gratitude and Hypotheses

Recipients of sincere expressions of gratitude are more likely to act prosocially toward their benefactor and other parties that did not directly benefit them. Thus, we hypothesize:

H1: Those who saw or heard "thank you" will be more positive in their responses toward Louisiana[1] than those who did not see or hear such messages.

Gratitude is not viewed as a highly prized emotion in the U.S. Sommers (1984) found that U.S. males characterized it as humiliating, resulting in the following hypothesis.

H2: Louisiana's expressions of gratitude will have a greater positive impact on women than on men.

Based on research indicating that younger people are becoming increasingly more narcissistic, a trait which is inversely related to gratitude, we hypothesize,

H3: Louisiana's expressions of gratitude will have a significantly more positive impact on older respondents than on those who were younger.

Advertising messages are more effective when consumers are more involved with the advertisement. Consumers are more involved in advertisements when the ad is personally relevant, relating to an important aspect or interest in their lives. Due to their demonstrated intentional involvement with the state and/or the general crisis situation we hypothesize,

H4: Those who participated in Katrina relief and/or recovery efforts (whether or not they were focused on Louisiana) will be significantly more positive toward Louisiana than those who did not participate in relief and/or recovery efforts.

Appropriate gratitude should be sincere; thus, we hypothesize,

H5: Those who perceived a 'thank you' message to be more sincere will be more positive toward Louisiana than those who perceived a message to be less sincere.

Based on a review of the mediating role of affective commitment, we add an additional hypothesis, which can be tested through a mediational analysis, specifically,

H6: Affective commitment will mediate the relationship between expressions of gratitude and the outcome variables.

National Survey

We conducted a national online survey in November 2006, 15 months after the hurricane, and after all formal "thank you" campaigns had completed. We analyzed impacts on the following dependent measures: attitudes toward the people of Louisiana, attitudes toward the state of Louisiana, attitudes toward the products and services that come from Louisiana, willingness to pay a price premium for products and services from Louisiana, percent price premium willing to pay for products and ser-

vices from Louisiana, willingness to pay price premium for travel to Louisiana, percent price premium willing to pay for travel to Louisiana, and willingness to spread positive WOM. These measures reflect sentiments toward various components of the Louisiana economy: people, government, tourism, and business (i.e., products/services) in Louisiana.

Results

In support of H1, respondents who had seen or heard "thank you," were significantly more positive in their responses to all eight of the dependent measures. We find only limited support for H2: The results reveal that in most cases (State Attitude notwithstanding) women's scores increased more than did men's scores when those women saw or heard "Thank You," however, some of the differences were not statistically significant and no clear pattern emerged from an analysis of the differences which did exist. We found limited support for H3, the hypothesis that responses would be positively related to age. It is supported for the attitude and WOM measures, but the hypothesis is rejected for all WTP measures. In support of H4, those respondents who participated in relief or recovery efforts were significantly more positive in their responses to all eight of the dependent measures. We found no statistical support for H5, though scores were generally higher for respondents in the more sincere conditions. In support of H6, affective commitment serves a mediating role in our survey data and suggests that we should consider the mediating role of affective commitment in a more generalizable experimental context. In summary, the positive impacts of gratitude are strong and occur across a variety of measures. References are available upon request.

ENDNOTE

1 "Responses toward Louisiana" imply the eight dependent measures, not only those that refer directly to the state.

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A LEGAL VIEW OF CORPORATE PURPOSE

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SUMMARY

The role of corporations in Western societies has changed considerably from the time of their original incarnations as ecclesiastical and municipal forms of communal property ownership to a modern American business institution. With the decline of feudalism and the rise of the nation state, European monarchs allowed incorporation by royal grant as a concession from the sovereign in order to advance their mercantilist policies and raise revenue for the state.

Originally chartered by English monarchs to promote colonization and trade, some American corporations during the colonial era quickly transformed themselves to serve a range of public policy objectives set by the colonists, from advancing democracy to building a public infrastructure. Private gain on the part of the investors was necessary to attract capital, but the primary purposes of those institutions were public undertakings that included objectives that went beyond maximizing shareholder returns.

During the depression of the 1930's, Adolf A. Berle (1932) and E. Merrick Dodd (1932) famously debated the question of whether corporations should operate solely to maximize shareholder value or serve a more broadly defined, diverse set of social interests. That issue has relevance today in terms of the transparency and accountability of corporate directors' decision-making, its impact upon investor confidence, and how it affects investment markets. It also lies at the core of the question regarding the nature of the corporation. Is that institution public or private? To whom and for what should it be held accountable? Berle maintained that corporate directors, officers, and managers should operate solely in the interests of shareholders, specifically to maximize the return on their invested capital. On the other hand, Dodd claimed that the corporation amounted to more than an aggregation of shareholders and therefore had social obligations that went beyond duties to shareholders.

The changing views regarding the purposes of corporations, their creation, and the restrictions imposed in their charters reflected changes in underlying assumptions about the nature of a corporation. To what extent were they creations of the state and, therefore, ultimately obligated to serve public purposes as defined by the sovereign? To what extent did they enjoy private property rights based upon their capitalization by private individu-

als? These and related questions were commonly addressed as "theories of the corporation."

The grant or concession theory rests upon the fact that corporations first came into existence upon recognition by a political or religious authority. Beginning in the 16th century, European sovereigns primarily used the grant of a corporate charter as a means of pursuing mercantilist economic policies. In return for taking the risks associated with opening new trade routes or establishing new colonies that would generate additional trade for the mother country, kings and queens would guarantee the exclusive rights to conduct that trade as part of the charter, or concession. Those individuals who invested in the corporation were assured by the terms of the charter that the corporation would use its capital for those purposes only.

An offshoot of the grant theory, the artificial entity theory, maintained, "the corporation is an artificial entity, a legal fiction created by positive law." Under this theory, even though shareholders might possess rights as individuals, such as those related to private property protections, an aggregation of individuals in the form of a corporation did not.

In an effort to cast corporations as private institutions rather than public institutions created by the state and therefore subject to its control and regulation, some jurists argued that the corporation was an aggregation of individuals. As such, it originated from freely made contracts among individual shareholders and did not have an existence independent of its members. It was analogous to a partnership, with directors serving as agents of the shareholders.

During the late 19th century, legal commentators struggled to devise a theory of the corporation that reflected both the changing economic environment and provided a justification for their own particular policy prescriptions. This idea of a corporation as a natural entity became a rationale for shifting power from shareholders to directors. Under this theory, the corporation consists of an aggregation of capital rather than of individuals. Corporate directors are not the agents of the shareholders; the directors themselves are regarded as the corporation. Shareholders therefore amounted to passive investors rather than owners/proprietors.

The demise of the grant theory and the ascendance of the entity view of the corporation did not resolve a

fundamental question about corporate purpose: what interests should the organization serve? If the power over corporate assets and how to deploy them lay with directors, what principles should they follow when making decisions? Were corporate directors bound to act solely to maximize shareholder gain or did they owe obligations to other constituencies, both internal and external, as well?

Whether corporate directors can legally put the interests of other corporate constituencies above those of shareholders, depends upon which theory of the corporation a court assumes, either implicitly or explicitly. The Berle-Dodd debate brought this fact into sharper focus by inquiring into what purpose the corporation should serve and in whose interests the directors should act.

The Berle-Dodd debate identifies competing goals for the corporate enterprise: maximizing shareholder value on the one hand versus balancing multiples stakeholders' interests on the other. Management scholars arguing for the latter position identify competing interests among which the corporation navigates as it pursues financial goals. Notwithstanding this debate, corporate directors occupy positions of power fraught with opportunities to exercise or even abuse their authority. Enabling this situation are information asymmetries favoring directors and top management relative to shareholders and stakeholders, a feature of most organizations where ownership and control are vested in different groups.

The current state of American corporate law suggests that the corporation exists as an entity, with control resting in the hands of its directors. Absent gross negligence or fraud, they have little, if any, accountability to shareholders for the use of corporate assets. Reports of incidents where corporate officers and directors have pursued individual gain at the expense of shareholders will force courts to reconsider these aspects of corporate law as shareholders proceed with litigation that challenges some of those directors' actions.

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JUDICIAL USE OF SCIENTIFIC EVIDENCE

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SUMMARY

Expert and scientific testimony have been a controversial aspect of judicial proceedings for more than a century. Courts scrutinize scientific evidence more thoroughly since the U.S. Supreme Court rendered its decision in *Daubert v. Merrell Dow Pharmaceuticals* (1993). *Daubert* refocused courts' attention on the Federal Rules of Evidence whenever courts considered the admissibility and probative value of scientific evidence and associated expert testimony. These evidentiary rules, adopted in 1975, were not uniformly followed, with some jurisdictions continuing to utilize the standard established 85 years ago in *Frye v. United States* (1923).

The *Frye* standard was characterized as a "general acceptance" rule. If the expert represented a field regarded as scientific and the methods were generally accepted within the field, then the testimony was admitted. "Relevance," although a minority view, was the other perspective on admissibility. Neither guideline was fully functional. The relevance standard arguably permitted excessive "junk science" into the courtroom whenever the evidence was deemed on point. The general acceptance standard excluded novel and evolving science that was relevant but not yet broadly accepted.

Once admitted into evidence, scientific testimony raises a fundamental question: How do nonscientists, e.g., judges and juries, trust and evaluate opinions and supporting evidence offered by purported experts in fields unfamiliar to judges and jurors? While science may progress, the gap separating experts from the uninformed remains, perhaps even widening.

The Court shed light on the role of the trial court in admitting scientific evidence in *General Electric Co. v. Joiner* (1997). The *Joiner* decision strengthened the trial court's authority to determine the efficacy of scientific evidence, fortifying the judge's gatekeeper function. The *Daubert* Court did not discuss the applicability of its guidelines to "technical . . . or other specialized knowledge." The Court addressed this issue in (*Kumho Tire Co. v. Carmichael* 1999). The following year, in *Weisgram v. Marley* (2000), the U.S. Supreme court concluded that the appellate court was within its rights to direct a verdict, given the lack of evidence supporting the jury's verdict.

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AN EMPIRICAL ANALYSIS OF THE DETERMINANTS OF THE PRICING AND FORMAT STRATEGY OF A RETAIL STORE

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SUMMARY

One of the most powerful and effective strategic tools in retailing is pricing (Levy et al. 2004), for which the options available to retailers range from everyday low price (EDLP) to promotional or high-low (HiLo) strategies. An EDLP retailer tends to offer lower average prices, whereas a HiLo retailer offers frequent discounts (Popkowski Leszczyc, Sinha, and Sahgal 2004). In addition, a few retailers may offer some combination (i.e., hybrid pricing).

A second critical and long-term strategic decision that retailers must make pertains to the store format. Store formats refer to competing categories of retailers that match varying customer needs and shopping situations (Gonzalez-Benito, Munoz-Gallego, and Kopalle 2005). The multiple available formats include the most popular supermarket format, which offers a wide variety of food and household merchandise; larger supercenters that carry an enormous range of products under one roof, including full lines of groceries and general merchandise; and limited assortment formats that offer little variety within the limited categories that they carry.

Understandably, considerable research centers on how pricing and format strategies affect consumers' store choice behavior, as well as which consumer profiles tend to be drawn to each strategy (e.g., Bell and Lattin 1998; Bhatnagar and Ratchford 2004; Lal and Rao 1997; Messinger and Narasimhan 1997; Popkowski Leszczyc, Sinha, and Timmermans 2000; etc.). However, far less research explores the strategic selection of price and format policies from the retailer's perspective. In theory, a retailer may choose any combination of pricing and format strategies, and most large retailers use a variety of combinations to occupy several niches and serve different segments in the marketplace. For example, Supervalu, one of the largest U.S. food retailer operates in diverse markets under 15 different brand names and follows different format/pricing strategy combinations, including an EDLP strategy in both its limited assortment Save-A-Lot stores and its Shop 'n Save and Cub Foods supermarkets.

Only by considering both pricing and format strategies can we differentiate between the EDLP strategies of Wal-Mart (supercenter format) and Wegman's (supermarket format). Whereas Wal-Mart delivers everyday low prices on a wide selection of items, to appeal to price-conscious consumers, Wegman's provides consistent lower prices on a smaller selection of frequently purchased goods. In addition, the supermarket focuses on increasing the number of in-store service features, such as cooking classes, freshly prepared foods, and gourmet food cafés, that enable it to appeal to a higher-income segment of consumers. That is, despite their similar pricing strategies, these very different overall strategies target unique consumer segments.

Prior research (e.g., Bhatnagar and Ratchford 2004; Fox, Montgomery, and Lodish 2004; Gonzalez-Benito, Gallego, and Kopalle 2005; Popkowski Leszczyc, Sinha, and Timmermans 2000) demonstrates that both pricing and store format are influenced by consumer demographics (e.g., income), store factors (e.g., service), and competition. Thus, the variables that affect pricing and store format preferences overlap. Because both decisions are specific to the consumers to which the stores hope to cater, as well as the environment within which they operate, this overlap seems unsurprising. Yet little academic research studies pricing and format strategy decisions in combination, or even within a single framework. Does this gap imply that retailers focus only on one or the other strategy, rather than jointly considering both pricing and format decisions? How does the impact of the variables change in a joint framework in contrast with a purely pricing or purely format strategy framework? These questions constitute the first issue we address.

We also consider whether retailers, privy to the findings from prior research regarding consumer choices and consumer's pricing and store format preferences, actually take such information into account when making their strategic choices. Although we can only observe variables a retailer has implemented, in this descriptive research, we also can determine if the retailer, which starts by choosing which policy to implement, actually complies with existing understanding from prior literature about consumer preferences in those strategic choices. For example, if retailers that adopt a HiLo pricing strategy are located in high-income, demographic region, they may be drawing on prior store choice literature that indicates high-income shoppers prefer stores with a HiLo pricing strategy. We offer empirical evidence from the retailer's perspective to complement existing consumer-based models of pricing and format strategy.

To obtain the data for the model, we combine two separate databases: the Spectra Marketing database (2003, owned by ACNielsen) and U.S. Census Bureau data (from 2000). Spectra maintains an exhaustive database of store features, such as weekly sales, pricing strategies, and various store specific internal features, including the presence of banking facilities or an in-store bakery. The Census data provide a list of various sociodemographic characteristics for census block groups. We therefore obtain store strategy and competitive data from the former database and demographic data from the latter. From Spectra, we gather data pertaining to all grocery retailers in three states, namely, New York, Pennsylvania, and Ohio. These three states account for approximately 9.3 percent of total national grocery sales. Of the 6,918 grocery stores in the three states, we select those chains that own more than 10 stores, which leave us with 3,315 stores that belong to 67 chains. Spectra also provides pricing (EDLP, HiLo, hybrid) and format (limited assortment, supermarket, supercenter) strategy information about each store. Using latitude and longitude information, derived from the addresses of the stores, we geocode them according to specific census block groups and use this information to obtain relevant demographic data from the U.S. Census Bureau. We identify the stores and census blocks within a three-mile radius of each store.

We receive support for most of our hypotheses, which implies that retailers should take the results from consumer store choice studies carefully into account. Improved service features, higher income neighborhoods, populous neighborhoods, and distance to competition all are more associated with HiLo than with EDLP pricing strategies. In addition, improved service features, populous neighborhoods, and distance to competition also are associated with supermarkets rather than supercenters.

Researchers traditionally suggest using pricing strategies as a means to optimize decision making, but our analysis reveals that considering just this single element in the overall retail strategy may mask the impact of a closely related issue, that is, the formatting strategy. Retailers' interests are best served when both issues get taken into consideration. Whether investigating store choices by consumers or strategy choices by retailers, researchers must consider both format and pricing strategies, and retailers need to consider both before making locational decisions on the basis of store features or the demographic and competitive characteristics of the area.

Our study lacks detailed information about retailer-specific variables, such as cost, marketing mix, and promotion information. Such data could enable investigations of additional interesting areas, such as the profitability of retailers that adopt various pricing – format strategies at different locations. Further research also might explore insights into retailer differentiation based on these variables.

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CLV AND OPTIMAL RESOURCE ALLOCATION: THE INFLUENCE OF MARKETING, BUYING, AND PRODUCT RETURNS

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SUMMARY

The firm-customer exchange process consists of three distinct parts: (1) firm-initiated marketing communications, (2) customer buying behavior *and* (3) customer product return behavior. Past research on customer value has almost solely focused on the relationship of the first two parts of the firm-customer exchange process – marketing communications and customer buying behavior. However, measuring and maximizing customer value depends on all three parts of the firm-customer exchange process since customer product return behavior has been shown to impact future customer buying behavior. Thus, we develop the first Customer Lifetime Value (CLV) framework that integrates all three parts of the firm-customer exchange process in a customer value framework. We estimate the model using a Hierarchical Bayes SUR model at the customer level – the first customer value model to truly allow each customer to have distinct parameter estimates to predict CLV. We compare the results from this model in terms of fit and predictive accuracy with two benchmark models from the literature – one without product returns, and one with product returns embedded in the customer's buying behavior, i.e., buying behavior net of returns. We then use a genetic algorithm approach to optimize the communication strategy for each customer and compare the strategy resulting from our proposed model with those of the two other benchmark models. The following implications resulted from this study.

First and foremost, this study empirically showed that using product returns as a dependent variable (proposed model) in the Hierarchical Bayesian SUR model improved model fit and prediction of CLV in the calibration time period (fit) and the holdout time period (prediction). This shows that product returns play a significant role in more accurately measuring and maximizing CLV and is a necessary and independent part of any CLV objective function. Further, the customer value framework outlined in this study can be generalizable to situations where firms sell mainly services and product returns are scarce. Past research has shown that product returns and customer complaints of service have similar consequences to future customer behavior. Thus, managers can substitute the cost of customer product return behavior with the cost of customer service complaints to more accurately understand the firm-customer exchange process in a service firm. The resulting model could be

estimates using the same algorithm and setup as in this study, the only difference would be the substitution of the probability of a customer complaint in a given period and the cost of that complaint in the same period.

Second, because of the increase in fit and predictive accuracy, this new modeling framework also reduces the over-prediction bias found in most CLV models. While this current modeling framework still over-predicts CLV for each customer, the fact that the over-prediction bias is reduced shows that efforts should be made to continue to better represent the firm-customer exchange process when modeling and predicting customer value. An added benefit of this modeling framework is that it also allows managers to directly quantify the benefit of adding product returns to the CLV equation. As a result, it is clear that product returns should not just be used as a predictor of contribution margin when measuring CLV.

Third, this study showed that the proposed customer value framework in this study is able to more accurately segment customers according to their predicted future values. Even though this proposed modeling framework allows for customer-specific targeted marketing campaigns, many firms still rely on segmented marketing. This lets managers and firms potentially run more cost-effective firms to segments of customers when customizing marketing messages to individual customers is too difficult or costly.

Fourth, this study showed the significant increase in profits obtained from customers by more effectively allocating resources to customers. This includes a key finding that by integrating product return behavior as a separate part of the CLV function, a firm can use fewer marketing costs to achieve even higher profits. So, rather than increasing the marketing spend on current customers to increase profits as past optimal resource allocation algorithms have shown, the results of this study show that managers can spend significantly fewer marketing resources to achieve even higher profits. This allows managers to allocate the additional marketing resources on other current customers in the customer database or allocate resources to acquire new customers with profiles that match other high-value customers.

Finally, this study also offers several methodological contributions to the marketing literature. This study is the first to develop a customer value framework that simulta-

neously accounts for the three main parts of the firm-customer exchange process: (1) firm-initiated marketing communications, (2) customer buying behavior, and (3) customer product return behavior. This framework more realistically reflects the actual behaviors of firms and customers. In addition, this study is the first to use a customer-level hierarchical model in a customer value context that allows each customer to have separate parameter estimates for each of the five equations. This serves two main purposes. First, it enables managers to account for the effects of each predictor variable in the context of each customer, offering a better model fit and more accurate predictions of CLV. Second, by using the parameter estimates from the variables in the second-level model (demographic variables), managers can gain a clearer picture about which prospects are the best candidates for acquisition campaigns.

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INVESTIGATING THE TWO-STAGE CHOICE PROCESS OF IN-STORE SAMPLING: TRYING AND BUYING

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SUMMARY

Although marketers spent $18.6B on in-store marketing and advertising in 2005, up from $17.6B in 2004 (*Wall Street Journal,* September 20, 2005), few in-store promotions are as effective as free samples for generating trial and purchase (e.g., Belch and Belch 1990; Rossiter and Percy 1987). In fact, 70 percent of consumers will try an in-store sample if approached (Lindstedt 1999), and in-store samples can increase sales of the sampled product by as much as 300 percent on the day of the promotion (Moses 2005). Given these benefits, it is not surprising that expenditures on sampling programs increased to approximately $2B in 2004, a 50 percent increase from 2003 (Zwiebach 2005). However, despite the importance of in-store sampling it remains one of the most under-researched areas of promotions in the marketing literature (Heiman et al. 2001).

This paper models the factors that affect consumers' decision to take a free sample, and among those that do (i.e., "samplers"), the factors that affect their decision to buy the sampled product. We model these two decisions as a function of, (1) consumers' attitudes about, and purchasing behavior with respect to, the promoted product and the category in which it resides, and (2) consumers' attitudes and behaviors with respect to in-store sampling in general. As such, our model is rich in that it allows us to investigate sampling motives and outcomes as they relate to trial and post-trial purchase, as well as the impact of product/brand perceptions and experiences on these two consumer choices. Furthermore, we are the first known study to apply dimensions of utilitarian and hedonic shopping behavior in the context of in-store sampling. Finally, we include a set of covariates in our model that captures differences in trial and post-trial purchase likelihood across different consumer and product types.

To test our model we collected data via an in-store field study where consumers were surveyed after being exposed to (i.e., seeing) an in-store free sample. We estimate our model of the two consumer choices of trial and post-trial purchase using two independent binary logit models and compare these results to those of a bivariate probit (BVP) model which can accommodate any selectivity bias that might be present in our data if the two decisions under investigation are correlated, although our results suggest no such interdependence exists.

Our findings suggest that "professional samplers" (i.e., those who do a significant amount of sampling while shopping) are no more or less like to make a purchase of a sampled product than are those who sample more discriminately. This is good news for marketers as it suggests that these "indiscriminant samplers" are not necessarily sampling without intentions of purchasing the sampled product, as one might expect.

Focusing on sampling motives we find that consumers who sample for utilitarian reasons (e.g., to learn more about the product in order to make an informed decision) are more likely to sample then those who sample for hedonic reasons (e.g., to make the shopping experience more enjoyable). However, "utilitarian samplers" are less likely to take a free sample of a product they typically buy. This makes sense given there would seem to be little sampling value to a consumer who samples for utilitarian purposes but who is already familiar with, and knowledgeable about, the product on promotion. We also find that consumers who sample for utilitarian reasons are less likely than those who sample for hedonic reasons to make a post-sample purchase, unless the sampling experience delivers the utilitarian value they had hoped to gain from the promotion. In such cases, "utilitarian samplers" are actually more likely to make a post-trial purchase, supporting our hypothesized congruency effect between utilitarian sampling motives and sampling outcomes. Conversely, we find no evidence that an affective sampling experience (e.g., one that makes the shopping experience more enjoyable) has a positive impact on post-sample purchase likelihood, even for consumers who sample to obtain such benefits.

In examining the main effects of consumers' perceptions of, and experience with, the promoted product, we find that quality perceptions of the branded product have no impact on trial or post-trial purchase likelihood. However, we do find that consumers who typically buy the brand on promotion are more likely to sample that product and to make a post-trial purchase. This finding should be disappointing for marketers who invest in such promotions if their goal is to attract new users and/or steal share from the competition.

Looking at the control variables in our model we find that the frequency with which a consumer purchases in the promoted category has no impact on the trial likelihood. This is promising as it suggests that in-store samples have the potential to induce trial among new and inexperienced users in the category. However, we do not find that such consumers are any more likely to make a post-sample purchase. In fact, we find that samplers who were planning a purchase in the promoted category are more likely to make a purchase than those who were not. These results suggest that free samples, once taken, do not seem to accelerate purchase incidence.

Finally, examining the marketing mix variables we find that the more expensive a product promoted by a free sample, the less likely samplers are to buy that product. However, sampled products accompanied by a coupon are more likely to be purchased. Next, the results for our product and consumers revealed that samples that require cooking at the point-of-purchase are less like to be sampled, while store brands are more likely to be sampled. Furthermore, consumers lacking a college degree are more likely to try a free sample, while women are more likely to buy a sampled product once having tried it.

In conclusion, our study provides a comprehensive and insightful understanding of the factors that affect these two consumer decisions of trial and post-trial purchase related to in-store sampling and the results are useful for retailers and manufacturers who invest in in-store free sample promotions and who wish to better understand the factors that affect consumers' decisions to try the products on promotion and to buy those products once sampled.

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ATTITUDINAL EFFECTS OF IN-GAME ADVERTISING FOR FAMILIAR AND UNFAMILIAR BRANDS

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SUMMARY

Computer games have been discovered for marketing purposes, with a steady rise in the number of companies placing their brands, products or advertising messages in computer games (Nelson 2005; Nelson et al. 2004; Schmieder 2005; Wan and Youn 2004). Analysts assume that hundreds of millions of dollars were already earned in 2004 with advertising and product placements in computer games (Leeper 2004; Nelson et al. 2004).

In recent years several studies have been published on the acceptance of advertising in computer games (in-game advertising) and their impact on the recall of brands (Hernandez et al. 2004; Nelson et al. 2004; Schneider and Cornwell 2005). Although the results of these studies provide insights into how in-game advertising works, still very little is known about how consumers process brands in computer games and which impact in-game advertising can have on the attitude toward the brand advertised (Daugherty 2004; Nelson et al. 2004; Nelson et al. 2006; Yang et al. 2006). Consequently, this study will examine the impact of in-game advertising on the attitude toward the advertised brand and the attitude toward the computer game. Besides this, we are interested in the impact of brand familiarity on the effects of in-game advertising.

Based on a literature review we developed five hypotheses:

H1: Familiar brands are recalled to a greater extent than unfamiliar brands.

H2: Consumer's attitude toward the advertised brand after playing the game will improve more strongly in the case of the unfamiliar brand than in the case of the familiar brand

H3: Consumer's attitude toward the advertised brand after playing the gamedepends on the (a) brand attitude before playing the game, (b) attitude toward the game, (c) flow experienced whilst playing the game.

H4: In the case of familiar brands the impact of (a) brand attitude before playing the game is stronger, (b) attitude toward the game is weaker than in the case of unfamiliar brands.

H5: Brand placement will decrease the consumer's attitude toward the game.

The study was arranged as between subject design with the factor brand placement (familiar brand *vs.* unfamiliar brand *vs.* no brand placement/control group). The first-person shooter game "Counter Strike" was chosen for this study. Cola brands were selected as familiar (Coca-Cola) and unfamiliar (Jolt) labels. As the stimulus, a frequently used Counter-Strike map was modified (six billboards were inserted, see Figure 1). By this means, three variants of the map to be played emerged: game environments were created with Coca-Cola or Jolt Cola advertising for both treatment groups. A map without any advertising was arranged for the control group. The participants were solicited through an online forum for counter strike players ($N = 521$). A link on the sites directed them to the questionnaire. Participants were assigned randomly to the experimental groups (familiar brand: $n = 179$; unfamiliar brand: $n = 152$; control group: $n = 190$) and then answered to a questionnaire. Afterwards, they could download the modified map and play. Upon completion of the game, the players filled out a final questionnaire. We controlled for repeat visits via recording the IP addresses of the participants.

The results show that the proportion of participants who were able to recall the advertised brands in this study correctly is considerably higher than in previous studies. This is possibly an effect of the kind of computer game: the player in our study moved through the game environment from a first-person perspective. The game environment may have been perceived more intensively as a result. The results also illustrate that brands do not benefit from the placement in computer games per se: whereas the unfamiliar brand is assessed as positive after playing the game, the players' attitude toward the familiar brand deteriorates (see Figure 1). On the other hand, the results regarding the effects on liking the game seem conclusive: brand placement deteriorates players' attitude toward the game (see Figure 2). Clearly, this is the case to a greater extent if a familiar brand is integrated into the game.

Concerning the process of attitude formation, the attitude toward the game impacts directly the attitude toward the advertised brand. Contrary to our expectations, the flow experience had no direct effect on brand

FIGURE 1
Changes in the *Attitude Toward the Brand* for the Unfamiliar and Familiar Brand
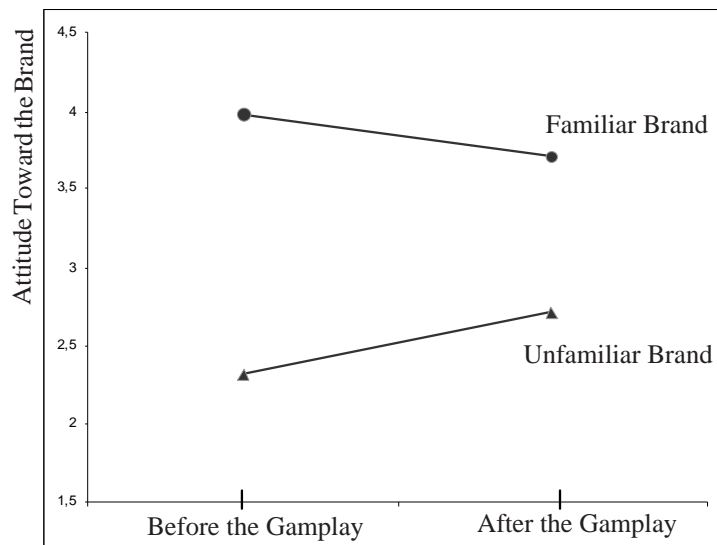
FIGURE 2
**Changes in the *Attitide Toward the Game* for the Two Brand Placement
Conditions and the Control Condition**
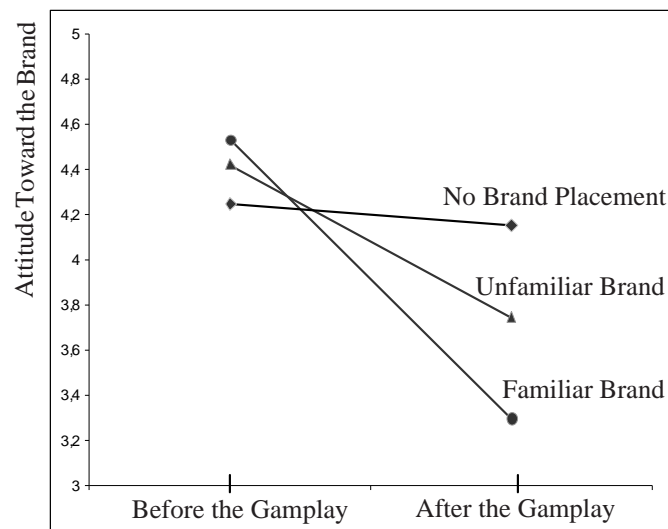
attitude. However, there was an influence of the flow experienced whilst playing the game on the attitude toward the game. Thus, an indirect effect of flow on the brand attitude, mediated by the attitude toward the game, could be ascertained.

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THE EFFECT OF AROUSAL ON ADOLESCENT'S SHORT-TERM MEMORY OF BRAND PLACEMENTS IN ADVERGAMES

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SUMMARY

Young adults are considered one of the most vulnerable audiences to advertising as well as a unique online segment. One form of online advertising that adolescents are often exposed to is advergaming. However, scarce research has addressed the emotional effects of advergame playing on young consumers' memory. In order to fill this gap, our study examined factors affecting Mexican adolescent's memory of brand placements in advergames. Specifically, two issues were investigated: (1) the effect of high/moderate arousal on adolescent's short-term recognition, and (2) the effect of high/moderate arousal on brand confusion.

Two hypotheses were posited. First, we presumed that adolescents exposed to high arousal advergame will exhibit higher brand recognition scores than adolescent exposed to moderate arousal advergame. Second, we hypothesized that adolescents exposed to moderate arousal advergame will exhibit less confusion (lower false alarm scores) than adolescent exposed to high arousal advergame.

Data collection was conducted via experiments in an elementary school computer lab followed by a paper-and-pencil questionnaire. Sports games with different characteristics and pace were selected as experimental stimuli. A convenient sample of 128 students agreed to participate.

A simple t-test comparing brand recognition for a high arousal versus a moderate arousal game showed that a mean difference existed between the two advergames. This indicated that adolescents' cognitive capacity was enhanced after they were exposed to the high arousal stimulus. An ANOVA test showed a difference in the direction of the means. This unexpected finding indicated that the moderate arousal condition produced more false alarms than the high arousal condition.

In sum, analyses revealed that high arousal advergames corresponded to both higher hit scores (better recognition) and lower false alarms (less confusion) than moderate arousal advergames. The findings revealed more accurate short-term memory when subjects were exposed to high arousal condition than to moderate arousal condition. Implications for advertisers suggest the creation of stimulating advergames to generate more accurate memory of brand placements. Despite its limitations, empirical evidence by means of a Mexican sample contributes in providing support about emotional factors affecting brand recognition among Latin American adolescents. References are available upon request.

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TUNING IN AND TUNING OUT: A STUDY OF MEDIA MULTITASKING AND THE YOUTH CONSUMER

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SUMMARY

An increasingly important line of inquiry in consumer behavior is the study of the ways consumers multitask across multiple forms of media in a simultaneous fashion (Pilotta and Schultz 2005). Simultaneous media consumption, which we call media multitasking, is a phenomenon born from the plethora of media and communications platforms available and easily accessible to consumers, especially among young consumers. Contemporary media utilizes multiple forms of information presentation, such as television newscasts displaying multiple messages on one screen that enable viewers to access several different news items simultaneously. Consumers are no longer passive media spectators, but interact with media in co-production settings, such as seen with consumer-generated advertisements or text-message voting for favorite singers in the television show *American Idol*.

Multitasking research has predominantly been a focus of the cognitive psychology field, where findings suggest that multitasking threatens consumers' task effectiveness, learning, and overall well-being. The purpose of this study, therefore, is to (a) examine media multitasking behavior among young consumers and (b) provide an understanding of their motivations, experiences, and coping mechanisms related to media multitasking among Gen Y consumers. This study represents a first attempt to examine the phenomenon of media multitasking and its implications for marketing communication concepts and strategy.

Related to multitasking behaviors and experiences, Mick and Fournier (1998) illustrate the ways individuals attempt to cope with the ubiquity of technology. Research has also shown that consumers may also develop specific skills with which to manage and even automate performance involving multiple tasks (Kanfer and Ackerman 1996). Consumers born and raised during the Internet era are becoming more skilled at navigating between and effectively managing multiple sources of information and media content (Jenkins 2006). In some instances, consumers may be more effective while multitasking when they are able to use technology to complement or supplement media consumption (Sinan, Brynjolfsson, and

Alstyne 2007; Jenkins 2006). For example, consumers may seek to complement and add depth to their media experience by searching for results of sporting events online while they are watching the event on television. Therefore, consumers adopt multitasking strategies in order to increase comprehension and effectiveness in the consumption of online and offline media. Individuals may develop skills, such as sequential or simultaneous multitasking across various sources of media, as strategies to deal or cope with the vast amounts of media communications sources or outlets available (Sinan, Brynjolfsson, and Alstyne 2007).

Since the objective of the study was to examine the experience of media multitasking from the perspective of the young consumer, we selected as a purposeful sample sixty-four undergraduate students at a university in the northeastern U.S. Participants were screened related to media consumption to insure that they were active in media multitasking. Data were collected through semi-structured interviews, collages, and related essays regarding their media consumption. We also conducted a descriptive, supplemental SMS-based survey of thirty-two Gen Y consumers over a one-week period. The ten SMS survey items were administered in ten separate text messages to respondents' mobile phones at four time periods throughout each day (10a, 2p, 6p, 10p). The purpose of this portion of the study was to provide additional insight, over time, into the media consumption practices and experiences among young consumers.

Our findings suggest that media multitasking is a normal activity in students' lives driven by (a) ease of accessibility and the interactive nature of contemporary media; and (b) the participatory culture they live in. For Gen Y consumers, work, leisure, socialization, and personal self-development are closely related with exposure to various media and communications technologies. Most media multitasking evolved around the offline (television) and the online (computers). Consistent with past research, our findings suggest that television is typically consumed as a background media, whereas online sources (e.g., the Internet) act as foreground media characterized by discrete burst of engagement and attention. Two types of media multitasking behaviors emerged that differed in terms of the consumer's role as either an active participant

or a passive victim. The first type of media multitasking behavior involved *strategic switching* between various media platforms. The second type of multitasking involved a passive mode of behavior, characterized by the individual constantly tuning in to and tuning out of various media with the goal of simply being "always on."

Findings from the SMS survey indicated that television was the most prominently accessed form of media (31% of overall media consumption involved TV), followed by accessing news and information online (17%), Instant Messaging (13%) and e-mail (9%). We next looked at overall media multitasking activity by daypart. Multitasking activity peaked during the evening periods (47% of all multitasking instances over the one-week period occurred at 10p and 27% occurred at 6p). However, overall engagement scores, defined as perceived absorption related to specific media consumption instances, were directionally lowest (3.14 out of 5) during the 10p daypart. We also measured overall task outcomes of respondents' multitasking activity. Most respondents indicated that they "had fun" (49%), followed by "learned something new" (19%), "was productive" (16%), "kept in touch" (11%), and "accessed information about products" (5%).

Based on these findings, this paper provides implications for research theory and practice related to media consumption and engagement. Our findings showed that media multitasking is considered by informants as paradoxical. Among our respondents, the multitasking experience parallels a subset of consumer paradoxes of technology developed by Mick and Fournier (1998): efficient/inefficient, connectivity/isolation, and freedom/enslavement. To cope with these paradoxes, consumers develop various coping strategies (Mick and Fournier 1999) ranging from the restriction of media usage to the refinement of personal media consumption practices. The majority of our informants claimed that, while they were aware of personal issues and challenges associated with their media consumption, they have become effective multitaskers as a result of their active participation as consumers of contemporary media and the associated role of media as a socialization agent within the youth participatory culture.

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COGNITIVE, ATTITUDINAL, AND BEHAVIORAL BRAND DIMENSIONS WITHIN AN ORGANIZATIONAL BUYING CONTEXT

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SUMMARY

Introduction

Despite numerous studies on brand equity, there is little consensus on how to conceptualize, operationalize and/or organize brand equity-related constructs. In many instances, no attempt is made to justify why one brand measure is used rather than another. This study addresses this important gap in the marketing literature as follows. First, we subject measures of brand consciousness, brand preference, brand sensitivity, and brand importance to rigorous empirical testing and establish that the constructs are indeed distinct phenomena with different antecedents and consequences. Second, we advance an organizing framework for these constructs based on a hierarchy of effects (HOE) model and identify moderating variables which alter the nature of the relationship between the constructs at different levels of the hierarchy. The results are consistent with a HOE approach to organizing the constructs and also reveal that competitive intensity and firm size are important moderators of the relationship between the constructs at different levels of the hierarchy. Third, we study these brand measures in a B2B context to explore whether brands aid decision-making as they do in consumer contexts (e.g., Kotler and Pfoertsch 2006; Webster and Keller 2004).

Conceptual Framework

HOE models are based on information processing and persuasion theories, and capture the decision making process in general. Given that HOE models are well-established in the decision-making and brand literature (e.g., Cobb-Walgren, Ruble, and Donthu 1995), our main effects hypotheses are straightforward (i.e., beliefs → attitudes → intentions → behaviors). Brand consciousness, brand sensitivity, brand preference and brand importance are brand-related constructs that have the potential to influence buying behavior. In spite of a significant degree of overlap in their conceptual domains (e.g., Burgess and Harris 1999; Hutton 1997; Kapferer and Laurent 1988; Sproles and Kendall 1986), it is our contention that these particular constructs are distinct and can be conceptually organized using an HOE model. Specifically, brand consciousness is cognitive in nature, brand preference is an attitude, brand sensitivity is a behavioral intention, and

brand importance captures actual behaviors by revealing the extent to which buying center members rely on brand information when making a purchase decision. We expect that the hypothesized relationships will be moderated by customer firm size and competitive intensity.

H1: Brand sensitivity increases brand importance.

H2: Brand consciousness increases brand sensitivity.

H3: Brand consciousness strengthens brand preference.

H4: Brand preference increases brand sensitivity.

H5: Competitive intensity moderates the relationship between brand consciousness and brand sensitivity such that the relationship is stronger under conditions of low (as opposed too high) competitive intensity.

H6: Competitive intensity moderates the relationship between brand consciousness and brand preference such that the relationship is weaker under conditions of high (as opposed to low) competitive intensity.

H7: Competitive intensity moderates the relationship between brand preference and brand sensitivity such that the relationship is stronger under conditions of high (as opposed to low) competitive intensity.

H8: Customer firm size moderates the relationship between brand consciousness and brand preference such that the relationship is stronger when firms are large (as opposed too small) in size.

Method and Results

To test the proposed model and hypotheses, we analyzed data collected from 273 B2B mid-level managers and senior executives involved with procurement were recruited for participation in an online field study. The proposed model (see Figure 1) was specified and estimated using structural equation modeling techniques as implemented in LISREL 8.72. The proposed moderation hypotheses were tested using the multi-group procedure (Jaccard and Wan 1996). The analysis suggests that the proposed model fits the data well (Hu and Bentler 1999) ($\chi^2 = 95.05$, 41 d.f., p < .01; comparative fit index

FIGURE 1
Conceptual Model
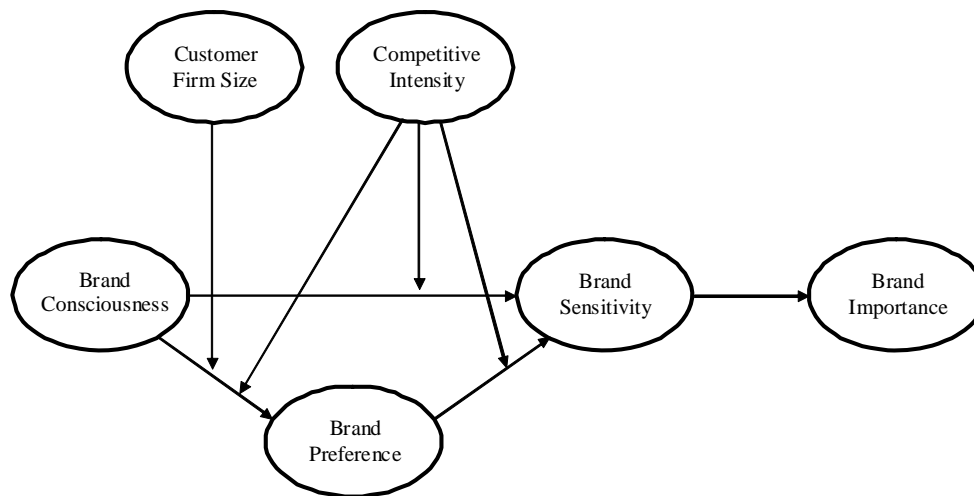
[CFI] = .99, standardized root means squared [SRMR] = .032, root mean square error of approximation [RMSEA] = .07.

As the Table 3 indicates, the results provide strong evidence in support of the model and of the majority of hypotheses proposed in the study. Consistent with H1, brand sensitivity was found to be positively related to brand importance (b = .47, p < .01). In addition, brand consciousness was found to be positively related to brand sensitivity (H2; b = .54, p < .01) and brand preference (H3;

b = .57, p < .01). Finally, the data confirm the expected (H4) positive relationship between brand preference and brand sensitivity (b = .26, p < .01).

The results of the multi-group moderation tests suggest that competitive intensity is a significant moderator of the relationship between (1) brand consciousness and brand sensitivity (H5; χ^2 difference = 15.58, p < .01), and (2) brand preference and brand sensitivity (H7; χ^2 difference = 3.89, p < .05). The data, however, do not support H6 which posited that competitive intensity moderates the

TABLE 1
Summary of Construct Properties

	Mean	S.D.	AVE	1	2	3	4
1. *Brand Sensitivity*	4.60	1.69	73.4%	**0.89**	*0.48*	*0.34*	*0.22*
2. *Brand Consciousness*	4.06	1.39	76.2%	0.62	**0.91**	*0.32*	*0.09*
3. *Brand Preference*	4.33	1.46	80.9%	0.54	0.55	**0.94**	*0.05*
4. *Brand Importance†*	12.26	13.2	SI	0.40	0.25	0.21	**SI**

Notes: S.D. = standard deviation. AVE = average variance extracted. SI = single item construct. Entries below the diagonal of the correlation matrix are construct correlations. Italicized entries above the diagonal of the correlation matrix represent shared variance between the constructs. Composite reliabilities are shown in bold on the correlation matrix diagonal. All correlations are statistically significant (p < .01). n = 273.

†   A square root transformation was applied to this construct in order to more closely approximate a univariate normal distribution. The transformation was successful in accomplishing this goal.

TABLE 2
SEM Standardized Coefficient Estimates

Relationship	Single Group	Competitive Intensity as Moderator		Customer Firm Size as Moderator	
		Low Competitive Intensity	High Competitive Intensity	Small Firms	Large Firms
Brand Consciousness → Brand Sensitivity‡	.54***	.89***	.31***	.58***	.57***
Brand Consciousness → Brand Preference	.57***	.60***	.54***	.38***	.72***
Brand Preference → Brand Sensitivity†	.26***	.03	.30***	.21**	.23**
Brand Sensitivity → Brand Importance	.47***	.46***	.55***	.42***	.48***

Notes: ***$p < .01$; **$p < .05$.
     † Moderating effect of competitive intensity is significant ($p < .05$).
     ‡ Moderating effect of competitive intensity is significant ($p < .01$).
     † Moderating effect of customer firm size is significant ($p < .01$).

FIGURE 2
Graphical Representations of Interaction Effects

(a) Interaction between brand consciousness and competitive intensity in prediction of brand sensitivity.

(b) Interaction between brand preference and competitive intensity in prediction of brand sensitivity.

(c) Interaction between brand consciousness and firm size in prediction of brand sensitivity.
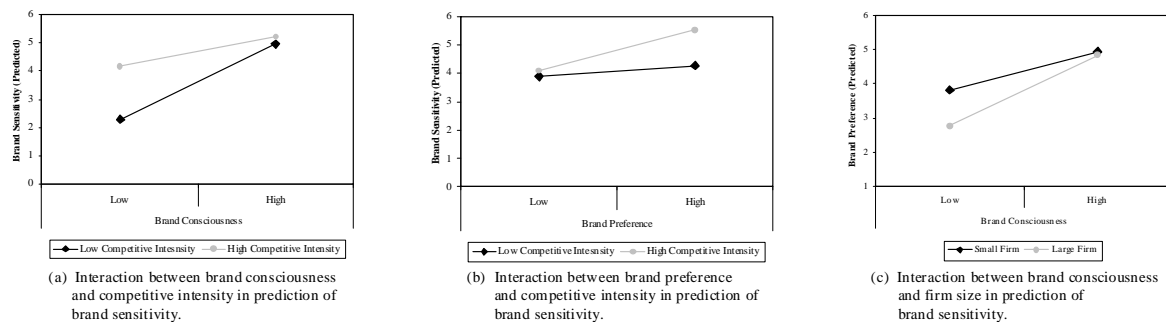
relationship between brand consciousness and brand preference ($p > .10$). The results also reveal that customer firm size is a significant moderator of the relationship between brand consciousness and brand preference (H8; χ^2 difference = 6.05, $p < .01$). As is illustrated in Figure 2, the pattern of results is consistent with expectations.

Implications and Discussion

For academics, this study challenges the current practice of labeling various brand-related constructs simply as "brand equity" variables. This implies that the pursuit of a more fine-grained conceptualizations and measures of brand phenomena is necessary in both consumer and organizational contexts. Additionally, results suggest that brand phenomena can be categorized within a HOE framework and implies that academic researchers must more carefully consider the potential relationships between brand variables.

For managers, the study's findings provide evidence that branding efforts indeed influence choice in organizational buying contexts. Moreover, managers would be prudent to view brand strategy decisions through a HOE lens. That is, building brand consciousness is a critical first step in influencing purchasing decisions in an organizational context. Marketers that successfully build brand consciousness are likely to be the default brand of choice. References are available upon request.

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INGREDIENT BRANDING: WHY DO BRANDS MATTER IN BUSINESS MARKETS?

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SUMMARY

The goal of this paper is to examine the underlying concepts that explain how Ingredient Branding strategy affects business-to-business marketing efforts. Specifically, a framework is proposed that explains how brand equity is created in business markets, and how resulting brand equity plays a role in value creation along existing business networks. It is argued that multilevel brand positioning results in competitive advantage, but changes how firms interact in business markets.

Although many marketing studies investigate how Ingredient Brands function at the consumer level (Desai and Keller 2002; McCarthy and Norris 1999; Norris 1992; Rao, Qu, and Ruekert 1999; Venkatesh and Mahajan 1997), many studies have overlooked how Ingredient Brands function at the business market level (Andersen and Neru 2004; Pfoertsch, Luczak, Beuk, and Chandler 2007). Brands, as we know them in consumer markets, can simplify complex situations because they act as predictive cues about product performance (Erdem and Swait 1998), and influence how consumers create consideration sets and evaluate alternatives (Keller 1993).

As a source of demarcation among products and services, Ingredient Branding is pivotal for business marketing strategy because it creates unique brand identities for the key ingredient in products and services, including food, clothing, or financial services products (Pfoertsch, Luczak, Beuk, and Chandler 2007). In this study, there are two focal questions. First, given ingredient brand equity manifested in consumer pull effects, does the resulting brand equity change how firms interact in business markets? Second, does the existence of consumer-level ingredient brand equity necessarily lead to brand equity in business markets? If so, how does brand equity in business markets form the basis for market-based assets and ultimately influence firm valuation?

Brand Equity in Business Markets

To evaluate how brands communicate in business markets, this framework builds on the notion of brand equity. Keller (1993) defines brand equity as the differential effect of brand knowledge on consumer response to brand marketing. Furthermore, brand equity is said to occur when the consumer is familiar with the brand and holds some favorable, strong, and unique brand associations in memory (Keller 1993). These memories of brands lead to varying meanings of brands that often differ among consumers (Fournier 1988), but many firms attempt to maintain consistent brand images in order to maximize communications with larger masses of customers.

Analogously in business markets, the consumption experience associated with a branded product or service continues to affect brand equity and brand meaning. However, in business markets, the consumption experience affects brand meaning for both the firm involved in procurement of the branded component, as well as the end consumer of the product in which the branded component is embedded. This is due to the fact that the decision of a buying firm to purchase the branded component and embed it in its own products can have an effect on consumer demand. In the opposite direction, consumer demand can also have an effect on the business market exchange of goods.

Commingling and Market-Based Assets

The scope of this investigation is limited to only business market interactions so that it is possible to understand why ingredient brands are important for business-to-business marketing efforts. Isolating the consumption experiences that one firm has with another firm has been referred to as commingling (Srivastava et al. 1983) and can affect whether a firm continues to interact with its partners, whether it chooses to stop interacting with its partners, or whether it will begin a new relationship with a new partner.

This is a very important notion that has implications not only for the dyadic exchange, but also for the entire chain of business markets. In the case that an ingredient has generated significant brand equity in consumer markets, downstream business markets may benefit and choose to embed the branded ingredient in their products to take advantage of brand equity in consumer markets. As a result, commingling becomes a broad concept capturing various interfirm interactions including (but not limited to) simultaneous innovation that may occur around a branded ingredient in order for all partners to reap the

benefits of brand equity in consumer markets, or for distribution systems that did not previously accommodate for such types of components, an entire shift may occur along the channel to accommodate the branded ingredient so that a new distribution channel evolves. As such, brands may evolve differently in these markets than they do in consumer markets.

Consumer-level brand equity can affect relations in business markets. However, brand meaning in business markets may involve other consumption experiences, including interactions with sales people, post-sales sup-port services, inventory and supply management, or trade support materials. Recently, researchers are linking commingling and market-based assets by asserting that market-based assets enable firms to improve efficiency and effectiveness in the marketplace as a result of interacting with entities in its environment (Srivastava, Shervani, and Fahey 1998; Pfoertsch, Luczak, Beuk, and Chandler 2007). By broadening the dyadic framework often associated with brand equity, it is possible to shed light on a complex phenomenon that includes both dyadic and net-work-wide commingling. References are available upon request.

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THE ANTECEDENTS OF BRAND VALUE IN PHARMACEUTICAL MARKETS

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SUMMARY

Introduction

Managers and academics are increasingly interested in understanding the linkages between resources deployed in developing marketing assets (such as brands and customer relationships) with the firm's market effectiveness (e.g., share and margin gains) (e.g., Vorhies and Morgan 2003) and financial performance (e.g., Rust et al. 2004). From this perspective, the marketing literature provides a well-developed theoretical rationale (e.g., Keller 1993; Srivastava, Shervani, and Fahey 1998) and a growing body of empirical evidence (e.g., Barth et al. 1998; Madden, Fehle, and Fournier 2006; Rao, Agarwal, and Dahlhoff 2004) linking brands with competitive advantage for the firms that own them.

Theoretical Framework

The main focus of the current research is to understand the impact of brand building activities by pharmaceutical firms in their effort to influence the physician decision making process and increase the brand's value. In this research, brand value is viewed as a function of brand building activities resulting in the development of brand equity. This study will examine brand awareness and brand associations, including brand attitude, corporate image, and functional benefits (safety, efficacy, and dosage), as indicators of brand equity in the pharmaceutical industry.

Hypotheses

Hypothesis 1: Brand equity is positively related to brand value.

Hypothesis 2: Brand attitude is positively related to brand equity.

Hypothesis 3: Functional benefits are positively related to brand equity.

Hypothesis 4: Corporate image is positively related to brand equity.

Hypothesis 5: Brand attitude is positively related to brand value.

Hypothesis 6: Functional benefits are positively related to brand value.

Hypothesis 7: Corporate image is positively related to brand value.

Research Methods

To assess the hypotheses, a review of data available through secondary sources was conducted. Also, primary data was collected via a survey of U.S. physicians. The physician sample consisted of a random sample of primary care, internal medicine and specialists. The specialists included cardiologists, gastroenterologists, obstetricians/gynecologists, oncologists, and psychiatrists. Brand value was measured by objective profitability data (per prescription) obtained from secondary data sources for each brand in this study. GfK Market Measures assisted in collecting the survey data and provided the list of physicians for the survey from their panel and administered both the pretest and main survey.

