

Integration of customer relationship management: status quo and implications for research and practice

MATTHIAS MEYER*

Institute of Corporate Development and Organization, Munich School of Management, University of Munich, Kaulbachstrasse 45/I, D-80539 Munich, Germany

LUTZ M. KOLBE

Competence Center Customer Management, University of St. Gallen, Institute of Information Management, Mueller-Friedberg-Strasse 8, CH-9000 St. Gallen, Switzerland

This paper assesses the state-of-the-art research on CRM integration. After introducing the concepts of customer relationship management (CRM) and integration, it argues that CRM integration is vital to corporate performance on the project or enterprise level. Based on results of own and third-party market studies as well as on a systematic literature review of selected papers in top journals spanning five disciplines, it shows that research has mainly been confined to the specifics of those domains. Interestingly, applicable theories of the firm are not widely employed as a foundation from which to explain CRM integration. This paper identifies research gaps for researchers and practitioners alike and suggests areas that need further consideration in future.

KEYWORDS: Customer relationship management; integration; theories of the firm

INTRODUCTION

Challenge

Generally, customer relationship management (CRM) is a concept that comprises the establishment, development, maintenance and optimisation of long-term, mutually valuable relationships between customers and organisations (Payne and Ryals, 2001, pp. 3–4). Customer orientation and especially CRM are important preconditions for the realisation of profitability. Several researchers have assessed this causality since the 90s (e.g., Reichheld and Sasser, 1990; Reichheld and Teal, 1996; Blattberg and Deighton, 1996; Yeung and Ennew, 2000; Reinartz and

* Corresponding author: Phone: +49 89 2180 5635; Fax: +49 89 2180 5651; Email: matthias.meyer@bwl.uni-muenchen.de

Kumar, 2000, 2003). CRM is a multi-faceted, comprehensive phenomenon which includes strategic aspects, customer-oriented processes and organisational changes through projects as well as performance measurement. In addition, IS (information systems) implementation—which has mistakenly become a synonym for CRM—is an important element.

True CRM success stories have rarely surfaced—despite vendor and consultant hype. Although a few academic authors (e.g., Bull, 2003, p. 592; Kotorov, 2002) have cited frustration with failed CRM projects, lost investments and absence of ROI, there are various studies by consultants, or practice-oriented research institutes listing suggestion reasons for these failures (see Table 1). Reasons forwarded for failure range from bad project management to a lack of collaboration (Kale, 2004; Badgett and Connor, 2003; April and Harreld, 2002), with the latter largely due to various technical and organisational barriers (Winer, 2001, p. 102; Dowling, 2002, p. 88; Piercy, 1998). Accordingly, integrative activities, such as cross-functional commitment or inter-organisational processes, are cited as the most critical success factor (Wilson *et al.*, 2002, p. 208; Moorman and Rust, 1999; Kale, 2004; Badgett and Connor, 2003).

On the whole, a lack of alignment and underestimation of its complexity are the prime reasons for CRM projects' failure (Bull, 2003, pp. 592, 594; Piercy, 1998). This becomes explicable if one considers that primarily the introduction of CRM involves various stakeholders, particularly marketing and IT specialists, with different knowledge, terminology as well as experiences and expectations. This often implies a domain-specific, single-faceted approach to a complex research issue by each of the stakeholders. Consequently, from the implementation's initial steps to its full operation, the co-ordination and interrelationships within the firm pose enormous challenges from the strategic, process and system perspectives.

Research questions and the paper's structure

From our point of view, CRM requires adequate implementation, which implies a strategic as well as an organisational task (see Table 1 and Gummesson, 1994; Cravens and Piercy, 1994; Gummesson, 1998; Piercy, 1998). However, we observe that CRM is predominantly considered a matter of service rather than one of organisational design (Kotorov, 2002, p. 218).

According to Colgate and Danaher (2000), there is clear demand for research in the field of implementing and managing CRM. Our assumption is that the co-ordination of customer relationship activities is necessary on various, if not all, of a firm's dimensions, such as strategy, processes, or technology, to ensure success. In this context we argue for the application of relevant approaches from organisational theory, e.g., theories of the firm.

This paper strives to address the following two research questions:

- Are there any approaches to CRM integration in the literature to address its complex and interdisciplinary nature with respect to the theories at hand?
- Are we able—based on selected studies' results and the synopses of papers in leading journals—to show on which areas theory and practice have to focus to make CRM integration initiatives more successful in future?

The assessment of these questions will be structured as follows:

The next section analyses the related literature on CRM and integration with reference to relevant theories of the firm. Then we review the situation in practice as based on a CRM integration study's empirical data. To reflect the 'real world' view in research, we thereafter review CRM integration's state-of-the-art as based on the results of a cross-analysis of relevant

Table 1. Results of third-party studies

Source	Research Design	Main Results, Reasons for Failure
April and Harreld, 2002; Margulius, 2002 (InfoWorld)	Survey, 41 respondents	<ul style="list-style-type: none"> - 39% difficult integration; CRM crosses all departmental boundaries (Joe Neuhaus, CTO, Prime Advantage) - 27% high cost, low ROI - 24% resistance from staff or customers
IBM, 2002	Interviews with corporate decision-makers from 225 Global 2000 companies	<ul style="list-style-type: none"> - 48% of executives world-wide admit their companies either have only basic CRM processes and systems in place or are just now in the process of developing protocols. - various surveys documenting a self-assessed CRM-implementation 'failure' rate of 55% to 75%. - 36% say they are now working on providing the best customer relations and integrating the overall process for the company. - 26.9% have basic customer relationship management processes and systems - 71% said they need to do more with respect to back-to-front-office integration, while 24% of respondents regarded such integration as achieved. - 64% said they need to do more with regard to cross-channel integration, while only 20% regarded it as achieved. - Revealingly, 38% regarded contact-centre/CTI integration as achieved, indicating that responding companies put a greater priority on the cohesiveness of just one form of communications touch-point—albeit a very important one—than they did on making sure all channels were on the same page. - They have spent the highest portion of their CRM-related budgets—24%—on contact centre/CTI integration. - Cross-channel integration, while considered a priority from an earlier question, received only 12% of overall CRM expenditures.

Table I. Continued

Source	Research Design	Main Results, Reasons for Failure
Badgett and Connor, 2003 (IBM)	Online survey, 186 respondents, 20 interviews with CRM decision makers	<ul style="list-style-type: none"> - Fewer than 20% of companies feel they are fully successful with their CRM initiatives. - Despite the fact that nearly 85% of companies view CRM approach steps as highly important or important to success, only 40% to 55% actually do them always or often. - By focusing on and prioritizing CRM Approach Steps, companies can improve their likelihood of success from less than 20% to closer to 60%. - Process Change and Change Management are the two most differentiating steps, contributing 22% and 20% respectively to initiative success (but not in isolation).
Kinikin, 2004 (Forrester Research)	Qualitative interviews of 20 vendor, systems integrator, and user companies	<ul style="list-style-type: none"> - Data decay devalues customer data efforts. - Information is often too late to help. - Fragmented data creates conflicting results. - To transform customer data into business advantage, firms must overhaul how they gather, synthesize, and use customer information.
Kale, 2004	Recited studies from DMR Consulting, Deloitte Consulting, Accenture, Gartner Research	<ul style="list-style-type: none"> - Estimates of CRM projects failing to achieve their objectives range anywhere from 60% to 80%. - Viewing CRM as a technology initiative; IT is the conduit that aids in practicing and perfecting your marketing practices but, in and of itself, technology does little to further customer retention - Lacking customer-centric vision; about two-thirds of 219 companies with CRM software were apparently no closer to being customer-centric than they were before they installed the software packages. While non-customer-centric companies met an average of just 53% of their stated goals for the project, companies rated as being customer-centric met 71% of their implementation goals. - Having inadequate top management support; according to a 2002 Accenture survey, while business executives overwhelmingly agree that technology has helped them strengthen relationships with their customers, more than half (55%) say that CRM shortfalls can be attributed in part to inadequate support from top management. - Underestimating the change management involved; own research on CRM failures suggests that “lack of adequate change management” was the primary cause of failure in 87% of the cases investigated. - Underestimating the difficulties in data mining and data integration.

articles in leading journals from five distinct disciplines. The paper concludes with a discussion of the implications and limitations and by proposing directions for future research.

