



Toward an understanding of industry commoditization: Its nature and role in evolving marketing competition

Martin Reimann^{a,*}, Oliver Schilke^{b,1}, Jacquelyn S. Thomas^{c,2}

^a University of Southern California, Seeley G. Mudd Building, 3620 McClintock Avenue, Los Angeles, California 90089-1061, United States, Tecnológico de Monterrey, EGADE Business School, Campus Monterrey, 66269 Monterrey, México

^b Stanford University, Building 370, 450 Serra Mall, Stanford, California 94305, United States, RWTH Aachen University, Center for Entrepreneurship, 52056 Aachen, Germany

^c Cox School of Business, Southern Methodist University, P.O. Box 750333, Dallas, TX 75275-0333, United States

ARTICLE INFO

Article history:

First received in 13, December 2008 and was under review for 8½ months

Area editor: Aradhna Krishna

Keywords:

Marketing strategy
Survey research

ABSTRACT

This paper aims to improve current knowledge on the commoditization of industries, a unique phenomenon of evolving marketing competition characterized by increasing homogeneity of products, higher price sensitivity among customers, lower switching costs, and greater industry stability. As commoditization is relevant to an ever-greater number of diverse industries, this research addresses two main questions: (1) How can managers assess their industry's level of commoditization to be better informed about their firm's competitive environment? and (2) How does the level of commoditization in an industry affect the effectiveness of marketing strategies? Initially, in-depth field interviews identified the characteristics of the commoditization phenomenon. Subsequently, a survey study among 141 companies from ten industries applied a measure to assess an industry's commoditization level. The results showed significant differences between high and low commodity markets in terms of the impact of three different strategic orientations on firm performance. The application of the value disciplines framework revealed that as commoditization increases, operational excellence and product leadership lose impact, while customer intimacy becomes a more vital performance driver. The results indicate that commoditization assessment may become a vital part of a firm's strategic efforts to address evolving marketing competition.

© 2009 Elsevier B.V. All rights reserved.

1. Introduction

A major theme in the study of evolving marketing competition has been the need to understand the causes of differing competitive environments and the implications of environmental changes for firms' strategic orientations (Heil & Montgomery, 2001; Weitz, 1985). Marketing scholars have increasingly emphasized one particular phenomenon as a critical factor in evolving markets: the commoditization of industries (e.g., Olson & Sharma, 2008; Sharma & Sheth, 2004; Ulaga & Chacour, 2001). Preliminarily, we consider commoditization as occurring when competitors in comparatively stable industries offer increasingly homogenous products to price-sensitive customers who incur relatively low costs in changing suppliers.

Previous research has indicated that commoditization is not limited to a single industry but rather constitutes a general trend pertaining to an increasing number of industries (Greenstein, 2004;

Olson & Sharma, 2008; Sharma & Sheth, 2004). Thus, commoditization appears to be an important phenomenon in evolving marketing competition (Heil & Helsen, 2001; Unger, 1983). For example, many high-tech industries currently face the challenge of commoditization as a steadily greater number of offerings from their component suppliers are undifferentiated, including computer memory, television parts, and disk drives (Christensen & Raynor, 2003; Greenstein, 2004; Kohli & Thakor, 1997).

At least two developments are fundamental to this market evolution (Matthyssens & Vandenbempt, 2008; Shapiro, 2002): First, customers have become more informed. They can learn a great deal about a product and its use and will be able to find substitutes if necessary. Second, increasing transparency in competitive markets allows firms to imitate and improve on a competitor's product, providing sufficient alternatives to the customer, increasing the likelihood that he or she will switch to a different supplier.

In examining the consequences of commoditization, prior research has shown that commoditized industries are more likely to experience price wars (Davenport, 2005; Gultinan & Gundlach, 1996; Heil & Helsen, 2001). In a similar vein, researchers have argued that increased commoditization will lead to lower profitability of firms (Matthyssens & Vandenbempt, 2008; Narver & Slater, 1990; Rangan & Bowman, 1992).

* Corresponding author. Tel.: +1 408 813 8449.

E-mail addresses: mreimann@usc.edu (M. Reimann), schilke@stanford.edu (O. Schilke), thomasj@mail.cox.smu.edu (J.S. Thomas).