Data Collection

For the main data collection, 3,364 invitations were sent out to physicians from the firm's mailing list. To boost response, an incentive in the form of some sweepstakes, offering one of two chances to win $250, was used. This resulted in 518 respondents being qualified based on time spent in clinical practice and disease and brand familiarity. Therefore, the response rate for qualified physicians was 15.40 percent.

Psychometric Analyses

Before being submitted to the structural equation model, the data were psychometrically analyzed using confirmatory factor analysis. The confirmatory factor analysis fit the data well with a $\chi^2 = 565.72$ with 126 df, CFI = .95 and RMSEA = .08. The AVE estimates ranged from .56 to .82. The CR estimates ranged from .79 to .96. Discriminant validity was assessed by comparing the AVE for each construct with the squared correlations between each of the constructs (Fornell and Larcker 1981). All constructs passed this discriminant validity test.

Hypotheses Testing

The hypothesized models were examined using full information structural equation modeling (SEM). The final model tested combined the direct and indirect effects models demonstrating $\chi^2 = 566.28$ with 129 d.f., CFI = .95, and RMSEA = .08. There was a CI of 90 percent. Based on these fit indices, it can be stated that the final model fit the data well.

Results

Support was found for hypothesis 1 where we hypothesized a relationship between brand equity and brand value ($\gamma = .09$, t = 1.80). Support was found for hypothesis 3, where we hypothesized a positive relationship between functional benefits and brand equity ($\gamma = .86$, t = 20.68). Support was found for hypothesis 4 where we hypothesized a relationship between corporate image and brand equity ($\gamma = .13$, t = 4.39). Support was also found for hypothesis 5 where we hypothesized a relationship between brand attitude and brand value ($\gamma = .10$, t = 2.02).

Discussion

The results from our study demonstrate support for the notion that brand management principles may be useful mechanisms for building brand value for pharmaceutical brands. This study found support for the positive relationships between two of the antecedents (functional benefits and corporate image) and brand equity and for the positive relationship between brand equity and brand value. This demonstrates that marketing practices focused on building brand equity are useful for building brand value in the pharmaceutical market. References are available upon request.

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A DUAL-ROUTE MODEL OF TRUST AND CONTROL IN CHANNELS

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ABSTRACT

This paper studies simultaneous positive and negative effects of control on trust based on (a) the relationship between trust and control system's functions (decision control and decision management) and (b) the mediation role of trustworthiness. The study provides the manufacturer's and distributors' perspectives. Results partially support the hypotheses.

INTRODUCTION

The emergent literature on interorganizational control indicates that control can help improving the distribution channel's competitive ability by proactively managing the activities and flows among the members, mitigating derived problems of conflicts and members' potential opportunistic behaviors (Seal et al. 1999; Dekker 2004). On the other hand, existent literature on interorganizational relationships defend that it is trust the mechanism that facilitates channel management, coordination activities and reduces conflict degree, commitment, and reinforces relationship longevity (Neu 1991; Das and Teng 2001; Ganesan 1994; Aulakh et al. 1996; Anderson and Weitz 1992).

In recent years there has been a special interest to study the relationship between these two constructs: control and trust. Three different perspectives describe the relationship between both: First, some authors (Neu 1991; Ring and Van de Ven 1994; Andaleeb 1995) establish the substitutive character among them, arguing that there is not control necessity when is possible to generate trust, and that their introduction would damage it. Second, some authors stand out for their complementary nature emphasizing the importance that a proper control design could have to create an atmosphere in which the trust grows. This view is based on the idea that control generates cooperation expectations and nurtures trust (Berry et al. 2000; Poppo and Zenger 2002; Coletti et al. 2005). More recently, other authors suggest that the substitutive and complementary relationship between control and trust can coexist in an interorganizational relationship. These studies look at conditions that might explain variations in the trust-control relationship, i.e., the relationship stage (Tomkins 2001). As a result, studies call for further research on this topic in interorganizational relationships contexts (Langfield-Smith and Smith 2003; Dekker 2004).

In our study, we have two main propositions. First, we posit that the scarcely explored role of control as management control systems (MCS) could be a factor that explains the complementary or supplementary effect of control over trust. We defend that a better understanding of the twofold MCS functions could help us to better understand the relationship between MCS and trust and, in turn, to appropriately design MCS to nurture trust. Second, we also propose that the relationship between control and trust can be better understood by studying the mediation role of trustworthiness dimensions.

With this aim, we develop a model to analyze (a) the effects of the different MCS functions on trust and (b) the mediation of trustworthiness dimensions on the MCS-Trust relationship. Overall, the model suggests two routes or counterbalancing effects of control on trust. First, it is suggested that control complements trust by increased usage of decision management functions and the increase of perceived competence. Second, it is suggested that control supplements trust by high levels of decision control and low perceived benevolence. Accounting for recent developments in the area, our study focuses on ongoing, well-established[1] relationships between a manufacturer and its distribution channel where, according to Tomkins (2001), the introduction of MCS should have a negative effect on trust.

MODEL AND HYPOTHESES

Wilson and Chua (1993, p. 17) stated that management control systems (MCS) embraces techniques and processes that are understood to give financial and non-financial information to make better decisions, to get organizational control and to increase the effectiveness. According to Ahrens and Chapman (2004), control systems seek to place parties in a good position to directly manage the unavoidable contingencies in their daily activities. Consequently, MCS can be defined as means to influence the distributors' behavior, decreasing the uncertainty about that behavior will not reach the desirable outcomes. The accounting literature establishes that MCS serves two uses (Zimmerman 2003): (a) to facilitate the decision making process, which is denominated decision management (b) to supervise the results and behaviors: decision control (Zimmerman 1997, 2003).

Decision control, also labeled goal-congruence function, refers to the stereotypical top-down control approach that emphasizes centralization and preplanning (Ahrens and Chapman 2004), monitoring, evaluation, motivation and rewarding of members performance. The decision control function involves aspects intended to reduce potential undesirable consequences of opportunism and goal-divergence among members (Ahrens and Chapman, 2004). Control systems are used to measure and reward performance (Noordewier et al. 1990; Sachdev et al. 1994) by supervising the accomplishment of objectives. Decision management, also labeled the information function, aims to provide managers with the right information for decision-making, updating knowledge, enhancing coordination (Cooper and Yoshikawa 1994; Dekker 2004), transmitting targets, reducing uncertainty, directing attention, and facilitating learning (Speklé 2001; Abernethy and Vagnoni 2004).

Mayer et al. (1995) define trustworthiness as the characteristics and actions of the trustee that will lead that person to be more or less trusted. Trust would be expected to emerge in situations where the "trustworthy" party in the exchange relationship scores in two dimensions (Mayer et al. 1995; Dyer and Chu 2003). First, Competence (ability or expertise) is the group of skills, competencies, and characteristics that enable a trustee to have influence within some specific domain. This factor is formed by technical, cognitive, organizational, and communicative competences of a partner (Nooteboom 2002; Woolthuis et al. 2005). Second, Benevolence, the extent to which a trustee is believed to want to do good to the trustor, aside from an egocentric profit motive (Morgan and Hunt 1994; Ganesan and Hess 1997).[2]

Trust is understood as the belief of a part that their necessities will be satisfied in the future by the actions taken by other parties (Anderson and Weitz 1992), contemplating it as the feeling or collective perception that the other part will act in its interest (Zaheer et al. 1998).

In this paper, we argue that control will have a dual-route effect (substitutive/negative and complementary/positive) on trust depending on the MCS function and the influence of MCS function on trustworthiness. These are the main hypotheses of our study (see Figure 1). In sort, we suggest a negative relationship between decision control function and trust. We also propose a positive effect of trust on control from decision management function to trust. In addition, we specify a mediation effect of perceived trustworthy behaviors in these two relationships. We suggest that decision control can exert a negative indirect effect through perceived benevolence, but only from the controlled party perspective. Otherwise, control is expected to have a positive effect on trust because it increases perceptions of competence and because decision management increases perceived benevolence. These

positive effects are even expected to happen in established commercial relationship even after the introduction of MCS (see arguments and Figure 1 below for further explanations). We also suggest that decision management increases perceived competence and benevolence both from the manufacturer and distribution channel perspectives. Because of limited space, only few hypotheses will be presented here (see Figure 1 for all model and hypotheses).

Substitutive Route

We find that the authors that defend a negative effect association between control and trust (substitutive hypothesis), mainly refer to decision control functions (Knights et al. 2001). The logic underlying the negative association between control and trust is that if one trusts on other party, there is not necessity to establish MCS. The more trust one has, the less control one needs over a partner because the presence of trust economizes specifications and the implementation of mechanisms to supervise. Thus, according to this substitute vision (Neu 1991), its introduction can be perceived as a lack of trust, defending that trust should exist before the relationship settles down. But that once established the MCS introduction damages trust as it could make the controlled party be suspicious about the level of trust existing in the relationship (Das and Teng 1998). That is, the contract irony effect. However, this effects in not expected to occur for the controller party, who perceived additional benefits on decision control. The importance of decision control for the manufacturer comes from the assumption that distributors do not always act in the manufacturer's best interest. MCS serves to this use providing ex-post information on the members' actions, which would be used to supervise the execution of objectives, reduce undesirable consequences of opportunism and appraisal of distributors' performance (Abernethy and Vagnoni 2004). According to the above arguments, we establish:

H1a: The distributors' perception of the use of MCS for decision control has a negative effect on their trust toward the manufacturer.

H1b: The manufacturer's perception of the use of MCS for decision control has a positive effect on their trust toward their distributor.

Moreover, the decision control use should have differential effects on the two studied dimensions of trustworthiness: competence and benevolence. Decision control can increase distributor's perception of manufacturer's ability to behave more competent as it can increase feelings of efficacy and objectivity. On the contrary and assuming the contract irony effect, decision control might decrease the perception that the manufacturer is acting on the distributor's interest rather than on its own interest.

FIGURE 1
Model and Hypotheses
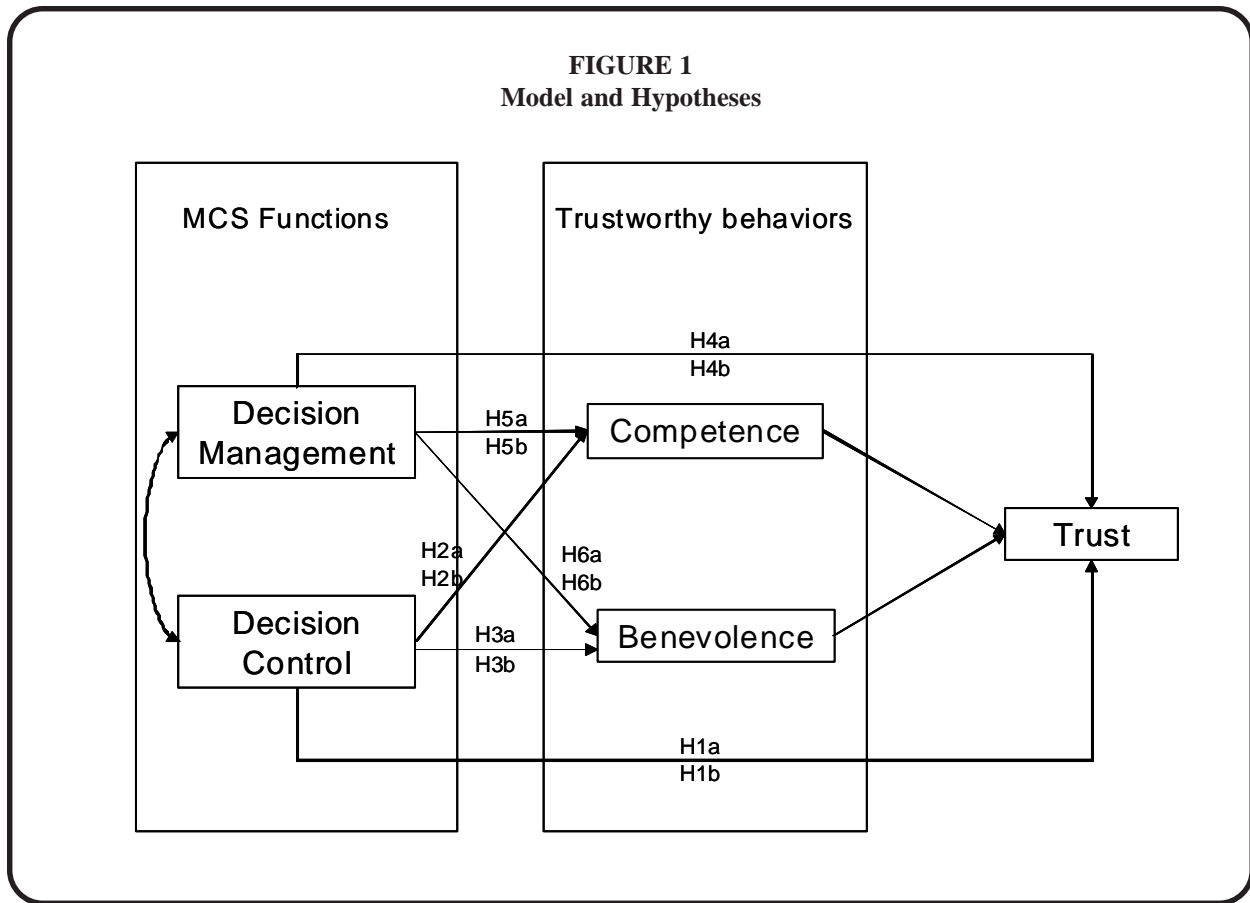
Therefore,

H2a: The distributors' perception of the use of MCS for decision control has a positive effect on the perceived manufacturer competence.

H2b: The manufacturer's perception of the use of MCS for decision control has a positive effect on their perceived distributor's competence.

H3a: The distributors' perception of the use of MCS for decision control has a negative effect on the perceived manufacturer benevolence.

H3b: The manufacturer's perception of the use of MCS for decision control has a positive effect on their perceived distributor's benevolence.

Complementary Route

On the other hand, decision management function refers to how MCS help a firm to communicate their objectives reducing divergences, focusing the attention, mitigating ex-ante the uncertainty, and improving the decisions making on a better-informed base. In this sense, MCS help in the design and implementation of joint strategies and targets, providing information for the coordination and facilitating the learning (Dekker 2004). The

provision of opportune and appropriate information is understood as a strategy to create trust (Anderson and Hoyer 1991; Anderson and Narus 1990). The distributors could interpret this information like a sign that the manufacturer tries to work in a closer way to them, promoting long-term relationships with common objectives (Anderson and Weitz 1989; Morgan and Hunt 1994), whichever it is the level of trust in the relationship. In addition, Dwyer et al. (1987) defend that when the manufacturing firm formalizes the relationship, and stimulate the participation in the decisions making, it has a positive effect on trust. We defend that through decision management trust is nurtured, as a consequence of the negotiations and bigger mutual knowledge. Accordingly, we settle down that distributors and manufacturers find in this information for the decision management the necessary tools that allows them to improve their management, recognizing the capacity and the promised attachment of manufacturing firm, and establish our second hypothesis:

H4a: The distributors' perception of the use of MCS for decision management has a positive effect on distributor's trust toward the manufacturer.

H4b: The manufacturer's perception of the use of MCS for decision management has a positive effect on manufacturer trust toward the distributor.

At the same time, and based on theoretical and empirical evidence (Ganesan 1994; Morgan and Hunt 1994), we suggest that through the decision management use, the literature favors a positive effect on trustworthy behaviors from both the manufacturer and distributors' perspective.

H5a: The distributors' perception of the use of MCS for decision management has a positive effect on the perceived manufacturer competence.

H5b   The manufacturer's perception of the use of MCS for decision management has a positive effect on their perceived distributor's competence.

H6a   The distributors' perception of the use of MCS for decision management has a negative effect on the perceived manufacturer benevolence.

H6b: The manufacturer's perception of the use of MCS for decision management has a positive effect on their perceived distributor's benevolence.

DATA COLLECTION AND RESULTS

Data was collected in the distribution channel of a manufacturing firm (CMD), leader of the Spanish chemical sector, and two new developed MCS tools for its distributors. The first MCS tool gives commercial management information (GESC) to distributors, which included among other, sales information analysis, new clients' number, billing concepts evolution and consumption fallen. The second MCS tool developed a distributor evaluation system (SED), through 37 indicators (26 internal and 11 external items), what allows them to establish objectives, to measure and to reward the performance of each one of distributors.

The distribution channel has a total population of 178 distributors, varying in their dedication and legal form. Given the reduced size of distributors, the questionnaires were directed by postcard to their owner or general manager. The respondent ratio was of 61.23 percent, with 109 received questionnaires (useful 107). The survey sent to employees of the manufacturer firm was addressed to employees responsible for managing and relating with the distribution channel. With a population of 140 employees, we obtained a useful sample of 91 questionnaires. Respondents were asked to respond on changes on their trust toward the other party after the introduction of the MCS tools, along with measures of the own usage and perceived use of the other party for management decision (coordination) and decision control (monitoring) activities.

Items were adapted from existing scales (Abernethy and Vagnoni 2004; Ganesan 1994) using Likert scales.

Exploratory and Confirmatory Factor Analysis were performed to test the psychometric properties of the scales, as well as its convergent and discriminant validity (Fornell and Larcker 1981). Muti-group factor analysis was performed to test CFA for the two MCS tools (GESC and SED), testing metric and configurational invariance across MCS tools. All items without exception met the minimum criteria for reliability, convergent and discriminant validity after accounting for common method bias except for one item. Overall fit indexes were acceptable Satorra-Bentler = 113.36 (96 d.f.); p < 0.11; NFI = .88; NNFI = .96; CFI = .97; RMSEA = .03 (.00 – .064). Thus, we conclude that the measurement model was sufficiently robust. Zero-order correlation between ranged from .12 to .68 among all study constructs. Hypotheses were tested using EQS Muti-group analysis controlling for common method factor.

Summarizing, results provide support for the positive but not the direct negative effect of control on trust in mature manufacturer-distribution channel relationships. These effects appear fully mediated by perceived trustworthiness dimensions after accounting for two different MCS tools and two different perspectives, the manufacturer and the distribution channel. Contrary to our hypotheses, decision control does not present a negative effect on benevolence. Rather, the effect is positive and significant. This could be due to specific characteristics of this sample and/or the nature of the manufacturer-distribution channel relationship.

CONCLUSIONS

As any other study, our empirical study has a number of limitations, i.e., it only tests the relationship between MCS and trust in one distribution channel, and the sample size is relatively small. Yet, our research contributes to the existent literature in several ways.

First, we contribute to the academic debate contemplating the relationships between each one of the MCS uses and trust, providing empirical evidence that both can be compatible with trust development. These findings are especially important in distribution channel management, since the manufactures unilaterally try to establish MCS in order to reduce risks and failures, and because trust is critical due to the abstract nature of the services carried out by the distributors (Sirdeshmukh et al. 2002).

Second, we analyze the effect that MCS have over the distributors' trust and on the manufacturer's trust on the distributor. The results show that, accepting the decision control carried out by the manufacturing firm, the distributors can find in MCS the information and needed tools that improve their daily management, affecting positively their trust. With these contributions, our work adds to the current research that transcends the traditional

FIGURE 2
Results from the Distributors' and Manufacturer's Perspectives

Distributors' perspective
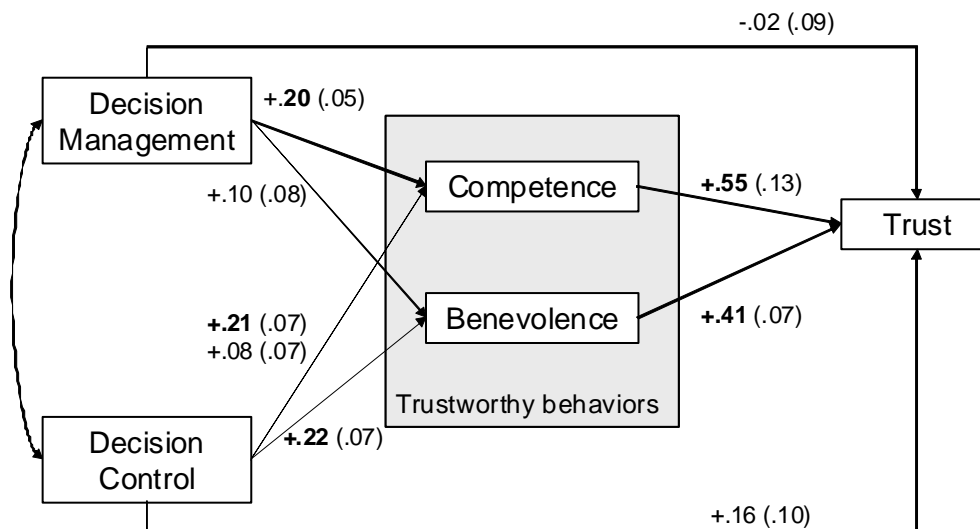
Gesc presented first

Manufacturer's perspective
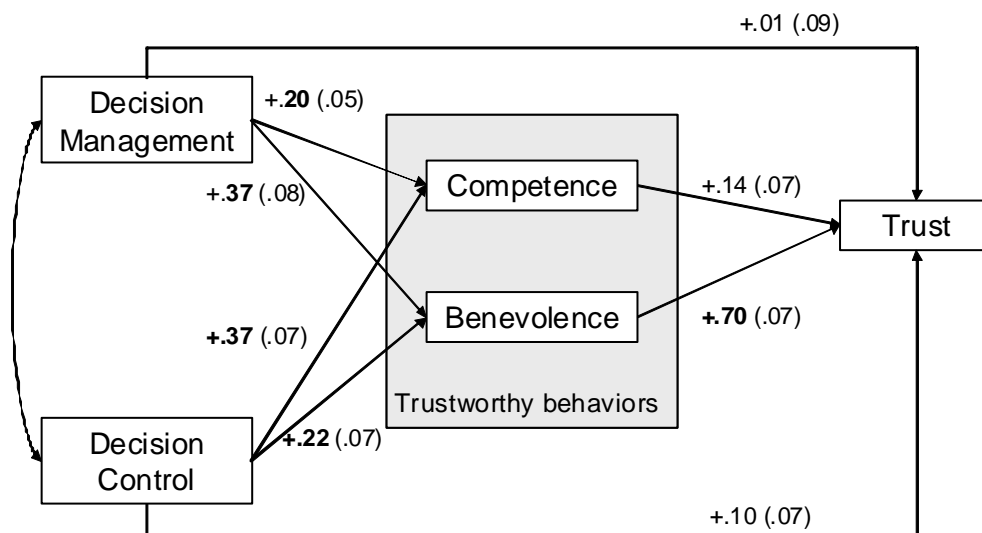
Results are the same for GESC and SED first

limits of the MCS, more focused in the production function and in organizational settings.

Third, we provide empirical evidence on the full mediation effect of perceived trustworthiness on the relationship between MCS and Trust.[3] Previous research has traditionally studied the relationship between control and trust directly without identifying how control mechanisms influence trust antecedents. Our results provide new insights into the complex relationship between control and trust.

ENDNOTES

1 The average length of the relationships studied here was 15 years.
2 Authors also identify another dimension, *Integrity*, which is the adherence to a set of principles that the trustor finds acceptable. However as Mayer et al. (1995) noted, this factor has a weak effect in mature interorganizational relationships and therefore it has been excluded from this study. According to the authors, In IORs' early stages, integrity has strong consequences on trust, while in established IORs it is substituted by the benevolence.
3 Complete test for mediation effects following Baron and Kenny (1986) was performed.

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ARE TRADITIONAL MACRO-LEVEL DIFFUSION MODELS APPROPRIATE WHEN FORECASTING ORGANIZATIONAL ADOPTION OF HIGH-TECH PRODUCTS?

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ABSTRACT

This study assesses *forecasting accuracy* when applying *macro-level diffusion models* to *high-tech* product innovations among *organizational adopters.* It also explores whether accuracy differs according to the *impact* of the new product. These issues are addressed by empirically testing organizational adoption data for 39 new high-tech products.

INTRODUCTION

Accurate forecasting is an essential part of developing marketing strategy. This is especially true for new products given their high level of investment. As important as forecasting is however, most executives will tell you that any given new product forecast of sales or adoptions will be wrong. For new products the likelihood of large forecasting errors is typical and there are several factors that increase both the probability and the scale of error. These factors include forecasting the growth of high-tech products, forecasting organizational adoption, and using models incorrectly. In fact in recent years questions have been raised about the forecasting accuracy of macro-level diffusion models in general (Collopy and Armstrong 1993; Rao 1985). For example, Mahajan et al. (1990) point out more empirical work is needed to identify conditions under which macro-level diffusion models work or do not work. Similarly, Collopy and Armstrong (1993) suggest that despite the large research base on macro-level diffusion models, only a handful of studies have empirically examined the conditions under which they are most appropriate.

This study contributes to the marketing forecasting literature by directly addressing several crucial gaps. It empirically compares the accuracy of three basic macro-level diffusion models with three simpler trend exploration models for 39 high-tech product innovations. Furthermore, this study introduces innovation-impact as an explanation as to when certain forecasting models will perform better than others.

TYPES OF FORECASTING TECHNIQUES

Macro-level diffusion models depict the diffusion process as purely innovative (Fourt and Woodlock 1960),

purely imitative (Fisher and Pry 1971), or as a combination of the two (Bass 1969). Purely innovative or external-influence diffusion models imply adoption is driven by information external to the population of adopters. Mahajan and Peterson (1985) suggest the external-influence diffusion model is appropriate when: members of a social system do not interact, innovations are not complex and not subject to interpersonal communications (e.g., conspicuous products), and adequate information about the innovation is only available from a source external to the social system (e.g., advertisements). In general, these conditions hold for innovations that are: not complex, readily available, and extremely familiar to adopters (Gatignon and Robertson 1985). This type of model would be appropriate to apply to the organizational diffusion of high-tech product innovations because high-tech products are frequently incremental improvements that build on existing knowledge. Graphically, the external influence model is depicted by a decaying or modified exponential diffusion curve that shows the cumulative number of adopters increasing over time but at a decreasing rate.

Purely imitative or internal-influence diffusion models are based on the assumption that diffusion occurs exclusively through interpersonal contacts. The typical model assumes everyone in the population is equally inclined to adopt and the rate of adoption increases until fifty percent of the population has adopted and then the rate of adoption declines and one hundred percent adoption is approached asymptotically. The result is an S-shaped diffusion pattern. Mahajan and Peterson (1985) suggest the internal-influence model is most appropriate when: an innovation is complex, it is socially visible, not adopting it places the adopter at a disadvantage, the social system is small and homogeneous, and there is a need for legitimizing information prior to adoption. These conditions are important for high-tech products that represent a significant change from the past (Gatignon and Robertson 1985). For these more radical new products, interpersonal communication would be important due to the greater uncertainty involved in adoption. However, it seems counterintuitive that the diffusion of radical high-tech products would be explained without any reference to external influence. In fact some external influence had to occur to attract the first adopter. For this reason, the mixed diffusion model is also considered.

The mixed model integrates the previous models by incorporating parameters representing external as well as internal influences. The most influential and recognized mixed influence diffusion model is the Bass (1969) model. This model distinguishes between two homogeneous groups: (1) the innovators, who are not influenced by social emulation or endogenous learning, but only by external influences; and (2) the imitators, for whom the diffusion process is based on internal influences. According to the model, the product message is first picked up by a few innovators who then through word-of-mouth pass it onto other members of the social system. Bass's model gives rise to a positively skewed logistic curve similar to the internal-influence model. But unlike the classic logistic curve, the Bass model assumes a certain level of innovators are present at any stage of the diffusion process. Like the internal-influence model, the Bass model appears more appropriate for radical high-tech new products because it suggests slow growth followed by a symmetric increase in adopters.

For the past 35 years, marketing scholars have tried extending the Bass model through so-called "flexible" diffusion models which relax some of the assumptions. However, in a critical review of new product diffusion models, Mahajan et al. (1990) found most diffusion models still rely on the basic Bass formulation. And while the Bass model is still the foundation for most marketing diffusion modeling, it has not been applied to high-tech goods or to organizational adopters.

The three basic types of diffusion models discussed concentrate solely on the time-dependent aspects of the diffusion process and assume their parameters implicitly reflect the effects of the many actionable variables on the phenomenon (Bass 1969; Eastingwood el al. 1983). Equations (1) – (3) depict the external-influence, the internal-influence and the mixed diffusion models respectively:

(1) $dy(t)/dt = p(m - y(t))$

(2) $dy(t)/dt = q(y)(m - y(t))$

(3) $dy(t)/dt = (p + qy(t))(m - y(t))$

Where $y(t)$ is the cumulative number of adopters up to time t, p is a constant rate of external influence, q is the constant rate of internal influence, m is the maximum number of potential adopters, and dy/dt is the rate of diffusion at time t.

A different class of models that can also be considered when forecasting the diffusion of new products is trend-exploration models. These models depend on the same type of data as macro-level diffusion models (Armstrong and Collopy 1992; Makridakis and Wheeleright 1977; Rao 1985). Similar to aggregate diffusion models, trend exploration models are constructed to consider sales or adopters as a function of time alone. The power of these models in providing descriptive notions of the diffusion process is minimal, but they are considerably simpler than macro-level diffusion models in terms of constructing quick forecasts. Regarding managerial application, simple trend exploration models are clearly more likely to be utilized given their familiarity and ease of use (Little 1970). The following three relatively simple trend extrapolation models will be considered in this study. Equations (4) – (6) depict a naive model, a single exponential smoothing model, and a linear model respectively:

(4) $A_t = A_{t-1}$

(5) $A_t = y_{t-1} + (1-\alpha)A_{t-1}$

(6) $A_t = a_t + b_t x$

Where A_t is the predicted number of adopters in period t, A_{t-1} is the predicted number of adopters the previous period, a and b are linear constants, alpha is a smoothing constant (.10), and y_{t-1} is the cumulative number of previous adopters to time t-1.

Perhaps the most important difference between macro-level diffusion models and trend exploration models is philosophical. Macro-level diffusion models are a result of the theory of adoption and diffusion in social systems. Conversely, trend exploration models are simple algebraic curves of sales versus time that the forecaster can apply to virtually any time series. While their utility in making forecasts is obvious, their ability to provide a rich understanding of the underlying process is limited. It is important to note the increased descriptive capacities of macro-level diffusion models do not come without costs. Their formulations are typically in differential equation form and some models are not given to analytical solutions. Moreover, estimation often requires simpler, approximate formations that may cloud the accuracy of the parameter estimates (Rao 1985).

Surprisingly, the forecasting literature offers little guidance as to which type of forecasting approach should be used to predict diffusion in different situations (Collopy and Armstrong 1993). Furthermore, there have been several calls in the literature for comparative analyses of forecasting models (Mahajan and Muller 1979; Mahajan el al. 1990; Makridakis and Wheeleright 1977). However, a comprehensive review of the literature found only a handful of limited studies that directly test forecast validity.

RESEARCH HYPOTHESES

The following hypotheses offer predictions as to the accuracy of different forecasting models for various types of innovations. Given that previous work on the comparison of forecasting models is limited, and those select studies do not examine high-tech products, innovation impact, or organizational adopters, these hypotheses are exploratory in nature.

Hypothesis 1

The few studies that have empirically compared trend extrapolation and macro-level diffusion models suggest relatively simple exploration models are more accurate (Armstrong 1984; Rao 1985; Collopy and Armstrong 1993). This growing stream of literature further suggests models with complex functional forms like aggregate-level diffusion models do not increase forecast accuracy (Armstrong 1984; Collopy and Armstrong 1993; Meade 1984; Rao 1985).

The application of complex diffusion models to forecasting high-tech product adoption at the organizational level seems especially problematic for three reasons. First, these models were originally formulated to predict adoption of durable goods at the *consumer level* (Bass 1969). Clearly, organizational adoption of new high-tech products is more complex and uncertain. Second, diffusion models are based on the assumption that there is a distinct and constant ceiling (m) on the number of potential adopters and that ceiling is either known or can be estimated. However, the saturation point (m) for high-tech products is seldom known in advance and the accuracy of its estimation is questionable (Norton and Bass 1992; Van den Bulte and Lilien 1996).

Third, diffusion model parameters (p and q) are estimated based on the beginning of a time series and are assumed constant throughout the forecasting periods. This assumption locks diffusion models into a certain pattern. Since high-tech products have been found to be much more noisy (less stable) than their consumer durable counterparts (Norton and Bass 1992), the constant parameter assumption may result in forecasting errors. Based on these three factors, it is hypothesized that:

H1: Complex diffusion models will produce no more accurate forecasts of organizational adoption of high-tech product innovations than do basic trend extrapolation models.

Hypotheses 2a–2c

The original objective of the S-shaped diffusion models (internal-influence and Bass model) was to predict future sales or adoption of a new product class or "new-to-the-world" type products. Such products are the most "radical" of all product innovations. In turn, the S-shaped diffusion models have been extremely accurate when predicting future sales of radical product innovations.

Robertson and Gatignon (1986) suggest a sigmoid diffusion pattern is expected for products that are: complex, socially visible, and carry both high switching costs and levels of uncertainty. These characteristics describe high-tech innovations (switching costs, uncertainty) which are a revolutionary departure from the past (complex, socially visible). Therefore, S-shaped diffusion models should be the most accurate forecasting technique available for radical, high-tech product innovations. But which of the two sigmoid shaped models is the most accurate? Since the Bass model considers both internal and external influence within one model, it should perform better than the pure imitation model for predicting future adoptions of radical high-tech product innovations. The following three hypotheses summarize the above discussion:

H2a: The S-shaped macro-level diffusion models (internal-influence, Bass) will produce more accurate forecasts for organizational adoption of radical than incremental high-tech product innovations.

H2b: The S-Shaped macro-level diffusion models (internal-influence, Bass) will produce the most accurate forecasts of the six forecasting models for organizational adoption of radical high-tech product innovations

H2c: The Bass model will produce more accurate forecasts than the internal-influence model for organizational adoption of radical high-tech product innovations as well as the most accurate overall forecast in this situation.

Hypothesis 3a–3b

The next question is which diffusion model is most appropriate for incremental high-tech product innovations? Incremental product innovations are minor improvements or simple adjustments to existing products and technologies. Because incremental innovations build on existing ideas, they tend to have a higher level of awareness, lower switching costs, and lower levels of uncertainty. Such a situation is problematic for diffusion models based on an S-shaped curve because they assume slow initial growth due to the risks involved in adoption.

The external-influence model may be a good fit for product innovations of incremental impact since the original external influence model developed by Fourt and Woodlock (1960) was developed to predict future adoption of new brands in an established product class. The use

of the external-influence model has been virtually abandoned in the literature due to the overwhelming focus on predicting adoption of product classes (i.e., radical innovations). However, the external influence model was designed for a very different purpose and needs to be considered when forecasting adoption of incremental product innovations. Therefore, the following hypotheses are proposed:

H3a: The external influence diffusion model will produce more accurate forecasts for organizational adoption of incremental than radical high-tech product innovations.

H3b: The external influence diffusion model will produce the most accurate forecasts out of the six forecasting models for organizational adoption of incremental high-tech product innovations.

METHODOLOGY

Sample

This study examines the diffusion of 39 high-tech product innovations through adoption data collected by Techtel's PC/Market Opinion survey from 1987 to 1995. Product innovations included PCs/PC software and network equipment/software. Techtel's panel members were qualified in having knowledge of and influence in their respective organization's PC buying process. Although a confidentiality agreement prohibits any reporting of the specific products tracked or organizations that responded, Techtel's survey is a respected device that collects data on both major and minor software and hardware products for organizations covering 14 different industries. Survey results from a similar type of panel have been used in a previous study that compared forecasting models (Collopy and Armstrong 1993) and in several studies that have examined diffusion processes (Schmittlein and Mahajan 1982; Srinivasan and Mason 1986).

Product Innovation Impact Measure and Selection of Products

Many researchers refer to the impact or "radicalness" of a new product, however, few have actually attempted to measure it. Those who have generally take one of two approaches: (1) a cost/performance ratio, or (2) the amount of newness. This study measures innovation impact using the method developed by McDade, Oliva, and Pirsch (2002) which is a combination of newly developed and replications of previous measures taken from both approaches. Their enhanced ten-question impact scale uses a five-point Likert scale for responses and classifies innovative products into three identified categories: incremental, semiradical, and radical.

Recruited from industry, 52 experts used the McDade et al. impact scale to rate the impact of thirty-nine products listed in Techtel's PC/Market opinion survey. The time series for all products was based on quarterly time intervals and ranged from a maximum of 34 quarters to a minimum of 10 quarters. The hypotheses are tested by comparing only the five most radical with the five most incremental high-tech product innovations. Choosing product innovations near the end points of the impact continuum allows the hypotheses to be directly tested without being clouded by product innovations on the cusp of each impact category (Dewar and Dutton 1986).

Dependent Variable

Following standard diffusion estimating practice, the single dependent variable is number of organizations who adopted a given product innovation during the current quarter (A). The cumulative number of adopters tracked over time (in this case quarterly) yields the diffusion curve. This measure is consistent with those who have studied organizational diffusion in economics and organizational theory (Kimberly and Evanisko 1981).

Independent Variables

The two independent variables that are considered are consistent with most diffusion models, and include the cumulative number of previous adopters of a given product innovation up to time t-1 (Y_{t-1}), as well as time (t). The first independent variable (Y_{t-1}) is operationalized by summing the number of organizations who have adopted a given product innovation in each of the previous quarters. The second independent variable (t) is operationalized by a series of consecutive numbers corresponding to the quarters where the diffusion occurred.

Models

For estimation purposes, the diffusion models were expressed in their discrete form as shown below. Such a form permits the estimation of associated parameters using standard statistical procedures. The trend exploration models are linearizable in their parameters and therefore can also be estimated using standard statistical techniques.

(7) External Influence Model (Exponential): $A_t = pm - py_{t-1}$

(8) Internal Influence Model (Logistic): $A_t = qy_{t-1} - (q/m)y_{t-1}^2$

(9) Mixed Model (Bass): $A_t = pm - (p-q)y_{t-1} - (q/m)y_{t-1}^2$

Where A_t is the predicted number of adopters in period t (current), p is the constant of external influence, q is the constant of internal influence, m is a constant representing market potential, and py_{t-1} is the cumulative number of previous adopters to time t-1.

Validation

In the past, several researchers have utilized the mean square error (MSE) to compare forecasting models. However, Rao (1985) pointed out this method has two drawbacks: (1) the MSE is not an absolute measure and therefore does not facilitate comparison across different data sets with different time intervals; and (2) the interpretation of the MSE is difficult because it involves squaring of a range of values. A better alternative is the Median Absolute Percentage Error (MdAPE) method (Armstrong and Collopy 1992). The MdAPE is a median measure of the absolute percentage error (APE) for a particular forecasting method for a given horizon of a particular series. Formally, this is defined in equation (10):

$$(10) \quad APE = |X_i - F_i| / X_i$$

Where X_i is the actual number of adopters, and F_i is the forecasted number of adopters using the estimated model. The MdAPEs for a particular forecasting method is calculated by arranging the APEs in an ordered array for n number of quarters. If n is odd, the MdAPE is the (n+1)/2 ordered observation.

Following Collopy and Armstrong's (1993) methodology, this study uses three *ex ante* forecasts. After the model parameters are fit using a percentage of the data set, forecasts are produced for three quarters for a given product innovation, and then each model's forecasts is compared to hold-out data. Thus, 39 products and three *ex ante* forecasts yield a total of 117 forecasts for each of the six forecasting techniques. All three macro-level diffusion models were estimated using the nonlinear regression procedure of SYSTAT 5.0. Van de Bulte and Lilien (1996) found nonlinear regression produces the most unbiased estimates of diffusion parameters and is the method of choice for diffusion macro-level researchers. The Simplex approach was used to estimate all three macro-level diffusion models Collopy and Armstrong (1993) and every effort was made to keep the estimation process consistent across all six methods.

RESULTS AND DISCUSSION

A summary of the key results is presented in Table 1.

Hypothesis I

Hypothesis 1 predicts complex diffusion models would produce no more accurate forecasts than basic trend exploration models for organizational adoption of high-tech product innovations. Examining Table 1 we find strong support for the hypothesis. The simple trend exploration models had an average MdAPE of 51.34 making them not only as accurate, but significantly more accurate (p < .05) than the basic diffusion models which had an average MdAPE of 78.91. Of the 39 high-tech product innovations, 35 had average macro-level diffusion MdAPE's that were greater than average exploration MdAPE's.

TABLE 1 Summary Statistics for 39 High-Tech Products		
Forcasting Model	**Average MdApe**	**Average r²**
Internal Influence	104.41	.813
External Influence	72.30	.932
Mixed (Bass)	60.00	.912
Average Diffusion	78.91	.886
Naive	26.84	–
Exponential Smoothing	62.00	–
Linear	61.35	.659
Average Exploration	51.34	–

Surprisingly, the naive model easily outperformed all other forecasting techniques with an average MdAPE of 26.84. The overall dominance of the naive model is the most unexpected result from Table 1. Consider than the second most accurate forecasting technique was the Bass model with an MdAPE (60.00) that is over twice as large as the naive model.

Hypotheses 2a–2c

Hypothesis 2a suggests S-shaped diffusion models will be more accurate for radical than incremental high-tech product innovations. Table 2 presents a summary of MdAPE's for the five most radical and the five most incremental new high-tech products as judged by the expert panel. Consistent with hypothesis 2a, the S-shaped diffusion models (internal and Bass) are more accurate for the five most radical high-tech product innovations (MdAPE = 23.09) than for the five most incremental new products (MdAPE = 46.45). This difference is also significant ($p < .05$) after a comparison of means through a one-way ANOVA.

Hypothesis 2b predicts the S-shaped diffusion models will produce the most accurate forecasts for organizational adoption of radical high-tech product innovations. This hypothesis received mixed support since the naive model had a lower forecasting error (MdAPE = 20.57) than the S-shaped models (MdAPE = 23.09), but the difference was not significant ($p = .722$). Therefore we can say the S-shaped diffusion models are one of the most

appropriate forecasting techniques for radical, high-tech product innovations along with the naive model. Statistically there is no significant difference.

Hypothesis 2c suggests the Bass diffusion model will be more accurate than the internal-influence model for predicting organizational adoption of radical high-tech product innovations. This hypothesis examines which of the two S-shaped models is best for product innovations of radical impact. Hypothesis 2c is partially supported by the lower MdAPE for the Bass model (21.57) compared to the internal-influence model (MdAPE = 24.61). However, a one-way ANOVA test found the means were not significantly different ($p = .736$).

Hypotheses 3a–3b

Hypothesis 3a predicts the external influence diffusion model will be more accurate for incremental than radical high-tech product innovations. Table 2 shows the external influence MdAPE for incremental innovations (17.70) was less than its MdAPE for radical innovations (51.28). Since this is also statistically significant ($p < .05$), we can say hypothesis 3a is strongly supported by these results.

Hypothesis 3b suggests the external influence diffusion model will provide the most accurate forecasts for incremental product innovations. Similar to hypothesis 2b, this received mixed support since the naive model did have a slightly lower forecasting error (MdAPE = 17.08)

TABLE 2
Summary MdAPE's for Five Radical and Incremental Innovation

Forecasting Model	Average Radical MdAPE	Average Incremental MdAPE
Internal Influence	24.61	48.24
External Influence	51.28	17.70
Mixed (Bass)	21.57	44.65
Average S-Shaped	23.09	46.45
Average Diffusion	32.49	36.86
Naive	20.57	17.08
Exponential Smoothing	30.60	33.80
Linear	39.42	15.35
Average Exploration	30.20	22.07

than the external influence model (MdAPE = 17.70), but the difference is highly insignificant (p = .903). Thus, we can say that both models are the best choices for predicting organizational adoption of incremental high-tech product innovations.

SUMMARY

Three basic macro-level diffusion models and three simple trend extrapolation models were compared empirically using time series data from 39 high-tech product innovations. In terms of forecasting accuracy, the simple trend exploration models were decidedly better performers, providing consistently lower MdAPE's. As depicted in Table 2, the superiority of the simple trend exploration models extends to the most radical (30.20 versus 32.49) and the most incremental (22.07 versus 36.86) new high-tech products. Overall, trend exploration models are especially accurate predictors of incremental high-tech product innovations (average MdAPE = 22.07). Notably consistent with Armstrong and Collopy's (1993) suggestion that high R^2 values does not necessarily lead to more accurate forecasts, this study found macro-level diffusion models had extremely high R^2 values (average R^2 = .886) but did not produce accurate forecasts (MdAPE = 78.91).

In terms of the most accurate forecasting model, the naive model outperformed all other models in virtually all situations. While somewhat discouraging for the science of forecasting, it does support the view that organizational adoption of high-tech products is difficult to predict using standard models. The volatility of high-tech products appears to be best predicted by a model which forecasts future periods based on the most recent periods such as the naive model. Indeed, the naive model is best equipped to handle the "noisy" data that often results from high-tech product innovations.

In general, it appears that S-shaped diffusion models are better suited for predicting future sales of radical (MdAPE = 23.09) rather than incremental (MdAPE = 46.45) high-tech product innovations. Conversely, the external influence diffusion model is most appropriate for those high-tech new products of incremental (MdAPE = 17.70) rather than radical (MdAPE = 51.28) impact. Among the macro-level diffusion models, the Bass model seemed to be the best forecasting tool and was especially effective in predicting new products with a radical impact (MdAPE = 21.57). Indeed, only the naive model (MdAPE = 20.57) performed better than the Bass model for the most radical high-tech products.

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CREATING AND CLAIMING VALUE IN COLLABORATIVE RELATIONSHIPS

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SUMMARY

While we can rely on a sound understanding of how to conceptualize and measure value in business relationships (Lindgreen and Wynstra 2005; Menon, Homburg, and Beutin 2005; Ulaga and Eggert 2006), researchers have almost exclusively focused on value once it has been created and shared among the respective relationship partners. More than a decade ago, however, Anderson (1995, p. 348) pointed out that "value creation and value sharing can be regarded as the raison d'être of collaborative customer-supplier relationships." Indeed, understanding value creating and value sharing processes is key to the profitable management of business relationships. To shed light on the interplay between value creation and value claiming in business relationships, we developed a set of hypotheses linking value creation and value claiming to the relationship partners' satisfaction with the current collaboration and their future collaboration intention.

To empirically test our conceptual model, we have chosen recently completed (within the last 12 months) projects between a customer and a supplier firm as units of analysis. We conducted a large-scale survey among industrial firms in German-speaking countries and se-

lected purchasing managers as key informants. After three follow-ups via email and reminder phone calls, we received 186 completed questionnaires yielding a 10.1 percent response rate.

We employed Partial Least Squares (PLS) analysis for testing our hypotheses. Figure 1 summarizes parameter estimates for the structural model. With the exception of H3c, all hypotheses are confirmed at the 5 percent or 1 percent level respectively. These results have several important implications.

First, the path estimate of .79 between value creation and value claiming indicates that buying firms typically claim most of the value created in customer-supplier projects. Second, with a path estimate of .41, value claiming is the strongest driver of satisfaction in our model. Consequently, the size of the value pie created is of little importance for the formation of satisfaction unless it can be claimed by the respective partner. In other words: Even in collaborative relationships, charity begins at home. Third, and most interestingly, the direct link between value creation and satisfaction is negative when controlling for the indirect path (i.e., value creation → value claiming → satisfaction). This finding provides empirical

FIGURE 1
Parameter Estimates
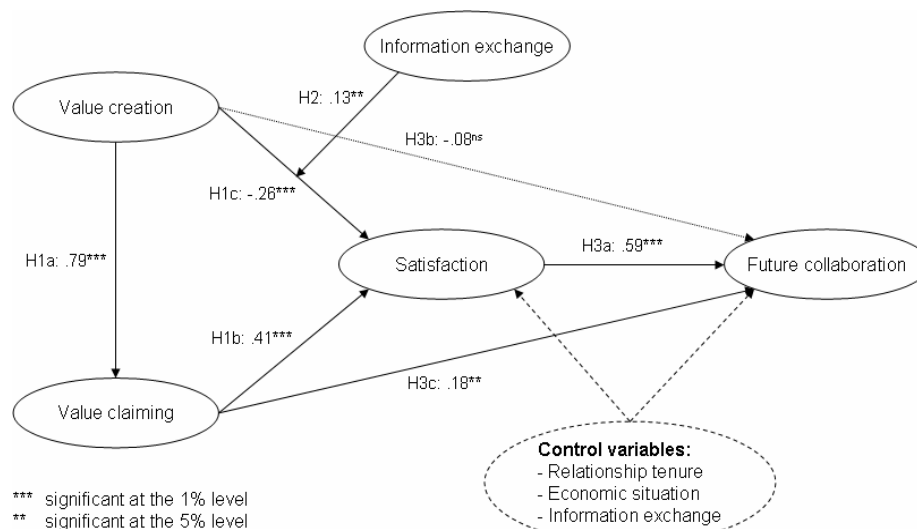
evidence for the importance of equity theory in customer-supplier relationships. Evidently, our respondents did not only assess the size of the value pie they could successfully claim but also took the other party's value slice into account. From the focal company's perspective, increasing the value pie is only perceived as beneficial as long as it translates into a bigger value slice it can appropriate. If it does not lead to more value for the focal company, increasing the value pie even reduces satisfaction with the customer-supplier project.

Open and frequent exchange of information, however, can ease this negative impact. With a path estimate of .13, the latent interaction term between value creation and information exchange has a significant impact on satisfaction. This finding underlines the importance of communication in collaborative relationships. If a supplier wants to capture a bigger share of the value pie, open and frequent communication is key to secure customer satisfaction and future collaboration intention.

Finally, this study confirms the mediating role of satisfaction in buyer-supplier relationships. The impact of value creation on future collaboration intention is perfectly mediated by satisfaction. Value claiming, however, has a significant direct effect on collaboration intention indicating partial mediation. These findings underline the importance of the value slice as opposed to the total value pie for the formation of behavioral intentions in business relationships. References are available upon request.

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THE BUYING CENTER INFLUENCE: CULTURAL MEDIATING EFFECTS ON INTERFIRM SUPPORT

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SUMMARY

Recognized as a core component of organizational buying behavior, the buying center is a strategic resource with vital influence in stimulating account growth. While literature has focused on interpersonal influence strategies, researchers have devoted little attention to the collective influence of the buying center on interfirm purchases. Since the buying center is not a "well-articulated structure" and is actually quite "fluid over time" (Fichman and Goodman 1996, p. 313), the task of the researcher is to find ways to capture the collective influence of buying center members and identify the "rules of procedures" that govern organizational buyer behavior.

The purpose of this paper is to examine the buying center's collective influence on account performance. Drawing from organizational theory, the concept of buying culture is developed and integrated with theoretical concepts from organizational learning to offer a comprehensive view of the buying center influence. Framed in the organizational cognition paradigm, the proposed framework integrates the buying culture with a seller legitimacy process. This legitimacy process is then linked to account performance.

The conceptual model is empirically examined with a high-tech, Fortune-100 firm. Key customer accounts from banking, insurance, manufacturing, and retailing industries are represented. Proposed hypotheses are further tested in multiple product/service contexts. The mediating influences of seller legitimacy and passive support are significant as drivers of customer purchases.

Researchers have continued to challenge industrial marketers to base their strategies on careful appraisal of buyer behavior for account success (Webster and Wind 1972). The critical processes of the buying center must be delineated to enable managers to more clearly shape and control its influence in organizational buying behavior. Theoretical conceptual development must accurately map the mechanisms that connect selling actions and sales outcomes for determining optimal value in the exchange process. This empirical investigation is a starting point for addressing these mandates and assisting managers in developing strategic initiatives that offer greater value in buyer-seller relationships. References are available upon request.

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FORMALIZATION, MARKET INFORMATION AND NEW VENTURE PERFORMANCE: A CROSS-NATIONAL STUDY OF CHINA, JAPAN, AND THE UNITED STATES

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SUMMARY

Utilizing market information is one of the fundamental factors of market orientation (Kohli and Jaworski 1990; Narver and Slater 1990). Researchers have discussed its antecedents, such as organization structure, and its consequences, such as the impact on performance (Li and Calantone 1998; Menon and Varadarajan 1992; Moorman 1995; Ottum and Moore 1997). However, empirical evidence has thus far primarily been obtained from large established companies located in western countries. Furthermore, researchers are now paying more attention to new venture companies (Ireland, Reutzel, and Webb 2005). Since little is known about the way market information is processed in new venture companies, there is a need to test these conceptual models in new entrepreneurial firms. Moreover, in an increasingly globalizing business world, researchers recognize the need to test these theories in the context of different cultures.

In order to address these research gaps, the objectives of the present research are fourfold. First, we aim to investigate the impact of formal market information acquisition on information utilization in new venture firms. Our second objective is to investigate the effect of organizational formalization on acquisition and utilization of market information in new venture firms. Third, we seek to verify whether organizational formalization, formal acquisition, and formal utilization of market information affect organizational performance. Our final aim is to explore the extent to which these relationships differ in different cultural contexts.

Using as a foundation existing research in large established companies, we develop a conceptual model relating these constructs to new ventures. Based on structural and cultural differences between countries, we also hypothesize that the model will differ between countries. Our research hypotheses are listed below.

H1: The use of a formal process of market information acquisition has a positive effect on the process of market information utilization in new venture firms.

H2: The use of a formal process of market information utilization has a positive effect on new venture performance.

$H3_a$: Organization formalization has a positive effect on the formal processes of market information acquisition and utilization in new venture firms.

$H3_b$: Organization formalization has a positive effect on new venture performance.

H4: The relationships proposed in H1, H2, and H3 differ between countries.

We developed the English version of the questionnaire by choosing previously validated measures based on a literature review and interviews conducted with 10 entrepreneurs in China, Japan, and the United States (Dillman 1978; Douglas and Craig 1983). Next, we prepared the Japanese and Chinese versions of the questionnaire following the two parallel-translation/double-double translation method (Douglas and Craig 1983). The surveys were conducted in the three countries between January and September 2007. As each country has different statistics regarding new venture companies, we selected the most suitable sampling sources in each country and filtered the samples by two criteria; (1) firms established after 1980, and (2) firms with fewer than 300 employees. The final dataset for this research consists of 453 responses from new venture companies in three countries, 186 from China, 124 from Japan, and 143 from the U.S.