CRM INTEGRATION

CRM basics

Generally, CRM is a technological-driven, or at least technology-supported (Dowling, 2002; Wilson *et al.*, 2002; Payne and Ryals, 2001), customer-focused concept that enables organisations to tailor specific products and services to individual customers. CRM is about building long-term and profitable one-to-one relationships with customers (Bennett, 1996, p. 418; Payne and Ryals, 2001; Winer, 2001).

According to Wilson *et al.* (2002, p. 198) and Bennett (1996, p. 420) we define CRM as:

processes and technologies that support the planning, execution and monitoring of co-ordinated customer, distributor and influencer interactions through all channels, resulting in mutually rewarding relationships with customers

CRM entails (Shaw and Reed, 1999):

- Acquiring and continuously updating knowledge on customer needs, motivations, and behaviour over the lifetime of the relationship.
- Applying customer knowledge to continuously improve performance through a process of learning from successes and failures.
- Integrating marketing, sales, and service activities to achieve a common goal.
- Implementation of appropriate systems to support customer knowledge acquisition, sharing, and the measurement of CRM effectiveness.

However, CRM activities must contribute to the company or business unit's performance and eventually deliver tangible financial results. Consequently, current research is scrutinising CRM in respect of its relevance for a company's success and profitability (Wilson *et al.*, 2002; Payne and Ryals, 2001, pp. 5–6; Dowling, 2002).

CRM as a success factor. CRM requires considerable investments and changes in operational and organisational structures (Homburg *et al.*, 2000; Wilson *et al.*, 2002; Kotorov, 2002, pp. 228–30; IBM, 2002; Kinikin, 2004; Badgett and Connor, 2003). The ultimate question is therefore whether customer orientation and the implementation of customer relationships are indeed important for a company's success. Reichheld and Sasser (1990) presented an early and influential study that showed the tremendous impact that customer retention has on profitability. Reichheld and Teal (1996) specifically showed that the longer the customer relationship lasts, the greater its profitability becomes. These authors' conclusions were supported by Storbacka *et al.* (1994) and Yeung and Ennew (2000, p. 314). Other researchers emphasise that current customers are much cheaper to retain than acquiring new customers (e.g., Blattberg and Deighton, 1996; Payne and Ryals, 2001, p. 6; Reinartz, Thomas, and Kumar, 2005).

Antecedents to CRM success. Achieving customer satisfaction is obviously vital to the success of the vast majority of companies. Several researchers therefore tried to identify and examine the factors that support the achievement of customer satisfaction (e.g., Rust and Zahorik, 1993; Storbacka *et al.*, 1994; Garbarino and Johnson, 1999; Reinartz and Kumar, 2003). They succeeded in

identifying antecedents to CRM success such as service quality, perceived value, trust and commitment.

These antecedents can be regarded as sub-ordinate CRM objectives such as market orientation, customer orientation, business system convergence, adequate processes and technologies and, especially, a consistent and versatile interface with the customer (Wilson *et al.*, 2002; McNaughton *et al.*, 2001; Halliday, 2002). Additionally, Payne and Ryals (2001, pp.17ff.) argue that CRM requires a relationship marketing philosophy, an appropriate organisational structure and the effective use of data for customer management.

Basics of integration

Chiefly due to the domain-specific terminology and lack of comparable structure, the term integration proves elusive when it comes to a definition in an interdisciplinary setting. Table 2 provides an overview of recent integration literature.

Applying a composite view, we will define integration as:

the mutual (performance-oriented) reconciliation of strategies, processes, systems and cultures within an enterprise and between companies in a project and beyond

In a variation of Braganza (2002, p. 564), three dimensions emerge from the literature which we use as structuring elements: the basic corporate layers addressed, the characteristics ascribed to integration, and, finally, the performance-impact context in which integration is discussed.

Integration layers. Paashuis and Boer (1997) discuss the different definitory approaches and conclude that integration means cross-functional and inter-functional co-operation as well as process overlap. To facilitate these three integration types, they propose four 'mechanisms', namely strategy, process, technology, and organisation (Paashuis and Boer, 1997, p. 3). They then describe integration efforts on all of the above-mentioned 'layers'. More authors follow this layered approach of strategy, processes and systems (Jobber and Lucas, 2000, Gebert *et al.*, 2003). Some authors also suggest the presence of a cultural, 'soft' component of integration that addresses the mindset and behaviour of employees and management. This integration layer is called 'social' by Aladwani (2002), 'cultural' by others such as Braganza (2002), or 'behavioural' (Lee *et al.*, 2003).

In IS research, much has been said on the integration of systems and data alone (Jhingran *et al.*, 2002; Beretta, 2002; Lee *et al.*, 2003; Goodhue *et al.*, 1992) and the list of studies could be easily extended. However, integration has been observed within the confines of the IS domain only. Implementation failures, despite integration efforts on the system level, demonstrate that this view is too narrow (O'Malley and Mitussis, 2002; see Table 2).

Most authors focus on the intra-organisational integration of different company functions, e.g., sales and procurement. Recently, with the emergence of e-commerce and intensive co-operative activities between companies, this focus has been extended to the inter-organisational level (Burgelman and Doz, 2001).

Integration characteristics. There are three basic streams of approaches to integration characteristics: The literature is either focused on communication-like interactions, or on collaboration in terms of resource and goal sharing (Kahn and Mentzer 1998, pp.53-4). A third stream of literature

Table 2. Integration concepts covered in journal literature

Authors	Year	Integration Layers (focus only)	Integration Characteristics	Performance Impact
Goodhue, Wybo, and Kirsch	1992	Systems	Data integration	Integration implications for costs and benefits of system implementations
Kahn and Mentzer	1996	Processes	Interaction, communication, collaboration	More efficient logistics processes
Paashuis and Boer	1997	Strategy, processes, systems	Cross-functional co-operation, inter-functional communication, process overlap	Manufacturing systems, concurrent integration, product development
Jobber and Lucas	2000	Systems, culture	Integration of marketing and general management for performance	Management system framework
Burgelman and Doz	2001	Strategy	Full advantage of capabilities in multi-business corporations when integration of enterprises occurs	Pre-merger strategic integration
Beretta	2002	Systems, culture	ERP systems can facilitate organisational integration if there is process architecture	Success of ERP implementations
Zahra and Nielsen	2002	Strategy, culture	Technology commercialisation and capability sources	Moderating role of integration on success
Jhingran, Mattos, and Pirahesh	2002	Systems	Data integration	Improved and consistent data exchange
Braganza	2002	Strategy, processes, culture	Co-operation between teams, co-ordination of knowledge and processes, scope, elements	Enterprise integration for competitive capabilities
Aladwani	2002	Culture	Management of intra-project process	Systems development
Lee, Siau, and Hong	2003	Systems, culture	Degree of process redesign, integration method, implementation period, resistance, process, internalisation period	EAI and ERP enterprise Integration

discusses a composite of those views on integration as proposed by Kahn and Mentzer (1998). These authors describe interdepartmental integration and differentiate between a focus on interaction and an emphasis on collaboration. In an earlier paper, they conclude that more integration is always 'better', and call for an improvised response to challenges that require both interaction and collaboration (Kahn and Mentzer, 1996).