¹ Tel.: +1 650 736 1137.

² Tel.: +1 214 768 7837.

The increasing practical importance of understanding commoditization, coupled with recent academic interest in the topic, suggests two avenues for improving our comprehension of the phenomenon. One requirement is a commonly accepted conceptualization and operationalization of an industry's level of commoditization. While studies have mentioned a few key characteristics related to commoditization, such as homogenous products (Pelham, 1997) and industry stability (Hambrick, 1983b), the literature offers no comprehensive construct that captures multiple dimensions of commoditization. A second need is for clear guidance on how firms can effectively leverage different marketing strategies as markets trend toward commoditization. Specifically, marketing managers may need to rebalance their companies' strategic orientations. While some researchers assert that only operational excellence may count in commoditized markets (Pelham, 1997), others claim that product- and customer-centered strategies are key to performance in these environments (Robinson et al., 2002). Generalizable empirical evidence, however, is still lacking.

The primary purpose of the current article is to address these two neglected research issues. We first explore the nature and facets of commoditization, develop new scale items, adapt existing scales to capture an industry's level of commoditization. Then, we investigate the differential impact of various strategic orientations on firm performance, comparing high and low commodity markets. In doing so, we address three essential questions, which—in a more general form—have been raised as essential to marketing strategy research (Day & Montgomery, 1999): (1) How do commoditized and non-commoditized industries function?, (2) How do firms in these industries relate to their environment?, and (3) What are the contributions of different strategic orientations to firm performance in these industries?

In the following sections, we first discuss the in-depth field interviews that we initially conducted to identify the multiple dimensions of the commoditization phenomenon. Next, we review the literature on commoditization and derive hypotheses regarding differences between high and low commoditization markets in terms of the impact of different competitive foci on firm performance. Subsequently, we present a large-scale empirical study conducted among marketing executives, which applies a multidimensional measure to assess an industry's commoditization level and enables us to explore differences between high and low commoditization markets in terms of the impact of different strategy levers on firm performance. Finally, we discuss the theoretical and managerial implications of the article and offer directions for further research.

2. Field interviews

Much of the previous research only focused on a single dimension or a narrow view of commoditization. We conducted field interviews with six marketing executives to investigate the dimensions and potential existence of a multi-dimensional concept of commoditization. We adopted the following as a preliminary definition of industry commoditization: *Industry commoditization describes an increase in similarity between the offerings of competitors in an industry, an increase in customers' price sensitivity, a decrease in customers' cost of switching from one to another supplier in an industry, and an increase in the stability of the competitive structure.*

We selected various industries for our interviews to yield a diversified sample with different levels of commoditization.³ All participants were the highest-ranking marketing officers (one interview partner's job title was "chief executive officer," but he was handling all marketing issues for his firm). In the interviews, which lasted between one and

two hours, the marketing executives were first asked to describe their industry and their competitive environment. They were then invited to comment on their firm's strategic orientation.

Our interviews presented a number of interesting contrasts. For example, we found that marketing executives in some industries (which we interpreted as being highly commoditized) view their competitive environment as much more stable than do managers in other industries. For example, the marketing executive of a mining company deals with only "a handful of competitors," with which he has been personally familiar for a long time. Conversely, his counterpart in office furniture manufacturing described her competitive surroundings as "highly dynamic with an ever-changing number of competitors." These descriptions suggest that the climate in which an industry operates may vary significantly—from stable to dynamic.

Furthermore, whereas a marketing executive from the energy supply industry characterized the market offerings in his competitive environment as "literally as homogenous as it gets," a manager in toy train manufacturing described the complex product portfolios available from his company and competitors as ranging "from miniature trains in several sizes and track widths via digital control systems to spare and working parts." These responses demonstrate that product portfolios of different industries can vary from homogenous (that is, with small differences between competitors) to specialized (with large differences between competitors).

Additionally, an executive from beef production noted that his customers are highly price-sensitive and that he often "struggles with tough negotiations on prices and conditions." In contrast, an executive from underwear manufacturing stated that he could ask for premium prices from his customers—an advantage that he guessed came from his "strong, exclusive underwear brand." In short, these two statements suggest that while customers in certain industries have a clear understanding of the prices of their suppliers, prices are less transparent in other markets.