Before testing the hypotheses, we validated the measures and evaluated the measurement model. We also examined common method variance using Harman's one-factor test for all the variables of this study (Li and Atuahene-Gima 2001; Podsakoff and Organ 1986). Then we evaluated the measurement model by confirmatory factor analyses following the two-step approach (Anderson and Gerbing 1988). The discriminant validity of the latent constructs was tested by a pairwise Chi-square comparison test of the unconstrained model with the constrained model in which the correlation between two constructs was set to one (Anderson and Gerbing 1982; Li and Atuahene-Gima 2001). Since our measurement model was validated, we tested the hypotheses at the second step (Anderson and Gerbing 1988). We performed structural equation modeling (SEM) to test the hypotheses underlying the conceptual model. We included firm age and firm size as control variables.

The results suggest that the use of a formal process of market information acquisition has a positive effect on information utilization in new venture firms and that the use of a formal process of market information utilization has a positive effect on new venture performance, regardless of country.

Organization formalization also has a positive impact on the use of a formal process of market information *acquisition* in all countries. To our surprise, however, organization formalization has a positive impact on the use of a formal process of market information *utilization* in the U.S., but not in China or Japan. In addition, the impact of organizational formalization on new venture performance also differs across countries. Organization formalization enhances new venture performance in China; however, formalization has no significant effect on performance in the U.S. or Japan.

This research is the first study to investigate the relationships between organization structure, market information use and new venture performance in new venture companies of three countries. It has verified that formal processes of information acquisition and utilization in new ventures have positive effects in three very different countries. However, the precise effects of organizational formalization differ by country. In the U.S., formalization improves information acquisition and utilization. In Japan, formalization improves only information acquisition. In China, on the other hand, organizational formalization improves information acquisition, but has an additional direct positive effect on organizational performance. These are intriguing findings that are worthy or future research. References are available from the authors upon request.

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ENTREPRENEURIAL MARKETING AND THE BORN GLOBAL FIRM

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SUMMARY

Reflecting the growing evidence that marketing is key to the success of new firms (Gruber 2004; Morris, Schindehutte, and La Forge 2002), the research stream of entrepreneurial marketing (EM) has grown in significance over the last two decades. The EM literature in general suggests that new ventures face several specific marketing challenges that cannot be dealt with by conventional marketing practices. In a review of the EM literature Gruber (2004, p. 165) observes that "though many advances have been made . . . research findings are extremely fragmented, and there is no integrated analysis or comprehensive theory of entrepreneurial marketing." The definition for EM guiding this research (adapted from that of Morris et al. 2002) is: *the proactive identification and exploitation of opportunities for acquiring and retaining profitable customers through innovative approaches to risk management and resource leveraging* for *value creation.*

We suggest that "born global firms" provide the appropriate setting to conduct this research as they are exemplar highly entrepreneurial small firms that demonstrate rapid and successful global market entry. These firms successfully overcome the adversity of resource poverty. These firms enter the global market, sometimes bypassing the domestic market altogether, exporting highly innovative and cutting edge products (McKinsey and AMC 1993; Rialp, Rialp, and Knight 2005). Therefore the overall research problem guiding this study is *How does EM contribute to the accelerated internationalization of international new ventures – born global firm?*

The need to examine the processes of EM in born globals justifies the use of case study method adopted for this research (Eisenhardt 1989; Yin 1994). The sampling strategy follows theoretical replication logic as suggested by Yin (1994). The key principle underlying the selection of cases was relevance rather than representativeness (Stake 1994). Nine exemplar "born global" firms (Eisenhardt 1989) were selected for study. The operational definition of "born global" was the firm (a) had started exporting within the first three years of operation, and (b) had at least 25 percent of sales income derived from exporting (Knight and Cavusgil 1996). Sampling proceeded until theoretical saturation was achieved (Eisenhardt 1989).

The findings of the research are presented incorporating five emergent themes of the in-depth case studies to address the overall research question. First, we identify the theme of *opportunity recognition* consistent with the EM literature (Gruber 2004; Morris et al. 2002) and confirming its role in born global success. The sampled firms actively seek opportunities that can be exploited using innovative approaches and products which actively contribute to their speed of market entry. The firms seek opportunities in the global marketplace, not restricted to their country of birth. CEO of Case F, the gaming company: *We sell hardly any equipment in Australia because it is such a small market. . . .* Second, we identify the theme of *customer intimacy based innovative products* as involved in the success of born global firms. Entrepreneurship has been identified as having three key component innovativeness, proactiveness and risk management (Covin and Slevin 1986). However the ability to develop and configure innovativeness as marketable products provides a compelling source of competitive advantage in the sampled born global firms. Case A, the string bikini company pursues customer intimacy resulting innovative product solutions with a high degree of co-production. *with the internet you are working with the customers closely. . . . Our customers send us pages and pages of information. they feedback constantly.* Third, we identify the theme of *networking* as involved in the success of born global firms. The sampled born global firms actively pursue and develop networking and identify this as essential (Gilmore and Carson, 1999) in particular for accelerated market entry. CEO of Case H, a smelting technology firm, relates the effect of a new marketing manager: *P . . . had some very strong connections into some of the overseas producers and one of them was K--- Zinc. . . . So, when he came into [us] [he] spoke to them . . . and I believe it was really because of P . . .'s relationship and the fact that he'd helped them that they were happy with us.* We identify the fourth theme of *resource leveraging* as strongly involved in the success of born global firms, consistent with the need in small firms to overcome resource poverty and liability of smallness (Gruber 2004). For example, EM in the sampled born global firms demonstrates a high ability to leverage scarce marketing resources. Case C, the bag company showed a very early focus on the brand and the development of the brand using innovative marketing approaches. After promoting the brand at a bike messenger competition in Barcelona, they immediately followed this with exposure at a major trade show in Germany. The

CEO relates: *We really got stuck into the promotional side of the business very early on we really pushed that logo and not the product that the logo represented at all. . . .*

In a new departure, we identify the theme of *legitimacy* as strongly involved in the success of born global firms, in particular in getting global market acceptance for a small unknown firm and its products. The born global firms demonstrate a number of techniques for enhancing legitimacy. The CEO of Case F, the gaming company relates a simple website strategy: *Our website was always in Americanized English and all the pricing was in U.S. dollars.* The use of certification, prizes and awards is often used strategically to enhance legitimacy, visibility and credibility. The CEO of Case D, the security surveillance technology company relates: *when we [first] went to that show we were really a very small player . . . we had to stand in the corridors and drag people in. . . . In 2004, . . . we won the best security product award for the show . . . after that it really took off.* Overall the findings of the study enhance our knowledge of EM's role in the accelerated internationalization of born global firms. The research makes a novel contribution identifying EM's legitimacy dimension. References are available upon request.

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THE MANAGEMENT OF MULTI-SECTOR INNOVATIONS:
A FRAMEWORK FOR COMPARATIVE ANALYSIS

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SUMMARY

The study of innovation is an important topic of research in the marketing literature (e.g., Glazer 1991; Han, Kim, and Srivastava 1998; John, Weiss, and Dutta 1999). In what seems now to be an ever increasingly complex and turbulent environment, a company's ability to develop and commercialize innovative products and services is regarded as a fundamental mechanism for creating and maintaining competitive advantage (Barney 1991). Indeed, the impact of product innovation on firm performance can be strong and long-lasting (Geroski, Machin, and Van Reenen 1993; Kleinschmidt and Cooper 1991).

A focal area of research on innovation is how best to characterize and thereby make sense of the differing types of innovations. The nature and characteristics of innovations vary widely and therefore the corresponding firm management approach needs to align with the differing requirements and market dynamics. Recently Garcia and Calantone (2002) critically assessed innovation typologies and suggest a method for classifying innovation. Other works have been instrumental in helping both academics and managers to understand innovations and the new product development process (e.g., Cooper 2000).

While the work-to-date has contributed much to our knowledge, the previous classifications generally consider each product as if it were indeed one and only one product, and for the most part impacts one industry and/or one market. We have studied a group of innovations that are not sufficiently explained by current conceptualizations in the literature. We call these "multi-sector innovations." These innovations are unique in several ways, most notably: (1) they involve a collection of products that range widely in terms of their innovativeness and (2) marketplace adoption requires coordination and cooperation across public, private, and nonprofit sectors for the creation and diffusion of a new product or service.

Case Study: Intelligent Transportation Systems

One case of an emerging multi-sector innovation is Intelligent Transportation Systems (ITS) which involves the application of information, communications, and control technologies to improve the operation of our transportation networks. In particular, ITS applications offer the potential for the integration of the traffic management and emergency response systems. This involves sharing data and coordinating resources between and among traffic agencies and medical response organizations. This capability rests on the ability to collect, store, process and distribute relevant information to the appropriate users (agencies and companies) in a secure manner. By integrating traffic management and emergency response systems and coordinating highway and medical resources in the case of roadway incidents, such a system would save lives, reduce the impact of serious injuries, conserve public safety resources, and improve transportation efficiency (see Biesecker 2000; Starolielec, Funke, and Blatt 2000).

A number of recent events and conditions have led the U.S. Government to allocate billions of dollars to the deployment of these systems. This money will flow to the agencies who will then purchase planning and consulting services, hardware, software, training, media space to educate the public, and anything else needed to develop and launch the ITS system. However, the deployment depends upon the cooperation of multiple stakeholders across public and private sectors (Savage et al. 2004).

Although vendors have achieved the technological capability to initiate integrated traffic management and emergency response systems, they lack the cross-sector cooperation necessary to make the system a reality. In particular, the potential stakeholders (organizations who would contribute to and benefit from an integrated system) are many, including 911 public service answering points (PSAPs), local police and fire departments, ambulance services, trauma centers and hospitals, wireless carriers and component suppliers, and local, state, and federal government agencies, among others. The broad diversity of stakeholders relevant to the deployment of the system is evident. Furthermore, the stakeholders cross a wide range of sectors, from the automotive telematics industry and insurance companies to medicine and nonprofit organizations.

A unique set of challenges arise from the complex market conditions surrounding the case of intelligent transportation systems and the relationships among the

diverse stakeholders involved. Coordination and cooperation across private, public, and nonprofit sectors are crucial to a successful deployment. This involves a high degree of government influence, offers far-reaching benefits for society, and will require a long time to develop and diffuse. Moreover, the system involves the convergence of old and radically new technologies from across the various sectors involved. Due to these unusual conditions, it is clear that the management of multi-sector innovations is exceedingly challenging.

Conclusion

A comprehensive understanding of any innovation – and the market conditions surrounding that innovation – is of crucial importance for the management process. Due to the rapid technological changes occurring today, multi-sector innovations will be an increasingly relevant reality. This research offers a worthwhile first-step in filling this void and improving our understanding of this important phenomenon. References are available upon request.

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AN EMPIRICAL STUDY ON SEGMENTATION AND DYNAMICS OF ONLINE AUCTIONS

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SUMMARY

Online auctions have become an important element of electronic marketplaces. More and more people buy and sell a variety of items through online auctions. However, there are still various challenges for sellers. For example, individual sellers find that it is increasingly difficult for them to survive in electronic marketplaces when competing among businesses. Moreover, compared to experienced sellers, new sellers suffer many disadvantages in terms of auction performance and outcomes.

To facilitate online auctions, eBay along with other third parties provides sellers with many selling options/ strategies. In addition, eBay publishes all the completed auctions generated in the past fifteen days. Each completed online auction recorded the complete auction listing options along with the associated bidding history. From the completed auctions, potential sellers can see different combinations of selling strategies with various auction results. eBay expects that potential sellers along with buyers can learn from these completed auctions. However, the following research questions related to seller behavior have not been answered so far: Can we differentiate online auctions and partition them into different segments? Do the completed online auctions really have some impact on the current online auctions? How do different online auction segments interact with each other?

In this study, based on the structural differences in auction success and price determinants, we segment online auctions into four segments by seller types (new sellers vs. experienced sellers) and product conditions (new items vs. used items). Time series analysis tells us that current auctions are more likely affected by the most recently completed auctions, and the completed auctions have more influence on experienced sellers than new sellers. The Granger-causality analysis suggests that for new or experienced sellers, the behavior of selling used items can be explained by the behavior of selling new items, and vice versa. We also find the auctions listed by experienced sellers have some influence on the auctions listed by new sellers, but the auctions listed by new sellers have no influence on those listed by experienced sellers. All these findings have significant implications to the market maker and sellers.

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DRIVERS OF CONSUMER RATINGS IN ONLINE RECOMMENDER SYSTEMS: AN EXPLORATORY ANALYSIS OF CROSS-COUNTRY DIFFERENCES

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SUMMARY

Online recommender systems have provided consumers with a powerful interface to communicate and inform one another. As an initial step toward understanding the drivers of ratings in ORS, this exploratory study investigates how dimensions of attitude differentially influence quantitative evaluations of products across North American, European, and East Asian regions.

Organizations have long been interested in the driving mechanisms and consequences of word-of-mouth (WOM) activity – some have gone so far as to place WOM referral activity as the key marketing metric (e.g., Net Promoter) (Keiningham et al. 2007). The emergence of structured and accessible electronic WOM forums has provided marketing researchers the ability to peer into the "blackbox" of consumer WOM activity (Baker, Parameswaran, and Rajagopalan 2007). These electronic forums are particularly appropriate for understanding WOM because consumer activity in these forums is frequently coupled with explicit quantitative consumer evaluations of a product or service (e.g., Amazon.com's and Netflix.com's recommender systems).

Word-of-mouth networks have been linked to consumer outcomes like satisfaction and post-purchase regret (Anderson 1998; Tsiros and Mittal 2000). Dellarocas (2003) defined online WOM networks as systems that use the "Internet's bi-directional communication capabilities in order to artificially engineer large-scale [WOM] networks in which individuals' share opinions and experiences on a wide range of topics." One popular type of online system that carries WOM information is online recommender systems (ORS). A review of ORS research suggests that most studies to date have focused on the impact of these WOM networks to answer questions like how feedback affects price premiums of sellers (Houser and Wooders 2000; Melnik and Alm 2002; Ghose, Ipeirotis, and Sundararajan 2006). Despite the potential value and the demonstrated use of these ratings by consumers and marketers, very little is understood about what drives consumers to assign particular quantitative ratings, and even less is understood about how these drivers vary across different consumer groups.

To better understand the drivers of consumer ratings, we draw from theories of attitude formation and develop a conceptual model that explains how attitudinal components drive quantitative ratings in Online Recommender Systems (ORS). Drawing on Hofstede's (1981) dimensions of country-level cultural differences, we propose theoretical explanations for how these attitudinal drivers may vary systematically across countries. . . . We empirically validate the conceptual model using ORS data from three continents – North America, Europe, and Asia.

We developed and tested a conceptual model linking attitudinal components to quantitative product ratings. The proposed attitudinal model takes the multi-dimensional perspective of attitude: cognitive, (e.g., concrete thoughts or beliefs), affective (e.g., feelings or emotional evaluations), and conative (e.g., behaviors or intentions) (Ajzen 1988; Sheth and Mittal 2002). The multi-dimensional perspective of attitude accounts for seemingly conflicting sentiments driving an overall consumer rating. Based on this model, we tested hypotheses that associate each dimension of attitude with the overall consumer rating in the ORS.

Based on this overall attitudinal framework, we then investigated how attitudinal effects may systematically vary across different identifiable consumer groups. Specifically, we conducted an exploratory investigation using Hofstede's cultural dimensions as a basis to understand how consumers from North America, Europe, and East Asia may have different attitudinal effects driving the overall ORS evaluation. For example, drastic differences between North-American nations and East-Asian nations across the individualism and uncertainty avoidance (both substantially lower among North-American nations) dimensions are suggestive of possible cross-regional differences. Together, the low individualism and the high uncertainty avoidance of Asian countries, relative to the U.S. and Canada, suggests that manifest public expression of intense emotion will be more strongly associated with the subsequent ORS quantitative rating. The logic for this assessment is as follows – the intense outward expression of feelings in a collectivist culture is likely driven by a particularly intense need to express such an emotion and "break from the group," meaning the overall evaluation

will be more intensely affected by the emotional response. Additionally, in cultures with high uncertainty avoidance, there is less tolerance for divergent opinions. Thus, members of this culture will only express such intense opinions when they feel particularly strong about a product or service – again suggesting that there will be a particularly strong impact on ORS consumer ratings. The limitations with the current dataset required that country-level data be aggregated into geographic regions, we only test exploratory hypothesis that there will be non-zero differences in the effect of attitudinal components on quantitative ratings across regions.

The model and exploratory hypotheses were investigated using 227 consumer product evaluations from Amazon.com (North America [U.S. and Canada] = 103, Europe = 75, Asia = 49). The dependent variable, the overall consumer rating, was the 1–5 "star rating" used in the Amazon.com ORS. The attitudinal dimensions (independent variables) were based on a content analysis of the textual feedback. Individual elements in the textual feedback were coded by two independent coders as cognitive, affective, or conative and each dimension was also tagged as being either positive or negative. Inter-rater agreement was high (88%) and disagreements were resolved through discussion. Dummy codes designated the consumer's region. The model was tested using moderated regression procedures recommended by Cohen and Cohen (2003). The model explained a significant portion of the variance in the consumer rating (*adj. R^2 = .573*).

Five of the six hypothesized effects of the attitudinal dimensions are supported (p < 0.05), with only *positive conative* being non-significant (*B* = 0.107, *t-value* =

1.06). Results suggest that positive and negative cognitive sentiments exert the strongest effect on consumer ratings. To test the exploratory hypotheses of cross-regional differences, region*attitudinal sub-dimension interaction terms were evaluated using a two-tail test at $\alpha = 0.1$. Of the 12 interaction terms, four were significant. For example, in both Asia and Europe, the effect of negative cognitive sentiments on ORS rating was statistically different (*B* = 0.140, *t-value* = 1.853 and *B* = 0.149, *t-value* = 1.869, respectively) than that from North America.

For marketers and researchers this study underscores the importance of investigating ORS to better understand the underlying dynamics of consumer ratings. Our research points toward the need to not only understand the theoretical link between attitude and evaluation, but also how the link between attitude and overall consumer rating may systematically vary across consumer groups. This implies that while the "star rating" may be a uniform metric for analysts, how different consumer segments arrive at the value may be entirely different, suggesting that managerial actions taken based on such ratings can be enhanced by considering how different groups may differ in weighting the factors considered when assigning consumer ratings.

As an exploratory study, there is additional work to be done in this area. First, it would be meaningful to test for changes in the effect sizes of attitudinal elements at the country level instead of the more coarse regional measure used here. Further, the study of differential consumer rating drivers across different consumer segments like innovators or mavens, could be a fruitful avenue of future inquiry. Citations available from authors upon request.

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AN EMPIRICAL INVESTIGATION INTO THE CONCEPT OF RELATIONSHIP PRICING IN AN INDUSTRIAL EXPORT SETTING: EVIDENCE FROM THE U.K.

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ABSTRACT

This paper sets out to shed light on the role of relationship pricing in an industrial export context. Analyzing data from 243 U.K. industrial exporters, the paper demonstrates that the adoption of relationship pricing is (a) facilitated by the degree of an exporter's market orientation, export experience and the level of formality in export price setting and (b) hindered by firm age and export intensity. It is also shown that industrial exporting firms adopting relationship pricing tend to follow a more market-based export price decision-making.

INTRODUCTION

Relationship marketing is increasingly seen as a desirable marketing strategy due to its potential for profit and appeal to customers. A wealth of empirical research has been conducted in the field of relationship marketing and customer relationship management in general (e.g., Wengler et al. 2006). Much of this research has investigated extensively issues such as, among others, the impact of technology (e.g., CRM systems, data mining techniques, Internet) on building long-term relationships with customers (e.g., Kumar and Reinartz 2006), the relationship between CRM and customer satisfaction (e.g., Mithas et al. 2005) and the application of relationship marketing to different industries such as services and retailing (e.g., Srinivasan and Moorman 2005).

There is, however, an issue that is both conceptually and empirically neglected: the role of pricing and more specifically the concept of relationship pricing. To address this gap, the present paper sets out to investigate the role of relationship pricing in an industrial export context. More specifically, the paper intends to (a) measure the effects of selected contextual variables on the extent to which industrial exporting firms adopt the concept of relationship pricing and (b) determine the effects of relationship pricing on the export pricing process following manufacturers of industrial products. The rationale for focusing on an industrial export context was two-fold. First, relationship marketing (and consequently relationship pricing) may flourish more easily in business-to-

business rather than business-to-consumer settings, due to the inertia characterizing buyer-supplier relationships in the former settings (Fill and Fill 2005). Second, common challenges and uncertainties facing exporting firms (e.g., cross-cultural differences, unique customer needs) (Onkvisit and Shaw 2004) may be easier to tackle through the establishment of close and long-term relationships with foreign customers.

LITERATURE BACKGROUND AND RESEARCH PROPOSITIONS

The Concept of Relationship Pricing

An investigation into the literature areas on industrial pricing and relationship marketing reveals a lack of empirically-derived operationalizations for the concept of relationship pricing. Berry and Yadav (1996, p. 48) referred to the concept of relationship pricing and described it as a pricing philosophy that encourages the development of profitable, long-term customer relationships. A careful analysis of mutual benefits is an essential to determine the factors that make the relationship work, while it is in the firm's best interest to avoid simplified pricing formulae that merely result in price reductions or mass discounts and endeavor to indulge in long-term contracts with customers.

Expect for the above explicit conceptual mention to the concept of relationship pricing, the literature contains some implicit references too. For example, from a relationship marketing angle, Gordon (2000) suggested that just as products and services in industrial settings are obtained in a process of collaboration, so too will prices need to be determined, commenting in particular that "relationship marketing invites customers into the pricing process [. . .] giving [them] an opportunity to make any trade-offs and to further develop trust in the relationship" (p. 512).

Drawing upon the above insights from the literature on industrial pricing and relationship marketing, we propose that the willingness of suppliers to (a) avoid confrontation with their customers when setting prices and (b)

open the figures behind the costs are the two pillars of relationship pricing. We define relationship pricing in industrial export markets as a supplier's interpretation of the export pricing process as a tool to develop and sustain long-term, mutually profitable relationships with their foreign customers, through the avoidance of confrontation and an openness of the figures behind a supplier's costs. Figure 1 presents the conceptual framework of our research, which consists of two parts. In the upper part relationship pricing is treated as a dependent measure and is related to a set of contextual variables which may shape the extent to which it is adopted by industrial exporting firms. The lower part of the conceptual framework treats relationship pricing as an independent variable in order to determine its effects on the actual export pricing process (pricing objectives, methods, policies, information).

Effects on Relationship Pricing in Export Markets

In regards to the antecedents of relationship pricing in industrial export markets, we wish to clarify that we do not claim exhaustiveness, as our framework does not include all different contextual variables that may assume a role. We tried, instead, to take into account common variables that have proved to shape firms' export strategy in general, or export pricing strategy in particular, like firm size, export experience, and export intensity (e.g., Cavusgil

et al. 2003; Morgan et al. 2004) and variables that, appear to be prominent predictors of relationship pricing, like a firm's degree of market orientation and the formality of the export pricing process.

As a firm grows larger, the development and maintenance of close and personal relationships with customers gets more difficult (Zikmund et al. 2003). Stated differently, unlike in larger firms, organizational individuals at the customer interface in smaller firms hold a greater flexibility to thoroughly discover the requirements of their customers and tailor their offerings accordingly. Thus, we argue that developing a relationship pricing system might be easier for smaller exporters. Therefore:

P1: Firm size has a negative effect on the adoption of relationship pricing.

Firms with a long-lasting presence in the market are likely to have developed long-term relationships with customers and to enjoy higher loyalty ratios, than younger firms. We expect, therefore, that relationship pricing practices might be facilitated in the case of the former than the latter firms. Thus:

P2: Firm age has a positive effect on the adoption of relationship pricing.

FIGURE 1
Conceptual Framework
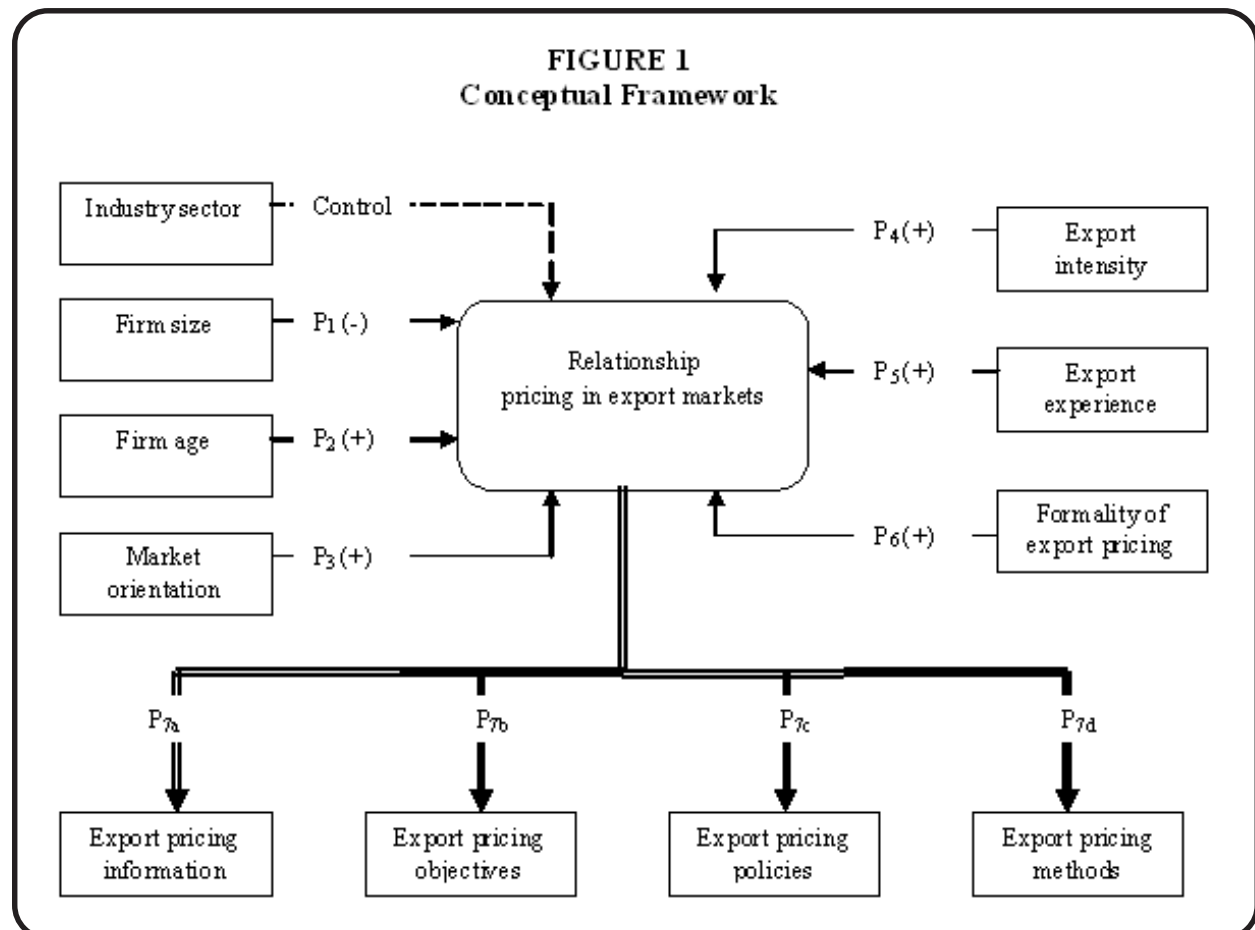
The concept of market orientation refers to a philosophy whereby a firm coordinates the activities of all functional areas toward a better understanding of current and future customer needs, with the ultimate purpose of creating and sustaining superior customer value (Narver and Slater 1990). We expect a positive relationship between market orientation and relationship pricing in export markets. Firms adopting market orientation tend to plan and evaluate all managerial activities with a more long-term perspective (Kohli and Jaworski 1990; Narver and Slater 1990), which we view as a necessary ingredient for the adoption of relationship pricing. Therefore, we propose:

P3: Market orientation has a positive effect on the adoption of relationship pricing.

Export intensity (i.e., the contribution of a firm's export sales to its total sales) and export experience (e.g., the number of years a firm is engaged in exporting) are among the most investigated variables in export research (e.g., Zou and Stan 1998) and have been found to shape firms' export pricing behavior (e.g., Cavusgil et al. 2003). We expect that both the above variables boost the adoption of relationship pricing. Thus:

P4: The greater a firm's export intensity, the greater the adoption of relationship pricing.

P5: The greater a firm's export experience, the greater the adoption of relationship pricing.

Formality is a dimension of a firm's structure and reflects the extent to which standardized behavior, procedures and rules pervade organizational practices (e.g., Fredrickson 1986). When treating formality as a determinant of organizational practices, an important question is whether it facilitates or hinders the adoption of novel practices and innovation (e.g., Adler and Borys 1996). Evidence shows that, while it negatively affects the adoption of technical innovations, formality facilitates the adoption of administrative and decision-making innovations (e.g., Zmud 1982). Drawing on the above, we propose that greater export pricing formality promotes the adoption of relationship pricing. The latter concept, we argue, represents a decision-making innovation and, as such, its successful implementation would require adherence to systematic behavior, assignment of specific relationship pricing-related tasks to specific individuals and an extensive use of documentation that will improve the firm's collective memory with regards to export pricing (e.g., record keeping of foreign customers' price complaints and attitudes toward different price levels). We summarize this proposition more formally as follows:

P6: The greater the formality of export price decision-making, the greater the adoption of relationship pricing.

Effects of Relationship Pricing on the Content of Export Price Decision-Making

Quoting a price is far from a simple task. It is (or should be) the outcome of a multi-step process, which involves the collection of various pieces of pricing information, the determination of the pursued pricing objectives, the choice of a pricing policy and the application of a pricing method (e.g., Monroe and Mentzer 1994; Shipley and Jobber 2001). A review of the pricing literature reveals that pricing information, objectives, policies and methods can be classified into two large categories, namely (a) firm- and (b) market-based (e.g., Cressman 1999). The former can be controlled by the firm, while the latter refer to the external market in which a company operates. For instance, pricing information and objectives relating to profits, sales or market share are firm-based ones, while ones relating to customers, competitors or the firm's general micro and macro external environment are regarded as market-based ones. Similarly, pricing methods relating to costs (e.g., the cost-plus method) or pricing policies like standard list prices are firm-based ones, contrary to methods associated with competitors or customers (e.g., pricing with reference to competitors' prices) or policies relating to a deviation from list prices (e.g., negotiated pricing), which represent market-based ones.

The implementation of relationship pricing principles will necessarily affect the price decision-making process. More specifically, taking into account the need to analyze thoroughly customer needs and general market trends, industrial exporting firms applying relationship pricing in practice are expected to place more emphasis on market-based, rather than firm-based pricing information, objectives, methods, policies. We, therefore, postulate:

P7: Unlike non-relationship pricing-oriented counterparts, relationship pricing-oriented industrial exporting firms (a) allocate more importance to market-based than to firm-based export pricing information, (b) allocate more importance to market-based than to firm-based export pricing objectives, (c) adopt market-based pricing policies to a greater extent than firm-based ones, and (d) use market-based export pricing methods to a greater extent than firm-based ones.

RESEARCH DESIGN

Sampling and Data Collection

The research was conducted in three primary sectors of the U.K. engineering industry (*rubber and plastics*; *chemicals and chemical products*; *metal products*), which show a significant export orientation. Apart from the few conceptual insights (e.g., Berry and Yadav 1996), there

exists no measure for the concept of relationship pricing. We, therefore, interviewed fifteen senior export or international marketing executives in order to frame relationship pricing in a way that combines literature and practice. Based on these interviews, we developed a 9-item construct, which is discussed later. The data collection instrument was a 5-page self-administered structured questionnaire, which was pre-tested extensively with senior academics and managers from the study's population, prior to starting the full-scale survey.

To develop our sampling frame, we used a formal electronic database (FAME), containing information about over 1.5 million U.K.-based firms. Using the U.K. Standard Industrial Classification (SIC), we, first, requested all active firms in the three sectors of interest. Following past research on industrial export pricing (e.g., Solberg et al. 2006), we aimed for all independent manufacturers of industrial products with export activity. Therefore, by imposing successive exclusion commands to the initial list (16,882 firms), we eliminated manufacturers of consumer goods, subsidiaries, and firms with no export activity, arriving at a population of 1,677 firms. Based on industry sector, we adopted a proportionate stratified random selection. We set a request sample size of 1,000 firms and determined a request sub-sample size per sector (stratum), in direct proportion to each stratum's relative size in the parent population (i.e., 1,677). Using a table of random digits, we then picked a simple random sample from each stratum (Table 1).

Data were collected by means of a mail survey. The survey material was addressed to the export marketing manager/director with a note to forward it the next most knowledgeable organizational individual, in case the above post did not exist. After two mailing waves, we obtained an operational dataset of 243 returns (24.3% response rate) (Table 1).

Measurement

Relationship Pricing. We measured relationship pricing (RELPR) using a new 9-item construct, based on the field interviews and on insights from the literature on industrial pricing and relationship marketing (e.g., Berry and Yadav 1996; Cram 1996; Cressman 1999; Gordon 2000). Consistent with our definition, the construct incorporated items relating to behaviors of avoidance of confrontation with foreign customers during export price setting (AVCONFR, 5-items) and of the willingness of suppliers to disclose figures behind their costs (COSTOPEN, 4-items). Items were anchored on a 5-point rating scale and respondents were asked to indicate the degree to which the described activities happened in their firms during export price setting (1-not at all; 5-to a great extent).

We subjected the nine-item construct to exploratory factor analysis (EFA), using principal axis factoring and eigenvalues > 1, and subsequently, to confirmatory factor analysis (CFA), with the maximum likelihood method (Table 2). The covariance matrix of the nine items was analyzed with LISREL 8.71. The rotated component matrix of the EFA extracted a two-factor solution, clearly reflecting the two conceptual domains of relationship pricing, as per our definition. The results of the CFA

TABLE 1
Population and Sampling

Firm Type (Strata)	Population			Sample			
	Stratum Population	Request Stratum's Percentage		Proportionate Sample Size	Achieved Sample Size	Response Rate (%)	Achieved Stratum Proportion (%)
Rubber and plastic products (SIC 25)	512	30.53		305	70	22.95	28.81
Chemicals and chemical products (SIC 24)	530	31.61		316	79	25.00	32.51
Metal products (SIC 28)	635	37.86		379	94	24.80	38.68
Total	1,677	100		1,000	243	24.30	100

provided additional support for the construct's structure and dimensionality. The fit statistics meet or exceed standards of desirable fit. The standardized parameter values indicate that each item loads only on the expected domain, in full compliance with the EFA. The significant t-values, the values of the coefficients of the average variance extracted and of composite reliability, provide evidence for the construct's convergent validity and internal consistency.

Control Variable. We controlled for the effects of industry sector by a 3-item categorical question that was converted into the following two dummy variables for the purposes of analysis: CHEM for chemicals and chemical products (n = 79) and PLAST for rubber and plastic products (n = 70), holding the sector of metal products as the reference category (n = 94).

Variables Capturing Effects on Relationship Pricing. Firm size (SIZE) was measured by the principal component of the average of full-time employees, total sales and net assets in Sterling for the three-year period 2002–2004 (Cronbach alpha = .75). Firm age (AGE) was measured by subtracting the year of a firm's establishment from the year of our study's data collection (i.e., late 2005). For market orientation (MO), we adopted the 15-item operationalization of Narver and Slater (1990) (Cronbach alpha = .88). For export intensity (EXPINT), we used the ratio of a firm's export sales over its total sales (average for the 3-year period 2002–2004). For export experience (EXPEXR), we used the principal component of the number of years a firm has been engaged in exporting, and the number of managers whose primary responsibility is export activity (e.g., Myers and Harvey 2001) (Cronbach alpha = .73). Finally, we measured formality of export price decision-making (EXPPRFORM) with a six-item construct that has its origins in well-known organizational operationalizations of general decision-making formality (e.g., Miller and Dröge 1986). The items reflected three established components of formality, namely systematic behavior, documentation and assignment of responsibilities. We made slight changes to the wording of the items, to make them refer to an export pricing context (e.g., "in our firm, the rationale for export pricing decisions is well-documented and filed for future reference"). The construct exhibited good measurement properties in our data (EFA indicated a single-factor solution; eigenvalue = 3.79; total variance explained = 75.90 percent, Cronbach alpha = .87) Items were anchored on 5-point rating scales (1-absolutely false; 5-absolutely true). Greater ratings are indicative of a greater formality during export price setting.

Variables Reflecting the Content of Export Price Decision-Making. To capture the blocks of factors relating to industrial export pricing, we used thirty-three items, following an extensive review of the relevant literature, as well as existing operationalizations. Thirteen items represented types of export pricing information (e.g., Tzokas et al. 2000) and respondents were asked to rate the importance of collecting each one of them, prior to making export pricing decisions (1-not at all important; 5-extremely important). Twelve items reflected export pricing objectives (e.g., Oxenfeldt 1983; Samiee 1987) and respondents were asked to indicate their importance in their export pricing practice (1-not at all important; 5-extremely important). The alternative export pricing policies were captured with four items (e.g., Monroe and Mentzer 1994) and respondents were asked to indicate the extent to which they adopted each one of them during export price decision-making (1-not at all; 5-to a great extent). Finally, four items captured different export pricing methods (e.g., Shipley 1983) and respondents were asked to indicate the extent to which they used each one of them in order to calculate their export prices (1-not at all; 5-to a great extent).

Key Informants' Competence, Non-Response Bias, Common Method Bias

To crosscheck key informants' competence, we prompted respondents to rate themselves on their knowledgeability about export price decision-making (1-not very knowledgeable; 7-very knowledgeable; mean rating = 5.93; SD = 0.73). The comparison tests that we conducted between the early (1st mailing) and the late (2nd mailing) returns across a set of key variables of our study did not detect systematic differences. The Harman's posthoc one factor test for AGE, MO, EXPINT, EXPEXR, EXPPRFORM, and the thirty three items of the export pricing process indicated that common method bias was unlikely in our dataset.

ANALYSIS AND RESULTS

Effects on Relationship Pricing (P1–P6)

To test P_1–P_6, we employed multiple regression analysis, by the well-established least squares method. The estimated regression equation was as follows:

$$RELPR = \beta_0 + \beta_1 (CHEM) + \beta_2 (PLAST) + \beta_3 (SIZE) + \beta_4 (AGE) + \beta_5 (MO) + \beta_6 (EXPINT) + \beta_7 (EXPEXR) + \beta_8 (EXPPRFORM) + \varepsilon,$$

where, RELPR = criterion variable; β_0 = standard regression intercept; β_1, β_2 = parameters of the control variable; $\beta_3 - \beta_8$ = parameters of the predictor variables; and ε = error term. The low to moderate correlations between the independent variables of the regression model (no correlation exceeded .42) indicate that multicollinearity poses no serious problem.

TABLE 2
EFA and CFA for the Construct of Relationship Pricing

Items	Descriptive statistics		EFA rotated component matrix		CFA Unstandardized solution				Standardized solution		
	Mean	SD	F1: AVCONFR	F2: COSTOPEN	Parameter	SE	t-Value	R²	Parameter	AVE per factor	CR per factor
AVCONFR										.63	.89
In our firm, export pricing is treated as a tool to develop and sustain long-term loyalty and strong bonds with our foreign customers.	3.04	.75	.86	.28	.99	.086	11.58	.52	.72		
Our foreign customers are systematically quoted the best prices and terms of payment, given the length of our relationship with them.	3.59	.72	.83	.17	1.04	.079	13.20	.62	.79		
When setting export prices, we are systematically trying to avoid confrontation with our foreign customers, through a mutual route to price negotiation.	3.00	.71	.73	.11	.99	.078	12.81	.60	.77		
Export pricing in our firm is founded on a thorough understanding of our foreign customers' value drivers.	2.86	.65	.71	.25	1.12	.082	13.73	.66	.81		
We rarely invite our foreign customers into the pricing process (R)	2.48	.62	.75	.17	1.26	.083	15.14	.74	.86		
COSTOPEN										.60	.85
When setting export prices, we rarely disclose our cost data, not even to our loyal foreign customers (R).	1.43	.36	.19	.85	1.23	.080	15.38	.77	.88		
In preparing a price quotation for our foreign customers, we believe that increased mutual trust is achieved through openness in regards to our cost data.	1.46	.31	.25	.73	.87	.081	10.79	.47	.69		
In our firm, export pricing is primarily oriented around attracting, retaining and growing profitable customer relationships over time.	3.04	.77	.32	.88	1.06	.089	11.89	.54	.74		
Our export pricing practices are heavily dominated by internal, cost-based approaches (R).	1.58	.31	.19	.80	1.10	.087	12.73	.60	.77		
Descriptive statistics for overall RELPR: Mean (SD)	2.49 (.61)										
Descriptive statistics per factor: Mean (SD)	2.99 (.75)	1.87 (.47)									
Eigenvalue	2.54	2.47									
Cumulative variance explained (%)	28.20	56.20									
Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy	.755										
Cronbach α for overall RELPR	.82										
Cronbach α per factor	.81	.71									

N = 243; (R) indicates a reverse-coded item; USTDP = unstandardized parameter estimates; SE = standard error; STDP = standardized parameter estimates; AVE = average variance extracted; CR = composite reliability; AVE for overall RELPR = .61; CR for overall RELPR = .93; Goodness of Fit Statistics: χ^2 = 65.34; df = 26; p = .00004; RMSEA = .051; NFI = .97; NNFI = .98; CFI = .98; IFI = .98; GFI = .93; AGFI = .88.

The regression parameters are presented in Table 3. The regression model is significant at the p < .01 level. SIZE does not have a significant effect on RELPR and, thus, P_1 is rejected. AGE and EXPINT have a significant effect on the dependent variable, but opposite than proposed with P_2 and P_4 respectively, which are, therefore, not supported. Consistent with P_3, MO exerts a positive effect on RELPR. Finally, in line with P_5 and P_6, both EXPEXR and EXPPRFORM positively shape RELPR.

Effects of Relationship Pricing on the Content of the Export Pricing Process (P7a–P7d)

As stated already, we conceptualized the export pricing process as consisting of four blocks of variables. Tables 4–7 respectively present the corresponding descriptive statistics. Before investigating the effects of relationship pricing on the content of the export pricing process, we conducted EFA of the thirteen pieces of export pricing information and the twelve export pricing objectives, to determine whether they could be reduced to fewer dimensions. For export pricing information, the rotated component matrix extracted three clear factors, labeled competitor-, cost-, and customer-related information (Table 4). The first and the third factor reflect market-based export pricing information and the second factor reflects firm-based export pricing information. For export pricing objectives, four factors provided best fit (Table 5). We labeled the factors profit-related objectives, stability

in the market, volume-related objectives, and customer-related objectives. The first and the third factor encompass firm-based export pricing objectives, while the second and the fourth include market-based ones. Based on the EFA results, we recast data to create the three and the four dimensions underlying, respectively, the export pricing information and objectives, which we then used as inputs for the analysis.

To test the effects of relationship pricing on the content of the export pricing process, we employed the median-split procedure (e.g., Slater and Narver 1994). We split the sample into two groups, using as cutoff the median value for the construct of RELPR, and we then compared the ratings of the two groups on the four blocks of variables pertaining to the industrial export pricing process (Table 8). We remind at this point that we expect relationship pricing to increase the importance that firms attach to market-based export pricing information (P_{7a}) and objectives (P_{7b}) and to promote the adoption of market-based export pricing policies (P_{7c}) and methods (P_{7d}). We present the results in Table 10.

In regards to export pricing information, the results show that firms in the High RELPR group score higher on the market-based pieces of information (i.e., competition- and customer-related), than the firms in the Low RELPR group, and the differences are statistically significant. It is also evident that firms in the latter group score higher in

TABLE 3
Effects on Relationship Pricing in Export Markets: Standardized Regression Parameters

			Criterion Variable: RELPR Standardized Beta (Standard Error)	
Proposition #	**Proposed Effect**	**Predictor Variables**		**Proposed Effect vs. Results**
Control		CHEM	-.17* (.10)	
	PLAST	-.12 (.10)		
P_1	(-)	SIZE	-.08 (.07)	X
P_2	(+)	AGE	-.22** (.05)	X≠
P_3	(+)	MO	.24** (.11)	√
P_4	(+)	EXPINT	-.15* (.07)	X≠
P_5	(+)	EXPEXR	.26** (.05)	√
P_6	(+)	EXPPRFORM	.20** (.10)	√
Model	R^2	.	28	
Summary	Adjusted R^2		.26	
	F		8.31**	

N = 243; *$p < .05$, **$p < .01$; √ = proposition supported by the results; X = proposition not supported by the results- no significant effect; X≠ = proposition not supported by the results-significant effect opposite than proposed.

TABLE 4
Export Pricing Information: Descriptive Statistics and EFA

Export Pricing Information	Descriptive Statistics		EFA		
	Mean◆	SD◆	Factor 1: Competition-Related Information	Factor 2: Cost-Related Information	Factor 3: Customer-Related Information
Information about the financial standing of competitors	3.82	1.67	.83		
Information about historical patterns of competitors' prices	3.48	1.77	.82		
Information about competitors' reactions to past export pricing decisions of the firm	3.52	1.87	.79		
Information about competitors' market share export prices	3.32	1.71	.77		
Information about competitors' current	2.29	1.28	.71		
Information about overhead expenses	2.86	1.66		.85	
Information about contribution margin	2.42	1.84		.84	
Information about fixed cost	2.72	1.59		.81	
Information about variable cost	2.72	1.81		.79	
Information about gross margin	2.06	1.59		.74	
Information about complaints from foreign customers on the firm's past export pricing decisions	3.14	1.65			.83
Information about the reaction of a foreign customer toward the export price quoted by the firm on his last purchase order	3.20	1.59			.78
Information about the number of foreign customers that were lost due to past pricing decisions of the firm	3.17	1.89			.73
Cronbach α Per Factor			.87	.88	.85
Eigenvalue			3.48	3.45	1.97
Cumulative Variance Explained (%)			26.79	53.38	68.53

◆5-point scale (1-not at all important; 5-extremely important)
N = 243

TABLE 5
Export Pricing Objectives: Descriptive Statistics and EFA

Export Pricing Objectives	Descriptive Statistics		EFA			
	Mean♦	SD♦	Factor 1: Profit-Related Objectives	Factor 2: Stability in the Market	Factor 3: Volume-Related Objective	Factor 4: Customer-Related Objectives
Target export roi	2.97	1.23	.73			
Target export profit	2.45	1.15	.70			
Maximum export current profit	2.64	1.06	.71			
Long term survival	2.47	1.21		.73		
Export sales stability	2.76	1.10		.74		
Price similarity with competitors	2.68	1.08		.81		
Price stability	2.65	1.02		.70		
Maximum export current revenue	2.97	1.10			.69	
Target export sales volume	2.63	1.21			.85	
Target market share	3.11	1.26			.83	
Value to the foreign customer	2.36	1.00				.71
Meet the pricing requirements of the foreign customer	2.54	1.02				.70
Cronbach α per factor			.71	.69	.71	.74
Eigenvalue			2.44	2.20	2.18	2.09
Cumulative Variance Explained (%)			17.26	34.20	50.97	67.09
Kaiser-Meyer-Olkin (KMO) Measure of Sampling Adequacy			.79			

♦5-point scale (1-not at all important; 5-extremely important)
N = 243

the firm-based information, than firms in the High RELPR group, but the difference is not significant. Therefore, there in only partial support for P_{7a}.

The results provide support for P_{7b}. On the market-related export pricing objectives (i.e., stability in the market and customer-related) the scores of firms in the High RELPR group are consistently higher. On the other hand, firms in the Low RELPR group have higher scores on the firm-based export pricing objectives (i.e., profit- and volume-related). Regarding export pricing policies, firms in the High RELPR group have significantly higher

TABLE 6
Export Pricing Policies: Descriptive Statistics

Export pricing Policies	Mean♦	SD♦
List prices	3.08	1.31
Negotiated prices	2.36	.99
Closed bidding	4.27	1.05
Open bidding	4.06	1.13

♦5-point scale (1-not at all; 5-to a great extent)
N = 243

TABLE 7
Export Pricing Methods: Descriptive Statistics

Export Pricing Methods	Mean♦	SD♦
Cost plus (Mark-up)	2.07	1.20
Target ROI	3.56	1.21
Pricing by reference to competitors' prices	3.17	1.13
Pricing by investigating foreign customers reaction to different price levels	3.02	.97

♦5-point scale (1-not at all; 5-to a great extent)
N = 243

scores on the policies namely negotiated prices and open bidding. On the other hand, firms in the Low RELPR group have higher scores on the firm-based pricing policies (i.e., list prices and closed bidding), but the differences are significant only for list prices. Based on the above P_{7c} should be partially accepted. Finally, the results show that relationship pricing increases (decreases) the extent to which firms use market-based (firm-based) export pricing methods. However, lacking statistical significance, P_{7d} is not accepted.

DISCUSSION AND MANAGERIAL IMPLICATIONS

This study attempted a first step toward the empirical investigation of the role of a relatively new concept, coined relationship pricing, in an industrial export context. Analyzing data from 243 U.K. industrial exporters, the study indicated that firm size has no influence on the effort to adopt the principles of relationship pricing in export settings. This finding implies that, although developing a relationship pricing system might be easier for smaller firms due to their greater opportunity, flexibility, and authority to thoroughly discover the requirements of

their customers and tailor their offerings accordingly, large and medium-sized firms can also realize the benefits of an effective relationship pricing system.

Contrary to what we have intuitively predicted, firm age has a negative effect on the adoption of relationship pricing, suggesting that the longer a firm operates in the market the greater the departure from the concept of relationship pricing when levying export prices. A plausible explanation for the above relationship is that, because relationship pricing is a relatively new concept, younger firms are more flexible in tailoring organizational culture to the pre-requisites of relationship marketing and consequently relationship pricing.

In line with our reasoning, the adoption of relationship pricing is facilitated within market-oriented exporters. This relationship implies that endeavoring to disseminate intelligence regarding customer needs, competitive reactions and general market trends across an exporter's different departments seems to be a pre-requisite for the adoption of a relationship pricing culture. This argument becomes more evident by our finding that firms having fully understood and indulged themselves in relationship

TABLE 8
Effects of Relationship Pricing on the Content of the Export Pricing Process

Export Pricing Process	Above Median (High RELPR) n = 124	Below Median (Low RELPR) n = 119	t-Value
Proposition #			
Export pricing information			
(P$_{7a}$) Competition-related information	3.45	3.01	2.66
Cost-related information	2.48	2.59	-.63
Customer-related information	3.63	2.71	5.56
Export pricing objectives			
(P$_{7b}$) Profit-related objectives	2.01	3.37	-8.06
Stability in the market	2.83	2.43	3.80
Volume-related objectives	2.61	3.23	-3.13
Customer-related objectives	2.60	2.20	3.30
Export pricing policies			
(P$_{7c}$) List prices	2.82	3.52	-4.16
Negotiated prices	2.56	2.03	4.27
Closed bidding	4.18	4.42	-1.73
Open bidding	4.20	3.83	2.41
Export pricing methods			
(P$_{7d}$) Cost plus (mark-up)	2.02	2.10	-.475
Target ROI	3.50	3.60	-.61
Pricing by reference to competitors' prices	3.26	3.02	1.59
Pricing by investigating foreign customers reaction to different price levels	3.10	2.90	1.51

N = 243; Median = 2.25; $p < .05$, $p < .01$.

pricing have also formulated their export pricing strategy accordingly by delineating market-based pricing information, objectives and policies when setting their export prices. Given the unique conditions and peculiarities facing export markets, a clear implication for export managers responsible for levying prices within their firms is that building relationship pricing schemes necessitates first a re-consideration of current business practices and philosophies with an outmost goal to adapt them to these markets.

On the other hand, it seems that the profile of businesses following relationship pricing is not necessarily one characterized by high export intensity. In a sense, this finding reflects that a satisfactory export volume may be the result of targeting markets, which although contribute to the firm's total turnover, they do not ensure the necessary conditions for applying the principles of relationship pricing.

Furthermore, having accumulated a significant experience in exporting may boost the adoption of relationship pricing. This finding indicates that a considerable presence in the international arena may help industrial exporting firms to cope with the complexity of international markets, while simultaneously understanding the value that customers attach to their products and establishing mutually beneficial relationships with foreign customers.

We also found that the adoption of relationship pricing in export settings may be facilitated by the formalization of the whole export pricing process. To this end, managers might have to gain a lot by a systematic behavior toward this process, the assignment of specific relationship pricing-related tasks to specific individuals and an extensive use of documentation.

LIMITATIONS AND FUTURE RESEARCH DIRECTIONS

Our study should be viewed in the light of some limitations that qualify the findings and direct attention at future research. First, the literature on pricing and relationship marketing lacked an operationalization for the concept of relationship pricing. Therefore, we developed a new scale, based on the few (though very useful) conceptual references to relationship pricing. Although the RELPR scale is both reliable and valid in the present study's context, a useful avenue for further enquiry should be to test it in different research settings, certainly ones involving the exporting of industrial services and consumer goods. Second, as stated earlier, owing to the exploratory angle of our study, we have been conservative in the selection of variables that could shape the adoption of relationship pricing in industrial export markets. The consideration of additional contextual variables by future research can widen the picture of the antecedents of relationship pricing in exporting. Finally, since the study's propositions were tested in a sample of U.K. exporters of industrial products, the findings reported here may not be directly generalizable to exporters from other national contexts. Therefore, our study has prominent replication attributes in the same and additional sectors of other countries.

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IMPLICATIONS OF MARKETING PROGRAM IMPLEMENTATION ON FIRM PERFORMANCE: EVIDENCE FROM THE RETAILING INDUSTRY

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SUMMARY

Building from the resource- and knowledge-based view of the firm, the study examines how customer resources (customer knowledge and customer connectivity) influence firm performance through marketing program implementation. It is suggested that customer resources are critical to the development and implementation of marketing programs which can then lead to firm success. By surveying 269 retailers, this research attempts to offer a greater understanding of how resources influence success through the inclusion of marketing program implementation.