Performance impact. Kahn and Mentzer (1998) provide evidence that good integration contributes to successful marketing as well as to company-wide initiatives. Zahra and Nielsen (2002, p. 381) furthermore propose that the 'integration of internal and external sources is positively associated with successful technology commercialization'. They then differentiate between formal and informal integration (Zahra and Nielsen, 2002, pp. 379, 381), with both appearing to be strong contributors to success. Other authors stress that a focus on integration positively influences the performance of systems, functional units and organisations (Kahn and Mentzer, 1996; Paashuis and Boer, 1997). Beretta even proposes that integration is a resource-leveraging prerequisite for building competitive advantages (Beretta, 2002; Hamel and Prahalad, 1990). Braganza (2002, p. 565) also reports on the positive effects of integration in respect of better responses to market changes and better relationship with customers and suppliers. Nevertheless, there is little empirical research on the extent to which this positive effect is quantitatively measurable.

In summary, integration literature tends to be richer in the 'what' and 'why' of integration (integration effectiveness) than in the 'how' (integration efficiency). This reflects the current industry need for clear, effective objectives prior to 'efficient' integration.

Relevant theories of the firm and the integration of CRM

The relevance of integration can be theoretically derived from different theories of the firm. These theories deal with the configuration and organisation of firms, using different approaches and perspectives. The modern economics of organisation (Foss, 1999) as well as the resource-based theory are specifically the most frequently discussed approaches with which to explain and evaluate organisational structures.

The modern economics of organisation can be understood as a conglomeration of approaches addressing the structure and behaviour of firms as well as market strategy and internal organisation (Seth and Thomas, 1994; Tirole, 1988). The most popular approaches are the transaction cost economics (henceforth referred to as TCE) (Coase, 1937; Williamson, 1976, 1981), the property rights theory and the agency theory (e.g., Alchian and Demsetz, 1972).

TCE, property rights theory and agency theory specifically deal with relationships between institutions, incomplete information, uncertainty and human factors such as bounded rationality and opportunism (Williamson, 1973). These three theories are well suited for the analysis and explanation of organisations' external and internal relationships.

TCE mainly addresses the search for efficient co-ordination structures, while the agency theory, in contrast, examines the efficiency of organisations, considering problems with co-operation and asymmetric distributed information (Ross, 1973; Seth and Thomas, 1994). This latter approach mainly focuses on the distribution of risks, incentives and control. According to Seth and Thomas (1994), TCE and the agency theory should be viewed as complementary perspectives on how internal activities are organised.

The property rights approach, on the other hand, is linked to the incomplete contract theories (Foss, 1999; Hart and Moore, 1999). This approach specifically deals with organisational

efficiency and the distribution of property rights. According to Jensen and Meckling (1992) it can be argued that organisational efficiency requires that those with the responsibility for decisions should also have adequate property rights (Aghion and Tirole, 1997; Malone, 1997; Alchian and Demsetz, 1972).

The resource-based theory differs from the modern economics of organisation approaches because it takes an 'inside-out', or firm-specific, perspective on why organisations succeed or fail (Grant, 1991; Foss, 1999). In a marketing context as well as in managing marketplace uncertainty and dynamics, it becomes relevant how resources are used to create customer value. According to Srivastava *et al.* (2001), the resource-based theory received little attention from the marketing theory, which could be ascribed to the lack of a generally accepted delineation and classification of resources in general (Hooley *et al.*, 2001; Priem and Butler, 2001), and the marketing of specific assets and capabilities in particular (Day, 1994; Hunt, 2000).

Generally, the modern economics of organisation approaches and the resource-based theory are able to support organisational and configurational decisions and provide valuable recommendations. These theories form the basis of numerous theoretical and empirical studies on organisational design within and between companies (e.g., Aubert *et al.*, 1996; Conner, 1991; Poppo and Zenger, 1998; Walker, 1988).

These theoretical approaches lay important foundations for CRM integration analysis. For example, the transactional relationships within an enterprise and between an enterprise and its customers and suppliers alike can be explored through TCE. In this context, the 'quality' of the integration can be appraised in terms of the customer relationships' efficiency and characteristics. Simultaneously, the resource-based theory becomes highly relevant, since customer relationships and the CRM design itself are key resources that result in competitive advantages and corporate performance.

STATUS QUO OF CRM INTEGRATION

Methodological Considerations

In CRM integration, practitioners are right in the middle of current integration activities (Table 1). Therefore valuable insight can be gained from the business world and projects experiences complemented by theoretical consideration from academia.

We believe that two approaches are suitable for the scientific investigation of CRM integration: The first option is to develop a set of theoretically supported hypotheses that can be tested empirically. This approach generally leads to significant and academically accepted results, but presupposes numerous focused hypotheses due to the research issue's complexity. The second option is to review and combine existing empirical data (see the section, 'Insights from an Empirical Study') and, additionally, valuable scientific papers dealing with CRM integration (see the section, 'Insights from Research'). These empirical data and each of the papers provide relevant results that address special sub-problems in this regard.

Most questions concerning CRM integration span different domains. Therefore analytical generalisation—a meta-analysis approach in the narrow sense (see Farley and Lehmann, 1986; Hunter and Schmidt, 1990; Glass *et al.*, 1981)—could be problematic due to the research questions' complexity and the small number of empirical studies. We consequently decided to carry out a comprehensive literature review combined with the insights from an empirical study.

Insights from an Empirical Study

For this survey (Salomann *et al.*, 2005), 1,000 decision-makers in Germany, Austria and Switzerland, who are in charge of their company's Marketing and Sales activities, were invited to participate. The survey was carried out from July to August 2004. An individually addressed email invitation explained the purpose of the research and included a link to the online platform for the survey. Finally, 89 online questionnaires were returned, which equals a response rate of approximately 9%.

The study participants are from a variety of different industries with 'Banking/Financial Services' being the most prevalent at 34% (see Table 3). The respondents are furthermore mainly representatives of large-scale enterprises. The majority of the participating companies have a turnover of more than EUR 1 billion, more than 500,000 customers and more than 5,000 employees. Information and data about customers are usually spread across different divisions within a company. Customer-related data are also processed by different applications and stored in different systems.