Customers in the beef industry were typified as having relatively low costs related to changing suppliers, which resulted from low product evaluation cost, as product specifications are standardized across the entire industry. In contrast, the executive from the underwear industry noted that customer switching is limited because of brand strength. Similarly, the toy train executive characterized his customers as "almost stuck" with his company because of the differing toy train specifications of his competitors. On the basis of these comments, we find that while in some industries customers are only loosely tied to a specific supplier, customer-supplier bonds seem almost cemented in other industries.

In summary, our field interviews revealed striking differences in environmental mechanisms such as product homogeneity, customer price sensitivity, switching costs, and industry stability. While we found that scores for certain characteristics were high for some industries (e.g., high price sensitivity among customers in the metals and stones mining industry), they were comparatively lower for other industries (e.g., high price sensitivity among customers in the office furniture industry). Furthermore, we found that not only are these environmental mechanisms different for high versus low commoditized industries, but also that there are differences in the way marketing executives conduct their trade. For example, while the mining executive has the opportunity to form close relationships with his customers because there are only a few customers in his industry, office furniture executive cannot form these bonds because the set of customers changes frequently.

3. Conceptual background

3.1. Commoditization in evolving marketing competition

Although previous studies have stressed the importance of commoditization in marketing competition (Narver & Slater, 1990;

³ A thorough review of the literature led us to identify some industries as examples of high and low commoditization levels (e.g., Hambrick, 1983a; Hambrick, 1983b; Narver & Slater, 1990; Stanton & Herbst, 2005). We further elaborate on this categorization in our data analysis.

Olson & Sharma, 2008; Rangan & Bowman, 1992; Sharma & Sheth, 2004), a commonly accepted, comprehensive conceptualization of this phenomenon is still missing. Drawing from our in-depth field interviews and a synthesis of prior research, we derive four distinctive aspects of commoditization (Fig. 1).

3.1.1. Product homogeneity

As a characteristic of commoditized industries, high product homogeneity means that products are perceived in the market as being interchangeable (Bakos, 1997; Greenstein, 2004; Pelham, 1997; Robinson et al., 2002). Lumber, plywood, wood chips, and logs are examples of commodity-like products, which are essentially identical in quality and performance to those of competitors (Narver & Slater, 1990).

3.1.2. Price sensitivity

High price sensitivity in commoditized industries results from the fact that buyers are looking for the best price for a standard product on the assumption that products with essentially equivalent quality and features will continue to be available (Shapiro, 1987). Research shows that significant price fluctuations in fact occur in commoditized environments such as the steel, copper, or sawn goods industries (Alajoutsijärvi, Klint, & Tikkanen, 2001), and contribute to the increased price-consciousness of buyers.

3.1.3. Switching cost

Finally, switching cost, which represents a combination of buyers' economic risk, evaluation, learning, set-up, benefit loss, monetary loss, personal relationship loss, and brand relationship loss costs (Burnham, Frels, & Mahajan, 2003), is described as being low in commoditized markets.

3.1.4. Industry stability

In highly commoditized competitive environments, industry stability is high (Pelham, 1997), as reflected in predictable market demand, a consistent competitive structure, and few changes in the set of customers (Day & Wensley, 1983).

3.2. Marketing strategy in commoditized industries

As our in-depth field interviews suggested, the effectiveness of different strategic orientations may vary across various levels of commoditization. We employ the value disciplines framework of Treacy and Wiersema (1993) to investigate those potential differences. We chose the value disciplines framework because it is grounded in industrial economics theory (Porter, 1980, 1981; Tallon, 2007) and because of its marketing emphasis and prior application to marketing strategy issues (Krasnikov & Jayachandran, 2008; Leeftang & Wittink, 2000; Schnaars, 1991; Slater et al., 1997).