Conceptual Outline

Although knowledge has been documented as a strategic resource or asset (Glazer 1991), previous studies pertaining to this domain largely focus on business-to-business (B2B) relationships as opposed to business-to-consumer (B2C) relationships. Further, research on how knowledge influences a firm's marketing program implementation is sparse. Marketing program implementation denotes the criticality of aligning customer needs to internal marketing strategy and external environments (Noble and Mokwa 1999). To shed some light on the role of knowledge, we investigate a B2C setting, the retail industry in particular. We argue that having knowledge, focusing specifically on customer needs, should allow the firm to implement marketing programs that can better respond to the marketplace. Consistent with a recent treatment of KB theory which suggests that knowledge alone is insufficient to constitute a sustainable competitive advantage, we maintain that the ability to convert knowledge into actions is more critical to determine performance outcomes (e.g., De Luca and Atuahene-Gima 2007). Thus, we propose that marketing program implementation is a process outcome which reflects how successfully a firm converts its knowledge acquired from customers into operant resources to garner economic rents.

Along with customer knowledge, customer connectivity provides another potential tool for marketers to utilize when implementing marketing programs. Relationship marketing addresses the importance of connecting with customers (Bagozzi 1995). By connecting with customers, social capital, an intangible asset that is created through social relations, may result.

In sum, our study proposes that customer resources, i.e., customer knowledge and customer connectivity, are antecedents of marketing program implementation. Since marketing program implementation reflects a firm's ability to convert customer resources into operant resources, we further suggest that marketing program implementation mediates the impact of customer knowledge and customer connectivity individually and collectively on firm performance.

Data and Results

We surveyed 269 retailers located in a major metropolitan city within the United States. Retail was an ideal context for our requirement of examining firms who were likely to have direct connections with customers. Measurement items were developed following extant research and established procedures. Confirmatory factor analysis reveals that our measurement properties are satisfactory. We used multiple regression analysis to test hypotheses. Results suggest that customer knowledge and customer connectivity influence positively and significantly marketing program implementation. We further find that while customer knowledge affects marketing program implementation, it does not directly influence firm success. This result lends further support for the inclusion of marketing program implementation. In contrast, customer connectivity not only strengthens the relationship between customer knowledge and marketing program implementation, it also directly contributes to marketing program implementation and firm performance.

Conclusion

Our results reinforce extant literature that better marketing program implementation should lead to increased performance (e.g., Srivastava, Shervani, and Fahey 1999). The challenge, however, lies in understanding the roles customer resources and marketing program implementation play on firm performance. More research should follow our direction to examine other antecedents of marketing program implementation. References are available upon request.

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THE HORIZONTAL AND VERTICAL STRUCTURE OF PRICE AUTHORITY: MARKETING'S IMPORTANT ROLE AS A "PRICE GUARDIAN"

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SUMMARY

Among all marketing instruments, pricing has the most significant, direct, and immediate impact on profitability (Monroe 2003). Garda and Marn (1993) report that, for the average S&P 500 company, a 1 percent price loss (gain) leads to a 12.3 percent profit loss (gain). Against this background, we know surprisingly little about how price-setting is organized within the firm. Noble and Gruca (1999a, p. 459) speak of "an important weakness in the current research on pricing. There is little comparative research how companies go about setting prices." *Who has authority over prices* is the most fundamental issue in organizing price setting (Homburg, Workman, and Krohmer 1999; Joseph 2001). Research on the structure of price authority is fragmented. Two separate streams of literature can be distinguished (Table 1): One group of articles investigates the *horizontal* price authority of various functions, for instance, the relative influence of sales, marketing, and finance (Krohmer, Homburg, and Workman 2002; Lancioni, Schau, and Smith 2005). A separate group of articles investigates the *vertical* price authority of centralized and decentralized units within the sales organization. Most of these contributions are agency-theoretic models of delegating price authority to the salesforce (Bhardwaj 2001; Joseph 2001; Lal 1986; Mishra and Prasad 2004, 2005).

The research presented in this paper integrates the horizontal and the vertical perspective. We also investigate how context affects the outcomes of price authority: Specifically, we scrutinize ten contingency variables that pertain to firm characteristics and market characteristics, and explore their interaction with the structure of price authority. Analyses are based on 329 firms in five industry sectors.

Our results show that the horizontal dimension of price authority, which has been neglected in the literature, is a stronger predictor of pricing performance than the vertical dimension. The issue is not only "Where should price authority be within the sales function?" but: "To what extent should it be in sales at all?" The key finding of our study is that a horizontal shift of price authority from sales to marketing has a positive impact on profitability. This suggests a strong justification for an independent marketing department within the firm: Harking back to Kern's (1989, p. 44) statement that leaving pricing to sales alone is equivalent to the "fox guarding the henhouse," we propose that one of the key roles of marketing is to function as the "*price guardian*" within the firm. Based on our hypotheses, we propose that the role of an authorized price guardian is to function as a "devil's advocate" who ensures a self-critical pricing decision process, pushes for price increases, challenges price cuts, and contributes knowledge and an outside perspective. Finally, our study is the first to analyze the impact of dedicated pricing experts or pricing specialists. We show that it is crucial where these pricing specialists are installed: They have a positive impact on profitability only if they are installed in marketing. Thus, we find further support of marketing's important role as a price guardian. References are available upon request.

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EMPIRICAL EXAMINATION OF THE EFFECT OF CONSUMERS' PRODUCT ORIGIN FAMILIARITY ON THEIR QUALITY PERCEPTIONS

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ABSTRACT

Product familiarity has been shown to interact with an array of marketing concepts. Indeed, it is often a prime choice for boundary testing attitudinal concepts; since the effect of many attitudinal concepts depends upon the customer's familiarity with the concept. In this study, the role of product origin familiarity in influencing consumer attitudes is examined. The concept is conceptualized and empirically examined. The results show that higher familiarity with a product origin is related to more positive quality perceptions. Interestingly, it was found that this relationship is fully mediated by the consumer's product origin image.

INTRODUCTION

Extant research has well recognized the important role of product familiarity in influencing product perceptions and evaluations (e.g., Alba and Hutchinson 1987; Sujan and Bettman 1989). It would seem that familiarity is one of the main contingencies for many key attitudinal product-consumer relationships. As such, in the context of international marketing, consumers' familiarity with a product from a given origin may influence their quality perceptions. Extending research on product familiarity to an international marketing context implies that a consumer's familiarity with products from a particular origin plays a role in influencing perceptions and evaluations. However, while the effect of product familiarity on several constructs and relationships has been heavily examined (e.g., Shehryar and Hunt 2005; Zheng Zhou and Nakamoto 2007), there is a lack of knowledge concerning the potentially important role of product origin familiarity (hereafter POFam). Consequently, in this paper we examine the effect familiarity with a product origin has on quality perception.

This study focuses on an emerging concept – POFam – that deserves greater attention in an international marketing context. Furthermore, the study proposes and provides an empirical examination of the relationship between POFam and quality perception. Finally, it is determined whether and to what degree consumers' country-of-origin (COO) image mediates the hypothesized relationship between POFam and quality perception (QP).

First, we provide a working definition and a theoretical rationale for the role of POFam in influencing consumers' quality perceptions. Next, two hypotheses are developed. Then the hypothesized relationships are tested. Finally, we discuss the results and draw conclusions.

THE ROLE OF FAMILIARITY

In order to facilitate the present discussion, we present the definition of Country-of-Origin we adopt for this study: "The picture, the reputation, and the stereotype that businessmen and consumers attach to products of a specific country" (Nagashima 1970). For POFam we adopt a working definition that follows Alba and Hutchinson's (1987) definition of product familiarity: Product Origin familiarity is defined as: *The number of experiences that have been accumulated by the consumer that relates to products from a particular origin.*

In the above definition the term "experiences" entail all product-related direct or indirect contact points from seeing ads for products from such product origin, talking to friends who have had a product-related experience with a product from the origin to actually owning and having used such a product.

In general, the familiarity concept itself undoubtedly interacts with the given concept that the researcher is interested in (the concept that the respondent is more or less familiar with) in several ways (e.g., Shehryar and Hunt 2005; Zheng Zhou and Nakamoto 2007). The most researched familiarity concept in marketing research is product category familiarity' (commonly termed "product familiarity"). For this paper the interesting influence of familiarity is the notion that greater familiarity with products from a given origin plays a role in creating attitudinal and behavioral outcomes. The mere familiarity with a concept (such as a product category) has been shown in the extant literature to influence evaluations, preferences and choices relating to it (Alba and Hutchinson 1987; Ballantyne et al. 2006; Chung and Szymanski 1997). Theoretically such a relationship is implied by the classic hierarchy of effects model (Baker et al. 1986; Smith et al. 2006). According to this model, increasing the awareness of consumers with regard to the firm's products is the key to improved sales. In product familiarity

research the focal concept is "products of a particular category." However, for this paper the focal concept is "products from a particular origin." Thus, we use the term "focal concept" as a stepping stone in order to get from and be able to infer from, "product familiarity" to "product origin familiarity."

As shown above, there is theoretical support for a relationship between familiarity and attitudinal outcomes. However, in light of such a relationship, what are the mechanisms that allow the mere familiarity with a concept translate to evaluating more positively, preferring and ultimately choosing the product?

This translation may happen in two ways; either by influencing the construction of the consideration set (Aurier et al. 2000) or by directly affecting cognitive structures and related inferences and preferences (Alba and Hutchinson 1987; Ballantyne et al. 2006). Thus, in the following we will discuss the ways, in which familiarity may exert such an influence.

Firstly, the notion that higher familiarity influences attitudes and behavior through greater probability of inclusion in and perceived relevance of the consideration set can be explained by the exposure effect. This effect states that exposure to a stimulus improves the liking of that stimulus independently of cognitive processing (Fang et al. 2007). Even without consciously being aware of the exposure, consumers will like a concept more when they have had prior exposure to it. The finding that higher exposure is related to improved affect has been related to the notion of stimulus habituation (Baker et al. 1986). In essence, novel stimuli create a natural avoidance response in an attempt to stay safe. With more exposures to the same stimuli the arousal responsible for the avoidance reaction decreases and the stimuli gradually habituate. Apparently, the stimulus carries little or no risk and the avoidance response is exchanged for an approach tendency (Baker et al. 1986). In a marketing context this would mean that as the consumer becomes more familiar with products from an origin, a natural and automatic approach tendency emerges. As a result, the effect suggests that manifold exposure to products from a certain origin subconsciously reduce the perceived risks involved in buying a market offering from a particular origin. This may in turn improve consumers' product quality perceptions.

The second way that familiarity may influence attitudes and behaviors is through actually influencing cognitive structures and the related inferences and preferences. Consumers use cognitive structures to make inferences. Importantly, familiarity with the focal unit (the unit that the inferences are concerned with – in this case the product origin) influences both the mental processes and the resulting inferences (Alba and Hutchinson 1987). This

may happen through the frequency effect which, in contrast to the exposure effect, involves active information processing (Mizerski 1995). An underlying assumption is that the memory contains an automatic counting mechanism that adds up the incidents a given stimulus has been experienced. The higher the frequency a stimulus is noticed with, the more the consumer may use this as a shortcut in decision making such as "I've seen products from this country being advertised often. This country must make good products. These products must be good. I think I will buy it."

In sum, from a theoretical point of view greater familiarity can affect quality perception through either the exposure effect or the frequency effect. Next, we develop two hypotheses in an attempt to further uncover the nature of the relationship between POFam and quality perception.

HYPOTHESIS DEVELOPMENT

A careful review of the literature only uncovered a handful of studies that have looked at the concept of product origin familiarity (Ahmed and d'Astous 2007; Ahmed et al. 2002b; Lee and Ganesh 1999; Lim and O'Cass 2001). What is known from these studies is that product origin familiarity both moderates the effect of origin evaluation on brand evaluation (Lee and Ganesh 1999) and furthermore that it has a positive relation with country-of-origin evaluations (Ahmed et al. 2002a). Hence, while there is support to claim that familiarity influences and interacts with origin evaluations, no study has been conducted with the purpose of uncovering whether the frequency and/or the exposure effect may cause familiarity to be directly linked to evaluations of a given product through. The fundamental proposition that emerges from the preceding discussion is that higher product origin familiarity will positively influence attitudes and behaviors. To the best of our knowledge, no study has yet examined whether product origin familiarity has a direct effect on quality perception. Thus, in an attempt to examine this, we hypothesize the following:

H1: The more consumers are familiar with products in a category from a particular origin the more positively they will evaluate any specific product from this origin.

The proposition does not suggest that the type of exposure (i.e., positive or negative) will differ in the impact on consumer evaluations, this issue needs to be explored in future research, as consumer have varying experiences with products. It seems intuitive that positive exposure has a positive influence on consumers' product perceptions directly related to the positive content of the exposure. It is, however, less clear whether negative exposure will lead to a less positive consumer preference,

or whether even negative exposure may in fact have a positive impact on consumer perceptions compared to no exposure. When considering the proposition that higher POFam in itself affects consumers' quality perceptions, an additional possibility emerges: That even bad exposure may influence quality perceptions positively through the mechanisms discussed previously. For instance, in light of countries going in and out of favor because of politics, wars, Muhammad drawings etc., the question arises as to whether bad exposure is better than no exposure?

Although product origin familiarity may have an influence on the evaluation of a given product, a key concern for theory and practice is whether such a relationship can be established independently of subjective evaluations of the product origin, or whether they act entirely on and via the product origin. There is theoretical evidence to suggest that familiarity could have an independent effect not explained by subjective origin evaluations as illustrated in the above discussion. The exposure effect seems to support the existence of a direct relationship. Similarly, the frequency effect causes familiarity to influence quality perception ("these products must be good. I think I will buy the product"), however, it could be argued that this occurs through consumers' image of a product image ("this country must make good products"). Thus we test the following hypothesis:

H2: The effect of origin familiarity on quality perception will be mediated by consumers' attitudes toward the product origin.

METHODS

Our sample was purchased from PermissionCorp, which has a database consisting of 500,000 consumers in Australia. The sample was selected so that it mirrored the age, income, gender, and geographical distribution present in the Australian population (refer to Table 1).

A pool of 510 potential respondents was selected, although all respondents had to be 18 or above. A questionnaire was sent to these 510 consumers and 180 usable responses were received resulting in a 35.3 percent response rate. We tested for late response bias and found no significant difference between early and late replies.

Consumers were asked to fill out the questionnaire with regard to their last consumer electronics purchase. All constructs are measured on 7-point Likert scales. Country of origin attitudes (product origin image – POI) were measured using a four-item subset of Nagashima's scale (1977). Subsets of this scale have previously been utilized (e.g., Roth and Romeo 1992). Lim et al.'s (1994) validated scale was used to measure the dependent variable, quality perception. The POFam concept was measured using a single item seven point scale (very familiar – not at all familiar with products in this product class from country X?) similar to standard product familiarity scales (see e.g., Bergkvist and Rossiter 2007). In order to isolate the impact of the principal variables of interest we chose to control for the influence of gender and whether respondents sojourned in the countries where the electronics goods they assessed were from.

Both these factors have previously been shown to affect how consumers evaluate products from different origins. Females tend to rate foreign products higher than males (Bilkey and Nes 1982; Mittal and Tsiros 1995; Schooler 1971). Findings in the social stereotyping literature suggest that direct contact with a country can influence evaluations about that country (Hilton and von Hippel 1996). It has further been suggested that direct contact with a country, i.e., living in that country, has an influence on consumers' product perceptions (Balabanis et al. 2002). Logical reasoning thus supports the idea that living in a foreign country for a period of time affects how consumers evaluate products from such a country. As such, we include a measure of sojourn in order to account

TABLE 1
Sample Characteristics

	Sample
Age (%)	
<34	32.8
35–54	35.6
>55	31.7
Gender (%)	
Female	51.0
Male	49.0

for its influence on consumer quality perceptions. The respondents were asked in an open-ended question how many months they have spent in the country where the product they had bought was from.

Internal consistency for the multi-item scales was assessed applying Cronbach's Alpha with all constructs showing good reliability (product origin image: $\alpha = .79$, quality perception: $\alpha = .87$). To evaluate the model fit for these two items we chose a combination of indices. The fit indices of the mediation model all met or exceeded the critical values (Bentler and Kano 1990) (χ^2/degree of freedom = 1.755, Root Mean Square Error of Approximation (RMSEA) = .044, Incremental Fit Index (IFI) = .99, Comparative Fit Index (CFI) = .99).

RESULTS

In Table 2 we report the means, standard deviations and correlations of the variables in the study. In Table 3 we report the results of a hierarchical regression analysis. This approach has been used by others in the exploration of COO-issues (e.g., Gurhan-Canli and Maheswaran 2000). Interestingly, we notice in Table 2 that POFam correlates not only with quality perception as we expected but also with gender and sojourn. As was mentioned earlier Sojourn was included as a control variable because we believed that consumers who have visited a country may naturally feel more familiar with and prefer products from this country. Although the frequency analysis identified that this only applied to four respondents, we decided to retain the variable as a control. While the correlation coefficient between POFam and sojourn is marginally significant sojourn has no significant relationship with quality perceptions. Given that only four respondents had actually stayed in the focal country (i.e., where they purchased their good) may explain why sojourn seems to

have no effect on quality perceptions, while POFam has a significant and strong effect (refer to Table 3). Additionally, male consumers feel they have more origin familiarity than women (females = 0, males = 1). This may potentially relate to the product category as males might purchase more electrical goods. Furthermore, according to several studies (e.g., Jackson 2003), men tend to rate their own skills and capabilities higher than do women. In either case, this result should be interpreted with caution.

In Table 3 we present the results of the hierarchical regression analysis. Table 3 shows that POFam is indeed significantly and positively related to quality perceptions ($\beta = .29$, p < .001) supporting hypothesis one. In order to test our mediation hypothesis, we employ an approach suggested by James and Brett (1984). According to this procedure, concept *b* (product origin image) mediates the relationship between *a* (product origin familiarity) and *c* (product quality perception) if the following three conditions are met; (1) *a* has an effect on *b*, (2) *b* has an effect on *c* and (3) the effect of *a* on *c* vanishes when *b* is held constant.

In line with how this technique has been used previously (e.g., Audia et al. 2000) the first two conditions are investigated by examining the correlation coefficients between the variables that are relevant for each respective condition (see Table 2). The third condition is tested by inserting variable *b* into the regression equation and observing whether variable *a* still has a significant effect on *c*. Consequently, condition (1) is satisfied because Table 2 reveals that POFam has a significant and positive relationship with POI and condition (2) is satisfied because Table 2 further shows that POI has a significant and positive relationship with quality perceptions. The litmus test is that the highly significant and positive relationship between POFam and QP in model 2 in Table 3 ($\beta = .29$, p <

TABLE 2
Descriptive Statistics and Correlations [a]

Measures	1	2	3	4	5
Mean	5.37	.55	.17	4.67	4.96
Standard Deviation	1.36	.50	.38	1.52	.00
1. Quality Perception	1.00				
2. Gender	.08	1.00			
3. Sojourn	-.04	-.00	1.00		
4. POFam	.29***	.01	.10[†]	1.00	
5. POI	.52***	-.17**	-.08	.44***	1.00

*** Statistically significant at the .001 level.
** Statistically significant at the .01 level.
* Statistically significant at the .05 level.
[†] Statistically significant at the .10 level.
[a] All t-tests are two-tailed.

TABLE 3
Results of Hierachical Regression Analysis[a]

Variables	Quality Perception		
	Model 1	*Model 2*	*Model 3*
Constant	-0.18	1.37***	-0.52
Control Variables			
Gender	0.08	0.08	0.17**
Visits	-0.04	-0.07	-0.01
Direct Effects			
Product Origin Familiarity		0.29***	0.06
Product Origin Image			0.52***
R^2	.01	.09***	.30***
Change in R^2		.08***	.21***

*** Statistically significant at the .001 level.
** Statistically significant at the .01 level.
* Statistically significant at the .05 level.
[†] Statistically significant at 0.1 level.
[a] All two-tailed t-tests.

0.001) completely vanishes when product origin image is held constant, i.e., model three Table 3 (β = .06, p > 0.10). Therefore, in line with what we expected, more product-origin familiar consumers tend to have a more positive quality perception than do less product-origin familiar consumers. However, when product origin image is held constant, the effect of POFam on QP diminishes to the level where there is no significant direct effect remaining between POFam and quality evaluations that cannot be explained by the mediating variable. Thus, hypothesis two is supported: product origin image fully mediates the relationship between POFam and quality perception.

DISCUSSION

The results of this study extend our knowledge of how product origin familiarity acts on quality perception. From a managerial perspective, it appears especially consequential in situations where consumers do not have access to or inclination to process choice-relevant information. Thus, product origin familiarity may be a viable marketing communications strategy. Such an implication reaches even beyond the individual firm, since country promotion strategies often are criticized for acting more like a shot gun than a precision rifle. However, in light of the results of this study, origin-exposure and origin-frequency effects can be beneficial additional outcomes of such promotion campaigns. The results support that these effects in turn increase familiarity and through origin image may affect consumers' quality perception. Importantly, familiarity seems to have no significant and independent effect on quality perception that is not explained by product origin image. Therefore, one conclusion is that while POFam undoubtedly helps to build such

an origin image, POFam alone is impotent without the origin image. In the present context, the main antecedent to quality perception is product origin image. In summary, product origin familiarity can improve product origin images through exposure and frequency effects and thereby in turn help influence consumers' product-related attitudes.

CONCLUSION

In this paper we introduce and test the concept of product origin familiarity in its capacity to influence consumers' quality perceptions. The resulting knowledge from this study ads to the studies in the extant literature that aim to test the boundaries of the country-of-origin phenomenon. The results show that POFam does influence consumers' quality perception. In other words, POFam matters.

This is an important discovery as it has direct implications for firms in relation to market communication strategies. From a practitioner perspective organizations can benefit from knowing the relevance of POFam. A national or industry campaign has the potential not only to influence attitudes related to its products directly, but also to influence familiarity and thereby potentially influence attitudes and consequently quality perceptions. For example, the Australian wine campaign directly influenced consumers' feelings about Australian wine. Such a campaign may also indirectly influence consumers' image of Australian products in general because the campaign assists consumers in accumulating product origin experiences and, thus, increase their POFam. Additionally, POFam influences quality perceptions through and only

through product origin attitudes. In other words, despite the merits of POFam; companies, industry organizations, and governments should not rely on increasing POFam while neglecting the accompanying attitudes. As such, any exposure is not necessarily good exposure.

POFam theoretically affects consumers' POI through two mechanisms that per definition rely on the number of experiences and that do not rely on the nature (positive/ negative) of these experiences. This allows the present paper to suggest that even negative exposure may count positively toward a more positive POI in the long run. There is, however, a need for longitudinal research that extends the present research and investigates the long-term POI-effects of negative exposure versus the POI-effects of no exposure. Indeed, the POFam construct itself seems to be an important construct for future research that merits further examination.

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PRODUCT-COUNTRY IMAGE, BRAND ATTITUDE, AND THEIR MODERATORS: A STUDY IN THE PEOPLE'S REPUBLIC OF CHINA

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SUMMARY

Scholars have examined country of origin (COO) effects extensively in western countries and the majority of these studies found that COO had significant effects on product or brand attitudes as well as purchasing intentions. Furthermore, studies suggest that several factors moderate the positive effect of COO. To date, the most widely studied moderators of COO effects are product knowledge and consumer ethnocentrism. Although the majority of these studies found significant moderating effects, they only studied one moderating factor – consumer ethnocentrism (CE) or product knowledge (PK). To understand the effects of COO better, there is a call for more research into potential moderators within the same context and the relative importance of their effects on COO.

To the authors' knowledge, only one empirical study has examined the moderating effects of both product knowledge and consumer ethnocentrism. Using a university student sample, Moon (2006) found that in evaluating domestic and foreign products, regardless of consumers' ethnocentrism, the effects of COO on consumers' product attitudes were stronger for lowknowledge consumers as compared to high-knowledge consumers. In addition, regardless of product knowledge, the effects of COO were stronger with low-ethnocentric consumers than with high-ethnocentric consumers. Yet it remains unclear if the effects of consumer ethnocentrism and product knowledge differ among local and foreign brands.

This study examined how product knowledge (objective and subjective) and consumer ethnocentrism moderated the effect of product-country image in Chinese consumers' evaluations of local and foreign brands. Product-country image (PCI) refers to consumer perceptions of a product category from a particular country. The study selected wine as the product category and adopted a three-country between-group factorial design. As French and Australian wines are the two major foreign competitors in the Chinese wine market, comparing wines made from these two countries with local wines had practical significance. Three wine labels were designed with each version containing Mandarin characters noting the wine made in Australia, China, or France.

The sample was collected at a restaurant catering to *Xiaozi* (the Chinese equivalent for middle-class). The research assistant randomly selected and presented a bottle of closed wine with one of the three labels to diners at the restaurant. The respondents took a few minutes to evaluate the closed bottle before completing the questionnaire.

Confirmatory factor analyses showed all items loaded on the PCI factor for all three countries, with satisfactory Eigenvalues and Cronbach alphas. Similarly, all items for attitude toward the brand (AtB) loaded satisfactorily on all three countries. Items for consumer ethnocentrism and product knowledge also loaded as separate factors. The Cronbach's alphas also indicated satisfactory levels of reliability for all the constructs tested.

Multigroup Structural Equation Modeling via AMOS, with the maximum-likelihood method tested the effect of PCI on attitude toward the brand. Results showed that PCI had a significant positive effect on Chinese consumers' attitudes toward both local and foreign brands, but the effects on foreign brands were country specific. Both product knowledge and consumer ethnocentrism moderates the effects of PCI on the evaluations of local and foreign brands but the moderating effects on foreign brand were country specific.

China is an attractive yet highly competitive market for local and foreign brands. This study found that for luxury products such as wine, product-country image played an important role in Chinese consumers' evaluations of both local and foreign brands. Among the various market strategies, country-of-origin, brand names and images on the labels may be a key success factor for foreign brands in China. PCI's country specific effects suggest that a good understanding of a foreign country's PCI among Chinese consumers is essential for an effective marketing strategy for a brand from this foreign country. In a related manner, the country specific moderating effect of product knowledge and consumer ethnocentrism also suggest that before marketing a foreign brand in China, marketers should understand the target market' knowledge level and ethnocentrism level as well as their effects on brand attitudes. References are available upon request.

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THE COUNTRY-OF-ORIGIN EFFECT: INVESTIGATING THE MODERATING ROLES OF PRODUCT INVOLVEMENT AND PRODUCT ORIGIN CONGRUENCY

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SUMMARY

The purpose of this study is to clarify the potential influence of these two contingency variables in influencing the COO-effect. The study findings show that both product involvement and product origin congruency influence the effect of COO image on consumers' product evaluation. Overall, the findings suggest that the effect of COO on how consumers evaluate products is context-contingent.

Summary

Since Schooler's (1965) seminal article the effect of country-of-origin (COO) biases on consumer attitudes has been an issue of continuing interest. Over the past four decades the attention of researchers has continuously shifted as new challenges presented themselves. A key challenge is the investigation of potential variables that moderate the influence of COO. Researchers have traditionally been interested in the influence of product involvement (Ahmed et al. 2004; d'Astous and Ahmed 1999) and in recent years it has been suggested that perceived product origin incongruence may significantly reduce the importance consumers place on the COO cue (Chao 2001). The influence of these moderators, however, is unclear.

In this study, we address these issues. Specifically, we explore empirically how product involvement and product origin congruency can influence COO-image effects on product evaluations.

The results of the study indicate that COO image has a different effect on product evaluation depending on the context.

The findings show that consumers' reliance on COO image when evaluating a given product is contingent on product involvement. Specifically, less involved consumers will depend more on COO image than will more involved consumers. This supports the notion that COO image acts mainly as a proxy. When consumers are less involved in a given product category, they will rely more heavily on relatively fewer cues, such as COO (Gurhan-Canli and Maheswaran 2000; Han 1989). However, this

does not imply that COO image is unimportant for high-involvement products.

Finally, our results suggest that consumers rely considerably more on the COO cue when the product origin facets are perceived as congruent. Higher perceived product origin congruency increases the perceived reliability of the COO image held by consumers. As a consequence this image is used more when evaluating products and considering a purchase.

In other words, when consumers consider a product from a higher image product-origin, the positive relationship between COO image and product evaluation is strengthened the more the consumer perceives that the product origins are congruent.

We hypothesized that product involvement would either weaken or strengthen the influence of COO image on product evaluations. Previous literature has supported both scenarios and since only one can mirror reality, we set out to investigate which one does.

Our results show that the influence of COO image is higher for those consumers that are less involved with the product. Furthermore, we found that consumers utilize COO image more when making product evaluations if they perceive that the product origins are more congruent than if they perceive that the product origins are less congruent. In addition to augmenting our knowledge of the conditions under which COO image is more or less salient, our study is an extension of research that aims to examine the role of the various facets of COO (Ahmed and d'Astous 2004; Chao 2001; Kleppe et al. 2002; Laroche et al. 2005; Li et al. 2000). These are important findings as they are key variables that differentiate consumers and products as perceived by consumers. In addition, studies on the COO effect have found insignificant or even contradictory results (Pappu et al. 2006) and the present results suggest the value of a contingency approach. This understanding will help advance international marketing theory and explain inconsistent prior findings.

The results of our study are subject to certain limitations. The study was set in an Australian context and caution should be used in extrapolating our results to other

contexts. We used students and while this is a limitation it should be noted that there is evidence showing that there is no significant differing between student and non-student samples when investigating COO effects (Verlegh and Steenkamp 1999). In general, research on constructs that may moderate the effect of COO is a fertile area for future research endeavours.

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MEASURING BRAND VALUE IN REAL AND VIRTUAL WORLDS: AN AXIOLOGICAL APPROACH USING PLS

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ABSTRACT

This paper assesses the brand value of real-life brands in the virtual world of Second Life. Using Hartman's axiology, we develop a scale to measure brand value and assess the value of four brands. Using PLS, we examine how respondents discriminate between the various value types for each brand.

INTRODUCTION

Recent convergence between social networking and advanced three-dimensional technologies has spawned a class of technologies known as "virtual worlds." This new platform has been hailed as a potentially important channel for marketers (Hemp 2006). A "virtual world" is defined as "an electronic environment that visually mimics complex physical spaces, where people can interact with each other and with virtual objects, and where people are represented by animated characters" (Bainbridge 2007). There are two main classes of virtual worlds under this definition: "freeform" virtual worlds that are largely based on creativity, such as Second Life, There and Active Worlds; and massively multiplayer online role-playing games, such as World of Warcraft, The Sims Online and Everquest. Our focus is on freeform virtual worlds that are open-ended virtual interaction platforms or "experience worlds"; thus, goals are not prescribed, and such virtual worlds are not "games" in the traditional sense. Current virtual worlds have become highly interactive, collaborative and commercial; these worlds have the potential to be new channels for marketing content and products, integrating "v-commerce," or virtual e-commerce.

Second Life, the best known virtual world, has grown rapidly from two million residents in January 2006 to 12 million residents in January 2008 (Second Life 2008). In December 2007, there were nearly 17 million transactions and more than US$20 million were spent (Second Life 2008). Many virtual worlds have a firm basis for commercial development, including an in-world currency, customization of avatars and objects, concepts of property ownership, text and/or voice communication and many different marketplaces and communities (Castranova 2005; Manninen and Kujanpää 2007). Virtual worlds provide extraordinarily flexibility and potential for brand-building. Tools for promotion include, for example, product placement of branded 3-D objects, real-world analogs (such as billboards and radio), advergames (mini-games or mini-worlds, with some element of advertising), and cross-promotion (such as coupons, dancing, or camping in SL) (Vedrashko 2006).

The significance of brands in virtual worlds is already apparent. Second Life, for example, has more than 100 real life brands (KZero 2007; New Business Horizons 2007), including those in sectors such as auto (e.g., Mercedes, Mazda, and Pontiac), media (e.g., Warner Brothers, Reuters, and Sony BMG), travel (e.g., STA Travel and Tui), consumer electronics (e.g., Dell, Nokia, and Sony Ericsson), consumer goods (e.g., L'Oréal Paris and Armani), telecommunications (e.g., Vodafone and Orange), finance (e.g., ABN Amro and ING) and professional services (e.g., IBM and PA Consulting). On top of these brands there are many universities and other organizations from the real world (including several embassies, such as Mauritius and Sweden) in SL.

The issue of brand-building in virtual worlds is embryonic. Developments are likely to follow a similar learning curve to other new media, such as the Web and mobile telephony. However, there is, as yet, no significant academic research output in this area. With this in mind, we embarked on an exploratory study into brand value in virtual worlds, focusing explicitly on the Second Life platform. The key research question for our research is: "What is the brand value of real life brands that have moved to the Second Life virtual world?" The approach we use to measure brand value is that of axiology (Hartman 1967); which has been proven to be valid and reliable in marketing research (Lemmink and Mattsson 1996; Mattsson 1990; Mattsson and Wetzels 2006; Ruyter et al. 1997). A scale was developed and applied to four well-known real-life brands that have moved to Second Life. There is a clear need for theory to measure brands and how they are changed when moving from one media to another and it is of managerial relevance to see the impact on brands when moving into new channels. Impact must be measured by the same dimensions and axiology gives access to this.

The structure of this paper is as follows. In the next section we briefly describe some aspects of the nature of virtual worlds and implications for marketing and brands. This is followed by a section focusing on axiology and brand value literature. The fourth section describes the

methodology used in the study. Section five presents the results of the study and these are discussed in section six. In the final section, the paper rounds off with conclusions and implications for research and practice.

A BRIEF BACKGROUND ON VIRTUAL WORLD MARKETING

Virtual worlds are complex phenomena because they offer many kinds of marketing experiences hitherto unseen in a single channel (Chambers 2005; Kleeberger 2002; Vedrashko 2006). Virtual worlds are not only designed to entertain users (customers), but also to engage them in an experience. The use of multiple senses in this experience can make it much more effective (Kroeber-Riel and Weinberg 1999, p. 123), and this is even more the case in emotional, new, or unstructured stimulating environments of the kind seen in many virtual worlds.

Taken to the extreme, virtual worlds enable the extension of self or the creation of alter-egos that in themselves are the target of marketing (Hemp 2006, pp. 50–57). Such developments appear to rise to the top of Maslow's (1943) hierarchy of needs, to emphasize emotions, and to enable the building of self-esteem and self-actualization. As such, they go well beyond the capacity of traditional online games. In this sense, the richness and potential of marketing in virtual worlds is immense (Barnes 2007). Figure 1 demonstrates some instances of marketing and brands in Second Life. In examples 1 and 2, we see 3D product placement. This form of advertisement helps to build brand awareness and enables users to experience facets of the virtual or real-life product in 3-D. In these examples, the polygonal representations of a real-life car can be examined and even driven (albeit in a limited, computer controlled fashion) and a mobile phone can be examined and carried on the avatar. Example 3 gives an

FIGURE 1
Examples of Brand-Building in Second Life

Example 1: 3-D Product Placement – The Mazda Hakaze

Example 2: Sony Ericsson W950 Mobile Phone

Example 3: Rich Multimedia Advertising and Video for Justin Timberlake Album (Sony BMG)

Example 4: Personalization of 3-D Products: Reebock Shoes

instance of multimedia being used to help to promote digital content and products. Typically such products are in the media industry, including music, movies, television and so on. In the example, an album is promoted and can be purchased at the same location. Example 4 gives an instance of the personalization and individual expression enabled for a brand in SL; at the Reebok store, the user may, for a small fee (L$50, which is approximately US$0.2), buy and customize a pair of training shoes to their own specifications. The examples in Figure 2 are the four brands that are used in this study.

AXIOLOGY AND BRAND VALUE

The marketing literature typically defines value as the trade-off between benefits and sacrifices (Zeithaml 1988; Anderson and Narus 1999). However, value can also be more broadly construed as covering the entire realm of human experience. In such a scheme emotions cannot be neglected as a basic premise for consumer evaluations (Oliver 1994). Few comprehensive value models have been applied to investigate marketing relationships. In this study we utilize the axiological model developed by Hartman (1967). This model is built around some basic philosophical assumptions (axioms); it is also multi-dimensional, covering different levels of human values on Emotional (E), Practical (P) and Logical (L) dimensions. The combination of these three value dimensions gives rise to nine value types which comprise our multidimensional scale of the brand construct.

Hartman's (1967) value concept is formal and defines value as the degree of fulfillment of the intention of its concept. By intention is meant the person's own norm, or content of goodness criteria for a concept already existing mentally prior to valuation. This norm (Intention) is compared (at the moment of valuation) to what is actually perceived of the concept (Extension). The more of these goodness criteria that are seen to be present (in the Intension), the more value is assigned by the person. Value is therefore not something inherent in the thing or situation valued, but the relation between the amount of goodness criteria (ex ante = Intention) and what is perceived of these criteria in a thing or situation (ex post = Extension). We term this mental process a valuation and its outcome value. Valuation consists of the mental comparison between the intention and (the perceived) extension of a concept. The part of the intention which is fulfilled during valuation is defined as positive value and the remaining part (non-fulfilled) negative value. We can write the formal relation as: Value = Intention – Extension. (eq: 1)

As mentioned above Hartman differentiates between three value dimensions: the intrinsic (which we term emotional = E), extrinsic (here termed practical = P) and systemic (here termed logical = L). The reason we use different labels is to facilitate comprehension of the dimensions. These dimensions are said to be different modes of perceiving reality like different wavelengths of light reflected by the eye. Let us take the example of light. Blue color has more energy than red color. Both are colors and are part of human experience. Nevertheless, blue is richer in energy than red. Differentiating these dimensions by their degree of richness, the emotional dimension is defined to be far greater than the practical, which in turn is greater than the logical. This is explained as follows. Simply speaking, the emotional dimension is said to contain an infinite number of properties, each a continuum. The practical dimension also contains an infinite number of properties but each and every one of them is considered denumerable (discrete). The logical dimension, finally, only has a finite number of denumerable properties. Richness of a value dimension refers to the number and complexity of its properties. Hence, the emotional dimension is greater than the practical because it has both an infinite number of properties with each one being a continuum, whereas the practical dimension only comprises denumerable properties.

Let us now define different value types from these three value dimensions. The formal expression of value suggested above, namely Value = Intention – Extension makes it possible to construct nine different combinations of value dimensions. Both the intention and the extension can become emotional, practical, and logical. Hence we have the following possibilities (denoting E = emotional; P = practical; and L = logical); E–E, E–P, E–L, P–E, P–P, P–L, L–E, L–P, and L–L. Each one of these values can be seen as a positive or a negative value, and therefore, we can construct 18 types, nine positive and nine negative. In this paper we used the nine main value types, each one as a bipolar scale. Hartman has suggested that these value types can be ordered as an ethical measuring rod in his value instrument (Hartman 1973).

Early research on this instrument (called the Hartman Value Profile) and its underlying theory has verified the value dimensions (Elliott 1969) and its empirical validity (Lohman 1968). Mattsson (1990) was the first to apply and validate Hartman's value theory in a great number of business contexts. It was possible to logically confirm the Hartman value hierarchy (Mattsson 1990, pp. 116–121). A number of marketing applications have validated the Hartman approach to values (Ruyter et al. 1997; Lemmink and Mattsson 1996).

METHODOLOGY

As discussed above, the study is based on Hartman's axiology and uses nine items for measuring the various aspects of brand value. In addition an overall item is also included to assess the overall value or goodness of the brand in Second Life, e.g., "Mercedes is a good brand." In

this study we use a statistical model with the aim to predict consumer preferences with regard to values seen in the brand. Hartman's model of value types gives rise to nine basic types. These types can also be put into a negative format which means that the same types are expressed in a negative way. Let us give an example. The value type L–L is formulated as "In my opinion . . . information about Mazda is always correct." Correct in this expression is a positive logical valuation (correct) of something logical (information). If we instead had used the negative counterpart it would have read: ". . . information about Mazda is always incorrect." The precise questions are as follows: "In my opinion . . ." (1) "I feel great pride identifying with Sony Ericsson." (E–E), (2) "what Sony Ericsson delivers feels right for me." (E–P), (3) "I feel I am able to trust Sony Ericsson completely." (E–L), (4) "Sony Ericsson does me good." (P–E), (5) "Sony Ericsson is a satisfying buy." (P–P), (6) "what I get from Sony Ericsson is worth the cost." (P–L), (7) "the uniqueness of Sony Ericsson stands out." (L–E), (8) "Sony Ericsson is a symbol of quality." (L–P), and (9) "information about Sony Ericsson is always correct." (L–L).

Our survey items reflect the underlying theoretical combination of the value dimensions. Different kinds of words are representing either an object of thought (second position), which is to be evaluated, or the way the evaluation is carried out (first position). In a few cases words like "trust," "satisfying," and "information" are used to formulate the item. This does not mean that we tap into these constructs as traditionally defined in the literature. To the contrary we build the value combinations, which are overlapping, with common words or expressions easily recognized by respondents. Just because one uses a word like "trust" does not imply that you measure this construct. Axiology in our sense here is a generic model of the value realm and is defined as an entire scheme. The combinations in this scheme have to be expressed in normal language related to the common ideas of brands. Hence, all items reflect everyday language and simultaneously the underlying value combinations (or value types). Each item was rated on a seven-step bipolar scale from "strongly agree" (7) to "strongly disagree" (1). Neutral was given the score of 4. The design of the surveys was to evaluate four brands, one in each of four brand types: automotive, consumer electronics, consumer wear and media. These brand types were identified as prominent sectors with sufficient target consumer brands. Many target brands were visited in Second Life; the specific brands chosen were considered to be prominent in real life and to have a sufficient brand offering to be evaluated by respondents in Second Life. Instructions to SL visitors were that they were to rate the survey items as to how the respective brand appeared in SL. Screenshots of the chosen brands in Second Life are shown in Figure 1: Mazda (automotive sector), Sony-Ericsson (consumer electronics sector), Reebok (consumer wear sector) and Sony BMG (media sector).

The survey was piloted to elicit feedback and to ensure validity and reliability in mid-2007 (see Barnes and Mattsson 2008). The final survey was delivered via "survey bots" in Second Life. The survey bots were developed and run by GMI, Inc. Each bot is essentially an avatar automated to deliver the survey items in text form and to collect responses in a database. The bot has an advertisement for the prize survey in its group name, above the avatar. Details of the survey are also provided in the profile of the avatar and respondents are requested to IM (instant message) the bot. Respondents initiate contact and are given details of the survey and how to begin the questionnaire by sending an IM (with the word "SURVEY"). The survey then begins, with the respondent prompted to answer the questions in numerical format, e.g., "What is your gender? 1 = Male, 2 = Female." Two of the bots were male, two were female; two of the bots had formal attire and two had casual apparel (another study will examine the effects of avatar appearance on responses from a variety of concurrent surveys). To ensure valid responses for each brand, each bot was positioned in the actual brand location in Second Life, near to the teleport entrance. This ensures that respondents have come to experience the SL brand location and do not answer the survey blindly. The survey began in September 2007 and ran for each brand until there were more than 100 responses for each. As an incentive, a prize draw was offered, with L$10,000 first prize, L$5,000 second prize (x 2), and L$1,000 third prize (x 5). In all 435 responses were received.

In order to test the validity and reliability of the scale and its dimensions, we used PLS with reflective indicators.

As part of the study, we intended to evaluate the pattern of values for each brand. When respondents complete the survey we cannot expect them to fully cover the complete set of (nine) value types when relating it to a certain brand. Instead we should expect them to be biased and to focus on a few of them. In this study we aim to investigate value patterns of brands and not only individual value types. Therefore we need to construe a way to statistically discriminate those value types which are in focus, from those other value types of minor interest.

We argue as follows: The Hartman value realm is seen as a theoretical scheme which is embedded in human perception and cognition. We further postulate, nevertheless, that respondents are able to differentiate between the three main value dimensions – E, P, and L. Hence, a group of respondents who clearly link a value type of a certain perspective, i.e., E–X, with the corresponding latent con-

struct of the E-dimension is defined as seeing that value type *inherent in the brand*. Inherent means that the brand *as an entity is assigned this value type*.

Statistically we use a PLS approach with formative indicators of the value types E–E, E–P, and E–L to the latent construct of E (emotional dimension) and link the remaining six value types in a similar way to their corresponding dimensions. PLS is able to handle formative relations, has the advantage of being effective on small samples, and does not require distributional assumptions of the sample. Hence, the significant weights (regression) to the respective latent dimension signal that the value type is observed in a significant way and that it should belong to the value pattern of the brand. However, with several significant value types (among the nine) we need to rank the relative importance of each. As weights in PLS are normally seen as standard regression weights, we can compare their sizes to each other to find the most important value types of the brand.

The value pattern is then seen as the combination of those significant (important) value types when their respective order in the Hartman hierarchy has been taken into account. E–E value types are more important than P–P values types for instance. So, in essence, we need to combine the findings from the statistical model with the theoretical ordering to build the value patterns of the brand. Even though a lesser value is seen as more important by respondents it is nevertheless of lesser magnitude in theoretical terms. This needs to be taken into account when interpreting results for managerial use.

RESULTS

This section reports on the results of the study. We begin with an assessment of the sample, before exploring validity, reliability and the specific values attributed to each brand in PLS.

Sample Characteristics

In all, we had 435 assessments of value for specific brands in Second Life. The sample was 60.46 percent male and 39.54 percent female, with a median age of 25 to 34 years. Many respondents had used Second Life for less than six months (64.8%), with 31.0 percent using it for less than one month; only 16.1 percent had used SL for a year or more. Overall, Sony Ericsson was rated as the best brand overall in terms of the mean of "goodness" (5.74), followed closely by Reebok (5.65), Mazda (5.56) and Sony BMG (5.35).

Assessing the Validity and Reliability of the Scale

In order to assess the dimensionality of the scale, we used PLS with reflective indicators (Centroid Weighting Scheme) in Smart-PLS (Ringle et al. 2005). The results

are shown in Table 1. All items loaded very significantly on their appropriate dimensions ($p < 0.001$). Reliability analysis suggests strong composite reliability of the individual components, all of which are well above the 0.7 cutoff suggested by Nunnally (1978), but also meet Straub and Carlson's (1989) recommended threshold of 0.8 for professional applications. The Average Variance Extracted (AVE) for each construct exceeds the recommendation of 0.5 from Fornell and Larcker (1981), with the lowest AVE being 0.596. This demonstrates strong convergent validity. The levels of R^2 are also very substantial (Ringle et al. 2008), ranging from 0.527 to 0.716, demonstrating good explanatory power. As to validity of the value construct we fall back on the formal definition of value (Equation 1) and the derived order of value types encompassing the entire value realm. As a theory it is a rational model of all levels and combinations of value. Hence, values in this context are not empirical entities (as other value scales are such as the one developed by Rokeach 1967) but theoretical combinations whereby each can have an infinite number of counterparts. Therefore, construct validity is assured by the model (paradigm) itself. What is of relevance is that items truly reflect the respective dimension.

Formative PLS Modeling of Brand Assessment

As mentioned above, in order to determine how the respondents perceive the value pattern for each brand, we utilized PLS with formative indicators. In this analysis, we set out to discriminate between those values seen in the object (significant as to the impact of goodness, that is the value does not contribute to overall goodness/value), and others not seen, but available anyway. For a value item to be considered significant in the assessment of value for a specific brand, the t-values should be significant for both the item and the path to the Overall item (goodness). Otherwise, the value has no impact on goodness (overall). The larger the loading, the more important and clear a value will be to respondents. Table 2 summarizes the results of the PLS path modeling (Centroid Weighting Scheme) in Smart-PLS (Ringle et al. 2005). The overall levels of R^2 are substantial (Ringle et al. 2008), ranging from 0.547 to 0.785.

Let us consider the results of each brand, in turn.

♦ Mazda. The data suggests that Mazda is driven by logical and practical dimensions. The value pattern, in descending order of loadings, consists of P–P, L–L, and L–P (E–P and E–L are discarded because of a non-significant path for E). In terms of interpretation, we can say that Mazda works well (P–P), is reliable (L–P) and conforms to specifications (L–L).

♦ Reebok. The Reebok brand is driven first by logical and then by practical dimensions. The value pattern (from the theory) is composed of the significant

formative items in order of greatness, hence L–P, P–P, E–P, P–L, E–L, and E–E. Dominating, or most significant, values in the pattern are L–P, P–P, and P–L. Emotional values have no impact on overall goodness, due to a non-significant path, and can be discarded. The dominance of L–P and P–P translates into practicality and quality. P–L also has an impact which can be construed as value for money (worth the cost).

♦ Sony Ericsson. Sony Ericsson is driven by the logical dimension only, although note that we nearly have a significant path from the E-dimension. The significant value pattern is comprised by values L–P and L–L. This refers to practical benefits (i.e., quality) of the brand and conformity to a standard (i.e., information correctness).

♦ Sony BMG. Sony BMG is driven by two logical and practical dimensions, although again the E-dimension is nearly significant. The value pattern consists of P–P and L–P indicating physical or practical benefits and reliability of operations.

Analysis of Responses by Age, Gender, and SL Experience

In order to determine if there is any effect of age, gender or SL experience on brand perceptions, we used ANOVA. We did not find any effect of age. However, for Mazda there is a gender effect for P–P – which suggests that Mazda is a more satisfying buy to female customers. In the brand location of Mazda in SL, the Mazda Hakaze

can be driven. This may be perceived more as a female-oriented automobile. There is an apparent effect of experience (time) in using SL on brand perceptions, as users submit to a more altered reality. This is a finding that we found in our pilot study (Barnes and Mattsson 2008). However, Sony Ericsson and Sony BMG appear immune to this and therefore appear to carry over well into the Second Life environment. However, Mazda has a time effect for L–P ($p < 0.05$), suggesting that perceived quality of the brand declines with time. Similarly, Reebok has time effects for L–L, L–E ($p < 0.05$) and E–L ($p < 0.01$).

DISCUSSION

Our evidence suggests a strong, valid and reliable scale for measuring brand value in virtual worlds. The application of the scale to four well-known brands in SL suggests variation in brand value, but a pattern in terms of what is offered in Second Life.

Across all of the brands we have analyzed in SL, we have been able to differentiate key values using PLS with formative indicators. They conform across types and are driven by Logical and Practical dimensions, but in some cases the Emotional dimension is surging toward significance. Of course we are dealing with virtual worlds and brick-and-mortar brands. Thus, we cannot expect the same patterns in Second Life as in real-life. The typically "emotional" brands such as Sony BMG and Sony Ericsson do not fully reveal themselves as such in SL because the content they carry does not spill over to the brand presence in SL in the same way. This is an important idea perhaps. Feelings about traditional brands, including trust, appear

TABLE 1
Results of PLS Modeling with Reflective Indicators

	Mazda (Loadings)			Reebok (Loadings)			Sony Eric. (Loadings)			Sony BMG (Loadings)		
	E	P	L	E	P	L	E	P	L	E	P	L
E–E	0.837***			0.870***			0.773***			0.857***		
E–P	0.883***			0.872***			0.861***			0.891***		
E–L	0.883***			0.914***			0.891***			0.829***		
P–E		0.817***			0.815***			0.815***			0.644***	
P–P		0.908***			0.883***			0.883***			0.927***	
P–L		0.802***			0.839***			0.756***			0.821***	
L–E			0.687***			0.749***			0.749***			0.705***
L–P			0.841***			0.902***			0.902***			0.902***
L–L			0.871***			0.867***			0.867***			0.692***
E→Overall			0.162	0.049					0.173†			0.270†
P→Overall			0.235	0.216†					-0.143			0.174†
L→Overall			0.383*	0.612***					0.804***			0.423***
AVE	0.754	0.711	0.649	0.785	0.748	0.696	0.711	0.672	0.706	0.738	0.649	0.596
c	0.902	0.881	0.846	0.916	0.899	0.873	0.880	0.860	0.878	0.894	0.845	0.813
R²			0.527	0.716					0.690			0.656

Note: significance levels denoted by † (10%), * (5%), ** (1%) and *** (0.1%).

	Mazda (Weights)			Reebok (Weights)			Sony Eric. (Weights)			Sony BMG (Weights)		
	E	P	L	E	P	L	E	P	L	E	P	L
E–E	0.201			0.234*			0.260†			0.201†		
E–P	0.468*			0.565***			0.424*			0.635***		
E–L	0.466*			0.314*			0.484**			0.302*		
P–E		0.020			-0.01			0.178			0	
P–P		0.848***			0.707***			0.768***			0.953***	
P–L		0.250*			0.404***			0.196			0.103	
L–E			0.181			0.064			0.039			0.059
L–P			0.457**			0.843***			0.783***			0.921***
L–L			0.553**			0.185†			0.265*			0.103
E→Overall		0.120			-0.041			0.162†			0.174†	
P→Overall		0.332*			0.267**			-0.095			0.259**	
L→Overall		0.340*			0.689***			0.807***			0.487***	
R^2		0.547			0.785			0.740			0.732	

TABLE 2
Results of PLS Modeling with Formative Indicators

Note: Significance Levels Denoted by † (10%), * (5%), ** (1%) and *** (0.1%).

exceedingly difficult to create in the virtual world environment. Emotionality may possibly be carried by other brands, inherent in the content such as series, film titles, and so on. The anecdotal success of the Warner Brothers site in SL, as linked to the "Gossip Girl" television series, is an example of this.

The brand patterns that emerge are perhaps not surprising. Emotion is not created without significant interaction and engagement from the customer and that is something that the Second Life locations fail to really provide at this stage. The customizable shoe in Reebok does not work as an idea, in a world where illegally branded shoe designs are given away for free ("freebies") in many places. Once you have your multi-colored shoes, the interaction ends; you can "wear" them (a passive activity), but nothing else. The media used at Sony BMG (see Figure 1) bring it the closest to providing emotional brand value. Overall, the immersed users of the SL experience only see Practical and Logical dimensions. They stand out in comparison.

A quite interesting finding is the difference in perceptions of respondent groups. While age and gender have little effect (except for the apparent influence of gender on perceptions of Mazda – and the female oriented automobile on "test-drive" there), experience with SL does, and the data supports the anecdotal evidence in the business press and in our pilot that experienced users are not impressed with the way many RL brands have approached SL. Sony Ericsson and Sony BMG appear they have weathered the "SL effect" and do not appear to display diminishing evaluations from experience users. Mazda has an "SL effect" for one item (L–P), indicating a

worrying effect on quality and reliability. Most significant are the worrying signs for Reebok, with time effects for L–L, L–E and E–L. Interestingly, Reebok left Second Life in December 2007. This may have been due to the declining brand value of Reebok in Second Life; a brand presence that has declining trust, lacks uniqueness and provides poor information is detrimental to its marketing effort.