When asked, whether they consider CRM integration desirable, 78 of 89 respondents agreed (19%), or even strongly agreed (68.5%) with this statement (see Figure 1). This finding should be viewed in the light of yet another survey result that indicates that the majority of respondents (about 60%) regarded the enterprise-wide integration of customer-related information and systems as insufficient, i.e., 33 of the respondents referred to integration's status as 'accomplished in some departments', 12 as 'accomplished in just a few departments', and 9 companies regard their integration as status as 'very low' (compare Figure 2). These results clearly show that, on the one hand, businesses are quite eager to integrate their customer-related information and systems within the company (Fig. 1), but, on the other hand, the integration's actual status is insufficient and companies are still struggling with their integration efforts (Fig. 2). Asked about the priority of different CRM integration areas, 59 of 89 respondents regarded the enterprise-wide integration across intra-departmental boundaries as well as the integration of CRM activities across companies ('Inter-enterprise CRM') as 'high' or even 'very high'. This high degree of acceptance also holds true for the systems level. A majority of companies (approximately 65%) considered the integration of analytical, operational and collaborative CRM systems as 'important' or 'very important' (Salomann *et al.*, 2005).

Table 3. Sample characteristics

Main activity of organisation	Percent
Banking/Financial Services	34.0
Insurance	17.0
Telecommunications	8.0
Retail	4.5
Manufacturing	4.5
Transportation	2.0
Pharmaceutical	2.0
IT	2.0
Other	24.0

Is the Integration of Customer Information Desirable?
(N=89)

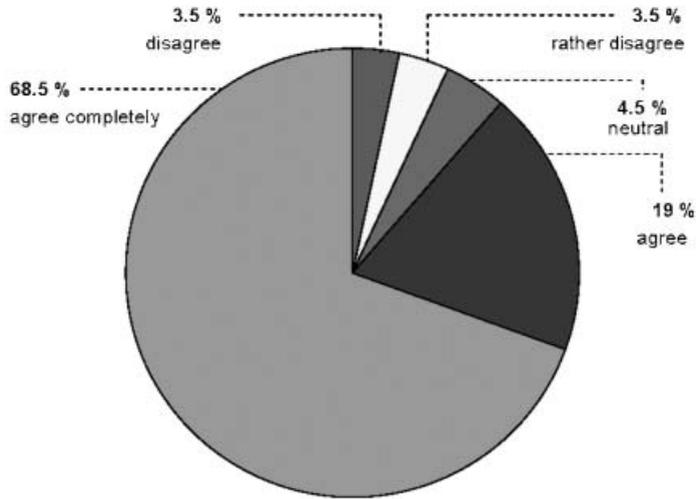


Figure 1. Desire of businesses to integrate their customer information.

Status of Integration of Customer Information
(N=89)

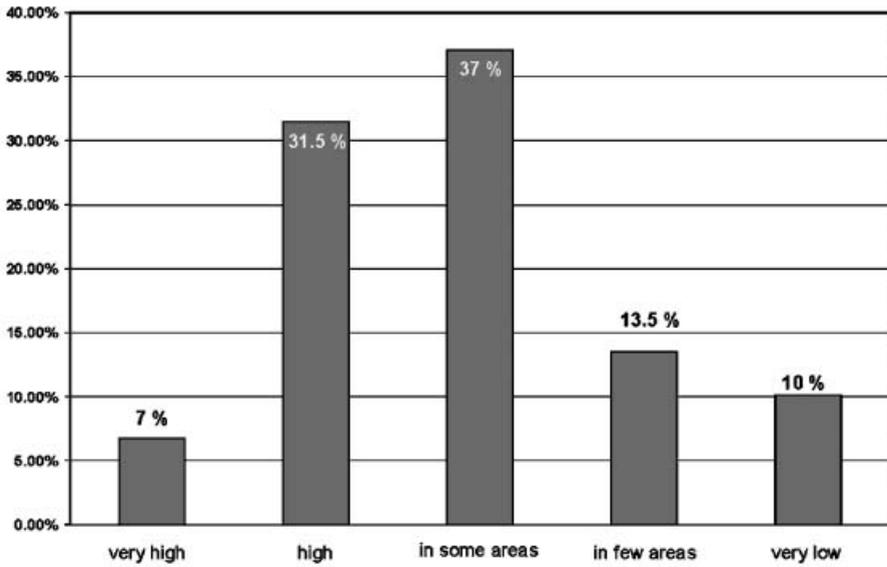


Figure 2. Status of integration of customer information.

However, the integration of ERP and CRM systems was viewed as not being highly prioritized by companies (with 29 of 89 companies considering the priority of this integration area as 'unimportant', compared to only 7 respondents regarding the priority as 'very important').

Insights from research

Data collection. The literature review was carried out between July 2003 and January 2004. Articles from thirty-nine leading English-language journals from five disciplines (information systems, marketing/service management, management, organisation, and operations/logistics) were analysed. Journal articles were chosen as the focus of the study in order to guarantee a rigorous review process and high quality. A complete list of the journals selected from the premium journal lists of two European business schools (University of St. Gallen, Vienna University of Economics and Business Administration) one US business school (Kelley School of Business, Indiana University) as well as of the German Association of University Professors of Management is available in the Appendix. Journals had to appear on each of these lists to qualify for selection. Using the EBSCO-host system, all the journals were searched for a list of keywords. Subsequently, the respective tables of content and abstracts were rechecked to ensure that no relevant article had been overlooked.

The articles had to be published in the period January 2000 to December 2003 to qualify, as the first relevant results of studies on CRM integration had been introduced to the leading literature during the year 2000. Earlier publications largely chose not to address the integration issue, or were overly optimistic and driven by e-hype scenarios hailing the term 'e-CRM'. Only the recent literature, inspired by company projects, consulting work and case studies, focussed on this topic.

Data analysis and findings. The final sample consisted of 17 articles (see Table 4). From a total of approximately 2,496 articles (39 journals * 4 yrs * 4 issues per year * 4 articles) this is a percentage of well below 1% that features CRM integration. Surprisingly, integration is rarely covered in IS (1) and mainly in management (6) and marketing (7) literature. Even the operations journals (3) seem to have assimilated the integration issue more than IS experts with their systems integration expertise.

Seven papers used a narrative methodology, eight applied a qualitative empirical approach (case study or action research) and six papers are based on quantitative empirical research. Five studies

Table 4. Distribution of 17 selected articles by research domain

Domain (see Table 5 for full description)	Total number of selected articles
IS	1
Marketing	7
Management	6
Operations/Logistics/Organisation	3

used composite approaches, combining both narrative and empirical, or different empirical methods.

Table 5 shows the 17 selected journal articles that cover CRM integration from different angles. We next discuss the results according to the five dimensions that were introduced in the preceding sections:

- Discipline domain of the study
- Main research questions and focus
- Theoretical concepts applied
- Integration layer addressed
- Assessment of company performance

In accordance with Homburg *et al.* (2002, pp. 40–41), we chose these dimensions as our basic criteria for comparison between the studies. Given these different domains, the specific in-depth results are far too broad for insightful results from a comparison, and are therefore not discussed here.

Discipline. The majority of articles are from the marketing and management domain, followed by operations. Marketing literature is native to CRM and therefore the ‘home discipline’ with discussions focusing on the strategic aspects of marketing management (Homburg *et al.*, 2002; Kotorov, 2002; Wilson *et al.*, 2002). On the strategic level, management studies analyse the different implications of leadership, company, and alliance structures (Sawhney, 2001; Verma *et al.*, 2001).

