Abstract

The present thesis deals with the price optimization of retail companies and the associated challenges for small and medium-sized enterprises. Above all in the German trade market the price represents one of the central marketing instruments (Fassnacht, Köttschau & Wriedt, 2012, p. 565, Ahlert & Kenning, 2007, p. 233), which was used very unilaterally by the retail companies. Increased price competitions led to declining trade margins (Simon, Gathen & Daus, 2006, p.271, Levy, Grewal, Kopalle & Hess, 2004, p.15). Increased price pressure requires companies to make more targeted and systematic use of price scope (Simon, 1992, p. 4). In addition to the option to lower prices, this also includes the option to increase prices. Studies by Fox, Postrel & Semple (2009) and Neslin & Shoemaker (1983) have shown that price elasticity in retail can be considered inelastic and that prices are often set too low.

Therefore, different category pricing models have been developed to support price decisions in retail companies. Most of these models are based on the collection of historical data, mostly from scanner cash registers, which are evaluated and used to calculate interdependencies. The aim of these models is to determine the best possible price combination for items, with which the company maximizes the margin across all items. However, not all companies have enough data to determine interdependencies and many companies can not analyze the data due to a lack of resources. Especially small and medium-sized enterprises are affected (Roll & Achterberg, 2013, p. 17). Their pricing decisions are based on the experience gained by management (Roll & Achterberg, 2013, p. 18). Studies have shown that a combination of data-driven models and experiences provides better overall results than using only data-driven models or only experience-based decisions (Blattberg & Hoch, 1990, pp. 888 f., Libby, 1976). P. 12). However, there are no suitable price optimization approaches that integrate the experience of companies and thus take into account the special situation of SMEs.

The problems addressed here are circumvented by the algorithm in this work by omitting the collection of large amounts of data and using subjective estimates of the price decision makers to determine the various functional parameters. It is shown that price optimization does not necessarily require the use of larger amounts of data as a basis, and that the experience of the price decision maker can be a very good alternative.