Our results are supported by other indicative evidence. The Brand Science Institute (2007) in a survey of 200 SL users found that 72 percent were disappointed with the brand activities of companies in SL, with 42 percent citing a lack of commitment; only 7 percent suggested a positive brand influence.

CONCLUSIONS

Overall, the study suggests that virtual worlds are a very different area of brand research that will require considerable attention from researchers and practitioners alike in order to create perceptive value for consumers, especially with respect to emotional value, which rates at the highest end of the brand value scale in terms of Hartman's axiology theory. Clearly, the issue of moving a brand from real life to Second Life is not straightforward and the recent demise in 2007 of brands such as Adidas, Reebok, AOL, and American Apparel demonstrate this. Considerable effort is required in understanding the nature of the brand and repackaging, and, in some cases, reformulating this in a way that is compatible with virtual worlds, their altered reality and that of their residents. Although this parallels the initial challenges with marketing on the Web, the more absorptive, individualized and

highly interactive nature of the medium imply that this is a step change of much greater magnitude. Notwithstanding, other established or entrenched new media channels have a rich set of metrics to learn from. Such metrics do not yet exist in virtual worlds, providing a compelling research issue. This underlines the practical value of the approach used in this paper and the axiological measuring approach is of obvious practical use for the evaluation of brands. It is easy to use, cost effective, and very flexible. Being theoretically grounded and formal, the axiological model allows for comparisons between brands, products and contexts.

This study is the first that empirically examines the value of brands in virtual worlds with academic rigor. It utilizes a novel method for collecting survey data in Second Life (survey bots) and a novel way of evaluating brands using formative indicators in PLS. However, the research is limited in several respects, including in terms of the size of samples (although these are typically considered acceptable for PLS path analysis) and the number and types of brands used. This is the first phase of an ongoing study that will continue during 2008 with another four brands, in the same corresponding product sectors. We are aiming for approximately 1000 responses in total in the next phase, using an instant payout of L$250 as an incentive from the survey bots. This larger sample will be used to conduct confirmatory factor analysis using LISREL, which was not possible in this study due to the small sample size.

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CONSUMING VIRTUAL WORLD: A GROUNDED THEORY OF CONSUMER USE BEHAVIOR IN SECONDLIFE: IMPLICATIONS FOR MARKETING

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SUMMARY

The Emergence of the Virtual World

In recent times, the virtual world has become more popular as a social networking site for consumers and also a marketing channel for major brands such as Nike, Wendys, and Dell just to mention a few. So, what is a virtual world? The idea of a virtual world is not totally new. Several researchers associate the emergence of the virtual world to Neal Stephenson's 1992 Novel, *titled: Snow Crash.* In his novel, Stephenson described a shared digital world called meterverse. The meterverse is populated by avatars or digital representations of human characters. O'Malley (2006) defined a virtual world as a computer-generated or simulated environment that can accommodate multiple users via a 3D online interface. The virtual world is also associated with the terms: synthetic world, digital worlds, and massively multiplayer online games (O'Malley 2006). To date, the three major business models employed in the development of 3D virtual worlds include the gaming world model (e.g., world of witchcraft and everquest), the adverworld model (e.g., Wells Fargo's stagecoach island and MTV virtual laguna beach) and the social networking world model (*Secondlife and There.com).*

A recent report by the Gartner Information technology research group suggests that a significant proportion (80%) of active internet users will become accustomed to the 3D virtual world by the end of 2011 (Olga 2007). To illustrate the extent of the saliency of the virtual world on the U.S. economy, Glushko (2007) highlights the efforts being made by the U.S. congress to tax the income generated from the sales of virtual properties. In 2006, the Screen digest group, a global media research firm, reported a $526 million growth in the subscription sales of online 3D virtual worlds in the North American market (Olga 2007). Additionally, the secondary market value for virtual goods is estimated to be within the range of $200 million to $880 (O'Malley 2006).

Apart from the economic rationale proclaimed by researchers to justify the development of more studies about consumers' usage behavior in the virtual world, several consumer behavior researchers have also suggested the need to develop more studies that can help augment our understanding of consumer behavior in relation to technology consumption (e.g., Glazer 1995; Giesler 2004). For instance, some scholars have proposed the notion of posthuman consumer culture as a way to better understand the behaviors of consumers in the context of technology consumption (e.g., Davies 1998). Arguably, one key indicator of the emergence of posthuman consumer culture can be attributed to the increased level of consumers' interactions with new forms of contemporary technologies or organismic technologies. Examples of organismic technologies are virtual worlds, intelligent computers, consumer robots, and so on.

In response to the call by virtual world researchers and consumer behavior scholars, the purpose of this study is to investigate consumers' use behavior in the Secondlife (SL) virtual world using the grounded theory methodology. The implications of the results will be discussed in relations to virtual world marketing. The results of this study will provide a foundation for theory development in the area of virtual world marketing research. Furthermore, the results of the study will benefit marketers and business managers who are planning to implement marketing programs in the virtual world environment.

The grounded theory method is appropriate if the phenomenon or subject of interest has not been widely researched in the literature or existing studies addressing the subject of interest are not definitive (Glaser and Strauss 1967). The grounded theory method is appropriate in this study because the virtual world phenomenon is at an early stage of diffusion and moreover this phenomenon has not been widely studied by researchers. The grounded theory approach in this study was based on multiple sources of data. The data collection process entailed two focus group sessions in the real world and in the virtual world and in-depth interviews with SL users inside the SL virtual world.

Consumer Use Behavior in the Virtual World

Overall, the study revealed three major categories of use behaviors in SL. The categories of use behavior uncovered were labeled as V-extendedness, Rebelliousness, and *V*-merchantness. An extensive review of the marketing and the consumer behavior literature suggest that the Rebelliousness and the V-merchantness use be-

havior categories can be explained by the broadened perspective of marketing behaviors while the V-extendendness use behavior are in line with the posthuman perspective of consumer consumption pattern.

With regards to scholarly implications, the findings from this current study suggest that the broadened view of marketing behaviors and contemporary consumer behavior theories accounts for consumer use behavior in the virtual world environment. The identification of three distinct categories of use behaviors in the virtual world environment suggest that the recent blind extension of traditional real world and 2D web world marketing tactics into the virtual community is a step in the wrong direction. In terms of practical implications, marketers need to understand that SL users are not homogenous in terms of their use behavior. So the idea of orchestrating a generalized promotional program in the virtual world is not likely to be fruitful. The insights from this study suggest that marketers should focus on developing promotional programs that will appeal to three distinct segments of SL users. The proposed segments are: V-extendedness, V-merchantness, and Rebelliousness. References are available upon request.

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"WORD OF MOUSE" VERSUS PROFESSIONAL MOVIE CRITICS: WHICH HAS A GREATER IMPACT ON MOVIE SUCCESS?

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SUMMARY

While the effectiveness of professional critic reviews are continuously being evaluated, new Internet-based information sources are increasingly being recognized as strong influencers of consumers' purchasing decisions. New sources of information like blogs, message boards, websites, social networking sites, and chat rooms enable consumers to easily share and access the opinions of millions of people worldwide (Dellarocas et al. 2004). These new Internet technologies have been referred to as "word of mouse" because consumers use the click of the computer mouse instead of their mouths to share information with others (Riedl and Konstan 2002).

As widespread as these Internet related activities are, very little empirical work has been done to test the relationship between online consumer movie reviews and movie success. Of the few studies in marketing that have been conducted to determine the relationship between reviews and box office receipts, the majority have focused solely on professional critic reviews (e.g., Eliashberg and Shugan 1997; Basuroy et al. 2003) while ignoring the reviews of average consumers. Liu (2006) did examine the relationship between consumer online word of mouth and box office receipts (Liu 2006). However, that study focuses on consumer online reviews but does not make a comparison between consumer and critic reviews.

The goal of this study is to examine the relationship between online consumer reviews, professional critic reviews, and movie box office success. This study attempts to answer three key questions: Do online reviews have a significant impact on movie box office success? Do professional critic reviews have a significant impact on movie box office success? Which has a bigger impact on box office success – critic reviews or online consumer reviews? In line with the literature on word of mouth, the study categorizes both online consumer reviews and critic reviews into valence and volume (Liu 2006) and examines their effect on box office success. The paper collects actual online consumer ratings, critic reviews, and additional information from a number of websites including Yahoo Movies and Box Office Mojo for the top 200 movies released in 2004. Using Hierarchical linear modeling (HLM), the paper compares the effects of critic

reviews and online consumer reviews and finds that both critic and consumer reviews have a significant effect on box office success. The results also indicate that while critics have a stronger impact on box office success with regards to the valence of reviews, consumers have a stronger impact when measuring the impact of the volume of reviews. The paper also examined the interaction of volume and valence for both critics and consumers and found that both interactions were significant.

Discussion

Our findings that online consumer reviews have a significant relationship with box office success, further strengthens our assertion that online reviews have a strong impact on consumer decisions. Although the valence of online consumer ratings was only marginally significant ($p < .09$), the volume of online consumer ratings was significant. This is consistent with previous findings in the literature (Liu 2006). The volume of consumer reviews also had a larger impact than the volume of critic reviews further demonstrating the value of online reviews.

In addition, the study found that the interaction between the valence of online consumer ratings and the volume of online consumer ratings were both statistically significant influencers of box office success. Since consumer valence is marginally significant ($p < .09$) but its interaction with consumer valence is significant (at the $p < .001$ level), we argue that while consumers pay some attention to consumer reviews, they pay more attention to consumer reviews if there is a high volume of consumer reviews. High volumes of consumer reviews give consumers the trust that they need to make decisions based on the reviews of strangers online.

The paper contributes to the academic literature by comparing the impact of both professional critic and online consumer reviews which to the best of our knowledge has not been done before. In addition, we examine the interaction effects of volume and valence of movie reviews which has not been examined previously in the literature. Finally, the paper introduces a new methodology, HLM, to this area of research. References are available upon request.

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BRAND PORTFOLIO MANAGEMENT: A TAXONOMY

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SUMMARY

To manage the requirements of shareholders to increase business performance, and to produce growth in an era of fragmenting customer needs, companies often react by expanding the number of brand offerings or by extending their existing brands. As a result, in 2004 in the region of 75 percent of the Fortune 1000 consumer goods companies managed brand portfolios of more than 100 brands each. However, not all kinds of brand portfolio management provide sustainable competitive advantages. Internal brand cannibalization, or inefficient use of marketing resources can cause a dilution of the brands' essence, due to unclear positioning in the psyche of consumers, and that results in ineffective brand portfolio management. For example, while in the confectionary sector the number of brands has increased by more than 40 percent in recent years, the overall portfolio revenues and profit has not altered. Overall, the impact that the management of a brand portfolio has on company performance is unclear and seems to be far from understood.

The managerial activity of optimizing a company's brand portfolio management is, therefore, an important but frequently neglected conceptual challenge. Resulting issues of brand portfolios, i.e., the management of all company's brands together, represent a practical challenge. Brand portfolio management is seen as a crucial capability of marketing management and needs to be treated as an additional and complementary feature of brand management. While some extant literature on issues of optimal brand architectures, as part of brand portfolio management exists, organizational aspects of how brand portfolio management is or ought to be conducted within a firm, remain theoretically and empirically under-researched.

Organizational Dimensions of Brand Portfolio Management

By identifying and specifying key constructs, we develop a nomological concept of organizational dimensions of brand portfolio management. To ensure that our constructs are relevant to management practice, we conducted a pre-study that included field interviews with twenty-five industry experts in brand management. Applying an iterative approach between theory (based on existing literature) and practice (based on our pre-study

results) we developed key characteristics for a comprehensive description of brand portfolio management. Four general dimensions of organizational determinants of brand portfolio management were identified: portfolio management formalization, portfolio actors, resources, and internal coordination. Within these dimensions, seven distinct constructs were identified that subsequently served as input variables for our analysis: Formalization, Use of teams, Top management involvement, Access to marketing resources, Use of complementary resources, Interdepartmental connectedness, Team spirit.

Performance Outcomes of Brand Portfolio Management

One of the objectives of this study is to go beyond the conceptualization of brand portfolio management approaches by providing a taxonomy to explore the performance effects of organizational design decisions. Measuring the overall effectiveness of the brand portfolio, 'Brand Portfolio Management Effectiveness' is defined in our study as the degree of success a company has in managing all its brands as a portfolio, over the result of managing each brand in isolation. To conceptualize the performance of brand portfolio management at the level of the firm, we used the dimensions of effectiveness and efficiency. Therefore, "Market Performance" represents the effectiveness, while efficiency has been linked to firm "Profitability."

Analysis and Results

To develop a taxonomy of different organizational profiles of brand portfolio management, we used a non-overlapping clustering. Our analysis of 304 international firms (for each company, two key informants answered questions regarding the brand portfolio management) clearly shows that managerial decisions about the organizational profile of brand portfolio management influence performance outcomes, including those on firm level. This implies the need for an active brand portfolio management and not a laissez-faire approach to this important issue, as the performance differences shown in our analysis can be significant. Companies without a coordinated brand portfolio management have an 18 percent inferior profitability compared to the best performing companies with Overlapping Brand Portfolio Management. Even more pronounced are the differences regarding the opera-

tional effectiveness of the brand portfolio management itself: The best performing companies outperform the weakest ones by more than 60 percent.

Furthermore, the conceptualization offers managers a systematic way to think through the organization of the management of multiple brands. The multi-dimensional model of brand portfolio management provides evidence of the importance of formalization, actors, resources, and internal coordination as organizational antecedents of successful brand portfolio management. In detail, managers should answer the following questions: Who is responsible for the management of the brand portfolio? How well do our different brand departments work together? How much formalization do we need? What kind of resources can we share and use for the management of the brand portfolio?

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CAN BRAND-SPECIFIC TRANSFORMATIONAL LEADERSHIP BE LEARNED? A FIELD EXPERIMENT

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SUMMARY

Internal brand-building has attracted increasing managerial and research interest within the last couple of years (Bendapudi and Bendapudi 2005; Berry 2000; Ind 2007; Mitchell 2002). Both academics and practitioners are trying to understand how organizations can make their employees deliver a service experience that is consistent with the brand image desired by the organization. Among the organizational forces that support internal brand building, supervisors' behavior has been highlighted as critical in this process (Vallaster and de Chernatony 2004, 2005). Indeed, a recent study by Morhart, Herzog, and Tomczak (2007) has shown that *brand-specific transformational leadership* (brand-specific TFL) is highly effective in creating brand-building behaviors among employees – specifically corporate brand loyalty, brand-consistent behavior at customer touch points, positive word-of-mouth, and participation in brand-development. This paper deals with the question of whether brand-specific transformational leadership can be learned, that is, whether it is possible to teach managers to make their followers act in a brand-supporting way. We therefore conducted a field experiment to assess the effectiveness of a management training intervention in a financial services company.

Based on Bass' (1985) original conception of transformational leadership *brand-specific TFL* is defined in terms of the following leadership behaviors (Morhart, Herzog, and Tomczak 2007): (a) articulating a compelling and differentiating brand vision, as well as arousing followers' personal involvement and pride in the corporate brand (Inspirational Motivation), (b) acting as a role model for followers in terms of authentically "living" the brand values (Idealized Influence), (c) making followers rethink their jobs from the perspective of a member of a distinctive corporate brand community (Intellectual Stimulation), as well as (d) teaching and coaching followers to grow into their roles as representatives of the corporate brand (Individualized Consideration).

Our training intervention would be a success if *subordinates* perceived increased brand-specific TFL behaviors among their supervisors. The following hypothesis was tested:

H: Leaders who received the brand-specific transformational leadership training (experimental group) will be perceived as more brand-specific transformational by their subordinates than leaders who did not receive the training (control group).

Though the primary goal of the training intervention was managers' development toward more brand-specific TFL *in general*, we also investigated the training's effect on the subdimensions of brand-specific TFL. Thus, we also examined the following research question:

RQ: How strongly are the subdimensions of brand-specific transformational leadership affected by the training?

The experiment was conducted in a financial services company in Switzerland, with 29 managers going through a 2-day off-site workshop and subsequent individual 1.5 h-coaching sessions (treatment group), and 31 managers serving as the control group. Data were gathered online from their direct reports (n = 222; 107 for the treatment group, 115 for the control group) at two points in time: one week before the training program commenced (time 1) and four months thereafter (time 2). Items from Morhart, Herzog, and Tomczak (2007) were used to measure brand-specific TFL at time 1 and time 2.

Measurement quality was ascertained by running separate confirmatory factor analyses for time 1 and time 2. We used covariance structure analyses to test our hypothesis and the related research question. The results reveal that the training had its intended effect and thus that our experimental intervention was successful. Net of initial levels of brand-specific TFL (i.e., controlling for pre-intervention scores on that measure), the estimated treatment effect was positive and significant on the 1 percent error level (.11; z = 2.48; $R^2_{Treat} = .01$). This indicates that the training intervention caused a significant increase in brand-specific TFL behaviors among managers in the experimental group as perceived by their followers. Results related to the training's impact on the subdimensions of brand-specific TFL reveal that the training had its largest effect on managers' Individualized Consideration. The training's effects on Intellectual Stimulation and Idealized Influence were also significant, but a

little bit weaker in size. Finally, the training did not significantly affect Inspirational Motivation.

In summary, our study provides evidence that brand-specific TFL can indeed be learned and that especially four out of five dimensions of the targeted leadership style can be improved considerably by our proposed training intervention. References are available upon request.

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WHAT MAKES A CELEBRITY AUTHENTIC? IDENTIFYING THE ANTECEDENTS OF CELEBRITY AUTHENTICITY

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SUMMARY

Celebrities are big business. Stars have been shown to increase box office revenues (Elberse 2007; Sawheny and Eliashberg 1996) and viewership (Neelamegham and Chintagunta 1999). They are particularly important as celebrity endorsers and have been found to increase stock returns for those firms they endorse (Agrawal and Kamakura 1995). In recent research on human brands, Thomson (2006) suggests that the perceived authenticity of the celebrity may influence a consumer's attachment to that celebrity. The goal of this paper, then, is to define celebrity authenticity and to determine the antecedents that lead to consumers' perceptions of celebrity authenticity.

Our conceptual foundation is based on Self-Determination Theory (SDT) (Ryan and Deci 2000). SDT focuses on the actual authenticity of oneself, or one's self-perceived authenticity. Based on this theory, authenticity (of oneself) has been defined as "the unobstructed operation of one's true or core self in one's daily enterprise" (Goldman and Kernis 2002, p. 18). Using the conceptual underpinnings of SDT, we argue that, when assessing the authenticity of another individual, people consider whether that individual is expressing his or her true self. An important assumption made here is that consumers perceive themselves as having a relationship with celebrities in the marketplace (Thomson 2006). Through these perceived relationships, consumers have multiple experiences with a celebrity and, together, these experiences affect authenticity perceptions. Thus, we define celebrity authenticity as the perception that the celebrity is behaves according to their true self.

To determine the antecedents of celebrity authenticity, the researchers used an open-ended survey method with 220 adult respondents. Two versions of the survey were administered, with each version having a distinct list of twelve celebrities. Respondents were asked to pick the most authentic and most inauthentic celebrity on the list, and then list reasons for their selection. In addition, the survey also asked respondents to list other authentic and inauthentic celebrities, and list reasons as support. A total of 716 authentic comments and 679 inauthentic comments were first coded. The data were then analyzed by applying the methods of categorization and abstraction

(Spiggle 1994). Two of the authors discussed the possible higher-order constructs before coming to a consensus about the constructs and the categories within them. Five themes emerged as proposed antecedents of celebrity authenticity, which included accomplished, consistent, good natured, original, and inconspicuous. Further, three of these themes are proposed to include sub-dimensions.

The first theme that appeared from the research is whether a celebrity is accomplished, which we define as the perception that the celebrity is successful in his/her profession or field. In this context successful involves being self-made and having one's own name and fortune. Accomplished consists of three sub-themes, which include talented (the perception that the celebrity demonstrates skill in his/her chosen field and that he/she is well-rounded and intelligent), hardworking (the perception that the celebrity puts effort into his/her profession and demonstrates determination, passion, and commitment to his/her craft), and longevity (the perception that the celebrity has had an enduring career). The accomplished theme accounted for 23.1 percent of reasons for choosing an authentic celebrity from the list, and was best represented by Tiger Woods. Contrasting with this theme was the inauthentic theme of undeserving of fame, such as when someone is only famous because his family has money.

A second theme that came out of the research was consistent, which is defined as the perception that the celebrity's personality does not change and that their actions match what they espouse. The consistent theme was given in 15.0 percent of responses for choosing the authentic celebrity from the celebrity list, and 14.0 percent of all authentic characteristics. Tiger Woods and Oprah Winfrey both were viewed as very consistent.

An additional theme was good natured, which is defined as the perception that the celebrity is a decent human being. This theme is best understood by considering the sub-dimensions of the theme, which include whether the celebrity is nice (the perception that the celebrity is easy to get along with and is warm, understanding, and caring), generous (the perception that the celebrity is giving with money, as well as with time or praise) and moral (the perception that the celebrity demonstrates strong values and is ethical). The inauthentic themes opposed to nice, generous and moral were malicious,

selfish, and scandalous. Overall, the good-natured dimension accounted for 36.4 percent of all authentic characteristic responses.

The fourth theme that came out of the research was original, which is defined as the perception that a celebrity thinks or acts in an independent, creative, or individual manner. The original theme was given in 5.3 percent of responses for choosing the authentic celebrity from the celebrity list, and Willie Nelson was viewed as the most original. Being a follower, as opposed to being original, was the opposite of original.

The final theme that emerged is inconspicuous, which is defined as the perception that the celebrity does not seek the limelight, but rather tries to avoid attention or not be noticed. This theme consists of the sub-dimensions of private (the perception that a celebrity provides limited information about his/her personal life), professional (the perception that the celebrity confirms to norms and standards expected of successful people), and down to earth (the perception that a celebrity is easy to relate to and is humble and unpretentious). Opposing the authentic themes of private, professional and down to earth were the inauthentic themes of public, immature, and pretentious. Overall, the inconspicuous theme accounted for 22.3 percent of all authentic responses.

The marketing practice of paying celebrities for their endorsements has a long history (Schweitzer, Marlis 2003). A big issue for marketers is how to "control" a celebrity endorser, once they are under contract, and a celebrity's general behavior can have a very negative effect on the advertiser. Understanding the antecedents of celebrity authenticity is an important factor to fully understanding the impact of a celebrity's image on product endorsements. References are available upon request.

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EXPLORING PRESCHOOL CHILDREN'S TASTE PREFERENCES AS RELATED TO THEIR KNOWLEDGE OF FOOD BRANDS

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SUMMARY

We determine the extent to which children's development of taste preferences is related to their knowledge of food brands. We are interested to learn whether children who are well acquainted with popular brands of fast-food and soda develop pervasive preferences for foods that are high in salt, fat, and sugar. In the literature on children's taste preferences, we find no existing measure of pervasive taste preferences. To this end, the pilot study was used to develop a survey to measure taste preferences for salt, fat, and sugar (aka SFS Palate Survey).

Pilot Study: Survey Design

The participants were 17 parents, each of whom had a child aged between three and five. Three child experts created a 29-item survey (five items measuring salt preference, six items measuring a child's preference for sugar, five items measuring preference for fatty foods, and filler items). All items were scored on a seven-point Likert scale. The SFS scales showed good internal consistency (αs = .65, .59, and .59 for salt, fat, and sugar items respectively). Items that contributed little to their relevant scales were removed, along with half of the distracter items to produce a shortened survey. Twenty-one items were retained for use in the exploratory study. The results provide evidence of a measure encapsulating taste preferences.

Exploratory Study: Predicting SFS Palate from Brand Knowledge

In the postnatal environment, children's taste preferences are led by the aesthetic appeal of foods, the emotional context of consumption, and other environmental variables. This information points to the role of food branding in children's taste preference development. We anticipate that positive associations with popular fast-food and soda brands lead children to develop a preference for energy-dense foods similar to those offered by the popular brands. In line with stimulus generalization theory (Houston 1991), we expect that children will then develop a palate that favors all foods rich in salt, fat, and sugar, irrespective of their origin.

H1: There is a significant positive association between children's brand knowledge and their taste prefer-

ences. Children with greater knowledge of fast-food and soda brands have a higher preference for foods high in salt, fat, and sugar.

We anticipate that children's taste preferences will manifest in behavioral tendencies. For instance, a child with strong taste preferences might choose foods that are heavily flavored or refuse foods that are plain. This hypothesis is simple and intuitive, but is tested to determine whether the survey items for taste preferences relate to actual consumption behavior.

H2: There is a significant positive association between children's taste preferences and their orientation toward flavored foods. Children with a preference for salty, fatty, and sugary foods are more likely to consume highly flavored foods.

The sample comprised 39 children aged three to five years and three female staff members from the kindergarten/preschool to complete the survey. Data was analyzed using structural equation modeling. Brand knowledge was tapped via measures of children's representation of soda and fast-food brands (see McAlister and Cornwell in review for method). SFS palate was construed using 10 survey items found to represent one single factor (α = .98), and "flavor hit preference" was included in the model as a behavioral outcome hypothesized to emerge as a result of palate development and is represented by four behavior items (α = .94).

Consistent with Hypothesis 1, children's brand knowledge was found to be significant in the prediction of their development of SFS palate. Moreover, SFS palate was significant in the prediction of a child's preference for foods that provide "flavor hits," a finding which supports hypothesis two. The path from age to SFS palate was also significant, indicating that various influences that occur as a result of experience or exposure over time may contribute to SFS palate in addition to brand knowledge. The relationship between age and a child's preference for foods that provide "flavor hits" was not significant.

Our research offers a succinct survey whose items contribute to a reliable scale of children's palate. The items cover taste preferences as they are expressed in a wide variety of contexts; hence this survey is suitable for use in a variety of future studies. The single factor measure

of SFS palate indicates that children develop a preference toward or against strong taste sensations. A child who likes heavily salted foods is likely to also enjoy fatty foods or foods that are high in sugar. This finding contributes beyond the information currently available in the literature on children's taste development.

Given that some children appear to develop a palate that favors foods high in salt, fat, and sugar, we asked why this might occur. In line with Benton's (2004) argument that children's taste preferences develop as a result of associative learning, we thought that the children who develop a strong preference for high SFS foods might be those who are most excited by or interested in popular fast-food and soda brands. In the structural equation model, it appeared that brand knowledge predicts palate development, though further research is needed to establish the direction of causality since the present findings are based on correlations. We believe the relationship exists because children with greater brand knowledge experience positive associations that facilitate the development of taste preferences. This interpretation is, however, based on an assumption that greater brand knowledge reflects greater positive associations with fast-food or soda brands. In the present research we found that all children expressed positive feelings for the brands assessed.

Finally, we see that taste preferences predict actual behavioral outcomes. We find that children who prefer energy-dense, high sodium foods add flavor to their foods, complain if food is perceived to be too plain and opt to eat foods that pack a big "flavor hit." Given that taste preferences are linked to actual consumption at such an early age, it is imperative that future research investigate mechanisms by which children's taste preferences can be shaped so that they themselves might orient toward healthy food options in future. References are available upon request.

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BOOMERANGS IN SOCIAL MARKETING: ARE WE HURTING THE ONES WE ARE TRYING TO HELP?

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SUMMARY

In social marketing, target markets are commonly chosen by looking for the market with the most opportunity based on readiness for behavior change (Kotler, Roberto, and Lee 2002). While that targeting can be very effective, as we have seen in numerous campaigns, we raise the question of whether it may have adverse effects on those outside the target audience or those within the target audience but underrepresented in evaluation studies.

Sometimes, even when designed and implemented with the best of intentions, social marketing campaigns may have a variety of effects other than what a campaign is intended to do. When an opposite effect occurs in consumer responses, this is termed a boomerang (see Pechmann and Slater 2005 for a review on this topic). Even when a boomerang does not explicitly occur, consumers may respond with skepticism and counter-arguments when they think that the advertiser is trying too hard to persuade (Clee and Wicklund 1980; Koslow 2000) or simply using an excessive level of intensity (Stewart and Martin 1994). We believe that this problem may be occurring within the realm of many social marketing campaigns and specifically some anti-smoking campaigns.

The purpose of this research is to explore whether unintended consequences and possible boomerangs may be occurring in some anti-tobacco campaigns. First, we provide an overview of some major tobacco campaigns including the American Legacy Truth campaign. We discuss the ways that the themes and tones of the campaigns may contribute to unintended effects. Then, we will look for supporting evidence using secondary data collected by the State of Oklahoma Department of Health Office of Tobacco Use.

The background for our analysis is the Truth campaign, which aired in Oklahoma during the data collection period. The target market for the campaign was clearly defined as 12–17 year-old teens that are susceptible or open to smoking (Legacy First Look Report 2002). Truth used hard-hitting and often emotionally charged ads in order to appeal to that target. In one commercial, young people are dragging body bags on the beach. The ad ends with a young person holding a sign saying "What if cigarette ads told the Truth?" Another ad shows a young person holding a sign with flashing messages like "Cigarette smoke contains more poisons than rat poison" and "Every 8 seconds, tobacco companies lose another customer."

The Truth campaign was declared an overall success by several researchers (Bauer et al. 2000; Sly, Heald, and Ray 2001; Sly et al. 2001; Wolburg 2004). It has been shown to build stronger attitudes against tobacco (Sly, Heald, and Ray 2001) and commitment to not smoking (Bauer et al. 2000). However, we ask what about the effects on youth who were not part of the target audience, or who were part of the target audience but were a small niche of the targeted segment – specifically those who were open to smoking and who had at least one puff in the last 30 days, (a common definition of a teen smoker). Could unintended effects have occurred? Could a potential boomerang occur within this niche of the targeted audience or to those outside the target audience? We are not attempting to discredit the Truth campaign. The question we are attempting to answer is could campaigns be contributing to unintended consequences and possibly a boomerang within a niche of the targeted audience and outside it. To investigate this, we hypothesize:

H1: Tobacco-using youth who recall Truth will have more positive *attitudes toward smoking* than tobacco-using youth with no recall.

H2: Tobacco-using youth who recall Truth will have more positive *beliefs about the benefit of smoking* than tobacco-using youth with no recall.

Methods:

Upon implementing the Truth campaign, the Oklahoma Department of Health conducted a survey of youth between the ages of 12–17 to evaluate its impact. Quota sampling was used to obtain an equal number of students who had smoked and those who had not and an equal number of males and females. The respondents' grade levels and ethnicity varied. This data was used in our analysis. The independent variables were Truth recall (recall vs. no recall) and product usage (at least one puff

in past 30 days vs. no puff in past 30 days). The dependent variables were scaled items assessing attitude toward smoking and belief about the benefit of smoking.

Preliminary Results

A MANOVA analysis revealed significant effects (Wilks' Lambda $F = 5.317$, $p = .005$) for the Truth recall product usage interaction. For attitude toward smoking, a significant interaction effect between Truth recall and product usage was found ($F (1,1598) = 6.915$, $p = .009$). Tobacco users who recalled Truth reported significantly more positive attitudes toward smoking ($M_{smoker, recall} = 2.89$) than tobacco users who did not recall Truth ($M_{smoker, no recall} = 3.44$) and nonsmokers ($M_{nonsmoker, recall} = 4.48$, $M_{nonsmoker, no recall} = 4.51$). For belief about the benefit of smoking, an interaction effect between Truth recall and product usage was also found ($F (1,1598) = 5.351$, $p = .021$). Tobacco users who recalled Truth reported significantly more positive beliefs about smoking for enjoyment ($M_{smoker, recall} = 3.94$) than tobacco users who did not recall Truth ($M_{smoker, no recall} = 3.36$) and non-users ($M_{nonsmoker, recall} = 3.08$, $M_{nonsmoker, no recall} = 3.19$). Thus, both H1 and H2 are supported.

These findings suggest that unintended consequences and a potential boomerang may be occurring in the attitudes and beliefs among those youth who are currently in the trial stage of smoking, a critical segment for intervention programs (Albaum 2002). We will make recommendations on how to prevent these types of unintended consequences. Future research is needed in the area of specific campaign themes and tones and examining their intended and unintended consequences. References are available upon request.

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SOCIAL MARKETING'S TRANSFORMATION OF THE CONSUMER MARKETPLACE: CHANGING THE PHILOSOPHY OF WATER CONSUMPTION

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SUMMARY

This paper illustrates how social marketing can transform the consumer marketplace through exploring a social change that occurred in the urban household water consumption marketplace of metropolitan Melbourne, Australia. Water consumption in this research refers to any use of water for household activities such as drinking, gardening and cooking. As water is essential to sustain life, it is a product that is socially, culturally and historically intertwined into many elements of the marketplace. This paper follows Mittelstaedt, Kilbourne, and Mittelstaedt's (2006, p. 132) use of Fisk's (1974) definition of the marketplace as the Agora, and views the market as "the provisioning system of society." The Agora perspective enabled the research to take into account the wider structural and cultural implications of social marketing programs around water consumption (Dholakia 1984; Dolan 2002; Kilbourne, McDonagh, and Prothero 1997; Kilbourne 2004). Water was chosen as the context for this research as its integration into most aspects of the marketplace made it a theoretical rich area to explore the integration of social marketing and macromarketing theory.

To investigate the wider macro implications of social marketing programs around Melbourne's water consumption, upstream water experts in the areas of law, education and marketing were interviewed. Informants were chosen to capture a variety of opinions across a broad cross-section of the water sector including government, retail, industry and cultural backgrounds. All interviews were conducted during the period when Melbourne experienced its driest 12 months on record, its longest period of water restrictions and its lowest water storage levels since 1983. The use of in-depth interviews enabled the experts' opinions to be captured during this unique period of cultural change in Melbourne's water consumption.

Macromarketing was found to be an appropriate approach to explore issues of sustainability (Dolan 2002; Kilbourne, McDonagh, and Prothero 1997; Mittelstaedt, Kilbourne, and Mittelstaedt 2006). Furthermore, the paper extends theory through showing the relevance of macromarketing in exploring social marketing and cultural change. In the context of urban household water consumption, the wider macro implications of Rothschild's (1999) strategic social marketing tools of law, education, and marketing, are shown to be able to modify Mittelstaedt, Kilbourne, and Mittelstaedt (2006) antecedents to the marketplace. Firstly, law created the impetus for transformation on a formal level. Then law, through the use of restrictions, acted as a stimulus by creating the need for consumers to seek alternative water sources. Secondly, with the informal antecedents rooted in a European culture of consuming water, education's role shifted from simply informing consumers, to informing cultural change. Education was communicated not only through formal channels, but also through political and public debate in the media. Finally, the philosophy of water consumption was complex and influenced by both the formal and informal antecedents. On a formal level, legislated change led to an acknowledgment by consumers that the government no longer guaranteed endless supply. On an informal level, political and public debates educated consumers to question their water usage and become receptive to alternatives. Marketing's role in the philosophical antecedents was to maintain these changes. It was intended that through social marketing that these cultural changes would remain permanent. This research illustrates how the integration of social marketing theory, through Rothschild's (1999) strategic tools of social change, and macromarketing literature, through Mittelstaedt, Kilbourne, and Mittelstaedt's (2006) antecedents to the marketplace, were able to describe the cultural shift in Melbourne's water consumer marketplace. Further research is needed into other social marketing contexts, such as climate change and health issues, to further explore social marketing's macro implications. References are available upon request.

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DOES COUNTRY OF DELIVERY ORIGIN MATTER TO CONSUMERS IN THE OPEN WORLD RETAILING?

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SUMMARY

Internet has helped to dissolve geographical boundaries, which have been limitations and conditions for traditional retail business, bringing sellers and buyers together in one world. Uncertainty, however, is a concern for e-commerce. As products are normally shipped after payment is received, buyers bear most of the risk associated with online trades (Katsh, Rifkin, and Gaintenby 2000). Therefore, perceived risk, meaning all the negative consequences of a purchase that cannot be expected for a consumer (Barnes 2007; Bauer 1967), is a key construct that drives buyers not to initiate their purchases in this non-traditional channel.

As long as buyers feel attractions on global e-market due to its low prices, varieties, and 24-hour- and 7-day-availability, they will try to find a clue to tell how risky this transaction will be both financially and psychologically. Therefore, buyers do evaluations on products and possible risk of order fulfillment by inspecting text descriptions and images posted. Due to the limitation of possibilities of goods inspection, buyers more tend to rely on extrinsic information such as price, brand, and COO as well as item location, which is CDO.

CDO is defined 'country of origin of good's shipping where a remote trade partner designates or keeps inventory' and is rather a new concept since non-store-based transactions have started to carry telemarketing and mail order. CDO is expected to be used by buyers as an extrinsic clue to calculate the level of risk related to the transaction and its fulfillment, working as a "halo" that ultimately influences product evaluations via perceived risk. However, COO is expected to work as a "summary" construct that is easier to be stored and retrieved from long-term memory (Hong and Wyer 1989; Maheswaran 1994).

The evaluation task represented a 2 X 2 mixed design. Two levels of COO and two levels of CDO were manipulated as between factors, while two product categories were run as a replicate: Japan (+) and China (-) for camera and Italy (+) and Philippines (-) for clothes. After consis-

tency controls, 256 meaningful responses are secured out of total 261(success rate 98%).

The positive relationship between COO and product evaluations has been secured in both categories (ß = 0.28, t = 6.92, p < 0.05 for camera; ß = 0.21, t = 4.93, p < 0.05 for clothes) supporting H1. In the camera category, the total effect of COO on product evaluations is 0.34 with an indirect effect of 0.05 and, in the clothes category, the total effect of COO on product evaluations is 0.26 with an indirect effect of 0.04, supporting H2. In H3, the positive relationship between CDO and product evaluations through perceived risk has also been confirmed. The total effect of CDO on product evaluations and an indirect effect are identical (0.04 for camera; 0.04 for clothes). As predicted, the perceived risk has negatively influenced product evaluations for camera ($\gamma = -0.34$, t = -5.11, p < 0.05) and clothes ($\gamma = -0.32$, t = -4.54, p < 0.05) supporting H4.

This study delivers several meaningful substantive contributions. First, we show an interesting substantive finding that CDO affects consumers' product evaluations. Further, our finding suggests that CDO influences product evaluations only through consumer perceptions of risk. Second, it is valuable to reconfirm the strong effects of COO in the open world context of online retailing: the direct effect of COO on product evaluations and the indirect effect through perceived risk.

We also believe that our findings provide a few implications in the context of online retail management. First, to induce buyers and blossom online retailing business, companies may well understand how their customers evaluate products and order fulfillment issues. Moreover, the results of the study also provide insights to manufacturers and channels experiencing e-commerce in their making strategic decisions on global business plans and logistics operations.

The more detail discussion of implications, the research model test results and full list of references will be available on requests.

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MISSION ABORTED: WHY CONSUMERS ABANDON THEIR ONLINE SHOPPING CARTS

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SUMMARY

Despite placing items in virtual shopping carts, online shoppers frequently abandon them. In line with the four stages of online consumer behavior, we identify the cognitive and behavioral reasons behind the electronic shopping cart abandonment. Common wisdom blames breakdowns on the e-purchase stage, such as privacy and security concerns and frustration with a lengthy checkout process. However, based on three survey studies employing diverse consumer samples, we show that consumers' considerations at the other stages (i.e., e-search, e-consideration, and e-evaluation) play a much larger role in the shopping cart abandonment. Our framework reveals new inhibitors to purchasing in the digital age. As such, we offer scholars and online retailers ways to assess consumer motivations for cart abandonment and increase conversion rates from online shopping to online buying.

The present research extends past knowledge by identifying consumers' tendencies to place items in the shopping cart for reasons other than immediate purchase (i.e., for research and organization and for entertainment value of the process) as important drivers of abandonment. Conventional wisdom suggests that electronic cart abandonment is a "bad thing" because it lowers shopping transaction conversion rates. However, we show that consumers often leave items in their cart for reasons other than dissatisfaction with the product, the e-tailer or the purchase process. Thus, we conclude that cart abandonment can also be positive for the e-tailer.

For example, placing an item in an e-cart for organizational purposes may serve retailers as a measure of awareness, interest, desire, or future purchase intent. We find that online shoppers are accustomed to using their cart as an organized place for their desired items, a place to "store" items, a wish list, and as a tool to track prices for a possible later purchase. The abandoned carts also provide e-tailers with information on their customers' consideration sets. Moreover, many e-tailers have a brick-and-mortar retail counterpart. Past studies have not included the crucial notion that shoppers who leave their e-cart may have intentions to purchase that item from the company's retail store. Thus, the company may make the sale after all, and purchases may be a result of online browsing and the organizational cart use. We show that shoppers who leave their e-cart may in fact have intentions to purchase that item from the company's retail store. Thus, from a multi-channel management perspective, cart abandonment should not necessarily be viewed as a lost sale.

We also find that even without purchasing, merely placing items in the cart is a form of entertainment. Online shoppers may get the thrill of enacting the shopping rituals, and satisfying impulses to shop without the potentially negative consequences of buyers' remorse and impulse buying. Placing sought-after (perhaps unobtainable) items in a virtual cart may provide consumers a chance to achieve feelings of willpower, control, and satisfaction without having to pay for the items. In this respect, abandonment may be a saving grace for those consumers who seek the thrill of shopping, yet have too, limited resources to purchase the selected items. Even though the final result for these consumers may not be a purchase, these consumers should be still likely to spread positive word of mouth about the e-tailer and their experience at its website.

Finally, we find that consumers' concerns with the cost of the order and their tendency to wait for a lower price are also important drivers of cart abandonment. Retailers have an opportunity to make a future sale by sending a promotional offer to such consumers, providing them with lower or free shipping, or sending them a reminder email when the item price has been lowered. In sum, the present research offers many important theoretical and managerial implications.

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THE ROLE OF SELF-CONCEPT CONGRUENCY ON PRODUCT-BRAND IMAGE AND STORE-BRAND IMAGE: ANTECEDENTS AND CONSEQUENCES

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SUMMARY

Self-concept congruity constructs have received varied and sporadic attention among marketing researchers over the past few decades. Research in this area is paramount to advance our knowledge of marketing phenomenon due to the important role that perceived similarities between consumers and external objects affect consumer attitude and behavior. However, a major limitation in gaining a more complete understanding of the role of self-concept congruity constructs in any market setting has been a lack of investigation regarding potential antecedents to such congruity measures as well as consequences of congruity constructs. The major focus of this study is two-fold: (1) to assess both potential antecedents to self-concept congruity constructs as well as consequences of such constructs; and (2) to investigate the varying roles that self-concept congruity constructs serve in the creation of retail loyalty within the settings of two different types of retail stores. Study 1 utilizes a brand-specific retail store. Study 2 utilizes a multi-brand retail store. Structural equation modeling is used to test all hypotheses. Each study uses separate samples of business-major students at a university located in the Northeastern United States. Our data show that retail store trust and retail store affect are primary antecedents to the self-concept congruity construct, product-brand image congruity regarding the brands which the retail store carries. Also, product-brand image congruity is positively associated with brand commitment, retail store commitment, and word of mouth. Finally, we find that store-brand image congruity regarding a multi-brand retail store is positively related to product-brand image congruity regarding the brands that retail store carries. References are available upon request.

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UNCERTAINTY AND GAMBLING IN THE "SCRATCH AND SAVE (SAS)" PROMOTION

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SUMMARY

Retailers often use promotional contests, such as scratch-off cards, promotional games, and trivia questions to drive short-term sales and to help build loyalty over the long-term. In particular, the "Scratch and Save (SAS)" promotion is an emerging method widely used in North America by different types of retailers as a store-level promotional strategy. A SAS promotion offers potential discounts on all regular price items in the store for a very short time period. It is also characterized by uncertainty of savings until the scratch-off card's discount is revealed. The SAS's uncertainty differentiates it from similar promotions by introducing a gambling component.

The presentation of the price discount claim (e.g., "Save Up to 50% Off"), in a SAS advertisement, is very similar to that of comparative price advertisements. However, SAS discount values are uncertain and are also inconsistent across individual consumers; consumers who purchase the same product during the SAS promotion period might get different discounts according to the revealed scratch-off cards.

Before calculating the value of the discount offer, consumers need to be confident that the reference price is not inflated. Prior research has found that as the advertised regular price (or reference price) increases, consumers' skepticism toward it increases and therefore devalues the offer. In addition, consumers are less likely to believe the advertised value when they observe extremely high savings claims because they may interpret the unusually high savings claim as manipulation instead of a genuine offer of savings; they may suspect that the retailer is inflating the "regular" price before offering a deep discount, therefore reducing the actual savings. This study offers an examination of consumer's regular price beliefs under SAS conditions. Thus, the primary objective of the paper is to investigate how consumer's regular price beliefs and expected savings affect their perceptions of offer value and shopping intentions.

The inclusion of minimum claimed savings ("15% to 50% off") is often observed in SAS advertisements. Hypothesizing that a significant minimum value (15%) increases consumers' expected savings, compared to only maximum claimed savings advertisements ("up to 50% off"), we represented this facet of SAS discounts in our tests. Subjects were asked to imagine a scenario in which they were purchasing an iPod, and were presented with mock print ads of a local retailer. They were told that they had already made a brand purchase decision (Apple 8GB iPod Nano) and were now deciding where to purchase the product. They were randomly assigned to four conditions: "Up to 30 percent," "15–30 percent," "up to 50 percent," and "15 to 50 percent." The minimum claimed savings, 15 percent, was adopted by checking fliers and local newspapers. In addition, this minimum claimed savings is consistent with literature that suggests a 15 percent price discount in order to change purchase intentions. After viewing the ad, subjects were asked to complete a questionnaire measuring their believability of the advertised regular price, their expected savings, their perceptions of offer value, and their intentions to shop at the store during the SAS promotion period, using 7-point scales.

Our results showed both believability of the regular price and expected savings as positively influencing participant's perceived value of the promotion. Also, the SAS promotion was shown to positively influence respondents' shopping intentions. Results from the minimum savings offers agreed with our hypothesis as well: respondents in the 15–30 percent and 15–50 percent savings conditions reported higher savings expectations than those conditions with only an upper limit. To understand these results, we reference the Disjunction Effect, in which an individual is more likely to discount ambiguous information about possible outcomes (the possibility of receiving or not receiving a discount). As gambling and decision making literature shows a strict preference for avoiding uncertainty, the Disjunction Effect provides a framework for examining these results.

The experiment supported our hypotheses concerning perceived value, shopping intentions and minimum savings, but provided unexpected results concerning the relationship between savings claim depth and the believability of the reference price. As discussed above, consumers become skeptical when observing extremely high savings claims. We rationalized this approach using Assimilation-Contrast theory, in which consumers should

disbelieve regular price information and price reduction claims that falls out of the expected range; we predicted that consumers would perceive regular prices as less believable when they observed deeper SAS promotions, but the results showed no such relationship. Again, this may be due to the gambling component of the discount claim. As not all consumers would expect to receive a 50 percent discount from an "up to 50 percent" offer, the promotion would not appear unrealistic. Therefore, retailers would not have to worry about inadvertently losing consumer trust with a suspiciously generous upper limit for their SAS promotions.

While the SAS promotions resemble comparative price advertisements, the gambling component of the SAS promotion introduces new opportunities to research consumer behavior. Thus far, the greatest ambiguity, and richest potential, has emerged in the manipulation of the "savings range." As this paper is an initial effort in the emergent study of SAS promotions, we hope to see consequent work manipulate different variations of the savings range, the relationship between reference price believability and savings depth, and the gambling component inherent to this promotional strategy, particularly when the option to return and re-purchase items are introduced. References are available upon request.

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BRAND NAME TRANSLATION IN AN EMERGING MARKET

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SUMMARY

Despite decades of research on brand name translations, few studies have been reported on brand name translations in emerging economies. Of a few studies addressing brand name translations in an emerging economy (Li and Murray 2001; Pang and Schmitt 1996; Schmitt, Pang, and Tavassoli 1994), only a few (Zhang and Schmitt 2001, 2004) have examined the efficacy of a limited number of brand name translation variations: phonetic (sound), semantic (meaning) and phonosemantic (sound plus meaning). Even though research findings based on the three different translation approaches have yielded some useful insights about the relative effectiveness of these translation approaches on consumer brand attitudes in China, they have focused more on the relative effectiveness of brand name translations from the perspectives of foreign brands seeking to establish brand franchises in the China market thus limiting the generalizability of the findings. Consumers in China are confronted with many more Chinese brands in the marketplace. Furthermore, previous research has relied on psycholinguistic theories to explain and predict consumer responses to brand names in China. In other words, previous research has proposed that the differences in consumer brand attitudes can be explained solely on the basis of differences in the characteristics of different languages and how these differences may impact the cognitive processing of the brand name information by the consumer in brand attitude formation. This theoretical perspective, however, fails to take into account the sociolinguistic aspect of brand name information processing by consumers in responses to how brand names are translated and presented.

Most research designs tend to also use fictitious brand names without any meaningful connotations in order to minimize response biases. Such research designs do not serve to enhance external validities since fictitious brand names are likely to be perceived to be less familiar to consumers as well as less appropriate for the products. When creating fictitious brand names, it is common for the brand names to be created first in the English language, which have no specific meanings attached to the brand names. Meanings are rendered only after translation into the Chinese language if semantic or phonosemantic translation approach is used. In the two experiments we report in this study, we seek to broaden our understanding of brand naming by taking into account the sociolinguistic perspective in the analysis of consumer

responses to brand names in both the English and Chinese languages in forming brand attitudes when brand names are displayed in both languages. Experiment 1 is a replication of a previous study. However, in this study, we explore the issue of whether and how the understanding of consumer responses to brand name translations in both languages may be enriched by incorporating the sociolinguistic framework, which in turn may lead to a different set of hypotheses. In Experiment 2, we propose to test a set of hypotheses related to the relative effectiveness of brand name appropriateness and brand name suggestiveness in brand name translation in China.

In Experiment 1, we replicated a study by Zhang and Schmitt (2001). Applying a sociolinguistic perspective in this study yielded results which are clearly quite different from the results obtained in the previous research based on applying purely psycholinguistic theories in the understanding of brand attitude formation. In this experiment, we also relied on priming as one important theoretical underpinning in the formulation of the hypotheses. Three separate hypotheses were tested in this experiment.

All brand names were pretested using 101 university students in a major university in Southeastern China. The subjects were asked to provide their brand name evaluations in terms of their familiarity with the brands and brand name appropriateness.

The study consisted of a 2 (phonetic versus semantic) x 2 (English brand name emphasis versus Chinese brand name emphasis) factorial design. When the English brand name was emphasized more than the Chinese brand name, the English brand name appeared first and in a bigger font and vice versa.

The results showed a significant interaction effect between the brand name translation condition and the brand name emphasis condition. In the semantic translation condition, the English brand name emphasis condition outscored the Chinese brand name emphasis condition. In phonetic translation condition, there was no significant difference between the mean brand attitude scores of the English brand name emphasis and the Chinese brand name emphasis.

Experiment 2 extended Experiment 1 by incorporating brand name appropriateness and brand name suggestiveness into the research design. Suggestive brand names differ from semantic brand names in that semantic brand

name translations may be direct translations into the Chinese counterparts, but still preserving the original meaning in English. Suggestive brand names, on the other hand, are brand names which suggest certain product benefits such as "Steam Fresh" for a frozen vegetable product line. In this experiment we tested three translation variations: phonetic, semantic and suggestive brand names, and two levels of brand name appropriateness: low and high.

A list of brand names was selected and translated. These brand names were also pretested using a sample of students. They were asked to rate the level of familiarity and appropriateness of the brand names for the product categories selected for the study. The results of the pretest showed no significant differences on brand familiarity and brand appropriateness for three product categories: mobile phone, crackers and beer. Subsequently, only these brand names were used in Experiment 2.

The ANOVA results revealed no significant main effects, but a significant interaction effect. In the low appropriateness condition, there was no significant difference in brand attitudes for the three brand name translation approaches. However, significant differences were detected in brand attitudes in the high brand name appropriateness condition. Semantic brand name translation condition outperformed both suggestive brand name and phonetic brand name translation conditions.

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CONSUMER-BRAND RELATIONSHIPS IN THE GRAY MARKET: AN EMPIRICAL STUDY AMONG "YOUNGER" AND "OLDER" ELDERLY WOMEN

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SUMMARY

In industrialized Western countries, the population is rapidly aging. Companies took a long time to realize that this fact is relevant for their businesses and often responded with inappropriate marketing activities (Moschis 2003). Thus, in order to improve strategies aimed at mature consumers, we have to understand their behavior, investigate their consumption needs, and identify whether the older consumer market should be treated as homogeneous or further subdivided. However, the prominent field of consumer-brand relationships has not been addressed so far with regard to the elderly. The aim of this paper is to gain insights into the neglected field of elderly consumers' brand relationships.

Even if consumer-brand relationships have been a prominent field of investigation during the last decade (e.g., Aaker, Fournier, and Brasel 2004; Delgado-Ballester and Munuera-Alemán 2001; Fournier 1998), a review of the academic literature to find information on age-specific differences reveals only a few sources (e.g., Chaplin and Roedder John 2005; Ji 2002; Olsen 1999). From a scientific point of view, neglecting consumer-brand relationships for older consumers cannot be justified, since the psychology and sociology of old age provide numerous clues about the assumption of age-specific differences. Evidently, relationships and their significance are altered during life through experience, the aging process, and changes in personal circumstances. In later life stages, close relationships are usually more stable; both trust and commitment are higher, the older one grows (Blieszner 2006). Research also indicates that in old age the dependability and reliability in relationships are of particular importance. Aging also appears to be related to risk avoidance. As the number of memories rises during their lives, elderly people might be prone to a stronger nostalgic commitment (Rindfleisch and Sprott 2000). Thus, we try to investigate how aging affects brand relationships by combining findings from the psychology of old age with research on consumer-brand relationships in general. Our main question is whether two groups of elderly women aged between 50 and 65 and over 65, respectively, will show differences in their relationships with coffee brands. Coffee as a frequently purchased, packaged good was

chosen because here strong brand relationships may continue to impact on buying behavior even into old age.