Operations literature examines CRM integration in a surprisingly intensive manner (Hines *et al.*, 2002; Mollenkopf *et al.*, 2000; Ellinger *et al.*, 2000). This is mainly due to the supply chain discussion that is extended towards the demand side (demand chain management). Here the integration of CRM is a ‘natural’ functional add-on.

Coverage is strongly discipline-bound: In summary, disciplines stay within their boundaries when approaching the topic. The topic transcends typical IS and business units and covers numerous interfaces with different stakeholders. In order to reduce complexity, the status quo of the research has either an IS or business focus. Management and IS views are very rarely combined as in the case of Gebert *et al.* (2003) who strive to address the strategic, process and IS levels when discussing customer centrality.

Research questions addressed. The research questions can be divided into four areas: First are the integration perspectives with a cross-company focus by Sawhney (2001) or Rigby *et al.* (2002). Kotorov (2002) discusses the intra-organisational integration perspective in general and examines the functional relations and interactions between supply and demand. In addition, the integration of marketing with logistics (Mollenkopf *et al.*, 2000), operations (Hines *et al.*, 2002), or manufacturing (Weir *et al.*, 2000) provides specific insights into cross-functional alignment.

Second are the project-specific views that try to improve the management of CRM projects. Brohman *et al.* (2003), Wilson *et al.* (2002) and Verma *et al.* (2001) discuss the factors relevant to introducing CRM to a firm. Third are the performance-driven studies that strive to prove that customer value (Ellinger *et al.*, 2000), company (Kahn and Mentzer, 1998), or account (Homburg *et al.*, 2002) results have been improved. Fourthly, the embedded studies try to tie CRM to other, more intangible, concepts such as knowledge management (Gebert *et al.*, 2003),

Table 5. 17 selected CRM integration papers from 39 journals, 2000–2003

Authors	Year	Journal	Methodology	Theories of the firm	Layers of integration	Research domain	Corporate function	Main results/implications
Mollenkopf, Gibson, Ozanne	2000	Journal of Business Logistics	Quantitatively & qualitatively empirical	None	Strategy, management, organisation (interdepartmental)	Operations	Marketing and logistics	Functional integration between marketing and logistics improves performance
Ellinger, Daugherty, Keller	2000	Journal of Business Logistics	Quantitatively & qualitatively empirical	None	Functions	Operations	Marketing, logistics	Maximise customer value by integrating marketing and logistics
Tuominen, Rajala, Möller	2000	Journal of Strategic Marketing	Quantitatively empirical	None	Organisation	Marketing	Marketing, service, R&D	Commitments of employees, interfunctional co-ordination, and incentive systems improve performance
Colgate, Danaher	2000	Journal of the Academy of Marketing Science	Quantitatively empirical	None	Strategy	Marketing	Marketing, sales	Asymmetric effects of implementation of relationship strategy on customer satisfaction and loyalty (negative effects bigger in magnitude than positive effects)
Weir, Kochhar, LeBeau, Edgeley	2000	Long Range Planning	Quantitatively empirical	None	Functions, strategy	Management	Marketing, manufacturing	Correct alignment of manufacturing and marketing strategies through communications, cross-functional teams, product development techniques
Sawhney	2001	Harvard Business Review	Narrative & qualitatively empirical	None	Technology (systems), organisation (integration by product)	Management	Cross-company	Synchronise the company with external entities

Table 5. Continued

Authors	Year	Journal	Methodology	Theories of the firm	Layers of integration	Research domain	Corporate function	Main results/implications
Verma, Thompson, Moore, Louviere	2001	Decision Sciences	Quantitatively empirical	None	Functions	Management	Integration of marketing and operations management	Include operational issues in product design
Homburg, Workman, Jensen	2002	Journal of Marketing	Quantitatively empirical	None	Organisation	Marketing	Marketing	Performance differences in key account management approaches
Rigby, Reichheld, Schefter	2002	Harvard Business Review	Narrative	None	Technology, strategy, organisation	Management	Cross-company	Technology follows organisational changes which follow customer strategy
Kotorov	2002	Business Process Management Journal	Narrative	Transaction cost theory	Organisation	Marketing	Cross-company	Organisation-wide set-up of CRM initiatives is necessary
Wilson, Daniel, McDonald	2002	Journal of Marketing Management	Qualitatively empirical	None	Systems, functions	Marketing	IT for marketing	Project approval procedures, best practice models, prototyping new processes, managing the delivery of benefits
Hines, Silvi, Bartolini	2002	Journal of Operations Management	Qualitatively empirical	None	Functions	Operations	Manufacturing, logistics, operations	Empirical testing of integrated manufacturing strategies from demand to supply

Table 5. Continued

Authors	Year	Journal	Methodology	Theories of the firm	Layers of integration	Research domain	Corporate function	Main results/implications
O'Malley, Mitussis	2002	Journal of Strategic Marketing	Narrative	None	Culture, processes	Marketing	Marketing	Cultural change is necessary for CRM to be successful
Brohman, Watson, Piccoli, Parasuraman	2003	Communications of the ACM	Narrative & qualitatively empirical	None	Systems (data)	Information systems	Marketing, sales, IS	CRM information process. Strategies; data completeness is key, integrate with data sources from all areas
Bull	2003	Business Process Management Journal	Qualitatively empirical	None	Process, strategy	Management	Manufacturing	Complex, holistic concept, must be organised around business processes and IT integration
Gebert, Geib, Kolbe, Brenner	2003	Journal of Knowledge Management	Narrative & qualitatively empirical	None	Strategy, process (focus), systems	Management	Integration of knowledge management with marketing, sales, services processes	Management of customer knowledge is key
Piercy, Lane	2003	Journal of Marketing Management	Narrative	None	Functions, processes	Marketing	Sales, supply chain, operations, accounting, human resources	Strategic customer management: intelligence, interfaces, integration

data completeness (Brohman *et al.*, 2003), change (Rigby *et al.*, 2002), and radical process orientation (Bull, 2003).

Within the studies there are qualitative case studies, quantitative empirical work and descriptive work. Interdisciplinary research approaches that span more than any two domain areas are lacking, with the exception of Bull (2003) (management, marketing, and IT) and Gebert *et al.* (2003) (marketing, sales, service, management, and IT).

Applications of theories of the firm. The selected articles do not focus on a specific research methodology. There is a tendency, though, towards a combination of methodologies in order to cope with the topic's complexity. All the authors employ a sound theoretical foundation from their respective marketing, IS, or management domain. However, there is no or little mention or application of elementary theories of the firm. One exception is Kotorov (2002) who discusses TCE for the organisation-wide set-up of CRM integration. As we have shown in the corresponding section, those theories have the power to help explain CRM integration. They specifically span different domains within business administration and lend themselves to multi-disciplinary research challenges. Although no easy explanation for this absence is at hand, it clearly opens possibilities for future research.

Level of CRM integration. Seven of 17 articles describe a functional level of integration where departments are the typical organisational object of integration. This supports the above observation that the scope is domain specific. Not only is 'function' the main integration point, it is also the only one, even if multiple integration tangencies, such as strategy and process, are obvious.

The holistic nature of integration as such, and CRM in particular, is only addressed in one study (Bull, 2003). The absence of a detailed assessment of the processes between supply and demand as a link between strategy and IS, is startling. Only Bull (2003) and Gebert *et al.* (2003) show evidence of the role of processes. The most progressive interdepartmental integration studies that we examined cover the realm of manufacturing, logistics and marketing (Ellinger *et al.*, 2000; Mollenkopf *et al.*, 2000; Verma *et al.*, 2001; Hines *et al.*, 2002).

Company performance. Only three studies discuss the impact of CRM integration on performance aspects (Mollenkopf *et al.*, 2000; Ellinger *et al.*, 2000; Tuominen *et al.*, 2000), although performance issues seem to be a major inhibitor of successful implementations. In addition, there is no concept of what performance actually means, or how to measure it. Those rare studies that do discuss it find a positive direct influence on performance (Mollenkopf *et al.*, 2000), or at least an indirect influence (Tuominen *et al.*, 2000) via improved internal effectiveness and efficiency.

DISCUSSION OF FINDINGS

Integration's complex and extensive task is essential for effective and efficient business. It can be motivated theoretically as well as empirically (see preceding sections). The integration of CRM, specifically, can be observed from quite differing perspectives.

We believe that several researchers addressed distinctive questions in the context of CRM integration that led to insightful and significant research results. Nevertheless, we have to negate our first research question since only a few of the examined authors focus on the comprehensive

integration of CRM within a company setting. The discussion is monopolised by the specific domain from which the authors come.

In summary, the results of the literature review match those from the market studies and empirical data:

- CRM integration is regarded as crucial for company performance or project success.
- Researchers take a unilateral view of either IS, management, marketing, or the operations domain.
- The majority of CRM articles focus on strategic issues, the process level is widely underrepresented.
- CRM integration is mostly regarded as an intra-organisational, often functional, phenomenon within the company—with the exception of Sawhney (2001).
- Research usually emphasises the CRM initiation project (Wilson *et al.*, 2002) and does not discuss the actual running of the initiative or managing change as an ongoing task.

In the light of our second research question, we have identified diverse areas on which theory and practice have to focus to make CRM integration initiatives more successful. To a certain extent the overall results are not surprising, since the examined research had not yet been designed to address multifaceted views from strategy to systems, from supply to demand, and from the collaborative process with customers to that with suppliers.

Our literature review shows that theories of the firm are rarely used in CRM research, although they are central to and broadly employed in organisational studies. In conjunction with those theories and other theoretical approaches, new and extended options for research questions are revealed in three directions:

- *Integration scope*: Scope covers the relationships between (suppliers, customers, allies) and within companies. The relative efficiency of these relationships can be compared with a process based on TCE. Modern economics of the organisation's approaches nicely support the combined assessment of the backward inter-organisational, internal as well as the forward integration on the process layer. A main objective of CRM integration is the 'optimised' design of customer relationships in alignment with internal operations. In the light of resource-based theory, integration can be perceived as the ability to use resources, therefore the internal and external scope can be assessed in concert, e.g., by including the suppliers' resources when considering backward inter-organisational integration.
- *Integration layer of strategy, process, and system*: A well-known theories of the firm application is the evaluation of outsourcing decisions where the relative transaction costs associated with different options are compared. Similarly, linking TCE to a CRM integration model can deliver a more differentiated analysis of management options across strategy, process, and systems; e.g., on the systems layer, transaction cost comparisons can be carried out in respect of data exchange or access. This can be done with or without inclusion of the remaining layers. Additionally, consideration of the agency theory is indicated on the strategic layer in order to address problems with co-operation and asymmetric distributed information.
- *Integration viewed as a project*: As mentioned before, integration is more a continuous activity than a final state. An integration model should therefore include the observation of consecutive integration phases. Parallel to organisational research, we regard the relative

determination of different design alternatives as vital. In contrast, however, we compare successive integration phases along a chronological time axis rather than with multiple alternatives at a certain point in time. TCE could be employed to put various temporal integration states into perspective, either retrospectively or proactively. By virtue of this time aspect, it is possible to evaluate the benefit of planned or past integration steps.

IMPLICATIONS, LIMITATIONS, AND FURTHER RESEARCH

Motivated by third-party market studies, this paper has used empirical data in conjunction with an extensive literature review of leading journals in different disciplines to assess the coverage of CRM integration. First, we showed that there is a link between ‘good’ CRM integration practices and a company’s success. Then different perspectives on CRM integration and on related theoretical foundations were assessed. The review then revealed that CRM integration—though theoretically important for a company’s performance—is largely regarded as an isolated issue of the relevant domain. Based on current insights from practice, we affirm that this is a reflection of the current situation in the corporate realm and that it is a major shortcoming in most projects.

Implications for research

In our opinion, CRM integration has not been sufficiently studied, nor has the link to theories of the firm, or the relation to and implication for performance on a project or company level. Researchers from different domains should jointly adapt their research design to the interdisciplinary nature of CRM integration and step outside their respective domains. Current research clearly addresses most of CRM integration’s relevant facets, but still needs to put the pieces together. A foundation comprised of the theories of the firm provides firm ground on which to present CRM integration beyond the narrative style.

Implications for practice

CRM initiatives have to be set up as inter-departmental and inter-organisational ventures that span different layers of strategy, processes and systems within and outside the company. Integration has to be part of the initial project planning and should include supply, IS, marketing, sales, services and general management. As such it is a company-wide undertaking and improves the company’s performance when the culture and incentives are appropriate. Companies have to clarify what their performance goals are and how to measure them. Again, CRM integration requires attention beyond the duration of the project, since the true benefits of ‘integrative’ exchange are only realised once the initial project has been completed.

Limitations

The applied data and the literature review have limited generalisability, although they do reveal recurring deficits in the current research that has to date failed to apply existing integration constructs to CRM. This paper therefore aims at increasing the visibility and raising awareness of those issues. Further assessment and model building are clearly required. Currently, various

case studies have been initiated at leading companies to substantiate the findings from the journals.

Future research

Future research has to further assess our results. More details are needed to conceptualise CRM integration in a way that can be applied in practice. Case study research can help to obtain a better view of real life challenges and help to fine-tune the set of questions for further quantitative research.

In addition, empirical studies that deliberately include the complex, interdisciplinary aspects of CRM integration need to be set-up to answer the questions asked by in-depth case studies. Finally, further rigorous application of theories of the firm to CRM integration may help bridge domain-specific borders. The systematic assessment of the questions relating to which theories of the firm support which parts of a future CRM integration model would be a logical next step. There is also room for further investigation of the 'how issue' (i.e., efficiency) of CRM integration.

Ultimately, this may lead to a better understanding, not only of CRM integration, but also of the embedding of corporate functions from demand to supply.