The general model of our study consists of the variables self-concept connection, brand partner quality, trust, and commitment. The criteria for choosing these particular variables were firstly that there is evidence either from age-related consumer research or the psychology of old age indicating that changes during the aging process might also affect these variables and their interconnections. Secondly, these four concepts also proved to be particularly relevant for the purchase of coffee brands during in-depth interviews and group discussions with members of the target group. Hypothesized causal relationships (e.g., Dunn and Schweitzer 2005; Escalas and Bettman 2003; Fournier 1998; Morgan and Hunt 1994) between the variables are presented in Figure 1. To answer our main research question, the moderating effects of age are formulated based on the general model. The hypotheses are (e.g., Adams et al. 2000; Basu Monga 2002; Moschis 2003; Sood et al. 2006): The effect of brand trust on brand commitment is higher for the younger elderly ($H_{6.1}$). The effect of self-concept connection on brand trust is higher for the older elderly ($H_{6.2}$). The effect of self-concept connection on brand commitment is higher for the older elderly ($H_{6.3}$). The effect of brand partner quality on brand trust is higher for the older elderly ($H_{6.4}$). The effect of brand partner quality on brand commitment is higher for the older elderly ($H_{6.5}$).

We empirically tested the model in a survey among 286 members of the target population. The respondents filled in a standardized questionnaire during regional meetings of a nationwide German women's association. The respondents were first asked to name the coffee brand they preferred most. All the subsequent questions were to be answered with reference to this brand. With regard to the variables self-concept connection, brand partner quality, trust, and commitment, we adapted existing measures wherever possible. We refined items drawn from literature through group discussions with members of the target group and a quantitative pre-test (n = 93). Respondents rated all measures on six-point Likert-type scales (1 = "totally disagree," and 6 = "totally agree").

FIGURE 1
Basic model

FIGURE 1
Basic model
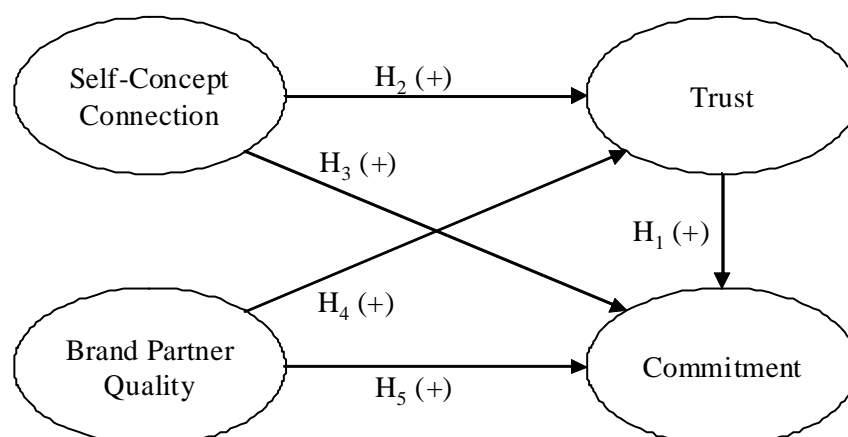
The general model shows a good fit and all but one (H_2) hypotheses are supported. Moderator analyses with LISREL reveal significant differences between the "younger" and the "older" elderly subgroup (e.g., for the influences of self-concept connection, brand partner quality, and trust on commitment).

In conclusion, the results reported here first indicate that consumer-brand relationships are different for the elderly between 50 and 65 years from those over 65. In this

respect, we shed light on another way age influences consumer behavior. The results of our study help practitioners with targeting more effectively one of the most promising groups of consumers in the future. From our findings we can derive recommendations for age-group specific marketing strategies and future research. Our findings support the assumption of shifts in brand relationships with respect to consumers' life cycle. References are available upon request.

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NEW PERSPECTIVES ON CONSUMERS' BODILY EXPERIENCES: SYMBOLIC AND EXPERIENTIAL CONSUMPTION OF AVATARS IN ONLINE SELF CONSTRUCTION

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SUMMARY

This paper investigates the symbolic and experiential construction of body through avatars in a 3-D virtual world called Second Life (SL), and proposes an alternative approach to the embodiment/disembodiment debate. The growing semiotic potential of the virtual worlds allows for visual representation of one's physical self through images such as avatars and photos, and therefore expression of one's selves in several bodily representations, ideal or possible, real or fantasy. Experiencing the body in this symbolic realm brings us new inquires concerning the meanings attached to the avatars by their creators, how these avatars are constructed and reconstructed, and how and what consumers experience through these virtual bodies.

The main focus of interest on the body concept in consumer research evolved around the corporeal body. Body has been investigated as a project that modern consumers work on (Featherstone, Hepworth, and Turner 1991; Schouten 1991), and as a means of self-presentation and socialization (Thompson and Hirschman 1995). Thus, modern consumers treated their bodies as not an "end" but a "means" of conveying a desirable image to others. Hence, the body serves as a communicative intermediary to convey such impression. The act of creating virtual selves is also considered rhetorical, since communicating through an avatar incorporates the realm of gestures and visual representation (Kolko 1999). Yet, the process of the symbolic construction of body distances itself from the idea of perceiving the body as merely a means of communicating one's selves. It becomes more of an immersive experience of (re)constructing one's selves, therefore indicating the experiencing of the body for the sake of the body, and less of a purposeful signification of the body to convey a meaning or an impression to others. Extreme reliance on an "economy of visual pleasure (text and avatars)" alleviates the concern for social bonding (Webb 2001, p. 586). Consumers are more concerned with experiencing and experimenting with the construction and exploration of virtual selves and less concerned with the intention of communicating one's desired selves to create impression. Immersion into SL experiences and the (re)construction of bodily selves (where consumers keep changing the appearance and physical features of their avatars) becomes a focal concern in SL.

The presence of the body in virtual worlds has also been questioned. Some argued that Internet technologies have enabled people to break out of the finitude of their embodiment (Balsamo 2000; Turkle 1995). Others advocated the essential role of embodiment in any human experience (Argyle and Shields 1996; Froy 2003; Hansen 2006). Haraway (1997) argued that the indispensable presence of the body for self presentation becomes obscure, as participants of virtual worlds break out of their corporeality and constraints of their bodies, an opportunity that allows individuals for new designations of gender, sex, physical forms (cyborg, hybrids) and indefinite symbolic associations. Virtual worlds enable individuals to present multiple selves in visual, textual, audio, animated semiotic richness (Schau and Gilly 2003).

Our explorations in SL reveal that having gained the ability to play with the semiotic potential of the virtual worlds, consumers engage in (re)creation of several avatars. The presence of the body and the experiences lived through bodily creations become symbolic, yet the paradox of whether the body is present or absent in virtual worlds still remains, leading to the futility of resolving the embodiment/disembodiment paradox. Consumers can create several bodily selves in SL, yet these processes are full of refractions from both First Life (FL) and SL. The construction of these bodies and the experiences lived through them in this symbolic realm is nevertheless affected by consumers' FL selves and vice versa, further intensifying the body/mind dilemma in virtual worlds. The corporeal body is always there, even when absent, but also always absent, even when present. Virtual worlds intensify the recognition of the mind-body dilemma. The mind and the body are forever intertwined in their distinction. As observed from the trends in using the new Internet technologies, people seek to experience a multiplicity of selves in a multiplicity of modes of living and being. Rather than become stuck in one or another form of experiencing life or being, they seek to experience this *and* that, not this *or* that.

With SL, presentation of the self is enhanced by immersion into SL experiences, which take the form of symbolic (re)construction of bodily selves in virtual worlds. Consumers are enabled to playfully immerse into life experiences and experiment with these lived moments through their multiple avatars. *Symembodiment,* a process in which consumers gain the ability to (re)construct and playfully engage in the symbolic creation of their avatars, each constituting another self, replaces the concept of disembodiment. For example, a person can become a mermaid and all of a sudden, she grows a tail and experiences the transition into a leopard. A half-human cyborg changes his deep voice into a soft female voice while reading poems in SL. Another one who adopts an "elf" self in her daily SL, can experience a monster self when she wants to scare others to have fun. Some jump off the buildings and experience "symicidal" (symbolic suicide) avatar selves, and others experience symbolic death in combats in SL (Ulusoy and Vicdan 2008). Some reflect their FL selves on their avatars and emphasize their actual selves. Others experience a totally different being (e.g., animals, mermaids, cyborgs) or create their ideal selves. This immersion into avatar creation and experiences reveals the transformation in the meaning of the body from a means to convey impression to others to experiencing the body for the sake of the body. In SL, the body itself becomes the experience. We see individuals engage in several bodily experiences in SL, experiences that they can or cannot immerse into in FL (e.g., flying, skydiving, skiing, dancing) and experiences that they symbolically (e.g., death, suicide) and literally immerse into (e.g., having the sense of blood rush while the avatar is falling down).

As Reid-Steere (1996, p. 36) suggests, "The boundaries delineated by cultural constructions of the body are both subverted and given free rein in virtual environments. With the body freed from the physical, it completely enters the realm of the symbol." We introduce the concept of *symbembodiment* as a means of articulating the presence of the body in virtual worlds, and further highlighting the non-resolvable and futile nature of embodiment/disembodiment debate. Hence, the continuous construction of body through avatars becomes a symbolic experience, in which the body is present, not with its constraints but with its symbolic significance. References are available upon request.

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A TASK-BASED APPROACH TO EXPLAIN THE IMPACT OF SALES FORCE AUTOMATION ON SALESPERSON PERFORMANCE

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SUMMARY

Introduction

To improve sales force effectiveness and efficiency, companies continue investing into sales force automation (SFA) technologies (Honeycutt et al. 2005). However, despite its intuitive appeal and continual advancements in technology, SFA implementations regularly fall short of expectations (Bush, Moore, and Rocco 2005). To date, scholarly research mostly focused on understanding the drivers of SFA adoption (Hunter and Perreault 2007) and often neglected explaining the consequences of SFA adoption (Ahearne, Srinivasan, and Weinstein 2004). There is an urgent need to uncover the process through which technology influences sales performance (Avlonitis and Panagopoulos 2005).

Our research objective is to understand how SFA technology relates to salesperson performance. We challenge the past research which assumes one-dimensional SFA-use and adoption measures and empirically test a task-based multidimensional SFA-use construct to explain the SFA value creation process. We also test a set of well-known antecedents of technology adoption to predict SFA-use dimensions. By demonstrating that every dimension has its own antecedent set, we want to support the argument of multidimensionality.

Theoretical Basis

Most of the papers in literature to explain the relationship between SFA and salesperson performance conceptualize SFA-use as a one-dimensional construct and employ reflective items to measure it. However, "a consideration of multiple dimensions of use may enrich the understanding of [SFA]" (Hunter and Perreault 2007, p.18). Indeed, taking a multidimensional approach could help to look inside the "black-box" by illuminating the usage patterns among salespeople and by understanding for which tasks they use technology most. In order to understand how IT is used by the end-users in an organizational context, Doll and Torkzadeh (1998) conceptualize IT-use as the extent to which IT is used to perform certain tasks along organizationally relevant dimensions. Likewise, the process-oriented approach to explain business value of IT argues that organizations derive differential business value from IT through its impact on the intermediate business processes (Mooney, Gurbaxani, and Kraemer 1996). A modern SFA system has the potential to support a wide variety of sales processes, each having distinctive impact on salesperson performance (Engle and Barnes 2000). Therefore, we posit that SFA-use should be best conceptualized as a task based multidimensional construct to recognize how salespeople work with the SFA system and help to better hypothesize the link between SFA-use and salesperson performance.

To develop task-based SFA-use dimensions that fit to our research context, we asked sales directors of a mid-sized pharmaceutical company to report SFA-use patterns of their salespeople. Two SFA-use dimensions emerged from our qualitative study, which we call (1) customer relationship and (2) internal coordination. The customer relationship dimension captures tasks directly related with the customer and the selling job, which include processes such as account management, targeting, call planning, and customer service. The internal coordination dimension includes internal support tasks of communication, team selling, reporting, and sample management. We test a number of well-established drivers of SFA adoption to predict the SFA-use dimensions, in line with the prescriptions of the Technology Acceptance Model (Davis 1989).

Methodology

We collected quantitative for our study from the sales forces of the same pharmaceuticals company in Belgium and Brazil, where highly advanced sales technologies with similar functionality and design were in use. We employed an online survey which was available in local languages. Our efforts produced 293 responses (80% response) in total. To measure the latent variables in our conceptual model, we relied on available scales wherever possible. We applied the Diamantopoulos and Winklhofer (2001) procedure to operationalize customer relationship and internal coordination dimensions. We have analyzed our data by Partial Least Squares (PLS) method using the SmartPLS software (Ringle, Wende, and Will 2005). Based on the PLS analysis results, the measurement model appeared to be valid and reliable.

Discussion of Results

The first contribution of our research is the task-based formative measurement of SFA-use. By asking salespeople to evaluate the extent to which they apply SFA when completing sales tasks, we can observe the SFA-use patterns that vary among salespeople. This is instrumental in proposing more effective models linking SFA-use to organizational outcomes where the SFA-use pattern has an impact on salesperson performance.

Secondly, we demonstrate that SFA-use is a multidimensional construct. The customer relationship dimension is explained by factors that initiate voluntary usage such as computer self-efficacy and perceived usefulness. In contrast, the internal coordination dimension is mostly explained by imposing factors such as team use. It seems that salespeople have different motivations for using SFA technology in customer related as opposed to "backoffice" tasks.

Thirdly, our findings contribute to the research stream explaining the performance impact of SFA-use. Only the customer relationship dimension of the SFA-use construct has a direct impact on salesperson performance. Using SFA for customer related tasks, such as targeting, analysis, call planning, and call preparation helps to manage customer relationships, which in return positively impact the bottom-line. On the other hand, the impact of internal coordination on salesperson performance is perfectly mediated by the customer relationship dimension. Using SFA for internal coordination helps salespeople become more efficient thus leaving more time for customer care that contribute to sales performance. References are available upon request.

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ESTIMATING THE IMPACT OF INDIVIDUAL-LEVEL SALESPEOPLE LEARNING ON PERFORMANCE

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SUMMARY

Although various sales force issues have been examined in the marketing literature, salespeople learning, a critical area in the sales force management arena has had limited investigation, (e.g., Sujan, Weitz, and Kumar 1994; Kohli, Shervani, and Challagalla 1998; Wang and Netemeyer 2002). Specifically, although, "learning by doing" is an important mechanism by which salespeople learn (Wang and Neteymer 2002), researchers have not structurally examined this phenomenon. In structural modeling and game theory, researchers have emphasized sales force compensation and sales contests (Kalra and Shi 2001; Kalra et al. 2003), and optimal staffing levels (Misra et al. 2004). In the context of learning, structural modeling researchers have applied the Bayesian Learning Model to investigate consumer learning relating to product quality (Erdem and Keane 1996; Iyenger, Ansari, and Gupta 2007), and physician learning about new drugs (Crawford and Shum 2005; Ching 2007; Narayanan and Manchanda 2007). These studies find that learning about product quality from consumer experiences is an important element in the consumer decision making process. Based on the Consumer Bayesian Learning Models (Erdem and Keane 1996), we develop a structural salespeople learning framework. Furthermore, Kohli et al. (1998) argue that understanding individual member learning is critical as firms learn through their individual members. To this end, we model the individual salesperson's learning by doing within a Hierarchical Bayesian Learning Framework. Markov Chain Monte Carlo method (MCMC) is used to estimate the parameters. We apply the model to the individual salesperson level data from a large multinational software firm.

Salespeople's skills have been defined variously, for example, Leong et al. (1989) defines it as the capability of an individual to effectively implement all the tasks involved in a sale. As the data set in this paper is particular to a software multinational company, salespeople's skills in this context could include: customer orientation or the ability to identify the customer needs and preferences, ability to adopt adaptive selling, knowledge of the software and the ability to exhibit horizontal and vertical dimensionality.

A salesperson's performance could be influenced not only by his/her skill but by his/her effort. For example, Brown and Peterson (1994) find that effort is significantly related to sales performance. Brown and Peterson (1994, p. 71) define effort "as the force, energy or activity by which work is accomplished." We argue that even if a salesperson has a high level of skill, but that salesperson does not expend the required effort, then he/she may not achieve the required performance. Therefore, we argue that skill by itself may not lead to client satisfaction; it must be augmented by the effort of the salesperson. Salesperson's effort may be influenced by various factors including the fit (match) of the salesperson to the job. In our framework, a salesperson's skill is the "match" skill which includes both the salesperson's "basic" skill and the effort of the salesperson. Thus, salespeople learn about their "match" skills through experience, which implies, besides pure "basic" skills, they learn about their fit with the job to decide how much effort to input into the tasks. The "match" skill represents the match between the job and the salespeople. A salesperson may be able to reach a certain skill, but he/she is not willing to expend the appropriate level of effort to implement the skill because he/she does not like the job nature that much.

We use data from a large multinational software company for the period, June 2003 to June 2006. This company mainly sells its products to business users in North America. The task of the salespeople is to sell to their potential customers from potential customer lists. The data set includes detailed information about the software of interest, customer name, budget available, status of sales lead (i.e., open, won, and lost), the time when the case was opened and closed, potential competitors, and the purchase amount. It also indicated whether there was strong competition. The data is at the individual salesperson level therefore it identifies the specific salesperson that handles the case. In our analysis, we only deal with the cases which have been closed (i.e., won or lost). We also obtained the salespeople's average salary and demographic information based on manager's evaluation. As some of the salespeople have already left the company, the salary used is the average salary during the period. The demographic information obtained include: gender, age, marriage status, and education.

The results suggest that: (1) learning by doing plays an important role in a salesperson's performance; (2) on average, salespeople learn more from failure than success; (3) heterogeneity in salespeople learning exists; (4)

salespeople's salary, age, gender, marriage status, and education can influence salespeople learning and performance in different ways. We also ran policy experiments on the following salesperson issue; (1) Optimal Task Allocation among Salespeople; (2) salesperson retention; and (3) facilitating learning. These findings have clear implications for sales force management in terms of job allocation and in providing an environment where learning is encouraged.

Our structural model contributes to the sales force management literature in several ways. First, we provide a mechanism for monitoring salespeople's learning through experience from their historical records. This would reduce the costs of obtaining further information to estimate salesperson learning. Second, we estimate the individual salesperson level parameters. This provides managers with detailed information which can be used for better managing the sales force than aggregate level parameters. For instance, we can identify a salesperson's potential "match" skill, which represents his/her match with the job. Third, we investigate the impact of demographics. This provides managers useful information in relation to the recruitment of salespeople. References are available upon request,

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SALESPERSON TRANSITION STRATEGIES IN SALES RELATIONSHIPS

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SUMMARY

As an increasing number of organizations embrace relationship marketing as a core organizational philosophy, salespeople are increasingly being tasked with the responsibility of establishing and maintaining key customer relationships (Cannon and Perreault 1999; Frankwick, Porter, and Crosby 2001; Weitz and Bradford 1998). Their personal interactions and ongoing efforts to build and maintain the relationship largely determine the level of value and satisfaction provided the customer (Jap 2001). Indeed, a recent study of over 2,000 professional buyers undertaken by the H.R. Chally Group revealed that salesperson effectiveness is the dominant factor buyers focus upon when making purchasing decisions – easily outdistancing product quality and price (Stevens and Kinni 2007). Certainly, this is not to say that product and price proficiencies are unimportant; rather, it suggests that differentiation through either of these two variables alone is becoming increasingly difficult. While product advancements can be quickly replicated and price concessions quickly matched, the ability to build and maintain successful customer relationships is a core competence upon which positions of enduring marketplace superiority can be secured (Hunt and Morgan 1995).

Nearly forty percent of the respondents in the H.R. Chally study identified the salesperson as their primary source of value in the relationship (Stevens and Kinni 2007). This finding not only emphasizes the critical role salespeople play in the relationship development process, but also highlights the fact that, from the perspective of the customer, relationships with selling firms exist at multiple levels. In many instances the customer believes his or her relationship with the salesperson to be stronger and more important than the relationship with the firm itself (Beatty et al. 1996; Bendapudi and Leone 2002; Czepiel 1990; Gwinner, Gremler, and Bitner 1998; Madill, Haines, and Riding 2007; Ojasalo 2001; Palmatier, Scheer, and Steenkamp 2007; Reynolds and Arnold 2000). Given this, what happens with the salesperson leaves the relationship? What should the selling firm do in order to maintain the relationship? Even if the customer is constrained to the relationship due to switching costs and contractual obligations, it may very well cause a reevaluation of the relationship and an exploration into alternative partners

for future consideration (Anderson and Robertson 1995; Bendapudi and Leone 2002; Duboff and Heaton 1999). It may also lessen the likelihood the customer will provide non-financial, non-mandated relationship benefits in the future, such as providing referrals to other customers or participating in marketing initiatives undertaken by the company.

Selling firms therefore need effective salesperson transition strategies in order to ensure the preservation and continued development of existing customer relationships. This need is exacerbated by the fact that attrition amongst salespeople is higher than it is amongst most other employee groups (Mathews and Redman 2001). While a portion of this attrition can be attributed to ineffective salespeople who are often asked to or choose to leave the position, it is also a function of the fact that the most effective salespeople – the salespeople that deliver the highest levels of value in sales relationships – are also highly valued by competing sales firms and other groups within the organization. When these salespeople leave, a tremendous void is created in the relationship as the primary source of value is removed from it.

Despite the important role relationship selling plays in firm success, and the realization that salesperson turnover is a pervasive issue plaguing many organizations, little research has focused on our understanding of effective relationship transition strategies (Darmon 2004). We therefore know little about the issue and are able provide very few normative recommendations for managers confronting it. Accordingly, our purpose in this study is to identify the mechanisms through which selling firms can most effectively manage salesperson transitions in sales relationships.

Methods

Given the lack of research on the issue, we employ an inductive approach, interviewing a combination of professional salespeople and buyers who have experienced a transition in recent years. Through use of the Critical Incident Technique (CIT), we are able to identify those factors that contribute to the transitions being labeled as either positive or negative by the incoming salesperson or buyer.

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Fourteen salespeople and nine buyers were included in the sample. Only two of the salespeople interviewed were female, and the average age for all salespeople was forty. Two of the buyers interviewed were female as well, with the average buyer being forty-three years of age. The salesperson portion of the sample spanned ten industry sectors, while the buyer portion spanned nine. As four of the sample members were able to recall two relationship transitions each, a total of twenty-seven relationship transitions were discussed and analyzed. Sixteen of these transitions were provided from the perspective of the salesperson, eleven from the perspective of the buyer. Fourteen of the transitions were generally described as being positive in nature while thirteen were described as negative.

Findings

Findings from the study indicate that a combination of factors at the firm and incoming salesperson level are influential in determining transition success. Firm level factors are those engaged in by the selling firm, while salesperson level factors are those engaged in by the incoming salesperson. This type classification system seems logical given the fact that sales relationships exist at both the firm and salesperson level.

Important firm-level factors identified through the study include providing advance notification of the impending change, consistent communication throughout the change process, and service consistency across the change. Salesperson learning orientation, salesperson knowledge, and salesperson relational characteristics were identified as important salesperson-level factors. These factors provide practitioners information with respect to how salesperson turnover can be most effectively handled in sales relationships, and academicians a starting point from which future research in the area can be conducted. References are available upon request.

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THE ROLE OF CROSS-CULTURAL DIFFERENCES IN SALESPERSON RELATIONAL SELLING PERFORMANCE

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ABSTRACT

Although selling to international customers is a prerequisite for firms to survive in the long run in today's business environment, there has been hardly any research on the influence of national culture on the salesperson-customer relationships from an intercultural perspective, i.e., interactions between buyers and sellers from different countries. Seeing that research in other fields has shown that cultural differences can have a negative influence on such relationships, this is a serious omission. In this paper, we therefore present a conceptual model that addresses this issue with regard to actual salesperson-customer interaction. We first discuss the need for creating and maintaining relationships with customers that are based on trust to create a competitive advantage for firms. Next, we identify the challenges salespeople face when attempting relational selling in an inter-cultural context. We then discuss the influence of national culture on salespersons' self-construal through the variables of self-efficacy and self-monitoring and identify the consequences for interacting with customers from a different culture, which will help sales managers to come to an understanding of the circumstances under which relational selling diversity can be dysfunctional for salesperson performance. Finally, we suggest how these negative effects can be mitigated and suggest avenues for further research.

INTRODUCTION

Although most global sales organizations are designed around continents such as "Europe, Middle East, and Africa (EMEA)," "Oceania," "The Americas," and "Asia," selling to customers across the globe often implies that salespeople build long-term relationships with customers from national cultures *other* than their own. As a consequence, cross-cultural diversity in customer-salesperson dyads is getting more and more a fact of organizational life. Today's global sales force managers are challenged with the question of how and when this cross-cultural diversity might impact salesperson effectiveness.

The publication of Dwyer, Schurr, and Oh's seminal paper (1987) on the importance of developing buyer – seller relationships has established the relational perspective as being of paramount importance to the success of the organization's sales function (e.g., Crosby, Evans, and

Coles 1990; Garbarino and Johnson 1999; Morgan and Hunt 1994). Broadly defined as the development and maintenance of relationships between buyers and sellers in both business to business and consumer markets (Dwyer, Schurr, and Oh 1987), the so called relational approach is a prerequisite for creating customer commitment as well as customer satisfaction (Garbarino and Johnson 1999).

Coinciding with this, the global nature of today's business environment has made the need for selling firms to serve international customers and their effectiveness in achieving this a main concern. As a result, salespeople in this day and age are – at an ever increasing rate – interacting with customers from a different culture than their own. It is therefore rather surprising to note that the literature on selling has largely neglected the topic of *inter*-cultural interactions between buyers and sellers, especially since other fields like Organizational Behavior (e.g., Gelfand, Erez, and Aycan 2007) and International Management (e.g., Adler and Graham 1989) have since long recognized that differences between national cultures can negatively affect inter-cultural interactions and their outcomes. Instead, sales research has focused almost exclusively on comparing *intra*-cultural interactions. As Money and Graham (1999, p.156) point out almost a decade ago, the topic is practically "unaddressed" in marketing, the only exception being the work on inter-cultural disposition and its effect on developing inter-cultural buyer-seller relationships by Bush et al. (2001). However, they ignored the pivotal relationship between inter-cultural disposition and salesperson effectiveness as well and, in addition, based their study on the self-perception of a sample with a large proportion of MBA students.

As a result, there is a need within the sales field to address the question of how to create and maintain interculturally diverse buyer-seller relationships by creating trust in the salesperson on the part of the "foreign" customer. To this end, we first examine the literature on the relationship between national culture and trust. Second, we introduce our conceptual model that focuses on inter-cultural trust in selling and put forward four theoretically driven propositions. Finally, we discuss key managerial implications for sales practitioners and identify important avenues for further research in selling.

RELATIONAL SELLING

In their paper on buyer-seller relationships, Dwyer, Schurr, and Oh (1987) are the first to argue for the importance of developing and maintaining relationships between buyers and sellers in both business-to-business and consumer markets. They contrast the traditional approach of viewing buyer-seller behavior in terms of discrete events, which consists of the exchange of goods between the aforementioned parties, with a relational approach that views the interaction between buyer and seller as an ongoing process aimed at anticipating and meeting the buyer's needs on an ongoing basis, thereby creating long-term benefits for both parties involved.

Within a relational approach, the responsibility of maintaining and developing the relationship lies with the seller. This perspective is further developed by Crosby, Evans, and Coles (1990) who, taking the work of Dwyer, Schurr, and Oh (1987) as their point of departure, introduce the idea of relationship quality by noting that "the . . . salesperson is the primary – if not sole – contact point for the customer" (Crosby, Evans, and Coles 1990, p. 68). Relationship quality is defined as a construct comprising both customer satisfaction and trust in the salesperson and needs to be maintained by the salesperson in order to identify as yet unmet needs in order to generate future revenues. Whereas both dimensions are important, particular emphasis is placed on the creation of trust in that it assures the customer of the salesperson's commitment to serving his or her interests (Crosby, Evans, and Coles 1990, p. 70).

The importance of trust regarding relational sales is further investigated by Morgan and Hunt (1994) who also take the work of Dwyer, Schurr, and Oh (1987) as their point of departure. They introduce their so-called commitment trust theory, which states that successful relational sales efforts requires both commitment and trust of the exchange partners to the relationship in question. They, too, emphasize the particular importance of trust because its presence has a positive effect on a partner's relational commitment. In addition, Garbarino and Johnson (1999) show how Morgan and Hunt's ideas are relevant in a consumer context when faced with high relational customers. Although some scholars (Kwaku and Li 2002) question the importance of trust with regard to performance, the meta-analysis of customer trust conducted by Swan, Bowers, and Richardson (1999) demonstrates the importance of trust with regard to the latter.

SALES AND THE GLOBAL CONTEXT

Another important development is the progressive globalization of the marketplace. It has led to the need for sales force management to take into account existing cultural differences between countries (Cook and Herche 1992). Table I provides an overview of the main contributions concerning sales in an international context, which is organized around the following performance predictors, identified by Churchill, Jr. et al. (1985): role perceptions, skill level, motivation, aptitude, personal factors, and organizational and environmental factors. Following Adler (1983), we have further classified these studies as either ethnocentric, polycentric, or comparative. Ethnocentric approaches replicate studies that have been conducted in one culture in another one in order to identify similarities between these cultures; polycentric approaches aim to understand organizational performance within a specific culture from its own perspective; comparative approaches compare the performance of an organization in one culture with that of an organization in another (Adler 1983).

There has been virtually no research within the field of sales management into what Adler (1983) calls the synergistic approach. The synergistic approach focuses on studying inter-cultural interactions between individuals in order to determine the best way to manage these. The only exception is the work of Bush et al. (2006) on inter-cultural disposition and its effect on developing inter-cultural buyer-seller relationships. Their work, however, does not discuss the relationship between inter-cultural disposition and seller effectiveness and, in addition, is based on the self-perception of a sample with a large proportion of MBA students, making the validity of their findings contentious. Besides the work of Bush et al. (2001), Griffith, Myers, and Harvey (2006) have investigated the influence of national culture on relationship marketing. Their study is, however, concerned with relationship marketing in general. As a result, it does not go into the specific concerns associated with the sales function, making their findings of limited use to the management of inter-cultural buyer-seller relationships as well.

We find the virtual absence of synergistic studies to be a significant omission: as research in other fields has shown, cultural differences can negatively affect interactions at the individual level, thereby harming a company's performance. Research into international business negotiations, for example, has shown that a failure to adapt one's behavior to one's foreign counterpart leads to sub-optimal profits (Adler and Graham 1989). Likewise, research into Organizational Behavior has shown that a failure to take cultural differences between employees and the organization into account has a negative influence on important factors like psychological contracts, justice and citizenship behavior (Gelfand, Erez, and Aycan 2007). In marketing, Verlegh (2007) has shown how customers are ethnocentrically biased toward buying products from their own country of origin.

With regard to the topic of international sales we expect similar problems, especially were the interaction

TABLE 1
Extant Cross-Cultural Literature on Selling

Antecedent	Study	Year	Approach
Role Perceptions			
Role Ambiguity	Mengüç	1996	Ethnocentric
	Agarwal et al.	1999	Comparative
	Brashear et al.	2003	Ethnocentric
	Netemeyer et al.	2004	Ethnocentric
Role Conflict	Mengüç	1996	Ethnocentric
	Agarwal et al.	1999	Comparative
	Brashear et al.	2003	Ethnocentric
	Netemeyer et al.	2004	Ethnocentric
Family-Work Conflict	Netemeyer et al.	2004	Ethnocentric
Skill Level			
Selling Behavior	Fang et al.	2004	Comparative
	Park and Deitz	2006	Ethnocentric
	Bush et al.	2001	Synergistic
Salesperson Competencies	Baldauf et al.	2002	Ethnocentric
	Kim and Hong	2005	Ethnocentric
	Bush et al.	2001	Synergistic
Knowledge	Matsuo and Kusumi	2002	Ethnocentric
	Jantan et al.	2004	Comparative
Critical Success Factors	Jaramillo and Marshall	2004	Polycentric
Motivation			
Effort	Mengüç	1996	Ethnocentric
	Fang et al.	2004	Comparative
Valences for Rewards	Money and Grahm	1999	Comparative
	Piercy et al.	2004	Ethnocentric
Aptitude			
Personality	Strain and Jackson	1998	Ethnocentric
Self-Regulation of Shame	Bagozzi et al.	2003	Comparative
Personal Factors			
Values	Dubinsky et al.	1997	Comparative
	Money and Grahm	1999	Comparative
Experience	Huddleston et al.	2002	Polycentric
	Matsuo and Kusumi	2002	Ethnocentric
Age	Huddleston et al.	2002	Polycentric
Education	Money and Grahm	1999	Comparative
	Huddleston et al.	2002	Polycentric
Gender	Huddleston et al.	2002	Polycentric
Tenure	Money and Grahm	1999	Comparative
	Huddleston et al.	2002	Polycentric
Race	Martin	2005	Comparative
Organizational and Environmental Factors			
Management Control	Babakus et al.	1996	Ethnocentric
	Baldauf et al.	2002	Ethnocentric
	Piercy et al.	2004	Ethnocentric
	Fang et al.	2005	Ethnocentric
Leadership Behaviors	Agarwal et al.	1999	Comparative
	DeCarlo and Agarwal	1999	Ethnocentric
	DeCarlo et al.	1999	Comparative
Supervisee Trust	Atuahene-Gima and Li	2002	Comparative
Sales Training	Román and Ruiz	2002	Comparative
Territory Design	Babakus et al.	1996	Ethnocentric
	Piercy et al.	2004	Ethnocentric
Ethical Climate	Weeks et al.	2006	Comparative

between buyer and seller is concerned. Seeing that cultural differences have the potential to negatively influence interactions between people from different cultures (Adler and Graham 1989) and taking into account the fact that, as mentioned before, the salesperson is the primary contact point for customers and responsible for creating and maintaining customer relationships, an inability on his or her part to interact with other cultures can therefore seriously damage the organization's success in new, foreign markets.

At first, one might expect to find an answer to the question as to how to manage differences between buyers and sellers from different cultures in the concept of adaptive selling. Adaptive selling concerns itself with the salesperson's ability to adapt his selling skills and techniques to different (potential) customers (Spiro and Weitz 1990; Sujan, Weitz, and Kumar 1994). By adapting the product or service offering to the specific needs of a particular customer, the salesperson becomes more effective in closing sales transactions. Moreover, adaptive selling takes a long-term approach to customers interactions (Franke and Park 2006), which is congruent with the relational perspective on sales (see also Weitz and Bradford 1999).

Adaptive selling, however, which finds its origins in the ISTEA-model (Weitz 1978; Weitz 1981; Weitz, Sujan, and Sujan 1986), requires a different kind of ability on the part of the salesperson than accommodating cultural differences does. Adaptive selling concerns the salesperson's ability to use his or her prior experiences with customers to decide upon the best strategy to use in order to achieve his or her objective and, if necessary, to adapt this strategy if the current situation requires it (Weitz 1978). Put differently, it is about making the correct choice from the existing repertoire at the salesperson's disposal. Adaptation to a different culture, on the other hand, requires a meta-ability to evaluate whether or not the repertoire one currently possesses is fit for the interaction at hand (Molinsky 2007).

TRUST AND CULTURE'S CONSEQUENCES

As has been argued earlier on, it is the interaction between buyer and seller that is of the utmost importance in the sales context. This is especially true in a relational context, where it is the customer's perception of the salesperson, not of the selling firm, that will influence his or her behavior (Palmatier et al. 2006). As such, the salesperson plays a central role in the creation and maintenance of the trust necessary for a high quality of the relationship between him/herself and the customer (Swan, Bowers, and Richardson 1999). This fact has significant implications, especially in an inter-cultural context: it implies that the inability of the seller to adjust to the culture of the buyer can result in missing out on an

account, even if the seller firm has established a solid, international reputation.

The creation of trust, which can broadly be defined as "a psychological state comprising the intention to accept vulnerability based upon positive expectations of the intentions of the behavior of another" (Rousseau et al. 1998, p. 395), is the result of repeated interactions over time between two individuals (Rousseau et al. 1998; Swan, Bowers, and Richardson 1999). Only through these repeated encounters can the trustor discover if the trustee's intentions are sincere and if he/she honors the agreements they have made with one another. When expectations are met on a continuous basis, the trustor will be committed to the relationship, which will create a competitive advantage for the trustee by locking in the trustor.

We suggest that the process of buyer-seller interaction on which the emergence of trust between these two parties depends can be influenced negatively by cultural differences between them. As research in the field of Organizational Behavior has shown, perceived differences between members of groups can result in barriers to interaction between them. The categorization-elaboration model or CEM (Van Knippenberg, De Dreu, and Homan 2004) shows how the perceived diversity in terms of attributes such as gender, ethnicity, and age restricts the flow of relevant information to those who are seen to have the same attributes in common. The remaining members are considered to be part of an out-group and therefore excluded from the interactions. Seeing that the buyer-seller dyad can be conceived of as the smallest possible group configuration (Milliken and Martins 1996), we expect this issue to be of direct relevance to inter-cultural sales efforts. Information exchange through buyer-seller interactions is a prerequisite for identifying the needs of the seller (Boorom, Goolsby, and Ramsey 1998). Without information, the salesperson cannot meet the expectations of the customer, which will ultimately lead to the impossibility of establishing a relationship of trust between them. This implies the need for the salesperson to adapt himself to the culture of the customer in order to change the perception of "being different" in order to increase the possibility of continuing their interaction. This is supported by Ulaga and Eggert (2006) who show that customers' perception of the salesperson is more important than the product and its price. Not being able to handle cultural differences will result in being perceived by the customer as an outsider.

The insights provided by the CEM also cast strong doubts on the assertion that certain cultures are inherently predisposed toward trusting members of foreigners than others (Branzei, Vertinsky, and Camp 2007). Insofar certain cultures are more likely to trust strangers, it is reasonable to assume that this predisposition only applies

to members of their own culture. This assumption finds corroboration in the work of Bond and Smith (1996).

The ability to adapt to a different culture is especially of importance during the initial stage of interacting with a representative of said culture (Molinsky 2007). It is during this stage, referred to by Dwyer, Schurr, and Oh (1987) as the exploration phase, that the prospective customer evaluates whether or not a salesperson meets his or her criteria. The likelihood of a negative evaluation will increase considerably if the salesperson is not able to communicate his message by adapting to the culture of his or her prospect. Molinsky (2007) refers to this as cross-cultural code switching, i.e., the ability of a person to purposefully adapt to different cultural norms in order to behave culturally appropriate. The ability to successfully switch codes is not the same as a person's cultural intelligence, as defined by (Earley 2002). Whereas cultural intelligence refers to a person's capacity to successfully adapt to a new culture, i.e., his cultural potential, cross-cultural code-switching is about modifying actual behavior (Molinsky 2007).

Any type of (sales) communication can be distinguished along two dimensions: its content and its form (Watzlawick, Bavelas, and Jackson 1967). The content refers to the actual information communicated by one person to the other; the form refers to the modality or quality with which the information is communicated and determines the meaning the receiving party will ascribe to it. It concerns the social or relational cues that are provided during interactions; as such, it can be said to constitute the context of a communicative exchange. Although both form and content are both important when it comes to successful, continuous communication, we are of the opinion that the form of the communication deserves separate consideration with regard to inter-cultural interactions because it is choosing the appropriate form that will make the message understandable for prospective customers. This is supported by Adler and Graham (1989), who state that in inter-cultural communication, a major source of potential misunderstanding is the way in which a message is delivered. Although the concept of form, referred to as relational communication, has already been used in the field of marketing (Soldow and Thomas 1984), it has not yet been applied to the inter-cultural (sales) context.

Up until now, however, little attention has been paid to the "cross-cultural interface," i.e., the actual interaction between members coming from different cultures (Gelfand, Erez, and Aycan 2007). The most widely used approach to thinking about cultural differences, the work of Hofstede (1980), is concerned with macro-level typologies of natural cultures; these are not suited for application to micro-level interactions (Kirkman, Lowe, and Gibson 2006). As

a result, the work of Hofstede is of limit value for understanding inter-cultural buyer-seller relationships.

Here, we make use of the work of Markus and Kitayama (1991) concerning culturally-dependent construals of the self. Self-construal is an important factor in the influence of national culture on the development of interpersonal trust (Doney, Cannon, and Mullen 1998). It also fits with the importance of the role of the salesperson in establishing and maintaining relationships with customers. Based on these different types of self-construal, we introduce a model concerning the influence of self-construal on inter-cultural buyer-seller communication, which is discussed below.

THE RELATIONSHIP BETWEEN SELF-CONSTRUAL AND INTER-CULTURAL SELLING

It is possible to identify two different types of self-construal that are culturally dependent (Markus and Kitayama 1991), an independent and an interdependent one. These self-construals describe how relations between people affect a person's own self-image. People from cultures that can be characterized by an independent construal of the self are task-oriented, are primarily concerned with their own abilities, thoughts and feelings, and are focused on achieving their own goals (Markus and Kitayama 1991). In their relationships with other persons, they will therefore be primarily interested in their own needs and wants. People from cultures that can be characterized by an interdependent construal of the self, on the other hand, see their own existence as fundamentally intertwined with that of others, focus on the context of a particular situation, and adapt their abilities, thoughts and feelings to it accordingly (Markus and Kitayama 1991). In their relationships with other persons, they are able to empathize more with others and their thoughts and feelings.

Two abilities of particular importance in adapting oneself to other culture's norms and values are self-monitoring and self-efficacy (Molinsky 2007). Self-monitoring describes the extent to which a person reflects on his behavior toward others and, if necessary, adjusts it accordingly (Gangestad and Snyder 2000). Self-efficacy encompasses a person's assessment of his or her ability to accomplish a particular task (Gist and Mitchell 1992). Seeing that these two abilities are directly related to a person's self, we will explore the way in which they are related to national culture as defined through the construct of self-construal. Self-monitoring has already been researched in sales with regard to the personalities of the buyer and seller (Fine and Schumann 1992); it has not yet been used in the inter-cultural sales context. We propose the following model (see Figure 1).

FIGURE 1
Cultural Influence on Communicative Adaptiveness
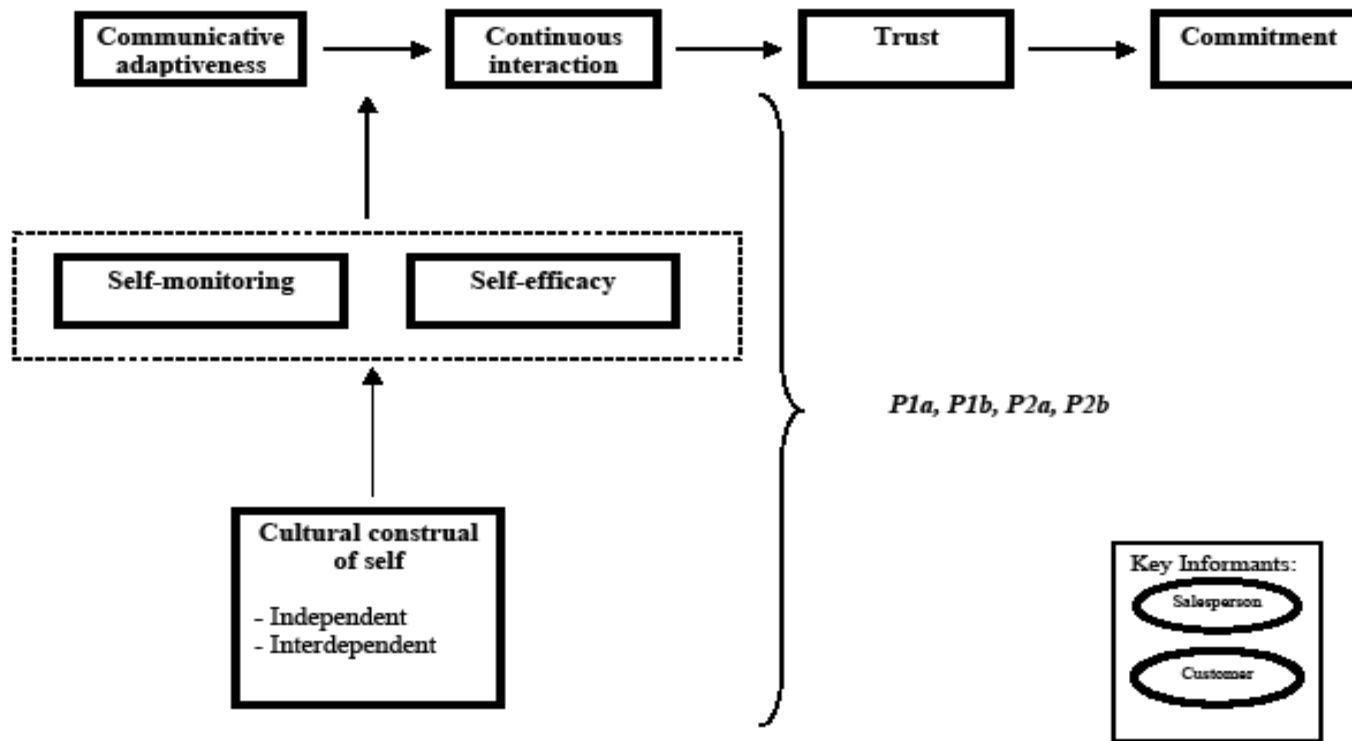
We expect salesperson s who can be characterized by an interdependent self-construal to be better at adapting to the form of the communication process in their interaction with people from a foreign culture. Their propensity to actively take into account the needs of others and their attention for the context of the situation they find themselves in should enable them to better read the social/relational cues provided by customers from foreign cultures. As a result, they should score high as self-monitors. The latter is corroborated by work on cross-cultural adjustment and self-monitoring (Harrison, Chadwick, and Scales 1996).

> Proposition 1a: Salespersons whose culture can be characterized by an interdependent construal of the self are more likely to be high self-monitors and therefore able to establish and maintain trustful relationships with foreign customers.

Conversely, we expect that salespersons who have an independent construal of their self to lack the adaptive skills necessary to adapt to the form of communication used by foreign customers. Their exclusive focus on their own needs, wants, thoughts, and feelings leads them to neglect the relational cues provided by others, which would make them low self-monitors. As such, they will experience great difficulties when trying to build a relationship with these customers because they are unable to create a sense of trustworthiness.

> Proposition 1b: Salespersons whose culture can be characterized by an independent construal of the self are more likely to be low self-monitors and therefore unable to establish and maintain trustful relationships with foreign customers.

Salespersons who are interdependent self-construers are better at empathizing with others. They can therefore come to a good understanding of the wants and needs of their customers, which enables them to meet these successfully. In doing so, they also meet their customers' expectations, which makes them trustworthy and keeps the interaction going. We expect these individuals to score high on self-efficacy because their empathy will give them confidence in their own abilities to successfully interact with others. As such, we expect them to be proficient at building trustworthy relationships with foreign customers. This dovetails with Harrison, Chadwick, and Scales' (1996) findings that self-efficacy is a positive influence on cross-cultural adaptation.

> Proposition 2a: Salespersons from a culture that can be described by an interdependent self-construal are more self-efficacious and therefore successful at creating and maintaining trusting relationships with foreign customers.

On the other hand, salespersons whose self-construal can be seen as independent are considered to be unable to empathize with others. Their focus on their own needs and wants makes them ill-suited to take the point of view of their customers and identify their needs. As a result, they are likely to score low on self-efficacy because their inability to meet their customers' expectations will lead them to negatively evaluate their ability to communicate with the latter.

> Proposition 2b: Salespeople from a culture that can be described by an independent self-construal are not self-efficacious and therefore unsuccessful at creating and maintaining trusting relationships with foreign customers.

DISCUSSION

Previous research has focused extensively on comparing the differing demands placed on the management of the sales function by cultural differences existing between countries. What has hardly received any attention, however, is the way in which inter-cultural sales efforts need to be structured in order to build successful, long-lasting buyer-seller relationships. At the same time, international sales have become a fact of organizational life. This paper contributes to the research on inter-cultural sales by introducing a framework that focuses on salespeople's ability to adapt their communication in terms of both form and content to foreign customers in order to create trusting relationships from the viewpoint of the salesperson's construal of his or her self.

A main contribution of this work is the fact that it extends an important concept in sales as well as marketing in general, the relational approach, to the inter-cultural sales context. Although Griffith, Myers, and Harvey (2006) pay attention to relational aspects in an inter-cultural context, they do not go into the explicit demand posed by the sales function. In addition, unlike the work by Bush et al. (2001), we explicitly take into account the relation between the ability to interact with other cultures and sales effectiveness.

Another contribution is the emphasis on those abilities and variables that are of specific importance to inter-cultural sales. The most closely related work is that of Spiro and Weitz (1990), Sujan, Weitz, and Kumar (1994), and Weitz and Bradford (1999), which concerns adaptive selling, which does not take into account the influence of cultural differences.

With regard to the managerial implications of our work, the developed framework can help sales managers to evaluate the part of their sales force that needs to engage

with customers from cultures other than their own. It not only provides them with constructs relevant for inter-cultural interactions (a person's culturally-determined self-construal), but also can help in identifying abilities in need of development for successful inter-cultural sales efforts, particularly when it comes to salespersons with independent self-construals. Furthermore, our paper points toward those aspects of inter-cultural interactions crucial to successful trust-development, such as the form of the communication. Hence, global sales managers who aim to manage their sales force toward long-term relational selling performance (Weitz and Bradford 1999), and key supplier status (Ulaga and Eggert 2006) with international customers should be cognizant about inter-cultural competence and could – for instance – motivate salespeople within inter-cultural sales teams share knowledge on dealing with global customers. In addition, sales managers could assign territories differently to salespeople, contingent on their self-construal (e.g., train salespeople with an independent self-construal). As part of the variation in relationship quality between salespeople and their customers is determined by the interplay between the national cultures of both, our study now offers sales managers an insight in managing this variation toward effective sales interactions.

FUTURE RESEARCH

One direction for future research suggested by our model is the influence of other cultural factors besides self-construal on self-monitoring and self-efficacy on the development of inter-cultural trust. For instance, Doney,

Cannon, and Mullen (1998) mention relation to self and relation to risk as other important elements. The influence of these factors could lead to different levels for self-efficacy and self-monitoring than one would expect on the basis of self-construal alone. Furthermore, the existence of different levels of self-efficacy and self-monitoring next to each other raises the question of the effect of interactions between the two. For instance, would a high level of self-monitoring be negated by low self-efficacy and vice versa?

Another avenue of future research is the contribution of the insights from the relation communication literature to the understanding of inter-cultural communication. Boorom, Goolsby, and Ramsey (1998) discuss the role of Communication Competence and Interaction Involvement with regard to salesperson adaptiveness. One possibility is to look how different levels of self-monitoring and self-efficacy will influence these two constructs.

CONCLUSION

Up until now, the influence of cultural differences on inter-cultural sales efforts has received little attention. At the same time, companies around the world are faced with the need to operate in countries across the globe, countries with different customs, norms, and values. In order for these companies to survive in the long run, they need to be able to successfully sell their products and services in these foreign markets. By going into the specific demands put on the sales function by cultural differences, our paper provides guidance for researchers and practitioners alike in this area.

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A DYNAMIC MODEL TO MEASURE THE LONG-TERM EFFECT OF ADVERTISING CONSIDERING THE COMPETITORS' EFFORTS

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SUMMARY

After decades of researchers' efforts the long-term effect of advertising on sales remains a challenging issue. The conventional wisdom of advertising enhancing brand equity has given rise to huge levels of advertising budgets. However, researchers claim that advertising is "rife with productivity problems" (Sheth and Sisodia 1995, p. 19). Consequently, advertising is under increasingly severe scrutiny because of the growing emphasis on accountability of advertising results. The highly competitive environment in which most firms operate poses additional challenges. Much of the research has investigated the effect of advertising on sales without taking into account the competition. Scholars claim that competition should receive more attention since the extent of competitive advertising influences the effectiveness of a firm's advertising efforts (Rust et al. 2004; Sheth and Sisodia 2002; Vakratsas and Ambler 1999). There is also a call that more research is needed for developing methodologies for reliable measurement of long-term effects (Pauwels et al. 2004; Vakratsas and Ambler 1999).

The aim of this study is to assess the long-term effect of advertising by specifically considering the competition and proposing a sound methodological approach based on panel data econometrics. Relying on recent conceptual developments in the marketing and advertising literature, we suggest that both competition and time are crucial dimensions that need to be considered in assessing the effect of advertising. New developments in the field posit that consumer decision-making process is a competitive comparison and is the result of competition at each stage of ad and brand information processing (Laroche, Kim, and Zhou 1996; Teng and Laroche 2007). Since the consideration of competing brands is a central element of brand choice (Guadagni and Little 1983), and competition has an impact on each consumer's purchase decisions (Rust, Lemon, and Zeithaml 2004), we contend that competition should be included in the measurement of the effect of advertising on sales. The competition dimension has received relatively little attention in the advertising research. Only recently researchers have started to examine the effect of advertising taking into consideration the competition (e.g., Vakratsas and Ma 2005; Yoo and Mandhachitara 2003). One method that permits benchmarking relative to competitors is data envelop-ment analysis (*DEA*). Over the last decade, a few studies have applied *DEA* methods to evaluate advertising efficiency in competitive settings (Büschken 2007; Färe et al. 2004; Luo and Donthu 2001, 2005). We follow the latter stream of research and address the competition dimension by evaluating the advertising efficiency relative to competitors using *DEA* methods. We then include the efficiency score resulting from the *DEA* as an additional explaining variable in a ten-year dynamic panel data model applied to the Spanish automobile industry. Thus, our model assesses the effect of advertising and the efficiency of advertising spending on sales over ten years.

For the empirical application, we constructed a data panel for 19 car brands for the period ranging from 1995 to 2004. The panel data methodology used in our study allows us to control for unobservable heterogeneity through an individual effect. It is important to eliminate unobservable heterogeneity because firms are heterogeneous and, therefore, there are always characteristics that are difficult to measure or hard to obtain that can lead to biased results. The estimation of our models was done by using the generalized method of moments (*GMM*), because unlike within-groups or generalized least squares estimators, it accounts for endogeneity by using instruments (Pindado, Rodrigues, and de la Torre 2006). Our estimator is efficient, since we have used the right-hand side variables in the models lagged twice or more as instruments.