REFERENCES

- Aghion, P. and Tirole, J. (1997) Formal and real authority in organizations. *Journal of Political Economy* **105**(1), 1–29.
- Aladwani, A.M. (2002) An empirical examination of the role of social integration in system development projects. *Information Systems Journal* **12**, 339–53.
- Alchian, A.A. and Demsetz, H. (1972) Production, information costs, and economic organization. *The American Economic Review* **62**(5), 777–95.
- April, C.A. and Harreld, H. (2002) Seeking CRM integration: bringing together CRM with other data and systems proves an arduous task for enterprises. *InfoWorld*, September, 1 and 40–43.
- Aubert, B.A., Rivard, S. and Patry, M. (1996) A transaction cost approach to outsourcing behavior: some empirical evidence. *Information and Management* **30**(2), 51–64.
- Badgett, M. and Connor, W. (2003) *CRM Done Right*, Somers, New York: IBM Corp.
- Bennett, R. (1996) Relationship formation and governance in consumer markets: transactional analysis versus the behaviourist approach. *Journal of Marketing Management* **12**(5), 417–36.
- Beretta, S. (2002) Unleashing the integration potential of ERP systems: the role of process-based performance measurement systems. *Business Process Management Journal* **8**(3), 254–77.
- Blattberg, R.C. and Deighton, J. (1996) Manage marketing by customer equity test. *Harvard Business Review* **74**, 136–44.
- Braganza, A. (2002) Enterprise integration: creating competitive capabilities. *Integrated Manufacturing Systems* **13**(8), 562–72.
- Brohman, K.M., Watson, R.T., Piccoli, G. and Parasuraman, A. (2003) Data completeness: a key to effective net-based customer service systems. *Communications of the ACM* **46**(6), 47–51.
- Bull, C. (2003) Strategic issues in customer relationship management (CRM) implementation. *Business Process Management Journal* **9**(5), 592–602.
- Burgelman, R.A. and Doz, Y.L. (2001) The power of strategic integration. *MIT Sloan Management Review* **42**(3), 28–38.
- Coase, R.H. (1937) The nature of the firm. *Economica* **4**(16), 386–405.

- Colgate, M.R. and Danaher, P.J. (2000) Implementing a customer relationship strategy: the asymmetric impact of poor versus excellent execution. *Journal of the Academy of Marketing Science* **28**(3), 375–87.
- Conner, K.R. (1991) A historical comparison of resource-based theory and five schools of thought within industrial organization economics: do we have a new theory of the firm? *Journal of Management* **17**(1), 121–54.
- Cravens, D.W. and Piercy, N.F. (1994) Relationship marketing and collaborative networks in service organizations. *International Journal of Service Industry Management* **5**(5), 39–53.
- Day, G.S. (1994) The capabilities of marketing-driven organizations. *Journal of Marketing* **58**(10), 37–52.
- Dowling, G. (2002) Customer relationship management: in B2C markets, often less is more. *California Management Review* **44**(3), 87–104.
- Ellinger, A.E., Daugherty, P.J. and Keller, S.B. (2000) The relationship between marketing/logistics interdepartmental integration and performance in US manufacturing firms: an empirical study. *Journal of Business Logistics* **21**(1), 1–22.
- Farley, J.U. and Lehmann, D.R. (1986) *Meta-Analysis in Marketing*, Lexington, MA: Lexington Books.
- Foss, N.J. (1999) Research in the strategic theory of the firm: ‘isolationism’ and ‘integrationism’. *Journal of Management Studies* **36**(6), 725–55.
- Garbarino, E. and Johnson, M.S. (1999) The different roles of satisfaction, trust, and commitment in customer relationships. *Journal of Marketing* **63**, 70–87.
- Gebert, H., Geib, M., Kolbe, L.M. and Brenner, W. (2003) Knowledge-enabled customer relationship management. *Journal of Knowledge Management* **7**(5), 107–23.
- Glass, G.V., McGaw, B. and Smith, M.L. (1981) *Meta-Analysis in Social Research* (4th print 1987), Beverly Hills, CA: SAGE Publications, Inc.
- Goodhue, D.L., Wybo, M.D. and Kirsch, L.J. (1992) The impact of data integration on the cost and benefits of information systems. *MIS Quarterly* **16**(3), 293–311.
- Grant, R.M. (1991) The resource-based theory of competitive advantage: implications for strategy formulation. *California Management Review* **33**(3), 114–35.
- Gummesson, E. (1994) Making relation marketing operational. *International Journal of Service Industry Management* **5**(5), 5–20.
- Gummesson, E. (1998) Implementation requires a relationship marketing paradigm. *Journal of the Academy of Marketing Science* **26**(3), 242–9.
- Halliday, S.V. (2002) Barriers to customer-orientation: a case applied and explained. *European Journal of Marketing* **36**, 136–58.
- Hamel, G. and Prahalad, C.K. (1990) The core competence of the corporation. *Harvard Business Review* **68**(3), 79–91.
- Hart, O. and Moore, J. (1999) Foundations of incomplete contracts. *Review of Economic Studies* **66**, 115–38.
- Hines, P., Silvi, R. and Bartolini, M. (2002) Demand chain management: an integrative approach in automotive retailing. *Journal of Operations Management* **20**, 707–28.
- Homburg, C., Workman, Jr., J.P. and Jensen, O. (2000) Fundamental changes in marketing organization: the movement toward a customer-focused organizational structure. *Journal of the Academy of Marketing Science* **28**(4), 459–78.
- Homburg, C., Workman, Jr., J.P. and Jensen, O. (2002) A configurational perspective on key account management. *Journal of Marketing* **66**, 38–80.
- Hooley, G., Greenley, G., Fahy, J. and Cadogan, J. (2001) Market-focused resources, competitive positioning and firm performance. *Journal of Marketing Management* **17**, 503–20.
- Hunt, S.D. (2000) *A General Theory of Competition*, Thousand Oaks, CA: Sage Publications.
- Hunter, J.E. and Schmidt, F.L. (1990) *Methods of Meta-Analysis*, Newbury Park, CA: Sage Publications.
- IBM (2002) *Multi-Channel Value Quantification*, Somers, New York: IBM Corp.
- Jensen, M.C. and Meckling, W.H. (1992) Specific and general knowledge and organizational structure. In L. Werin and H. Wijkander (eds) *Contract Economics*, Oxford: Blackwell, pp. 251–74.

- Jhingran, A.D., Mattos, N. and Pirahesh, H. (2002) Information integration: a research agenda. *IBM Systems Journal* **41**(4), 555–62.
- Jobber, D. and Lucas, G.J. (2000) The modified Tichy TPC framework for pattern matching and hypothesis development in historical case study research. *Strategic Management Journal* **21**, 865–74.
- Kahn, K.B. and Mentzer, J.T. (1996) Logistics and interdepartmental integration. *International Journal of Physical Distribution & Logistics Management* **26**(8), 6–14.
- Kahn, K.B. and Mentzer, J.T. (1998) Marketing's integration with other departments. *Journal of Business Research* **42**, 53–62.
- Kale, S.H. (2004) CRM failure and the seven deadly sins. *Marketing Management* **13**(5), 42–6.
- Kinikin, E. (2004) *Continuous Customer Management*, Cambridge, MA: Forrester Research, Inc.
- Kotorov, R.P. (2002) Ubiquitous organization: organizational design for e-CRM. *Business Process Management Journal* **8**(3), 218–32.
- Lee, J., Siau, K. and Hong, S. (2003) Enterprise integration with ERP and EAI. *Communications of the ACM* **46**(2), 54–60.
- Malone, T.W. (1997) Is empowerment just a fad? Control, decision making, and IT. *Sloan Management Review* **38**(2), 23–35.
- Margulius, D.L. (2002) Finding the right tools: achieving solid CRM integration requires advances in data transformation, process coordination to tackle this multilayered problem. *InfoWorld*, September, 42–3.
- McNaughton, R.B., Osborne, P., Morgan, R.E. and Kutwaroo, G. (2001) Market orientation and firm value. *Journal of Marketing Management* **17**, 521–42.
- Mollenkopf, D., Gibson, A. and Ozanne, L. (2000) The integration of marketing and logistics functions: an empirical examination of New Zealand's firms. *Journal of Business Logistics* **21**(2), 89–112.
- Moorman, C. and Rust, R.T. (1999) The role of marketing. *Journal of Marketing* **63**(Special Issue), 180–97.
- O'Malley, L. and Mitussis, D. (2002) Relationships and technology: strategic implications. *Journal of Strategic Marketing* **10**, 225–38.
- Paashuis, V. and Boer, H. (1997) Organizing for concurrent engineering: an integration mechanism. *Integrated Manufacturing Systems* **8**(2), 79–89.
- Payne, A. and Ryals, L. (2001) Customer relationship management in financial services: towards information-enabled relationship marketing. *Journal of Strategic Marketing* **9**(1), 3–27.
- Piercy, N.F. (1998) Barriers to implementing relationship marketing: analysing the internal market-place. *Journal of Strategic Marketing* **6**, 209–22.
- Piercy, N.F. and Lane, N. (2003) Transformation of the traditional salesforce: imperatives for intelligence, interface and integration. *Journal of Marketing Management* **19**(5/6), 563–82.
- Poppo, L. and Zenger, T. (1998) Testing alternative theories of the firm: transaction cost, knowledge-based, and measurement explanations for make-or-buy decisions in information services. *Strategic Management Journal* **19**(9), 853–77.
- Priem, R.L. and Butler, J.E. (2001) Is the resource-based 'view' a useful perspective for strategic management research? *Academy of Management Review* **26**(1), 22–40.
- Reichheld, F.F. and Teal, T. (1996) *The Loyalty Effect: The Hidden Force Behind Growth, Profits and Lasting Value*, Boston, MA: Harvard Business School Press.
- Reichheld, F.F. and Sasser, W.E. (1990) Zero defections: quality comes to services. *Harvard Business Review* **68**(5), 105–111.
- Reinartz, W.J. and Kumar, V. (2000) On the profitability of long lifetime customers: an empirical investigation and implications for marketing. *Journal of Marketing* **64**(4), 17–35.
- Reinartz, W.J. and Kumar, V. (2003) The impact of customer relationship characteristics on profitable lifetime duration. *Journal of Marketing* **67**(1), 77–99.
- Reinartz, W.J., Thomas, J.S. and Kumar, V. (2005) Balancing acquisition and retention resources to maximize customer profitability. *Journal of Marketing* **69**(1), 63–79.
- Rigby, D.K., Reichheld, F.F. and Scheffer, P. (2002) Avoid the four perils of CRM. *Harvard Business Review* **80**(2), 101–9.

- Ross, S.A. (1973) The economic theory of agency: the principal's problem. *American Economic Association* **63**(2), 134–9.
- Rust, R.T. and Zahorik, A.J. (1993) Customer satisfaction, customer retention, and market share. *Journal of Retailing* **69**(2), 193–215.
- Salomann, H., Dous, M., Kolbe, L. and Brenner, W. (2005) Customer relationship management survey: status quo and future challenges. Working paper. University of St. Gallen, Switzerland.
- Sawhney, M. (2001) Don't homogenize, synchronize. *Harvard Business Review* **79**(6), 101–8.
- Seth, A. and Thomas, H. (1994) Theories of the firm: implications for strategy research. *Journal of Management Studies* **31**(2), 165–91.
- Shaw, R. and Reed, D. (1999) *Measuring and Valuing Customer Relationships: How to Develop the Measures that Drive Profitable CRM Strategies*, London: Business Intelligence Ltd..
- Srivastava, R.K., Fahey, L. and Christensen, H.K. (2001) The resource-based view and marketing: the role of market-based assets in gaining competitive advantage. *Journal of Management* **27**, 777–802.
- Storbacka, K., Strandvik, T. and Grönroos, C. (1994) Managing customer relationships for profit: the dynamics of relationship quality. *International Journal of Service Industry Management* **5**(5), 21–38.
- Tirole, J. (1988) *The Theory of Industrial Organization*, Cambridge, MA: MIT Press.
- Tuominen, M., Rajala, A. and Möller, K. (2000) Intraorganizational relationships and operational performance. *Journal of Strategic Marketing* **8**, 139–60.
- Verma, R., Thompson, G.M., Moore, W.L. and Louviere, J.J. (2001) Effective design of product/services: an approach based on integration of marketing and operations management decisions. *Decision Sciences* **32**(1), 165–93.
- Walker, G. (1988) Strategic sourcing: vertical integration, and transaction costs. *Interfaces* **18**(3), 62–73.
- Weir, K.A., Kochhar, A.K., LeBeau, S.A. and Edgeley, D.G. (2000) An empirical study of the alignment between manufacturing and marketing strategies. *Long Range Planning* **33**, 831–48.
- Williamson, O.E. (1973) Markets and hierarchies: some elementary considerations. *American Economic Review* **63**(2), 316–25.
- Williamson, O.E. (1976) The economics of internal organization: exit and voice in relation markets and hierarchies. *American Economic Review* **66**(2), 369–77.
- Williamson, O.E. (1981) The modern corporation: origins, evolution, attributes. *Journal of Economic Literature* **19**(4), 1537–68.
- Wilson, H., Daniel, E. and McDonald, M. (2002) Factors for success in customer relationship management (CRM) systems. *Journal of Marketing Management* **18**, 193–219.
- Winer, R.S. (2001) A framework for customer relationship management. *California Management Review* **43**(4), 89–105.
- Yeung, M.C.H. and Ennew, C.T. (2000) From customer satisfaction to profitability. *Journal of Strategic Marketing* **8**, 313–26.
- Zahra, S.A. and Nielsen, A.P. (2002) Sources of capabilities, integration and technology commercialization. *Strategic Management Journal* **23**, 377–98.

APPENDIX: LIST OF 39 JOURNALS INCLUDED IN ANALYSIS

Domain: Information Systems

ACM Computing Surveys
ACM Transactions on Database Systems
Communications of the ACM
European Journal of Info Systems

Information & Organization
Information Systems
Information Systems Journal
Information Systems Research
Journal of Database Marketing
Journal of Decision Systems
Journal of Management Info Systems
Management Info Systems Quarterly

Domain: Management

Academy of Management Journal
Academy of Management Review
Business Process Management Journal
California Management Review
Harvard Business Review
Long Range Planning
Sloan Management Review
Strategic Management Journal
Journal of Knowledge Management

Domain: Marketing

European Journal of Marketing
International Journal of Service Industry Management
Journal of the Academy of Marketing Science
Journal of Marketing
Journal of Marketing Management
Journal of Marketing Research
Journal of Relationship Marketing
Journal of Strategic Marketing
Marketing Science

Domain: Operation/Logistics

Decision Sciences
International Journal of Operations & Production Management
Journal of Business Logistics
Journal of Operations Management
Management Science
Manufacturing & Services Operations Management
Supply Chain Management

Domain: Organization

Organization Science
Organization Studies