The results from the dynamic panel data estimations with one-step *GMM* estimator and robust standard errors revealed that advertising had a significant positive effect on sales over three-year period, while the effect of efficiency lasted up to four years. Both Hansen test and Arellano-Bond tests for serial correlation indicated that this model performs well. Our results are in line with Berkowitz et al. (2001), indicating that in the car industry advertising had a significant positive effect on sales not only in the current year. The investments in advertising during the two preceding years also affected positively sales, although the coefficients were lower than the current year advertising effect. On the other hand, not all the firms are equally good investing in advertising: those which are efficient seem to develop an ability that could generate a long-term competitive advantage. These results have important implications for managers. Efficient use of resources brings more working capital that can be

invested in projects increasing sales. Growth of sales is therefore, not only a matter of "waste" in advertising (Ambler and Hollier 2004), i.e., to spend vast amounts of money, but also to be "wise" in advertising, i.e., to employ the available resources in an efficient manner. Moreover, our results are in line with research in memory (e.g., Braun 1999) and branding (Ehrenberg et al. 2002; Berkowitz et al. 2001), suggesting that memory is dynamic and the effect of advertising on purchase decision and consequently sales can be traced over multiple years.

From a methodological point of view, our study suggests a way of combining nonparametric methods (*DEA*) and advanced econometrics in a search of more insights on the effect of competitive efforts on a firm's long-term performance. In doing so, we address one of the concerns in marketing literature mentioned previously – competition should be taken into account in measuring advertising effects (Rust et al. 2004; Sheth and Sisodia 2002; Vakratsas and Ambler 1999). We go a step further and include the relative efficiency score in a dynamic model that can trace its effect over time. On a conceptual level, efficiency scores can be used as a measure of how marketers employ available resources to achieve companies' marketing objectives. Viewed in this way, the efficiency levels represent internal capabilities developed over time that bring competitive advantage. This resonates with the resource-based view of the firm and suggests potential fruitful direction for further theoretical exploration. Additional research is needed to evaluate whether the results of this study hold for other types of products, since previous research has suggested that the duration of the effect of advertising on sales can depend on the type of the product. Other output variables, such as brand value, can be included in the model. Another fruitful avenue for future research is comparison of *GMM* results with Bayesian methods. References are available upon request.

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CONCEPTUALIZING AND MEASURING THE MONETARY VALUE OF BRAND EXTENSIONS: THE CASE OF MOTION PICTURES

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SUMMARY

Attaching a strong brand name to a new product can help companies to raise consumers' interest in the new product at the time it is launched (Keller 2003). While this can be considered a general advantage, it is of particularly importance for products whose diffusion functions follow an exponential-decay pattern, which is often the case with media products such as motion pictures, DVDs, books, and games (Ainslie, Drèze, and Zufryden 2005). For such products, the largest revenues are usually generated immediately after a new product has been made available for consumers, with revenues quickly shrinking from that point on. Given the enormous financial investments that new movies, games, and music albums require (e.g., the average total costs of a studio movie prior to the movie's release have exceeded $100 million; *MPAA* 2007), the existence of a strong brand name aids producers' efforts to recoup their investments by signaling important attributes and by stimulating buzz that drives consumers to their local movie theaters, book stores, and retailers when the new product is finally available.

In a paper assessing academic research in the motion picture context, Eliashberg, Elberse, and Leenders (2006) predict that studios will increasingly pursue sequels, viewing them as "safer bets," given audience's familiarity with the underlying concept. They note the paucity of academic research into the assumptions that underlie a sequel-intensive strategy and identify the following question as an important direction for future research: "To what extent are sequels more profitable than movies based on original concepts?" (p. 643). When purchasing the rights to produce a second sequel of the hit movie TERMINATOR in 2001, the production company Intermedia Films paid $14.5 million (Epstein 2005). Addressing Eliashberg, Elberse, and Leender's (2006) question in a systematic manner would provide insights to companies who seek to acquire franchises such as Intermedia regarding whether a given price for sequel rights is justified, or whether it exaggerates (or underestimates) the power of the brand (in this case, TERMINATOR).

While there is substantial literature on the factors that determine the success of brand extensions (see Völckner and Sattler 2006, hereafter V&S, for a review), we are not aware of any academic research that develops an approach for assessing the dollar value of a brand extension. We believe that this ability would be critical for several purposes, including accurate valuations and for use in negations between potential buyers/sellers of brand extension rights. In this manuscript, we draw from the extant brand literature to identify the elements of brand extensions that determine their monetary value for brand owners and potential buyers. Further, we advance extant research by developing a model that enables brand managers to estimate the brand extension value of individual brands. The model isolates whether brand extensions perform differently from non-branded innovations in terms of revenues and risk, addressing Eliashberg, Elberse, and Leender's question (2006). We empirically calibrate the model using regression analysis with a unique data set comprising all initial movie sequels that have been released in U.S. theaters between 1998 and 2006 (n = 101) and a matched sample of non-sequels (selected from a database of 1,536 movies from the same period). We illustrate the usefulness of the model by calculating the monetary brand extension value for an actual movie. References are available upon request.

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FRIEND OR FOE: THE IMPACT OF LINE EXTENSION ADVERTISING ON PARENT BRAND SALES

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SUMMARY

Introducing new products is critical to a company's ongoing success. However, there are significant risks because the costs associated with bringing a new product to market have risen to $50 million or more (Aaker and Keller 1990). Even with big budget marketing support, new product success is certainly not guaranteed. Taylor and Bearden (2003) state that half of all new product introductions will fail. Given the significant costs and risks, many firms are using line extensions to increase the chances of success. Oakenfull et al. (2000, p. 43) report that 95 percent of the 16,000 annual new product introductions in the U.S. are line extensions. However, the strategy has generated mixed results. For example, Reddy et al. (1994) report that line extensions and "pure" new product introductions exhibit generally similar success rates, suggesting that "riding the coattails" of an existing brand does not necessarily confer incremental benefits to a line extension. Thus, to assess the success of a line extension strategy, we need to understand the impact of a line extension on the sales of its parent brand. That is, will the line extension help or hurt its parent brand?

Two general theoretical perspectives provide the framework for understanding the potential impact of a line extension on its parent brand, and the current research focuses on the affect of line extension advertising on sales of the parent brand. The first of these two theories is associated network theory which describes the cognitive processes that generate interactions between a line extension and its parent brand. These interactions are likely to be triggered by advertising for the line extension and are expected to have positive effects on the parent brand. Balachander and Ghose (2003) term this phenomenon *reciprocal advertising spillover*. The second theoretical perspective is related to competitive cross elasticity and cannibalization which postulates that increases in line extension advertising negatively impact parent brand sales, when the two brands are substitutes (which is often the case for extensions).

The key to reconciling the conflicting predictions from these two theoretical perspectives is the concept of "fit" or "congruence" between two brands. Consistent with Grime et al. (2002), *fit* comprises two separate dimensions: *similarity* and *concept consistency*. *Similarity* is the degree to which the line extension and parent

brand satisfy the same consumer needs, are used in the same situations, and have common physical features. *Concept consistency* is a much broader construct than *similarity* and is defined as "the degree to which an extension is seen as consistent with the brand concept" (Grime et al. 2002, p. 1425). We hypothesized that *similarity* and *concept consistency* as well as *fit* (which is the interaction of these two factors) positively moderates the relationship between line extension advertising and parent brand sales.

Our analysis uses data from the consumer packaged goods (CPG's) industry; e.g., moderately priced products that consumers purchase regularly from their grocery, drug, or mass merchandiser outlet.[1] This dataset integrates primary survey data with scanner sales information on 45 line extension/parent brand pairs. For each brand pair, the data are detailed by 63 U.S. markets across 156 weeks resulting in a data matrix with 442,260 rows in a "datacube" comprising three levels; brand pair, city, and week.

We hypothesized that line extension advertising would have a positive main effect on parent brand sales and that this impact would also be positively moderated by *similarity*, *concept consistency,* and *fit*. However, the postulated pattern of results is only partially observed. In particular, the main effect of line extension advertising on parent brand sales (i.e., reciprocal advertising spillover) is not significant ($p < 0.2280$). Further, *similarity* (-0.00838; $p < .0001$) and *concept consistency* (-0.0015; $p < .0148$) each individually exhibits a significant *negative* moderating effect on the relationship between line extension advertising and parent brand sales. The interaction of *similarity* and *concept consistency;* i.e., *fit,* (0.00857; $p < .0001$) does show a significant positive moderating effect as anticipated.

The introduction of a line extension related to a well established parent brand begs the question: will the line extension be a friend or a foe in the brand portfolio? Prior research indicates that line extensions can have a beneficial impact on the parent brand. In particular, Balachander and Ghose (2003) find that advertising on the line extension has a positive effect on parent brand sales. However, our results suggest that interactions between the line extension and parent brand are considerably more complicated than previously expected. The net impact of line extension advertising on parent brand sales depends on

the specific moderating conditions. Advertising on the line extension only results in a positive increment to parent brand sales when both *similarity* and *concept consistency* are high. Conversely, advertising on the line extension is observed to have a negative impact on parent brand sales when *similarity* is high in conjunction with low *concept consistency*. The line extension appears to have a neutral effect on parent brand sales under the other remaining conditions for *similarity* and *concept consistency*. Hence, the question of whether a line extension is a "friend or foe" to the parent brand can only be resolved using knowledge of the degree of *similarity* and *concept consistency* (and *fit*) between the line extension and its parent brand. References are available from the first author.

ENDNOTE

1 Outside of the U.S., these types of products are also known as fast moving consumer goods (FMCG's).

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DECISION MAKING UNDER RISK IN GAMBLING

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SUMMARY

Individual risk attitudes have been the focus of a tremendous amount of research as they play a critical role in decision making. In neoclassical economics, normative expected utility theory (von Neumann and Morgenstern 1947) is the most common model used to explain or predict market behavior. Many deviations from original EUT's assertions have been shown by researchers, as individuals are not uniformly risk averse, but adopt a mixture of risk-seeking and risk-averse behaviors. Additionally, people tend to perceive and evaluate changes of wealth (i.e., gains and losses) rather than final wealth positions (Markovitz 1952; Edwards 1954). The idea that risk attitudes shift with the outcome relative to a reference point has become tractable and popular with the introduction of Prospect Theory (Kahneman and Tversky 1979).

Kahneman and Tversky's (1979) value function represents the relationship between objectively defined gains and losses (in dollars) and the subjective value a person places on gaining or losing dollars. On the first gamble, decision makers are at the origin. On the second gamble, people may consider themselves in a gain frame because they won money as a result of the initial gamble. According to prospect theory they will be more risk averse when considering the second gamble because the pleasure derived from another gain is reduced and the pain derived from a potential loss is heightened. Conversely, if the result of the first gamble was a loss of money, people may consider themselves in a loss frame. Prospect theory predicts that people in a loss frame will be more risk taking when considering the second gamble because the pain derived from another loss is diminished and the potential pleasure accompanying a win is heightened.

In 1992, Tversky and Kahneman introduced Cumulative Prospect Theory (CPT), a revised version of prospect theory. CPT is consistent with an earlier idea expressed by Markovitz (1952) who proposed three inflection points in the utility function. Markowitz (1952) introduced the utility function where the curve is convex when gains are small, and concave when gains are large. The intuition is compelling, the utility accompanying one more unit of wealth increases initially, but it will decrease when the wealth is accumulated beyond a certain level. This is consistent with the diminishing marginal utility of wealth. In the domain of losses, the utility function is concave when losses are small, and convex when losses are large. In other words, utility increases with an addition of one unit of wealth, but the increase will be larger when losses are small.

Much of the research investigating attitudes toward risk use single decision settings. However, decisions are often made in a sequence where the potential for aggregating decisions is possible and even likely (Thaler 1985). Risk attitudes may shift in a manner which is inconsistent with prospect theory if people have an opportunity to reduce the isolation of their decisions. In other words, that there may be limits to the predictive or descriptive ability of prospect theory in a multiple decision context. Multiple gambles also allow for an individual to 'see' patterns in the outcomes. Some individuals may belief in luck and lucky streaks which allows them to use previous gambles to predict the outcome of future gambles (Camerer 1989).

Much of the research investigating attitudes toward risk are laboratory studies. One issue with this approach is that typically only small stakes are tested. Given that attitudes toward risk and decisions have been shown to differ with various levels of stakes (Friedman and Savage1948; Markowitz1952; Weitzman 1965; Weber and Chapman 2005), we may not have a complete picture of how risk affects decisions. To circumvent the problem some researchers have used observational data from field contexts (Ali 1977; Golec and Tamarkin 1998; Jullien and Salanié 2000; Gertner 1993; Metrick 1995). Although the field studies have avoided the limitations presented by the laboratory studies, they have focused on a one-shot event.

In this study, we use approximately 10 thousand gamblers' play data on poker machines from a gaming club over three years. We use changes in the money bet per minute as an indicator of a gambler's attitude toward risk. The amount of money bet per minute is a valid proxy of consumers' attitudes to risk as more risk taking gamblers bet more and make decisions faster. The individual level data used here, allows us to measure shifts in risk attitudes on the basis of previous gambling outcomes. In addition we have demographic data which allows for a more fully specified model than has typically been possible with previous field data. The objective was to investigate players' risk attitudes when making decisions under uncertainty. We use the CARA utility function to investigate the data.

Overall, we find that people are sensitive to previous outcomes. Individual risk attitudes are generally consistent with Prospect Theory where individuals are risk averse after wins and risk taking after losses. Importantly, there are interesting deviations from Prospect Theory when the frequency of gambling is considered. Our findings suggest that it is important to know how "normal" the activity is for the individual to predict the attitude in their attitude toward risk, and also to consider whether there is one win or a series which can be interpreted as a streak of luck.

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REFERENCE DEPENDENCE WHEN TASTES DIFFER

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SUMMARY

The effect of reference dependence on choice (Kahneman and Tversky 1979; Hardie, Johnson, and Fader 1993) is usually studied in respect of trade-offs between two vertical dimensions (e.g., payoff/likelihood). There are, however, many situations where attributes cannot be easily classified as vertical. This is true of many product characteristics such as color, and taste. For example, there is no commonly agreed "ideal" car color. In these situations, consumers will not all make the same choice even when they are faced with identical alternatives and all have the same information. Not only does horizontal differentiation characterize a wealth of consumer decision contexts, it allows us to consider more complex markets where tastes must be aggregated to assess the outcomes and implications of reference dependence and marketing activities.

We use the work horse model of competition research, the Hotelling (1929) line, to parsimoniously capture both a consumer's personal preference and their view of other people's preferences. We develop "horizontal" reference dependence in a manner faithful to horizontal differentiation and prospect theory, using non-direction specific effects which show diminishing sensitivity to gains and losses. The reference effect is a function of both the consumer's distance to the reference and to the product being considered. In effect references generate a consumer's attitude to the distance to the product, not attachment to the reference location. We apply reference effects to utility additively; a parameter sets the relative power of reference effects compared to "actual" distance.

This adds discreteness which greatly complicates the Hotelling model. To maintain a manageable scope of this work we take a partial equilibrium approach. We explore the implications of reference points not the process of setting references points. To solve the model we analyze all possible permutations of gains and losses, 65 cases. We show that although references influence the relative strength of preferences, references don't change choice under horizontal differentiation in this model. However, extending the model to contexts where strength of preference matters, we show that choices can be substantially influenced by "horizontal" reference dependence. These choices move in predictable ways given loss aversion and diminishing sensitivity which allows specific advice to be generated as to the location managers of any given product want consumers to use as a reference.

Specifically, we apply this to political marketing, which is a natural market in which to consider taste differences. In politics, despite controversy about the prevalence of coherent ideology (Converse 1964; Jost 2006), many people are willing to categorize politicians and their policies on a single taste dimension (Gigerenzer 2007). The left-right continuum that is widely used in political research (Morton 1999, 2006) represents taste differences because there is no objectively agreed upon reason for the superiority of left to right or right to left. The policy position that each voter prefers depends upon where they stand on the policy continuum.

We examine primary elections. Both the primary and predicted general election choices are captured on a Hotelling line. We show that in a general election reference effects don't change the voter's choice. However we also show that when electability and uncertainty matter, references can influence voter choice in primary elections. This allows us to develop marketing advice; campaign managers shouldn't necessarily aim to anchor potential voters' references around their own candidate's position. Specifically more electable candidates, those expected to be stronger in the general election than their primary election opponents, want voters' references far from the primary contest while less electable candidates want voters to concentrate on their specific policies, they want voters concentrating on the primary election at hand.

Thus, we provide an explanation of how reference dependence could sometimes have a very powerful influence on certain political decisions and yet have no effect on others. We explore why Howard Dean's 2004 communications strategy may have helped John Kerry noting that the conventional wisdom – that the "scream" cost Dean the election is incomplete, as Dean's fall preceded the scream. In 2004 Howard Dean was relentlessly attacking George Bush not his opponent in the election John Kerry. This attention to the President reinforced a focus on ousting George Bush minimizing the perceived policy differences between John Kerry and Howard Dean. Where voters' references are focused outside the specific primary contest, this is an advantage for candidates perceived as more electable, like John Kerry. This work also suggests an explanation of why in 2008 republican voters confounded expert's predictions that they would choose a candidate more in tune with their core beliefs instead choosing John McCain, the candidate seen as more electable. References are available upon request.

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THE IMPACT OF COMPLEXITY ON PATH DEPENDENT
DECISION MAKING

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SUMMARY

Path dependency can be conceptualized as the outcome of a dynamic process that is reigned by self-reinforcing mechanisms leading to a narrowing and restriction of choices. While choice is not restricted at the beginning of such a process, the restriction emerges as a result of an ongoing decision making process. The outcome of such a process is inefficient in case a decision for an inferior alternative can not be altered anymore. These situations are described as path dependency or lock-in situations. We argue that context variables such as complexity encourages path dependent processes of decision makers. A complex situation requires a decision maker to reduce complexity in order to make decisions. For that purpose, decision makers tend to rely on cognitive heuristics. Three elements characterize a specific heuristic: (1) how search is guided (e.g., alternative-wise vs. attribute-wise), (2) if and how a stopping rule is applied, and (3) whether decisions are taken on the basis of compensatory (cues are outweighed by other cues) or non-compensatory strategies (a specific cue is not outweighed by any other cue). We assume that cognitive heuristics mediate the effect of complexity on path dependency.

In order to test our assumptions, we perform an experiment with a one-factorial between-subjects design, manipulating the complexity of the decision environment. The experiment refers to buying decisions for mobile service companies and took place in a computer lab. We developed a software tool for the purpose of the experiment. Participants were provided with information on the screen in order to make a decision for a service provider. Once a decision was made, new information was provided and the participants had to decide again. All together, they went through this procedure 25 times. For each decision, they had up to 60 seconds to browse the provided information. If they didn't make a decision within the given timeframe, the former decision was kept. Information was provided on the participant's use of various mobile services, the cost structure of several services of four service providers, and costs for placing a new contract with another provider. Information was given for the present decision and for decisions in the near future. The information settings were created in order to provide both an optimal decision path as well as the possibility of a lock-

in, i.e., a situation where a suboptimal decision could not be changed anymore.

Complexity was manipulated by providing an information display matrix on the cost structure of the four alternatives with a varying number of service attributes. The low complexity setting provides an information display matrix of four alternatives by three attributes, while the high complexity setting provides a matrix of four alternatives by seven attributes. The dependent variables were path dependency, decision quality (DQ) and information retrieval in terms of focus on alternatives (FAl), focus on attributes (FAt), focus on present information (FPI), and total information load (TIL). Using log file analysis, we were able to track the whole process of information retrieval by each participant over all 25 decisions.

The results show that complexity increases the probability of path dependency. Decision quality mediates the effect of complexity on path dependency. Furthermore, information retrieval explains how complexity leads to varying decision quality. The effect on decision quality is fully mediated by retrieval of information related to either present or future situations: decision makers in high complex settings use a significant higher proportion of information related to the present (as compared to the future). Hence, path dependency results from poor decisions that are due to the fact that people in high complexity situations tend to neglect future developments at the expense of information related to the present. To the best of our knowledge, previous research has neglected such a "focus-on-now"-heuristic. While there may be a variety of heuristics that can be successfully applied in order to reduce complexity, not all of them necessarily lead to path dependency. Introducing a time dimension opens a new perspective for a better understanding of repeated decision making in the real world.

The investigation of heuristics under the condition of increasing returns provides another perspective for decision making research. Obviously, heuristics rely on what is called "thumb rules" sometimes also called "gut feelings." Such thumb rules can even increase the quality of decisions in comparison to decision making relying on higher amounts of information. The logic of path depen-

dent processes, however, is to trigger and to pull decision making systems in a specific direction by providing increasing positive feedback and hence triggering specific decisions. In our experiment, participants in low versus high complexity settings applied different heuristics in terms of information retrieval that resulted in varying decision quality. Hence, there are different qualities of heuristics and not every heuristic is obviously able to prevent the path dependency trap. References are available upon request.

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MEASURING RETAILER BARGAINING POWER OVER WHOLESALERS: AN INTER-BRAND ANALYSIS

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SUMMARY

Using Japanese official wholesale price data at the level of brand, this paper investigates whether the bargaining power of retailers over concentrated wholesalers is different across retail formats. For this purpose, this study employs the Retail Survey of the National Survey of Prices in Japan as a central data source. The dataset is unique in that it reports the average wholesale prices and quantities shipped from specific-format wholesalers to specific-format retailers in each area of 49 major Japanese cities at the brand level. The survey covers various brands ranging from eminent U.S. companies such as P&G and Budweiser to famous Japanese companies such as Sony and Panasonic. Moreover, the survey classifies wholesalers into five types of formats (original general wholesaler, intermediate general wholesaler, sales company established by producer, producer's branch, and other wholesaler), and purchasers into four types of formats (intermediate wholesalers, department stores, supermarkets, and ordinary retail stores). In addition to the survey, we introduce the Census of Commerce as a supplementary data source to calculate the degree of concentration in each wholesale business category. With these datasets, we measure the sensitivity of the purchase prices for retailers to the wholesalers' degree of concentration by retail format through regression analysis. An important finding from the analysis is that the sensitivity of the purchasing price to the degree of concentration of wholesalers is significantly lower, on average, for large supermarkets than for ordinary retail stores. This empirical result implies that large retailers have greater power against concentration upstream, consistent with theoretical notion. Additionally, the lower sensitivity of the purchasing price to the degree of concentration of suppliers for supermarkets indicates that relatively large retailers obtain advantageous purchase prices possibly because they deal in a greater number of brands within a specific item category.

There have been several research streams investigating how the power of retailers is exerted and how it has a substantial impact on distributive channel members. The retailing and marketing literature addressing the issue has suggested that one channel member can gain power over another by constructing a dependency relationship (Brown, Johnson, and Koenig 1995; Brown, Lusch, and Nicholson 1995; Chatterjee, Hyvönen, and Anderson 1995; Lusch and Brown 1996). For example, if a manufacturer or a wholesaler depends highly on a dominant retailer to maintain its share of sales, the retailer is in a superior position to the supplier. However, the power relationship between a supplier and a large retailer will be balanced if the supplier can exert "countervailing power" through a well-known brand or consumer loyalty. Further, several studies in the marketing literature have investigated the relationship between retailers' power and economic profitability for manufacturers that rely on large retailers (Ailawadi, Borin, and Farris 1995; Kalwani and Narayandas 1995).

Nonetheless, no previous empirical study has yet examined wholesale prices at the brand level for a variety of consumer products. This is most likely because data on wholesale prices for various commodities are unavailable in most advanced economies. In general, because brand-level wholesale prices are a vital measure for each retail company and thus usually treated as trade secret, retailers do not wish to report the actual purchase prices to other private firms, especially to their rivals. Moreover, wholesalers are expected to have no incentive to make their selling prices public. Therefore, it is highly likely that such extensive and costly data can only be collected by public organizations and not by private entities. Indeed, the Japanese government collects wholesale prices for a broad range of consumer products by distributing questionnaires on shipping prices to wholesale store managers. Remarkably, complete enumeration is conducted for wholesale stores that employ over about 50 workers all over Japan. The total number of wholesale stores surveyed amounts to approximately 12,000. This is the central reason why we have focused the Japanese official data set to investigate the bargaining power of retailers through an examination of wholesale prices. In this respect, the current study has contributed insights into vertical market structure and distribution channel systems.

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EXPLORING THE LINK BETWEEN IN-STORE PHYSICAL SHOPPING BEHAVIOR AND PURCHASES

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SUMMARY

Research on shopping behavior especially focuses on scale measures such as shopping values (Babin et al.1994) or shopping motives (Kaltcheva and Weitz 2006). However, actual observations of physical, in-store consumer shopping behavior (e.g., gestures, moves, paths, actions) remain almost absent in marketing research. Only in the past few years have some studies raised this topic (Underhill 2000; Larson et al. 2006). This interest seems fully justified, since buying decisions often occur after the consumer has entered the store (Dhar et al. 2007) and may depend on the areas visited by the shopper, as well as the products he or she handles, examines, abandons, and finally chooses.

The few studies dealing with in-store physical shopping behavior fall into two different streams, rooted in either psychological interpretation or modeling. The first stream performs precise observations of in-store moves and actions to interpret these but also observes shoppers only obtrusively and fails to analyze the gathered data statistically (Titus and Everett 1995; Chebat et al. 2005). In contrast, the second stream performs robust statistical modeling to describe and predict in-store consumer paths, but such models require such huge databases that the associated observations generally are imprecise (Farley and Ring 1966; Larson et al. 2006). Thus, both streams lack important dimensions. In an attempt to rectify this disparity, this article reports a study of in-store shopping behavior that applies robust statistical treatments to very precise data (i.e., the shopper's path, moves, and actions). To meet this goal, we specially develop new software, implemented through PDA technology, that reliably records and time-stamps shoppers' precise moves and gestures during the entire shopping trip, then integrates these data into a database that is sufficiently robust for statistical treatments. Our research therefore attempts to (1) determine the main dimensions of in-store physical behavior and (2) study and quantify its relationship with consumer purchases.

Research Method

Our research approach attempts to combine the advantages of both previously described interpretative and modeling streams: Similar to the interpretative stream, we precisely observe physical shopping behavior data, and similar to the modeling stream, we perform statistical analyses of these data. To achieve our research objective, we develop a specially designed program, called "Pathmonitor," for this study. Implemented with a PDA, this program enables data collection that conforms to the crucial requirements: Following the shopper throughout the store, the program user visualizes the store map on a screen and can locate the shopper's position by pinpointing it. This allows to capture and time stamp the entire shopping path. When the shopper stops in front of a shelf, another screen enables the user to capture each shopper's action by clicking on different buttons. Thus, the shopping path and actions are time-stamped and automatically entered in a preformatted database.

This data collection process allows us to develop a very complete database containing 21 physical shopping behavior variables. Moreover, we apply three variables to capture purchases: total shopping amount, the number of bought products, and the average price of each bought item.

For this study, we performed shopper tracking in a medium-sized perfume store (about 600m²) and followed a total of 173 shoppers using the Pathmonitor device between November and mid-December 2006. To avoid bias, we selected shoppers on a random basis and they were not aware of the tracking process.

Results and Discussion

Determination of Physical Shopping Behavior Dimensions. We apply principal component analysis to the 21 variables. Two distinct and identifiable factors emerge. The variables loading on the first component relate to in-store behavior scope through the store (i.e., area of store covered, number of categories of products visited, number of handled products). Variables loading on the second component pertain to in-store behavior focus, or the precision with which the shopper examines each element (i.e., stop duration, interactions with products and salespeople. We called component 1 the *shopping width,* and component 2 the *shopping depth*).

Links Between Shopping Behavior and Purchases. On the basis of three multiple regression analyses, with total purchase amount, number of items bought, and mean price of items bought as dependant variables and *shopping width* and *shopping depth* as explanatory variables, we find that both shopping dimensions have significant

positive impacts on purchase amounts. The more a consumer displays wide and deep behavior, the greater the purchase amount. However, the nature of the impact is not the same for both dimensions. Instead, shopping width has a significant impact only on the number of products bought, not the average product price, whereas shopping depth has a significant impact only on average product price, not the number of products bought.

Moderating Effect of Product Category on the Link Between Shopping Behavior and Purchases. We divide the store into eight zones according to product categories. Then, we study the relationship between physical shopping behavior and purchases in each zone by performing multiple regression analyses using in-zone purchase variables as the dependent variables and in-zone shopping width and depth levels as the independent variables. The links between both factors and purchases are far from uniform across product categories. The more the product category is expensive, the more the impact of shopping

depth and the less the impact of shopping width on purchases.

Limitations and Additional Research

We observe only one type of store, a perfume store. Physical shopping behavior in a supermarket, for example, likely differs, so it would be interesting to collect data in different store formats to determine whether similar physical shopping behavior dimensions exist and if the impact of shopping dimensions on purchases changes depending on the type of store.

Finally, we claim to be inspired by the modeling stream, which implies it would be judicious to plunge deeper into more complex models that integrate shopping actions, shopping paths, and purchases and thus can forecast precise shopping behavior. References are available upon request.

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USING CUSTOMER EQUITY TO DETERMINE OPTIMAL MULTICHANNEL STRATEGIES

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SUMMARY

During the last decade, the practice of multichannel management has become a widely used strategy in multiple retailing industries. Today, about 40 percent of retailers employ three or more channels, while another 42 percent sell their merchandise through two channels (DMA 2005). In this research, we address a key question for multichannel management: What is the optimal channel mix for distributing products to existing customers? In practice, no common answer to this question seems to exist, as Amazon exclusively distributes through the Internet, whereas Barnes & Noble uses both physical stores and the Internet, and several local book stores focus on their bricks-and-mortar business, neglecting the online channel. Research-wise, the question which channels a company should employ has received only limited research attention. Some studies have been concerned with the optimal mix of communication channels to acquire new customers, while our focus is on distribution channels to retain existing customers (Verhoef and Donkers 2005; Villanueva, Yoo, and Hanssens 2008).

We use customer equity (CE) to determine optimal multichannel strategies. Specifically, our modeling framework is structured as follows: As part of their channel strategy, a company decides which channels to employ. When making a buying decision, customers progress through the stages of search, purchase, and after sales. In each decision stage, customers choose among the available channels. We distinguish between single channel and multichannel shoppers, with the latter being defined as customers that purchase from a particular company in more than one channel, and allow shopper segments' behavior to differ in each decision stage. Customers' channel choices affect CE via their influence on customer retention (and, subsequently, channel revenues) as well as costs. Research has shown that channels affect customer retention, but results are mixed: While some studies report that loyalty toward a company is higher when products or services are chosen online than offline (e.g., Shankar, Smith, and Rangaswamy 2003), other studies suggest that increased Internet usage may erode loyalty (e.g., Ansari, Mela, and Neslin 2008). Moreover, positive (Wallace, Giese, and Johnson 2004) and negative (Gensler, Dekimpe, and Skiera 2007) effects of multichannel availability on loyalty have been found.

We apply our model to a leading European travel company that distributes through physical stores and the Internet. We first measure the effect channel strategies have on customer retention by conducting a role-playing experiment that simulates the internet and store channels as offered by the company. The experimental design was a two (channel: internet or store) by three (decision stage: search, purchase, or after sales) between-subjects design (i.e., six different conditions). Each of the six conditions relates to a hypothetical role-playing exercise that asks participants to envision themselves as long-term customers of the company. We assign respondents randomly to the six scenarios. Our sample includes 895 consumers and corresponding group sample sizes between 138 and 154. The experimental results are used to determine customer retention rates and shopper segments. Information on channel revenues and costs was obtained from the travel company's internal databases. Based on this data, we calculate customer lifetime values (CLV) for each shopper segment and each channel setting. In the final step, we determine CE of optimal and probable channel choices for shopper segments of varying size. Whereas the optimal channel setting corresponds to the CLV maximizing setting for each shopper segment, each segment's most probable channel setting is given where the retention rate is highest.

Results show that, for online shoppers, customer retention is maximized when customers use the Internet across all three decision stages. For both store and multichannel shoppers, customer retention is highest when they use the Internet for search and then make purchases in the store. In the after sales stage, store shoppers' retention increases when they visit the store, whereas multichannel shoppers' prefer using the Internet. For online shoppers, the CLV maximizing channel setting is also the most probable, that is, online shoppers use the Internet in all three decision stages. The same channel setting maximizes CLV for the multichannel shoppers. Store shoppers' CLV is highest when they search online, purchase in the store, and use after sales services in the Internet. In the probable channel setting online shoppers are 36 percent more valuable than multichannel shoppers and 220 percent more valuable than store shoppers. Accordingly, CE increases with the size of the online shopper segment and the worst case scenario is a customer base with 100 percent store shoppers. The travel company can

improve CE for both multichannel and store shoppers when customers are steered to the optimal channel setting.

We have shown how companies can determine optimal multichannel strategies that maximize CE of existing customers, while accounting for different decision stages and customer heterogeneity. Our approach can be used by other companies that want to identify a CE maximizing multichannel strategy. Travel companies planning to implement our approach have to gather data on channel revenues and costs, while companies from other industries also have to collect information on channel choices and customer retention rates. If possible, such data should be longitudinal and on the level of the individual customer. This study also adds to our understanding of multiple channels' impact on customer retention. No study has yet considered the impact of multiple channels on customer retention across all three customer decision stages and for different segments. Moreover, we contribute to the literature by using an experimental design that controls for possible self-selection biases and allows for an understanding of the cause-and-effect relationship between channel choices and customer retention. References are available upon request.

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THE VIRTUAL MAVEN: A STUDY OF MARKET MAVEN BEHAVIOR IN PHYSICAL, WEB, AND VIRTUAL WORLD CHANNELS

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ABSTRACT

This paper examines maven behavior across different channels – virtual worlds, the Web and in real-life. We use a survey in Second Life and a follow-up Web survey for the same respondents. We find a strong relationship between maven behavior across the channels, particularly from physical to Web to Second Life.

INTRODUCTION

The market maven concept, first introduced by Feick and Price (1987), has attracted considerable scholarly interest. This group of consumers possesses generalized marketplace information and takes a keen interest in disseminating this to others. The existence of the market maven has received widespread reports in physical channels (i.e., real-world) (Abratt, Nel, and Nezer 1995; Clark and Goldsmith 2005; Feick and Price 1987; Goldsmith, Clark and Goldsmith 2006; Walsh, Gwinner, and Swanson 2004; Williams and Slama 1995), and on the Web (Belch, Krentler, and Willis-Flurry 2005). A notable absence from these studies is an understanding of the existence of market mavens in 3D virtual worlds – an emerging and increasingly important channel for companies and consumers to interact with one another – and the degree to which individuals who have a high market maven propensity are able to transfer this across channel setting (i.e., physical – or real-world – channels, the Web and in virtual worlds). A "virtual world" is defined as "an electronic environment that visually mimics complex physical spaces, where people can interact with each other and with virtual objects, and where people are represented by animated characters" (Bainbridge 2007). Virtual worlds are part of the swathe of available social networking technologies – which include the likes of MySpace, YouTube, Facebook, and Flickr – available to the modern maven. However, what is not yet clear is whether social networking technologies actual exacerbate maven behavior.

Market mavenism is considered as continuous in that it captures maven propensity rather than identify mavens versus non-mavens (Feick and Price 1987). Just as market maven propensity may feasibly increase or decrease over the lifetime of a consumer, contextual factors (in terms of channel) may equally play a role in determining market maven tendencies. Therefore, we question the extent to which market maven behavior might be continuous (or transferable) across channels. In addition, we assess the

degree to which the level of channel interactivity (in particular, use intensity and experience) influence market maven behavior for Web and virtual worlds, and the influence of salient personality characteristics (individualism, personal innovativeness in information technology (PIIT) and knowledge of others as mavens) on market maven behavior across physical, Web and virtual world channels. In sum, the purpose of this study is threefold:

1. To identify the impact of channel (physical, Web, and virtual world) on market maven behavior;

2. To examine the degree to which channel interactivity (user intensity and channel experience) for Web and virtual worlds influences market maven behavior; and

3. To identify the extent to which individualism, PIIT and knowledge of others as mavens influence market maven behavior across physical, Web, and virtual world channels.

This study is timely for a number of reasons. Market mavens are an important group of consumers who are adept at disseminating credible word-of-of mouth through their often extensive social networks making them a useful target for companies – particularly concerning new goods and services (Slama and Williams 1990; Sundaram, Mitra, and Webster 1998; Williams and Slama 1995). Secondly, understanding the impact of channel on maven behavior and the transferability of mavenism across channels affords an understanding of the degree to which maven behavior might be universal (i.e., not channel-dependent). Further, studies grounded in virtual worlds provide a context in which to examine the veracity of received marketing wisdom (Hemp 2006) and to question assertions concerning consumer behavior based on "real-world" actions that may have to be reconsidered within the context of virtual-worlds.

The paper is organized as follows. Firstly, we define and examine the market maven construct. Next, we provide a background to 3D virtual worlds and consider the existence of mavens in this context. The fourth section describes the methodology used in the study. Section five presents the results of the study and these are discussed in section six. In the final section, the paper rounds off with conclusions and implications for research and practice.

THE MARKET MAVEN CONCEPT

Defined by Feick and Price (1987) as "Individuals who have information about many kinds of products, places to shop, and other facets of markets, and initiate discussions with consumers and respond to requests from consumers for market information" (p. 85), the market maven construct has been a catalyst for numerous confirmatory studies. Although the market maven measure has not been without its critics (see, e.g., Voss, Stem, Jr., and Fotopoulos 2000; Williams and Slama 1995), it has proved broadly robust across different cultural settings including the U.S. (e.g., Goldsmith et al. 2006; Slama and Williams 1990), Germany (Weidmann, Walsh, and Mitchell 2001), South Africa (Abratt et al. 1995), Israel (Ruvio and Shoham 2007), South Korea (Chelminski and Coulter 2007) and others, as well as for studies of Web mavens (Belch et al. 2005).

The involvement or interest demonstrated by the market maven is not restricted to a particular product category but rather is linked to general marketplace and shopping interest. As such, market mavens are considered to be distinct to other influencers such as opinion leaders, innovators and early adopters as their activities encompass general market knowledge and activities rather than relating to a particular product category (Feick and Price 1987). This is an important distinction as innovators and opinion leaders have limited function for "broad-based retailers" as researchers have generally been unable to generalize their findings away from specific products or product categories (Abratt et al. 1995).

Influencers use their networks and communities to spread word-of-mouth to reach greater numbers of social contacts than a typical consumer. In the case of mavens, their personal influence is largely based on altruistic motives – for the pleasure of sharing information and to reinforce their image within their networks and community (Sundaram et al. 1998) – and spans multiple product categories making them a useful target for companies (Slama and Williams 1990). For example, the social integration of the maven affords them their influence, with individuals who know them being more likely to act on their information (Williams and Slama 1995) as they tend to have greater confidence in word-of-mouth than commercial sources (such as advertising) due to perceived credibility (Keller and Berry 2003). Word-of-mouth can also influence product choice; consequently, mavens can be particularly helpful to other consumers in advertising saturated markets by becoming "competent information providers and advisors" (Walsh et al. 2004, p. 100).

Research examining market mavens is pervasive in the marketing literature. For example, studies have considered the demographic profile (Abratt et al. 1995), personality characteristics (Geissler and Edison 2005; Ruvio and Shoham 2007), purchasing alternatives and criteria (Williams and Slama 1995), and motivations for mavenism (Chelminski and Coulter 2007; Clark and Goldsmith 2005; Walsh et al. 2004). A notable absence from this list is an understanding of the degree to which high market maven tendencies are constant or dynamic across setting and context. This would seem important as it provides an insight as to the usefulness of mavens across channels as opposed to the individuals whose maven behavior might be anchored, or fixed, within a single channel. In support, market mavenism is thought to be continuous in that it captures market maven propensity in a general sense rather than to identify mavens versus non-mavens (Feick and Price 1987). In this sense, just as market maven propensity may feasibly change over the lifetime of a consumer, contextual channel factors may equally play a role in determining maven tendencies.

No study could be identified that considers the interaction between market maven behaviors across multiple channel settings. However, in their study of Internet teen mavens, Belch et al. (2005) assert that teen-mavens (who take particular pleasure in surfing the Internet), relative to others online, can be relied upon to provide useful information from virtual marketplaces and in so doing influence the family decision-making process to a greater extent than non-market mavens. Walsh and Mitchell (2001, p. 102) reinforce the importance of marketers identifying "e-mavens."

Although the above does not afford us an understanding of the interaction or transferability of maven behavior in different channel settings, it does suggest that mavens can develop, display, and possibly even "transfer" such behavior in situations other than a physical, or "real-world," context. For example, teen Web mavens have been identified. Therefore, it may be plausible that an individual could exhibit high market maven propensity across multiple channels simultaneously. In the following section we consider the existence of market mavens in 3D virtual worlds.

MARKET MAVENISM AND VIRTUAL WORLDS

Virtual worlds are increasingly becoming an important channel for companies to communicate with current and potential customers. These "fast-growing Internet-based simulated environments where users cannot only interact with each other, but with products and services provided by businesses and individuals" (Lui, Piccoli, and Ives 2007, p. 77) provide a platform for interactivity that can positively influence product knowledge, attitudes toward brands, telepresence, and purchase intention (Li, Daugherty, and Biocca 2002; Suh and Lee 2005). While the Web introduced a new highly interactive medium that altered the parameters of mass and personal communica-

tion (Hoffman and Novak 1996), virtual worlds stand to make an equally important impact on consumers' lives and shopping behavior. As Drew Stein, CEO of Infinite Vision Media (the interactive marketing agency that helped develop Dell Island in Second Life), notes: "as people get more familiar with 3D experiences, the flat Web page is going to seem like a thing of the past" (reported in Lui et al. 2007). The emergence of these virtual worlds encourages marketers to reflect on the body of knowledge amassed on customers based on their real-world and Internet-based shopping behavior and to question some of these tenets or widely-held axioms.

As Fortin (2000) notes, "A common question that generally arises when a new technology is introduced is: How does this affect what we already know about a phenomenon?" (p. 524). Virtual worlds – such as Second Life and World of Warcraft – capitalize on an individual's desire to inhabit alternative personalities and to occupy an anonymous "alternative self" in a virtual environment, thus potentially changing one's identity and even behavior. Avatars acting as proxies for the real-world-self offer the possibility for their human controller to explore ". . . hidden aspects of their identities" that ". . . differ substantially from one another and from the creator's public self" (Hemp 2006, p. 50). As a consequence, consumers may behave differently in such environments than they would in real-world interactions and encounters thus providing a group of potentially new, or at least different, customers and marketing opportunities.

In the case of Second Life – a 3D virtual world created by its residents (one of the channel contexts examined in the present study) – approximately 11 million residents (as of December 2007) engage in leisure pursuits and trade using the in-world unit-of-trade (the Linden Dollar or L$), which can be converted to U.S. dollars via online currency exchanges. Second Life offers an environment in which to examine consumers' behavior in a virtual context and thereby provide implications for the generalizability of marketing concepts (Hemp 2006). Hence, many of our assertions concerning consumer behavior based on "real-world" actions may have to be reconsidered within the context of virtual-worlds.

In the case of market mavens, individuals collate and disseminate information predicated on the assumption that they will use this in social exchanges (Feick and Price 1987). Further, market mavenism is "a role individuals can adopt" (Feick and Price 1987, p. 85), and through adopting multiple roles, individuals can increase their perceived power in society as they become more useful in their interactions with others (Sieber 1974). Feick and Price (1987) suggest that this compels certain individuals to disseminate information in the expectation that they will be the recipient of "rewards" (i.e., that they will be the recipients of informed information in return on topics

about which the recipient is knowledgeable). Therefore, virtual worlds such as Second Life offer a platform ideally suited to such individuals through facilitating social interaction via avatars and the dissemination of information, including product and service information. As Hemp (2006, p. 49) notes: "Given the potential, marketers need to acquaint themselves with the phenomenon of avatars and to consider whether it requires a rethinking of marketing messages and channels." As mavens tend to have greater affinity for new technology there is also the likelihood that they would have greater adoption of virtual worlds than non-mavens (Geissler and Edison 2005).

METHOD

The study is based on a cross-sectional, convenience sample using two self-report surveys. In comparison to the general practice of using a specific product category or categories in maven studies, the present study examined general market maven behavior across three marketing channels: two virtual channels (Second Life and the Web) and real-life (i.e., physical channel).

In order to be consistent with previous research examining market mavens, only very minor modifications were made to Feick and Prices' (1987) original measure to reflect the different channels under examination. The market maven scale measures an individual's tendency to disseminate useful market information across a variety of products and brands. A unidimensional, seven-point, six-item, summated scale, the nomological validity of the market maven measure has been supported in comparison to the broadly conceptually similar measures of opinion leadership and innovators/early adopters (Feick and Price 1987; Ruvio and Shoham 2007). In addition to capturing market maven behavior, data were captured for the level of user interaction and involvement with both Second Life and Web in terms of user knowledge (i.e., the length of time using each medium) and intensity of usage (measured via time spent in each medium) as well as respondent demographics (age and gender). Finally, three personality indicators were employed, which included consumers' identification of others as market mavens (Feick and Price 1987), individualism (Chelminski and Coulter 2007, based on Singelis 1994 and Triandis and Gelfand 1998) and personal innovativeness in information technology (PIIT) (Agarwal and Prasad 1998). These measures were employed in order to better understand the psychological profile of market mavens. No changes were made to the wording of these items.

Two surveys were administered. The first survey was administered by means of two automated avatars or "survey bots" operating in Second Life for 10 days at busy traffic points (n = 240). The data were transferred directly to a database. Respondents to the Second Life survey were

then invited to complete an online survey (via QuestionPro.com) measuring their market maven behavior on the Web and in real-life (n = 102). The second survey was sent only to individuals who had completed the Second Life survey to ensure a matched sample of respondents after four weeks. A monetary incentive (in Linden Dollars) was provided to respondents for each completed survey. The number of completed surveys (in 10 days) and associated reliability statistics are provided in Table 1. The results compare favorably to Feick and Prices' (1987) Cronbach's Alpha score of .82 (compared to .84 in the pilot) and sample mean (25.6). "Knowledge of others as mavens" (cf., Feick and Price 1987), "user intensity" and "user knowledge" were measures with only one item and, as such, composite reliability is not calculated.

The demographic profile of respondents to each survey (see Table 2) suggests gender profiles were split broadly equally between males and females, although slightly more females replied to the second survey. In terms of age, data on respondents for all age categories (18–65+) were captured. Respondents' age profiles were skewed toward the 18–34 group; the age profile of the second survey, however, was spread slightly more evenly.

To test for response bias, we compared early and late responses. No significant differences were found indicating that non-response is unlikely to be a problem (Armstrong and Overton 1977).

In order to model and test our assumptions and to assess the dimensionality the scales, we used partial least squares path modeling (PLS-PM) with reflective indicators (Centroid Weighting Scheme) in Smart-PLS (Ringle et al. 2005). PLS has the advantage of being effective on small samples, and does not require distributional assumptions of the sample. A power analysis using G*Power 3.0 ($\alpha = 0.05$, $\beta = 0.20$) suggested that the sample sizes were adequate for the separate models (Faul et al. 2008). The PLS models and tests are shown in Tables 3 to 10.

RESULTS

We present the results in two sections. First, we consider the interaction between the three channels exam-

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TABLE 1
Composite Reliability of Measures and Related Statistics

Market Mavenism byChannel	N =	Composite Reliability	Item to Total Correlations		S.D.	Mean
SECOND LIFE	240	.812	.681	.864	7.24	24.81
REAL LIFE	102	.933	.681	.864	7.24	26.04
INTERNET	102	.920	.697	.826	7.79	26.56
INDIVIDUALISM	N/A	.931	.766	.838	7.71	30.77
PIIT	N/A	.669	.066	.642	3.95	18.02

TABLE 2
Respondents' Age and Gender Profile

	SECOND LIFE	REAL LIFE & INTERNET
GENDER		
Male	125 (52.1%)	47 (46.1%)
Female	115 (47.9%)	55 (53.9%)
AGE		
18–24	98 (40.8%)	28 (27.5%)
23–34	66 (27.5%)	36 (35.3%)
35–44	43 (17.9%)	20 (19.6%)
45–54	23 (9.6%)	13 (12.7%)
55–6	46 (2.5%)	2 (2%)
66+	4 (1.7%)	3 (2.9%)

ined and market maven behavior. Second, we consider the impact of channel interactivity and personality indicators on market maven behavior in the three channels.

Market Maven Behavior Across Channel

Tables 3 and 4 use PLS to model and test the relationships between maven behavior in the three channels. All items load significantly on their factors and the factors display acceptable levels of reliability (ρc, Cronbach's $\alpha > 0.7$, cf., Nunnally 1978) and validity (AVE > 0.5, cf., Fornell and Larcker 1981). Discriminant validity is also demonstrated; the square-root of AVE is larger than the intercorrelations in Table 4. Furthermore, the intercorrelation between any pair of constructs does not exceed 0.9, and thus the multicollinearity problem can be ignored (Hair et al. 1998). The level of R^2 is strong for Web mavens, but appears only moderate for Second Life (Ringle et al. 2008).

The results indicate a strong association between the channels examined for market maven behavior, particularly from real-life to the Web ($p < 0.01$) and from the Web to SL ($p < 0.001$). Hence, market mavenism would appear to be a generally constant phenomenon across channels. As such, a maven in real-life is more likely display maven tendencies in other channels than a non-maven. The implications of this finding are further discussed below.

Determinants of Mavenism in Three Different Channels

Tables 5 to 10 use PLS to model and test the determinants of maven behavior in the three channels. In all, we have three models. All items load significantly on their factors with one exception – the third PIIT item did not load significantly in models III and IV and was omitted from further analysis. For all three models (see Tables 5, 6, and 7), the factors display acceptable levels of reliabil-

| | **TABLE 3** | | |
| | **PLS Model I – Maven Behavior Across Channels** | | |
	REALMAVEN (loadings)	**WEBMAVEN (loadings)**	**SLMAVEN (loadings)**
REALMAVEN1	0.789***		
REALMAVEN2	0.889***		
REALMAVEN3	0.879***		
REALMAVEN4	0.895***		
REALMAVEN5	0.906***		
REALMAVEN6	0.828***		
WEBMAVEN1		0.890***	
WEBMAVEN2		0.874***	
WEBMAVEN3		0.789***	
WEBMAVEN4		0.857***	
WEBMAVEN5		0.875***	
WEBMAVEN6		0.784***	
SLMAVEN1			0.752***
SLMAVEN2			0.771***
SLMAVEN3			0.595***
SLMAVEN4			0.712***
SLMAVEN5			0.762***
SLMAVEN6			0.713***
REALMAVEN → WEBMAVEN			0.746***
REALMAVEN → SLMAVEN			0.153†
WEBMAVEN → SLMAVEN			0.322**
AVE	0.749	0.716	0.518
Cronbach's α	0.933	0.920	0.812
ρc	0.947	0.938	0.865
R^2 (WEBMAVEN)			0.557
R^2 (SLMAVEN)			0.200

Note: Significance levels denoted by † (10%), * (5%), ** (1%) and *** (0.1%).

TABLE 4
Discriminant Validity of PLS Model I (Intercorrelations and Square-Root of AVE)

	REALMAV	WEBMAV	SLMAV
REALMAV	0.865		
WEBMAV	0.746	0.846	
SLMAV	0.393	0.435	0.901

ity (ρc, Cronbach's α > 0.7) and validity (AVE > 0.5). Discriminant validity is also demonstrated; the square-root of AVE is larger than the intercorrelations in Tables 8, 9, and 10. Again there is no evidence of the multicollinearity problem, since none of the intercorrelations exceed 0.9. Overall, the level of R^2 in the models is moderate to strong (Ringle et al. 2008), ranging from 0.334 for real-life, to 0.4 for Second Life and 0.434 for the Web.

Looking across the results of the three PLS models, we see that individualism (IND) and the influence of other mavens (INLFMAVEN) are determinants of mavenism for all channels, and these effects are stronger in real-life ($p < 0.001$ for both constructs) than on the Web or in SL ($p < 0.01$ for all constructs). This implies that market mavens are highly individualistic regardless of channel, and rely strongly on their network of other mavens for market information.

TABLE 5
PLS Model II – Maven Behavior in Real-Life

	IND (loadings)	INFLMAVEN (loadings)	REALMAVEN (loadings)
IND1	0.881***		
IND2	0.863***		
IND3	0.839***		
IND4	0.868***		
IND5	0.893***		
IND6	0.831***		
INFLMAV1		0.946***	
INFLMAV2		0.995***	
KNOWMAV		0.931***	
REALMAVEN1			0.779***
REALMAVEN2			0.885***
REALMAVEN3			0.876***
REALMAVEN4			0.898***
REALMAVEN5			0.908***
REALMAVEN6			0.842***
IND → REALMAVEN			0.497***
INFLMAVEN → REALMAVEN			0.269***
AVE	0.744	0.891	0.750
Cronbach's α	0.931	0.941	0.933
ρc	0.946	0.961	0.947
R²0.334			

Note: Significance Levels Denoted by † (10%), * (5%), ** (1%), & *** (0.1%).

TABLE 6
PLS Model III – Maven Behavior on the Web

	IND (loadings)	INFLMAVEN (loadings)	PIIT (loadings)	WEBMAVEN (loadings)
IND1	0.882***			
IND2	0.854***			
IND3	0.841***			
IND4	0.872***			
IND5	0.899***			
IND6	0.826***			
INFLMAV1		0.941***		
INFLMAV2		0.947***		
KNOWMAV		0.938***		
PIIT1			0.899***	
PIIT2			0.822***	
PIIT3			0.050[a]	
PIIT4			0.901***	
WEBMAVEN1				0.886***
WEBMAVEN2				0.875***
WEBMAVEN3				0.775***
WEBMAVEN4				0.856***
WEBMAVEN5				0.882***
WEBMAVEN6				0.795***
IND → WEBMAVEN				0.257**
INFLMAVEN → WEBMAVEN				0.193**
PIIT → WEBMAVEN				0.321**
WEBEX → WEBMAVEN				0.048
WEBINT → WEBMAVEN				0.106
AVE	0.744	0.888	0.765	0.716
Cronbach's α	0.931	0.941	0.846	0.920
ρc	0.946	0.959	0.907	0.938
R^2				0.434

Note: Significance levels denoted by† (10%), * (5%), ** (1%) & *** (0.1%).
[a] item omitted from structural model

Another personality construct that we included in our assessment of the two technology channels, perceived innovativeness in information technology (PIIT), proved significant in both contexts. In particular, PIIT was more significant for determining maven behavior on the Web ($p < 0.01$) than in Second Life ($p < 0.05$). Thus, innovative users who are more likely to adopt a technology, such as the Web or SL, are more likely to use it for market maven purposes.

Finally, we examine the impact of the individual's interaction with the channel (in terms of experience and intensity of use) on maven behavior. For this, we modeled the impact of Web experience (WEBEX) and Web use intensity (WEBINT) on Web maven behavior and the relationship between both Web and SL experience (SLEX) and use intensity (SLINT) on SL maven behavior. The results for Web mavens were not significant, suggesting that use experience and intensity did not significantly encourage users to become mavens. However, the results for SL mavens suggest very significant relationships between Web and SL use intensity and maven behavior ($p < 0.001$). This appears to suggest that those frequently engaged in online social networking will use the virtual channel for market maven activity.

TABLE 7
PLS Model IV – Maven Behavior in Second Life

	IND (loadings)	INFLMAVEN (loadings)	PIIT (loadings)	SLMAVEN (loadings)
IND1	0.880***			
IND2	0.843***			
IND3	0.841***			
IND4	0.876***			
IND5	0.896***			
IND6	0.838***			
INFLMAV1		0.942***		
INFLMAV2		0.951***		
KNOWMAV		0.935***		
PIIT1			0.923***	
PIIT2			0.756***	
PIIT3			0.082[a]	
PIIT4			0.914***	
SLMAVEN1				0.720***
SLMAVEN2				0.749***
SLMAVEN3				0.618***
SLMAVEN4				0.697***
SLMAVEN5				0.715***
SLMAVEN6				0.776***
IND → SLMAVEN				0.300**
INFLMAVEN → SLMAVEN				0.210**
PIIT → SLMAVEN				0.167*
SLEX → SLMAVEN				0.111†
SLINT → SLMAVEN				0.441***
WEBEX → SLMAVEN				0.042
WEBINT → SLMAVEN				0.341***
AVE	0.744	0.889	0.753	0.510
Cronbach's α	0.931	0.941	0.846	0.812
ρc	0.946	0.960	0.901	0.861
R^2				0.400

Note: Significance levels denoted by †(10%), *(5%), **(1%) & ***(0.1%).
[a] item omitted from structural model

DISCUSSION

Based on our findings, market mavenism would appear to be a generally constant phenomenon across channels. As such, a maven in real-life is more likely display maven tendencies in other channels than a non-maven. As a consequence, market maven behavior might not only span general product categories and market information but also the channel itself (i.e., continuity of maven behavior). Therefore, the personal influence that mavens exert (largely based on altruistic motives for the pleasure of sharing information and to reinforce their

TABLE 8
Discriminant Validity for Model II

	IND	INFLMAV	REALMAV
IND	0.863		
INFLMAV	0.056	0.944	
REALMAV	0.512	0.297	0.866

Note: Intercorrelations shown with AVE on diagonal.

TABLE 9
Discriminant Validity for Model III

	IND	INFLMAV	PIIT	WEBMAV
IND		0.863		
INFLMAV	0.063	0.942		
PIIT	0.658	0.143	0.875	
WEBMAV	0.543	0.261	0.583	0.846

Note: Intercorrelations shown with AVE on diagonal.

TABLE 10
Discriminant Validity for Model IV

	IND	INFLMAV	PIIT	SLMAVEN
IND		0.863		
INFLMAV	0.055	0.943		
PIIT	0.663	0.134	0.868	
SLMAVEN	0.447	0.183	0.386	0.714

Note: Intercorrelations shown with AVE on diagonal.

perceived image) through their networks and communities in physical channels appears transferable to some extent to the Web and virtual worlds. In the same way that market mavenism is thought to be continuous, as it captures market maven propensity (rather than to identify mavens versus non-mavens) (Feick and Price 1987), this propensity may remain constant to some extent across channel context. Alternatively, an individual who perceives themselves as having low market mavenism in physical channels is less likely to change this behavior on the Web or in virtual worlds.

Another interesting finding is that use intensity – in Second Life and on the Web – both positively influence virtual world market maven behavior. Given the nature of the channel (rich in information sources for goods and services) and maven behavior (individuals with a general interest across product categories and markets) there would seem to be an intuitive and plausible connection between the two.

The findings indicate that individualism is positively associated with market maven behavior across the three channels. Individualism has its roots in personality traits attributed to the cultural differences between countries and refers to the uniqueness of each individual and concerns related to their own well being in contrast to collectivistic individuals (Triandis and Gelfand 1998). Individualists tend to maintain largely superficial relationships, instead placing greater emphasis on disseminating and receiving market information (Markus and Kitayama 1991). As Chelminski and Coulter (2007) note, individualists are more inclined to be confident in their decision-making and proactive in disseminating their opinions and

ideas. Therefore, the findings support the general profile of the market maven as an individualist.

Personal innovativeness in information technology was found to be positively associated with the Web and Second Life. PIIT is expressed as the level of desire of the individual to trial new technology (Agarwal and Prasad 1998). Hence, individuals scoring highly on PIIT are more likely to adopt new technology (Agarwal and Karahanna 2000; Wolfradt and Doll 2001). Given the level of user intensity associated with Second Life and the Web for market mavens, it seems logical that they have a greater affinity for technology adoption.

Finally, we examined the extent to which recognition, or knowledge, of others as mavens was associated with channel, finding a positive association between "knowledge of others as mavens" and all channels examined. This is important as consumers' identification of others as market mavens help to support the existence of the market maven (Feick and Price 1987). As noted, mavens take pleasure in product and market information (Sundaram et al. 1998), so it is hardly surprising then that their network of contacts brings them into close proximity with other mavens. Channel contexts such as virtual worlds and the Internet, which allow the dissemination of information in a relatively effortless manner, would seem to provide ideal channels for market mavens to interact and form networks of like-minded individuals.

CONCLUSIONS

Virtual worlds are fast becoming an important channel for companies to communicate and interact with current and potential customers. Virtual worlds afford companies the opportunity to simulate customers' experiences in physical stores as well enhancing product knowledge, customer attitudes, and influencing purchase intentions (Lui, Piccoli, and Ives 2007). The purpose of the study reported in this paper was to identify the impact of channel (physical, Web, and the virtual world Second Life) on market maven behavior, thus questioning the extent to which market mavenism is constant or varies across marketing channels. We find that market maven behavior may be transferable across channel with high scoring market mavens generally retaining this behavior in different channel settings. We find that maven behavior in virtual worlds is influenced by user intensity associated with the channel and the Web. In addition, personality

factors (individualism, PIIT, and knowledge of others as mavens) positively impacted on market maven behavior. As such, this study represents one of the first attempts to understand how actual consumer behavior might differ in virtual channels such as Second Life, to physical and Web channels and, by so doing, also inform our understanding of market maven behavior.

The present study offers a number of notable implications for theory and practice. Market maven behavior would seem to transfer across channels. As a consequence, mavens that have generalized market knowledge concerning physical retailers can also possess generalized knowledge for the Web marketplace and consequently for virtual worlds such as Second Life. Their higher levels of usage intensity for virtual mediums reinforce their generalized product and marketplace knowledge. This would seem important as "mavens appear to be good targets for general messages about marketing mix changes, messages spanning multiple product categories and messages concerning new product introduction" (Abratt et al. 1995, p. 53). Therefore, the comprehension that a market maven might display such behavior across channel context reinforces the view that mavens are fairly universal in their behavior. Our findings also assert that the market maven concept has a ready transferability and application to social networking technology enquiries, in this case virtual worlds. This is particularly the case for innovative and intensive technology users, who will typically have higher maven tendencies.

Future confirmatory studies are needed to support the main findings in the present study. Further, it would be desirable to have a larger sample that can be split for analysis of the separate models. This study is the pilot for a much larger study that will run in 2008 and attempt to resolve these issues (target: n > 1000). Beyond this, there are a number of other areas that merit future enquiry. Companies have increasingly had to compete against a multi-channel market background that has seen sales migrate to a greater extent to online transactions. Virtual worlds have added a new channel to this business model. This provides greater channel choice to consumers and merits further study chiefly in terms of the channel decisions made by consumers and also marketers. Understanding the transferability of concepts (such as market mavenism) and the generalizability of findings to virtual worlds will help us to better understand this increasingly important medium.

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EXAMINING NONLINEARITY IN SATISFACTION-LOYALTY-BEHAVIORAL INTENTIONS RELATIONSHIPS

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SUMMARY

Extant research has widely investigated linear functional forms in satisfaction and loyalty models. Though complex nonlinear nature of satisfaction loyalty link is suggested by several researchers, few attempts have been made to empirically examine nonlinearity (Mittal et al. 1998; Anderson and Mittal 2000). Moreover, researchers have used divergent functional forms to model nonlinearity and their findings are often inconclusive (e.g., Anderson and Sullivan 1993; Oliva et al. 1992; Agustin and Singh 2005). For example, looking at the results of existing studies, it cannot be conclusively said whether satisfaction has diminishing incremental effect on loyalty or it exhibits increasing returns. This can be especially frustrating for practicing managers seeking guidance from empirical academic research.

In this study we use nonlinear form to describe the relationship between satisfaction, attitudinal loyalty, purchase loyalty and customer behavioral intentions such as willingness to pay more and external and internal complaining responses in the context of business-to-consumer ecommerce. In our study we also make a distinction between attitudinal and purchase loyalty (Chaudhuri and Holbrook 2001; Dick and Basu 1994) and test the mediating role of attitudinal loyalty in the relationship between satisfaction and purchase loyalty, willingness to pay more and internal and external complaining responses.

We used data collected from 202 online shoppers in India. In order to test latent quadratic effects, we chose the Marsh et al. (2004) unconstrained approach, as it offers important advantages such as smaller bias, robustness and relative ease in implementation. In comparison to other methods such as single indicator approach of Ping (1995), Marsh et al. (2004) technique is closer to classical model by Kenny and Judd (1984).

We find partial support for nonlinear effects in the relationship. Results support nonlinearity in the case of attitudinal loyalty to purchase loyalty and willingness to pay more links. Purchase loyalty and willingness to pay more have diminishing sensitivity toward attitudinal loyalty. Results also present evidence about the mediating role of attitudinal loyalty in the relationship between satisfaction, purchase loyalty, willingness to pay more, and internal complaining responses. Our study establishes the superiority of fully mediated model, in which satisfaction affects purchase loyalty and other behavioral intentions through attitudinal loyalty, over partially mediated model.

Our results challenge previous findings (e.g., Jones and Sasser 1995; Oliva et al. 1992) about increasing returns of satisfaction. In our study diminishing sensitivity was supported in the case of two dependent variable purchase loyalty and willingness to pay more. At the same time absence of positive coefficients for remaining quadratic terms clearly goes against increasing returns hypotheses in a satisfaction loyalty domain. The implication of these results can be important as they suggest that managers cannot afford to spend disproportionate resources in satisfaction drivers with the belief that satisfaction displays increasing returns. Although they should strive to improve service performance continuously, they should be equally careful about resources spent as beyond a point improvement in customer rating in the satisfaction measuring scale would not result in equal returns in terms of purchase loyalty and customers' willingness to pay more.

To summarize our contributions, we add to existing literature by detangling the complex relationships between satisfaction, attitudinal, and purchase loyalty and behavioral intentions such as willingness to pay more and external and internal complaining responses. In particular, ours is the first study to examine the nonlinear effects of attitudinal loyalty on multiple behavioral intentions constructs. We also provide empirical support for the mediating role of attitudinal loyalty in relationships between satisfaction, purchase loyalty and behavioral intentions. References are available upon request.

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THE VALUE OF VIRTUAL COMMUNITIES: AN EMPIRICAL TEST OF TWO MODELS

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SUMMARY

Although recent research shows that a firm's efforts in virtual communities can create value for the firm (e.g., Porter and Donthu 2008), in this study, we explore not only the role of a firm's efforts but also the role of member-generated information in driving value in virtual communities. Specifically, we explore the value of virtual communities in two types of virtual communities: firm-sponsored and customer-initiated. Customer-initiated communities are organized by individual members, whereas firm-sponsored communities are sponsored by a single firm and often embedded on that firm's website.

Two objectives motivate our research. Our first objective is to understand the sources of value in both firm-sponsored and customer initiated virtual communities. We hypothesize that member-generated information is a significant source of value, but also posit that a sponsor's effort to manage its community is an additional a source of value that is available only in firm-sponsored virtual communities. Further, in both types of virtual community, we hypothesize that trust facilitates value to the firm, where value is measured as a customer's willingness to share personal information and spread positive word-of-mouth, as well as a customer's loyalty to the firm's brand. Our second objective is to understand the relative significance of member-generated information, versus a community sponsor's efforts, as drivers of value in firm-sponsored virtual communities.

Although we expect trust to facilitate value in both customer-initiated and firm-sponsored virtual communities, we posit that a different set of processes serve as the base of trust (Doney and Cannon 1997) in each type of community. In customer-initiated virtual communities, we posit that trust is based on the transference process, where an individual relies on member-generated information to determine whether to trust a firm. In firm-sponsored communities, it is also possible that member-generated information influences a member's trust, via the transference process described above. In fact, member-generated information is likely to play a significant role in building trust when a member is in the midst of a consumption-related decision-making process (e.g., deciding whether to make a future purchase from the sponsoring firm). However, we also posit that direct experience with

a firm, acting as a virtual community sponsor, could produce trust via intentionality and capability processes. Thus, in firm-sponsored virtual communities, we contend that trust emerges not only via the transference process (triggered by member-generated information, during the midst of a decision-making process), but also via intentionality and capability processes (signaled by a sponsor's efforts to manage the virtual community).

Method and Findings

We conducted an online survey of 318 members of customer-initiated virtual communities and 171 members of firm-sponsored virtual communities (response rate was 16%). All survey items were based on measures from existing literature, with the exception of the member-generated information variables, for which we followed prescribed methods for scale development. The results of a confirmatory factor analysis model were strong (e.g., CFI = 0.96), Cronbach's alpha was .70 or higher for all constructs and, via testing, we found no evidence of common method bias in our data.

We used two separate structural equation models to test our hypotheses among members of (1) customer-initiated virtual communities and (2) members of firm-sponsored virtual communities. The central difference between the former and the latter models is that, based on our hypotheses, the efforts of the sponsoring firm play a role in influencing consumer trust in firm-sponsored virtual communities. This is not the case in customer-initiated virtual communities, since there is no element of firm participation in such communities. We find strong support for our hypotheses in both models, given overall fit statistics (e.g., CFI = .98 for both models) and the significance of parameter estimates.

We find that both types of communities offer value to firms, although the drivers of value differ by community-type. Further, in firm-sponsored communities, sponsor efforts have a stronger impact on value creation than member-generated information. From a theoretical perspective, our findings reveal new insights regarding the trust formation process.

Marketers often fear that uncontrolled consumer conversations could cause more harm than good, but we find

that member-generated information could have positive effects on customer trust in both firm-sponsored and customer-initiated virtual communities. However, in firm-sponsored virtual communities, both a firm's efforts and member-generated information facilitate trust via a combination of transference, intentionality, and capability processes. In fact, the multi-faceted trust process in firm-sponsored virtual communities creates greater value than the transference process creates alone, in customer-initiated virtual communities.

From a practical perspective, our findings underscore the value of virtual communities, whether such communities are customer-initiated or firm-sponsored. Yet, our findings also suggest that firm-sponsored virtual communities offer the opportunity for greater value creation than customer-initiated virtual communities, despite the higher investment required in driving a multi-faceted trust-building strategy that involves active sponsorship of a virtual community.

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IMPACT OF SALESPERSON MACRO-ADAPTIVE SELLING STRATEGY ON JOB PERFORMANCE AND SATISFACTION

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SUMMARY

Drawing on the tenants of the adaptive strategy paradigm and configuration theory in the management literature, a model introducing the concept of salesperson macro-adaptive selling strategy, as a viable personal success stratagem, is introduced and investigated empirically within the context of the financial services industry. Using a widely accepted management theory typology – prospector, defender, analyzer – the model places macro-adaptive selling strategy in the sales performance literature as a directional component influencing salesperson performance, as well as job invo1vement, work-related effort, and job satisfaction. Findings indicate significant direct and indirect effects for salesperson macro-adaptive selling strategy on sales performance and work-related outcomes. References are available upon request.

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PERCEIVED ORGANIZATIONAL COMMITMENT'S RELATIONSHIP WITH SALESPERSON ORGANIZIATIONAL COMMITMENT

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SUMMARY

The primary purpose of the study is to simultaneously examine organizational commitment and its antecedents within an integrated model. A total of twelve hypotheses are formed. Of the twelve hypotheses formed and tested, a total of ten were supported. Perceived organizational support was used to predict role conflict, role ambiguity, work-family conflict, job satisfaction and affective organizational support. Findings from the study suggest that perceived organizational support has a strong impact on all five of the examined constructs.

Hypotheses

H1: Increases in perceived organizational support will lead to a significant decrease in role conflict.

H2: Increases in perceived organizational support will lead to a significant decrease in role ambiguity.

H3: Increases in perceived organizational support will lead to a significant decrease in work-family conflict.

H4: Increases in role conflict will lead to a significant increase in emotional exhaustion.

H5: Increases in work-family conflict will lead to a significant increase in emotional exhaustion.

H6: Increases in role conflict will lead to a significant decrease in job satisfaction.

H7: Increases in role ambiguity will lead to a significant decrease in job satisfaction.

H8: Increases in perceived organizational support will lead to a significant increase in job satisfaction.

H9: Increases in work-family conflict will lead to a significant decrease in job satisfaction.

H10: Increases in perceived organizational support will lead to a significant increase in affective organizational commitment.

H11: Increase in emotional exhaustion will lead to a significant decrease in affective organizational commitment.

H12: Increase in job satisfaction will lead to a significant increase in affective organizational commitment.

Methodology

The surveys were distributed to 200 outside salespeople of a national advertising firm. Once the completed surveys were returned, listwise deletion was used to remove missing data points. A total of 139 usable surveys were obtained. The effective response rate was 69.5 percent. All constructs in this study were assessed by using items from established scales. All items met the Cronbach's alpha requirements. Data was analyzed using LISREL 8.54. The resulting measurement model had 34 items.

Implications

This study has several major implications. First, this study finds that perceived organizational support is a strong predictor of role conflict, role ambiguity, work-family conflict, job satisfaction and affective organizational commitment. In other words, if companies can increase their sales force's perceptions of the firm's support: (1) firms will find their employees more committed to the organization and more satisfied with their job, which will have a negative impact on turnover and a positive impact on performance; (2) their employees will have less conflict between their work life and family life which will reduce strain for the salesperson; and (3) firms will find their employees experiencing less role stress which means they will have a better understanding of the tasks that they must perform and will experience less conflict with demands of the job.

For academic researchers in sales management, the impact of perceived organizational support has not received the attention it deserves. With perceived organizational support being a strong predictor of five heavily researched constructs in the literature, additional understanding of perceived organizational support is needed.

Further research using this construct could drastically improve our understanding of how to increase salesperson performance and reduce salesperson turnover. References are available upon request.

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UNDERSTANDING AND ASSESSING THE POWER OF THE SALES ORGANIZATION IN ACCELERATING CUSTOMERS' PAYMENT DELAY

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SUMMARY

In competitive and financially constrained environments, companies are eager to generate and quickly collect revenues. Among the most pressing issues that chief financial officers face, reducing days' sales outstanding (DSO), or the average number of days a company takes to collect revenue from business customers after a sale, represents a top priority (Collins 2003). Uncollected invoices degrade companies' cash flow positions and reduce their financial management options (Bragg 2005). Research reports that companies with annual sales of $1 billion could save an average of $6.2 million per year in borrowing costs just by reducing the time customers take to pay their bills by three days (Voss 1994). In this context, DSO represents a critical accounting and financial issue, not only because it indicates how quickly a company can turn sales into cash but also because its proper management facilitates sound resource allocations and opens windows for new investments (Bragg 2005). Thus, efficient accounts receivable management – that is, money owed by customers to their suppliers in exchange for goods or services bought or delivered – is of key importance to secure companies' cash flows and working capital, help them avoid bankruptcy (Barth, Cram, & Nelson 2001), and create value for shareholders (Deloof 2003).

Salespeople enjoy an important role in developing and securing companies' business and revenues (Zoltners, Sinha, and Lorimer 2006). In line with efforts to collect outstanding receivables properly, the sales force's responsibility in managing financial aspects of customers' accounts has increased (Colletti and Fiss 2006). The rationale behind this shift is that a business-to-business sale must be viewed as an ongoing process, from product selling and delivery to final payment collection (Cheng and Pike 2003). From an accounting perspective, the accounts receivable cycle begins when a company initiates an invoice for a sale and ends with its payment (Bragg 2005). One of the major causes of payment delays involves invoices' clarity and correctness (Emery and Nayar 1998; Bragg 2005). Hence, the sales force's role must exceed a traditional transactional selling approach and embrace a more relational one (Corcoran, Petersen, Baitch, and Barrett 1995; Guenzi, Pardo, and Georges 2007), which helps ensure customers' knowledge about billing requirements during the sales process (Copeland and Khoury 1980).

Regardless of the importance of such a financial responsibility for salespeople and the pressing expectations to better link marketing actions to firms' cash flows and value (Lehmann 2004; Rust et al. 2004; Rao and Bharadwaj 2008), research on the sales organization's contribution to the collection and acceleration of firms' liquidity remains scarce. To the best of our knowledge, the potential influence of salespeople's behavior on customers' delay or late payment has yet to be investigated. Therefore, this research examines salespeople's role in the prevention of customers' late payment and the reduction of DSO. In turn, it offers the first theoretical and empirical contribution regarding the sales organization's responsibility with respect to customers' late payments.

Multiple sources provide data from almost 600 business customers, which reveal that salespeople's role in providing invoice information clarity relates positively to minimizing customers' late payments when we control for financial difficulties. Salespeople's customer orientation and negotiation self-efficacy have positive impacts on front-end customers' (buyers'/users') evaluations of invoice information clarity, which has a positive impact on back-end customers' (i.e., accountants'/payers') evaluation of invoice information clarity, which reduces late payments. Salespeople's negotiation self-efficacy also positively relates to customers' payment acceleration.

To the best of our knowledge, this research is the first to attempt to investigate directly and theorize about the sales force's role in preventing late payments and accelerate customer's incoming cash flows. It proposes and tests a marketing/sales–accounting/finance framework of possible explanations of companies' DSO. In doing so, this study provides another perspective on how marketing and sales organization initiatives may help chief financial officers to reduce DSO and contribute to shareholders' wealth by improving firms' cash flow positions and save on borrowing costs. Hence, such findings add to the on going effort to legitimize the accountability of marketing through the selling function angle and contribution (Moorman and Rust 1999; Srivastava, Shervani, and Fahey 1998; Srivastava, Shervani, and Fahey 1999; Rust et al. 2004). The results supply academics and practitioners from both the marketing and finance disciplines with some challenging insights for further study and discussion. References are available upon request.

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SOCIAL MOTIVATIONS FOR BRAND LOYALTY: THE ROLE OF CONFORMITY AND ESCAPISM

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SUMMARY

Brand loyalty has been central to marketing research because of its close relationship to marketing performance. Brand loyalty refers to a conscious repurchasing of a particular brand of product by a consumer (Dick and Basu 1994). Although scholars have identified many drivers of brand loyalty, they have only recently turned to social-psychological sources of brand loyalty and begun to explore the role of social ties among consumers for brand loyalty (e.g., Muniz and O'Guinn 2001; Escalas and Bettman 2003; Bearden and Etzel 1982).

In this study, we contribute to this body of research by exploring two related, but potentially conflicting motivations of brand loyalty. On one hand, consumers may remain brand loyal because of their motivation to conform to a reference group. Conformity motivation in consumption purchases stems from a need to identify with others through the possession and use of products and brands and, thus, their purchase decisions can be influenced by others (Bearden, Netemeyer, and Teele 1989). Choosing to dress according to current fashion trends, following the latest fad diet craze, or using the latest and popular technology products, allow a consumer to feel as though she is a part of a group that she aspires to belong to and that she is accepted by its members, fulfilling her need to belong (Csikszentmihalyi 2000; Miniard and Cohen 1983).

On the other hand, brand loyalty may also be motivated by consumers desire to break away from their social environment (Hirschman 1983; Kozinets 2001). This escape motivation can be conceptualized as a way of refocusing one's attention as a means to create fantasies or constructed "unrealities" (Hirschman 1983). Contrary to literature on escapism in psychology that deals with addiction and substance abuse, there is potentially no harm in the occasional escape from reality via these routes of consumption and instead it may provide healthy relief for the mind. For example, marketing scholars have examined the experiential nature of shopping as a form of escapism (Arnold and Reynolds 2003) as many consumers find intrinsic experiential value in the act itself and use it as a means to unwind from a stressful day (Holbrook and Hirschman 1982; Mathwick, Malhotra, and Rigdon 2001; Mathwick and Rigdon 2004). Many times the goal is the experience itself and its ability escape, rather than the final purchase (Sherry 1990).

A central outcome of the socialization process that underlies these two motivations is product knowledge. Product knowledge refers to a consumer's learning about the brand as well as information regarding evaluative criteria (Lichtenstein, Netemeyer, and Burton 1990). Signaling belonging to a specific group by means of product consumption is an underlying motivation of conformity. The key aspect of the brand choice is therefore the reference group-brand association, not specific brand attributes. In this instance, conscious learning and increased product knowledge may prompt additional processing and possibly weaken the link between conformity motivation and brand loyalty.

In contrast, a brand-choice that is motivated by escapism is deliberate and requires thoughtful elaboration of goals. As such, product knowledge is likely to facilitate a consumer's ability to realize an escape motivation. Escape motivation stimulates learning about available brand-choices. A consumer is likely to educate herself about a brand in order to understand its attributes and compare alternatives. This product knowledge is employed to determine a suitable brand choice that can help fulfill escapism goals.

Results

We examined these hypothesized moderating effects in a sample of 356 undergraduate students who reported on their use of Apple iPod MP3 players. Our moderated regression analysis (Aiken and West 1991) explained 31 percent of the variance in brand loyalty (adjusted R^2 = 0.30; df = 6, 327; F = 24.06; p = .000). Plotting the significant interaction term for conformity motivation and product knowledge (β = -.07, t = -2.12) shows that when product knowledge is low, conformity motivation increases brand loyalty. In contrast, when product knowledge is high, conformity motivation does not significantly impact brand loyalty. Our data also supports our second hypothesis that the positive effect of escape motivation on brand loyalty increases as product knowledge increases (β = .07, t = 1.98). Taken together, these results suggest that product knowledge has an asymmetric impact upon brand loyalty depending on the motivation underlying it.

Discussion

Understanding social motives for brand loyalty is central to building successful brand-user relationships. Prior research has largely focused on cohesion within brand communities as a source for brand loyalty; yet, it has neglected the individual's motivation to break away. In this study we show that marketers need to take both social and individual drivers into account when designing brand relationship focused marketing programs. Future research that focuses on brand user relationships is likely to gain from taking into account a variety of social motivations.

Further, given that product knowledge is central to most brand-related marketing communication, the insights derived from this study will help brand managers better understand the impact of communication goals on brand loyalty and ultimately, marketing performance. We encourage future research to explore additional boundary conditions of the current brand community paradigm. References are available upon request.

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HOW RE-DESIGNING ANGULAR LOGOS TO BE ROUNDED SHAPES BRAND ATTITUDE: CONSUMER COMMITMENT AND SELF-CONSTRUAL

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SUMMARY

This research explores how consumer responses to logo redesign (from angular to rounded) are contingent on brand commitment. Three experiments were conducted to show that consumer commitment moderates the impact of logo shape redesign on post-exposure brand attitude, and explicates the underlying processes leading to changes in brand attitude. In the third study, an additional construct was explored – consumers' identities (i.e., self-construal) and their effect on response to logo shapes.

The theoretical underpinnings to this research involve brand commitment and self construal. Commitment is posited as an element qualifying one's attitude toward a brand (Raju and Unnava 2006). Faced with negative information regarding a brand, consumers committed to the brand were more likely to counter-argue exhibiting a defense motivation (Ahluwalia, Burnkrant, and Unnava 2000). For consumers committed to a brand with an angular logo, inconsistent information in the form of a round logo is likely to increase conflict, leading to more effortful processing and consequently more negative evaluations.

Consistent with Berlyne (1960, 1976), Zhang, Feick, and Price (2006) show that roundness is associated with qualities like approachableness, friendliness, and harmony. These qualities are echoed in rounded rather than angular shapes, and are more consistent with an interdependent self-construal (see Zhang, Feick, and Price 2006 for a detailed discussion). Thus, rounded designs were more attractive to interdependently-focused individuals than angular designs. Henderson et al. (2003) found similar results for Asian brands, whose consumers are chronically characterized by an interdependent self-construal.

Study 1 examined the effect of logo redesign from angular to round for an athletic apparel logo and also explored the extent to which logo evaluations mediate the impact of logo redesign on brand attitude. The sample for Study 1 was undergraduate students. The remaining two studies examined these effects in the bottled water category. Study 2 replicates the key moderating role of brand commitment but also examines cognitive response data. Specifically, it examines underlying thought processes

and also attempts to rule out an alternative explanation of prototypicality. Study 3 examines the boundary condition of consumer self-construal, given that previous research shows rounded shapes to be more appealing to consumers with an interdependent self-construal (Zhang, Feick, and Price 2006).

The results of Study 1 showed brand attitude for consumers strongly committed to the brand with an angular logo declined when the logo was re-designed to be rounded. In contrast, brand attitude for consumers weakly committed to the brand with an angular logo increased. This occurred even after controlling for pre-exposure brand attitude.

Study 2 used a different product category and adults from a mall intercept survey and the results were consistent with Study 1: brand commitment moderates the effect of logo redesign on brand attitude. While brand attitude was greater for strongly- than weakly-committed consumers when exposed to the original angular brand logo, consumers committed to the brand with an angular logo have significantly lower brand attitude than weakly-committed consumers when the logo shape is rounded.

Study 3 used the same approach/methodology as studies 1 and 2. While consumers committed to the brand with the angular logo reacted negatively to a redesigned rounded logo in studies 1 and 2, the effect was reversed for interdependently-primed consumers. Thus, the activated interdependent self-construal, because of its congruence with rounded shape, mitigated the deleterious effect of inconsistent information, i.e., logo redesign, for highly committed consumers.

Managerially, this implies that the negative reaction to a rounded logo for consumers committed to the brand with the angular logo can be minimized when the inconsistent information of the rounded logo is positively perceived by one's self-construal. Theoretically, these results indicate that for any redesign, which is a presentation of inconsistent visual brand information, the underlying information may be meaningful to consumer self-construal and can mitigate the negative reaction from committed consumers. References are available upon request.

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HOW PERSONAL NOSTALGIA INFLUENCES GIVING TO CHARITY: A RESEARCH PROPOSAL

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SUMMARY

Charitable organizations in the U.S. have found it increasingly difficult to raise funds from donors (Eikenberry 2005). With a decline in the number of givers and the number of charitable organizations increasing, there is a greater need than ever to engage the giver and encourage him/her to increase their giving to charitable organizations. NPOs (not-for-profit organizations) can facilitate this engagement through the identification of emotional constructs that can drive donor commitment to the NPO and increase charitable giving. In a recent study, Sargeant et al. (2006) have shown that charities which engage the giver emotionally are able to create stronger commitment within the giver. One such emotional construct is personal nostalgia. Personal nostalgia is a longing for a past which has been personally experienced by the individual (Holbrook 1993; Batcho 1995). Personal nostalgia evokes warmth and joy arising out of remembering the past but there is also a sense of loss that the past is no more (Wildschut et al. 2006). The authors have not found any study that has linked personal nostalgia to giving to charity. This research links personal nostalgia to charitable giving. From an academic standpoint it adds to the literature in the areas of personal nostalgia and not for profit marketing. From a Managerial standpoint, NPOs could benefit by identifying significant personal experiences of the donor and evoke personal nostalgia in their fundraising appeals.

This research argues that age, discontinuity, loneliness, past experiences and recovery from grief influence personal nostalgia that the donor may experience. Personal nostalgia in turn will provide emotional utility and familial utility to the donor. This in turn will strengthen the commitment of the donor to the charitable organization which would lead to charitable giving by the donor. It is argued that this would be relevant to those NPOs which can evoke personal nostalgia among their donors. Some examples would include alumni associations of academic institutions, hospitals etc. This research proposal is structured as follows. It first presents an in depth review of the literature related to giving behavior, personal nostalgia and the factors that influence personal nostalgia. The conceptual model is discussed in detail and ten research hypotheses are presented. It then presents a plan for empirically testing the hypotheses and examines the methodological issues.

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IDENTIFYING FACE-TO-FACE AND ONLINE COURSE ADOPTION CRITERIA FOR PRINCIPLES OF MARKETING TEXTBOOKS

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ABSTRACT

Twenty-one marketing faculty in AACSB accredited universities reported criteria used to adopt a Principles of Marketing textbook for face-to-face and online teaching environments. A content-analysis of open-ended responses revealed 19 relevant criteria, the most popular include supplements, comprehensive coverage and up-to-date materials, and for online courses, online environment suitability.

INTRODUCTION

Published works on college textbook adoption have generally addressed researcher created selection criteria for traditional face-to-face classes. The advent of asynchronous online courses emerges as a condition to accept or refute existing textbook adoption heuristics. Furthermore, generating the adoption criteria, unlike prior studies, should start with the instructors themselves and so attracting greater face validity and generalizability. Such insight serves textbook authors, publishers and marketing faculty in the workplace circumstance of adopting a revised or new edition from the current publisher, or a new edition from a new publisher.

The goals of this exploratory study are two-fold;

1. Identify the general set of criteria instructors of principles of marketing courses use to adopt a suitable textbook for both traditional face-to-face classes and for online classes.

2. Uncover whether the criteria change when the instructor faces a choice between (a) a revised edition from the current publisher, (b) a new edition from the current publisher, and (c) a new edition from a new publisher.

As with any exploratory study, the results are tentative and should be confirmed using a descriptive approach via a large sample survey whose generalizable results are key to effective decision making by textbook authors and publishers alike.

LITERATURE REVIEW

The literature on textbook adoption appears to fall into three categories: textbook comparative reviews, readability, and the textbook selection process. All of these articles, either indirectly or directly, relate to an identifiable set of general adoption criteria for textbooks. However, it should be noted that much of this literature focuses on the field of accounting. Furthermore, the literature assumes adoption of texts for the traditional classroom format (i.e., face-to-face). Most of the articles were published in the 1980s and 1990s. And finally, the literature does not account for differences in the event that a textbook adoption is a new edition or a completely new text adoption, or the context in which the adoption is from an existing or new publisher.

The contribution of this article lies in advancing marketers' understanding of textbook selection criteria and capturing more in-depth, up-to-date adoption criteria that may be emerging due to the proliferation of the Internet-driven culture and its expansion into education. There is only one article to date that clearly identifies marketing professors' textbook selection criteria (Smith and Muller 1998). However, Smith and Muller's (1998) work asks professors to rank their preference based on an author-supplied list of criteria as opposed to a more open format that asks the professor to generate his/her own evaluative criteria. In addition, their article does not fully account for the complex nature of the buying decision, such as whether the text is completely new or simply a new edition or whether the publisher is well-established or new to the marketplace.

Thus, this article builds upon the seminal work of Smith and Muller (1998). It also seems that having an in-depth understanding of marketing professors' textbook selection criteria is an important issue as textbook adoption is a multi-layered complex process. Furthermore, the textbook greatly influences the content of a course and often serves as the primary teaching tool of the professor (Lowry and Moser 1995). Additionally, given the growth of interactive media and its infiltration into the home, workplace, and educational settings, it seems important that the field have access to an updated study of textbook adoption criteria. Many professors are being increasingly asked by their institutions to be media savvy in the

physical classroom, integrating an online component into traditional course offerings. Furthermore, an increasing number of Universities are offering online courses, the implementation of which falls onto the shoulders of individual faculty members. Online courses require a different approach for conveying the course content which is likely to impact professors' textbook selection criteria.

Comparative Reviews

One area of the textbook adoption literature to date focuses on comparing different textbooks (i.e., reviews). Although not directly related to an assessment of the criteria professors' use in selecting textbooks, these articles provide subtle insight into the domain. To systematically evaluate the different textbooks on the market, these articles provide a panel of judges with a general set of evaluative criteria which they use to score the contents of the textbook and supplementary materials. These predetermined set of criteria imply a general set of criteria that may be relevant to other professors in the field.

For example, Bluedorn (1986) recruited 58 professors who were placed on panels that rated the content of an individual principles of management textbook on the following, pre-determined criteria: the coverage of the text (breadth and depth), integration, and text elements (examples, cases, exercises, diagrams/figures, writing quality, and physical layout). The panels also evaluated the supplementary materials, broken down into case discussions, objective questions, essay questions, exercise guidelines, and transparencies.

Backhaus, Muehlfeld, and Okoye (2002), used a more theoretical approach in their comparative review of business-to-business marketing textbooks. They evaluated the various texts in the market according to Bloom's taxonomy of educational objectives: knowledge (i.e., content orientation), understanding (i.e., readability by students), applications (i.e., connection between theory and practice), and analysis/synthesis/evaluation (i.e., more complex capabilities such as case studies and test questions). Again, these studies use author-supplied evaluative criteria but these criteria may provide some insight into a wider, general set of potential textbook adoption criteria used by professors.

Readability

Another subset of articles on textbook adoption focuses on the importance of readability (or understandability, comprehensibility, etc.) as a criterion for textbook adoption. For example, the reading level of the content has a significant, negative impact on course grades and the number of students who withdraw every semester (Spinks and Wells 1993). Adelbery and Razek (1984) found that the level of understandability varied significantly among

and within four accounting textbooks in the marketplace. Similarly, Rugimbana and Patel (1996) found that understandability differed greatly among three well-adopted principles of marketing textbooks. Although these articles primarily focus on understandability of textbooks, they also provide some insight into a wider, general set of textbook adoption criteria. Certainly the results of these studies suggest that professors may deem understandability an important criterion for adoption.

Selection Process

The final set of articles on textbook adoption address the evaluative criteria more directly. Lowry and Moser (1995) present a multi-step process for selection of a principles of marketing textbook. They identify eight specific steps: select a committee, identify course outcomes, identify consideration set of texts, establish criteria for evaluation, review the texts, ask sales representatives to make a presentation, conduct a final review of the texts, and assess the choice at a later date. With respect to the fourth step, these authors recommend that the evaluative criteria be based upon: core content, supporting materials, and length of text. In evaluating a specific text (step 5), Lowry and Moser (1995) recommend that a professor examine chapter features and overall text organization, the quality, quantity, and value of the ancillary materials; and the readability of the text. Again, these author-constructed evaluative criteria imply that a common set of textbook selection criteria (i.e., core content, supporting materials, and readability) exist.

Two studies to date asked professors to rank order a list of sixteen general textbook selection criteria in order of importance. Again, the list of evaluative criteria was author-constructed but does appear comprehensive in nature. Accounting professors ranked (in order of importance) comprehensibility, timeliness of text material, compatibility between text and homework problems, and exposition of quality of text as top four priorities. Ancillary materials (such as solutions manual, study guides, videos) were ranked lower in order of preference. Interestingly, the existence of a computerized practice set was ranked 15th among the sixteen evaluative criteria (Smith and DeRidder 1997, p. 374).

Smith and Muller (1998) conducted a similar study among marketing professors. Marketing instructors ranked (in order of importance) comprehensibility, relevance to real-world issues, exposition quality of the text, timeliness of the text material as the four most important criteria. Interestingly, this group ranked the accuracy of the text and supporting material as fifth in importance. And yet, the existence of the ancillary materials themselves, such as transparencies (13th), teaching guide (14th), and computerized test bank (15th), and student study guide (16th), was not particularly important. These results suggest that

when ancillary materials are available, marketing professors prefer that they be of high quality (i.e., well designed, well integrated with the text, and free of mistakes) rather than comprehensive in nature. Bluedorn (1986) made a similar assertion for principles of management texts.

The results of these two textbook selection studies suggest that a general set of criteria for textbook adoption would, at the very least, include: understandability of the text, presentation quality, and timeliness of material. What remains to be seen is if these criteria have changed over time. Clearly, interactive media are having a significant impact on course format and content. Additionally, professors are being given increasing responsibilities for research and service, which may impact the time and energy they devote to textbook selection. Thus, an updated examination of the complex nature of textbook selection in both face-to-face and online course contexts seems ripe for investigation.

Anecdotal Evidence

To help refresh the existing studies to present day practice, the authors contacted 'key informants' representing the three largest business textbook publishers in the U.S.

Thompson Southwestern's Justin Wobbekind (2005) summarized the Marketing Team's efforts as managing focus group sessions to examine, among other issues, content, reading levels, pedagogy in the text, instructor support, and customization opportunities marketed in their "It's All About You" program for introductory marketing professors. Additional areas key to adoption include discussion of "painpoints" (offer a better experience when preparing, teaching and grading their course), relationship with the book rep, price, and video support.

McGraw-Hill's Marketing Manager Trent Whatcott (2005) summarizes their experience as follow. The principle of marketing market is mature with original texts some nine years old. The text represents a commodity market, reps contribution is mostly post-adoption support and new business. Text choice is dependent on class size, type of institution and currency of text. Formal segmentation of instructors is not available. Reps use the assumptive close for new editions, whilst for new adoptions, reps dedicate significant time researching what the instructor teaches, past textbook selections, size of class, etc.

Prentice Hall's Marketing Manager Anke Braun (2006) essentially echoed the above positions noting two studies from the 90's on management and statistics text adoption.

In summary, the literature to date suggests the most important decision criteria are textbook oriented (read-ability, coverage) though limited insofar that the criteria available for selection were generated by the authors of the various studies. Publishers seem to implicitly accept the various demands placed on textbooks according to the type and size of institution, but are not clear about the drivers of textbook adoption, and hence the relevance of this study.

METHOD

Sample

Two-hundred fifty-two AACSB accredited U.S. business schools were selected (from a population of 528 accredited U.S. business schools) using a systematic random sample with an n = 2 skip interval. Twenty-one marketing faculty teaching Principles of Marketing courses responded, reflecting an 8.3 percent response rate. The data were collected from January 27, 2006 to October 5, 2006. All but three of the respondents held a terminal degree in Marketing (PhD or DBA). The distribution of rank follows: 3 Full Professors, 7 Associate Professors, 8 Assistant Professors, and 3 Instructors.

As a result of this study, clear temporal effects on response rates were identified. Response rates as high as 20 percent occurred during the first two weeks of the Spring and Fall semesters, with response rates dropping to nearly 0 percent from Wednesdays to Sunday.

Materials and Procedures

The questionnaire (see Appendix A) was sent via email to marketing faculty currently or having taught undergraduate Principles of Marketing courses. Given the instructor selection and teaching information were selected from university web sites, a realistic assumption for web site instructor and teaching schedule accuracy is likely to be in the 80 percent range. For face-to-face classes, over 80 percent of the respondents make the decision to adopt a Principles of Marketing text, with all respondents providing adoption criteria. For online course, 14 percent of the respondents make the adoption decision, with 60 percent of all respondents offering criteria for online textbook adoption. It should be noted that 30 percent the respondents indicated they did not and never planned to offer an online course.

A content analysis was conducted to identify repeated criteria in the data. Following traditional exploratory content analysis guidelines (Auerbach and Silverstein 2003), the discourse form of content analysis (Hijmans 1996; Gunter 2000) was selected wherein responses were analyzed with no preexisting categories. Individual responses were coded according to underlying meaning using two independent coders resulting in a first review 87 percent inter-coder agreement. Following discussion of

inconsistent coding, a second review resulted in 100 percent inter-coder agreement

FINDINGS

This section is organized to detail results for face-to-face courses, followed with that for online courses, and concludes with comments regarding student textbook usage trends.

Face-to-Face Course Adoption Criteria

The top three most cited adoption criteria in Table 1, regardless of adoption level, are;

♦ Support and supplementary materials (25%),

♦ Comprehensive coverage of basic concepts (20%), and

♦ Up-to-date materials (12%).

For each of the three adoption levels, the most popular criteria are;

♦ For a **new edition of an existing text** used by the instructor, the adoption decision is based on support and supplementary materials (27%), up-to-date ma-

terials (22%) and comprehensive coverage of basic concepts (17%).

♦ To adopt a **new text from an existing publisher**, instructors primarily adopt based on support and supplementary materials (24%), and comprehensive coverage of basic materials (24%).

♦ To adopt a **new text from a new publisher**, instructor adoption option criteria are based on support and supplementary materials (25%) and comprehensive coverage of basic materials (19%).

The top ten of the fourteen criteria focus on text related issues such as content, supplements, price, currency, and lucidity. This list is followed by two criteria reflecting influence of the previous edition and the author's reputation. The final two criteria focus on brand issues such as popularity of text and publisher's reputation. There is hardly any change in the most popular criteria used to adopt a textbook across the three adoption categories.

Online Course Adoption Criteria

The top three adoption criteria in Table 2, regardless of adoption level, are

TABLE 1
Ranking of Criteria Based on all Responses for a Face-to-Face Course

Adoption Criteria	New Edition (r = 58)	New Text from Same Publisher (r = 58)	New Text from New Publisher (r = 57)	Totals (r = 173)
Support and Supplements	16	14	14	25.43%
Comprehensive coverage of basic concepts	10	13	11	19.65%
Up to Date	11	5	4	11.56%
Price and affordability	5	5	3	7.51%
Appropriate level for marketing and non-marketing majors	3	4	4	6.36%
Depth in content	3	4	4	6.36%
Good flow of material	4	3	3	5.78%
Easy to read	2	1	4	4.05%
Appropriate level of assignments	1	2	2	2.89%
Fit with respondent's teaching style	0	2	3	2.89%
Opinion about previous edition	3	1	0	2.31%
Familiarity with authors	0	2	2	2.31%
Popularity of text	0	1	0	0.58%
Publisher's reputation	0	0	1	0.58%

Note: r = total number of criteria responses per adoption level, from new edition adoption to new text from a new publisher adoption.

♦ Support and supplementary materials (25%),

♦ Comprehensive coverage of basic concepts (13%), and

♦ Up-to-date materials (12%).

For each of the three adoption levels, the most popular criteria are;

♦ For a **new edition of an existing text** used by the instructor, the adoption decision is based on support and supplementary materials (24%), up-to-date materials (12%), comprehensive coverage of basic concepts (12%), and text geared for online use (9%).

♦ To adopt a **new text from an existing publisher**, instructors primarily adopt based on support and supplementary materials (26%), and comprehensive coverage of basic materials (13%), up-to-date materials (13%), and text geared for online use (10%).

♦ To adopt a **new text from a new publisher**, instructors primarily adopt based on support and supplementary materials (26%), and comprehensive coverage of basic materials (13%), up-to-date materials (13%), and text geared for online use (10%).

The top nine of the sixteen criteria focus on text related issues such as content, online focus, supplements, price, currency and lucidity. This list is followed by seven criteria reflecting influence of the non-text factors such as student feedback, graphics and diagrams, previous edition, and the author's reputation. The final two criteria focus on brand issues such as popularity of text and publisher's reputation. Again, as with the face-to-face case, the adoption criteria do not change dramatically across the adoption categories.

Text Book Trends

Of the 14 respondents addressing this issue, 78 percent believe textbook prices are too high as evidenced by students searching for used texts, and the second issue from 43 percent of the respondents was that students prefer reading graphics (such as power point slides) in lieu of the text.

Limitations of the Study

Respondent affiliation reflect teaching oriented schools, and presumably issues not necessarily common to the nation's most prestigious and well know schools. Factors such as a school's reputation, typical class size, identity of who adopts versus who teaches (i.e., profes-

TABLE 2
Ranking of Criteria Based on all Responses for an Online Course

Adoption Criteria	New Edition (r = 42)	New Text from Same Publisher (r = 39)	New Text from New Publisher (r = 39)	Totals (r = 120)
Support and Supplements	10	10	10	25.00%
Comprehensive coverage of basic concepts	5	5	5	12.50%
Up to Date	5	5	5	12.50%
Text geared for Online use	4	4	4	10.00%
Easy to read	3	2	2	5.83%
Price and affordability	2	2	1	4.17%
Appropriate level for marketing and non-marketing majors	1	2	2	4.17%
Depth in content	2	1	2	4.17%
Good flow of material	2	2	1	4.17%
Fit with respondent's teaching style	1	2	2	4.17%
Blackboard Enabled	1	1	1	2.50%
Familiarity with authors	0	1	1	1.67%
Graphics and Diagrams	1	0	1	1.67%
Opinion about previous edition	1	0	0	0.83%
Student Feedback	1	0	0	0.83%

Note: r = total number of criteria responses per adoption level, from new edition adoption to new text from a new publisher adoption.

sors, adjuncts, and graduate students), balance of a professor's typical workload (i.e., instruction, scholarship, and governance) may well be addressed in a follow-up descriptive study.

Of concern is the duration of this study's data collection, covering some 11 months. An additional chronological review of the content analysis did not uncover any identifiable data changes that were otherwise remarkably consistent.

Finally, the modest sample size may be considered a weakness of the study, though the relative stability of stated criteria and the relative absence of responses unique to a particular respondent offer a high degree of face validity to the findings.

DISCUSSION

At this exploratory stage, the absence of influence exerted by a publisher's representative is noticeable and significant – an impressive result from this study. That is, publishers use representatives as facilitators and educators for textbook adoption. As noteworthy is the finding that supplements and support rank as the most popular criterion, relegating the next most popular set of criteria concerned with textbook issues such as coverage of materials, up-to-date, easy to read and in depth coverage. As with the case for publisher representative, the direct influence of students is not stated, though well entrenched in criteria such as readability and price.

At this point it is worth exposing the components of the "***support and supplements***" criterion. The component elements include the test bank, PowerPoint slides, quality of supplements, student support materials (e.g., "the box" created by Prentice Hall for the Solomon et al. (2006) text), acetates, Blackboard or WebCT compatibility, vid-

eos, WebPages, and online student materials. The most popular of these elements were test bank, PowerPoint slides, and WebPages.

Given the relatively stable popularity of criteria across the adoption types together with a presumed increase in adopter involvement suggests that criteria used to migrate to a new edition or to a new text from a new publisher do not change.

Regarding textbook trends, the issue of price is raised by 78 percent of respondents. This issue needs to be addressed in more detail – that is, are the respondents aware of alternative textbook pricing forms such as custom texts and e-books. Over 40 percent of the respondents note the shifting interest by students away from reading the textbook, to an interest in graphics such as PowerPoint. Of those who raised this issue, there was some consternation that students now read far less than in the past, and so the current trend to highlight materials in PowerPoint slides further erodes student understanding. This latter point is endemic of the education system, and not a textbook quality issue.

Unique to this study is that marketing instructors generated the list of decision criteria for textbook selection. Further, the literature to date suggests the most important decision criteria are textbook oriented (readability, coverage), while this study identifies the most popular criterion as "support and supplements."

A follow-on descriptive study would offer the relative *intensity* for each criterion as well as external influences (size of class, perceived prestige of the university, teaching experience, etc.) allowing for the possibility of segmentation – actions and their outcomes of significant use to decision makers for textbook marketing program refinement.

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APPENDIX A
Copy of Emailed Questionnaire

Would you please help complete a study of importance to marketing educators by sharing your opinions? The purpose of this exploratory study is to determine the criteria marketing faculty use to select a required textbook for an undergraduate Principles of Marketing course, taught in-class and separately, online. The results will materially help publishers offer a superior product for our use in class. As a fellow colleague, I do realize the many burdens on your time, though I do hope you will consider spending 10 to 15 minutes of your time to complete the short questionnaire below. **Thank you** for your time and opinions.

1. Have you ever made the decision to adopt a Principles of Marketing textbook for a face-to-face course, either as an individual, or as a member of a textbook selection committee?
   _____ Yes _____ No

2. If you were to adopt a Principles of Marketing textbook for a **face-to-face** course, please explain what criteria would be relevant to the adoption decision given each of the following three cases.
   a. Three criteria you would use to select a **new edition** of a textbook that you used in the past. (Please enter your answer in the space below).
   b. Three criteria you would use to select a **new text** from the **same publisher** of a Principles textbook that you used in the past. (Please enter your answer in the space below).
   c. Three criteria you would use to select a **new text** from a **new publisher** of a Principles textbook. (Please enter your answer in the space below).

3. Have you ever made the decision to adopt a Principles of Marketing textbook for an **online** course, either as an individual, or as a member of a textbook selection committee?
   _____ Yes _____ No

4. If you were to adopt a Principles of Marketing textbook for an **online** course, please explain what criteria would be relevant to the adoption decision given each of the following three cases.
   a. Three criteria you would use to select a **new edition** of a textbook that you used in the past. (Please enter your answer in the space below).
   b. Three criteria you would use to select a **new text** from the **same publisher** of a Principles textbook that you used in the past. (Please enter your answer in the space below).
   c. Three criteria you would use to select a **new text** from a **new publisher** of a Principles textbook. (Please enter your answer in the space below).

5. Have you noticed any trends in the usage of textbooks among your students? (If so, please identify and explain these trends below.)

Thank you for your help!

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TWENTY YEARS OF SERVQUAL AND THE EVOLUTION OF SERVICE RESEARCH: IMPLICATIONS BY MEANS OF A CO-CITATION ANALYSIS

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SUMMARY

The aim of this paper is to structure the service research field especially the Service Quality literature and to show its evolution over time based on a quantitative approach. To get a longitudinal outline of the discipline the reference lists appeared in the top marketing and service journals over the past 15 years (1992–2006) were used as analysis basis. By means of a large scale scientographic analysis (RCM association model) based on 171,966 citations we identified an ongoing diversifica-tion of the service research field. A graphical representation of the evolution of service research in three time periods was used to explore several trends in the literature. The analysis provides insights about the relationship between specific service articles and authors as well as changes in their influence over time. The study demonstrates that the ServQual reseach field was the most cited and influential research stream over the last decades and it is diversified into a customer and management-focused cluster.

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