Delivering customer value is a key objective of marketing strategy (Payne & Holt, 2001; Ulaga, 2001). Treacy and Wiersema's (1993) framework consists of three value disciplines—operational excellence, product leadership, and customer intimacy—available to firms for creating value for their customers. While operationally excellent firms create value by offering customers a low-cost product made possible through efficiency and cost reductions in operations, firms striving for product leadership create value through innovative design and brand image. The third value discipline, customer intimacy, creates value by focusing on understanding customers and meeting their specific needs. One important feature of the value disciplines framework is the recommendation that although firms might want to concentrate on only one value discipline, they should remain competent in all three areas (Treacy & Wiersema, 1993).

Drawing on the field interviews and the scarce literature on the topic, we develop moderating hypotheses specifying differences between high and low commoditization markets in terms of the impact of the three value disciplines on firm performance. First, we hypothesize that the strength of the positive relationship between operational excellence and firm performance is weaker in highly commoditized industries than in less commoditized industries. A major reason for this constellation is that, particularly in commoditized industries, it is common for many firms to have similar minimum-cost structures (C. W. Hill, 1988). Almost all firms in these markets have raised their efficiency through downsizing, rightsizing, outsourcing, and business process reengineering (Sheth et al., 2000), leaving little remaining potential for improvement. As production technologies are fairly stable among competitors in high commodity environments (Hambrick, 1983b), major innovations in operations that contribute significantly to cost reduction become less likely. This line of reasoning suggests that operational excellence will be a less relevant performance driver in more commoditized industries than in less commoditized industries. Thus, we propose the following:

H1. The positive relationship between operational excellence and firm performance is weaker in highly commoditized industries than in less commoditized industries.

Second, we turn to the differential effect of product leadership on firm performance, comparing high and low commodity markets. We argue that product leadership will be relatively less important to performance in highly commoditized industries. While product leadership has been suggested as a possibility even in high commodity environments (Levitt, 1980), it is generally harder to achieve in those markets. For example, high product homogeneity leaves only marginal room for product variation. High industry stability, and thus a low rate of product innovation, provides less opportunity to differentiate in terms of new product features. The case of Digital Equipment Corporation (DEC), a pioneering American company in the computer industry, illustrates how product leadership plays different

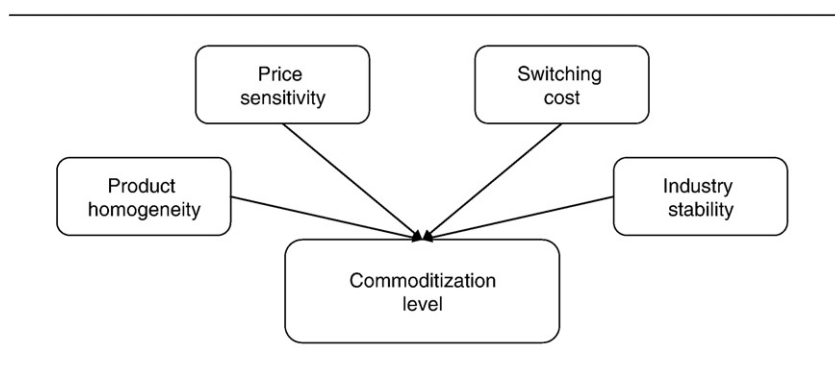


Fig. 1. Commoditization level as multi-dimensional construct.

roles in firm performance in low and high commodity industries (cf. [Kampas, 2003](#)). DEC's strong capabilities in product innovation allowed it to maintain its position as an industry leader during the 1970s and 1980s. However, after hardware became commoditized and the company failed to adjust its product innovation focus, DEC's performance deteriorated significantly. The importance of product leadership diminished because the hardware market had found a dominant approach, and major changes were technologically hard to achieve and not readily embraced by customers. Industry commoditization had eroded the product-based competitive advantage, which previously served as a key driver of DEC's performance. Against this background, we hypothesize the following:

H2. The positive relationship between product leadership and firm performance is weaker in highly commoditized industries than in less commoditized industries.

Finally, we posit that customer intimacy—in contrast to the two previously examined value disciplines—has a stronger effect on firm performance in highly commoditized industries than in less commoditized industries. As customers become more experienced with the offerings in commoditized markets and consequently more price-sensitive, the firm's practices in relating to its customers become an even more important way for them to distinguish themselves from the competition ([Johnson, Herrmann, & Huber, 2006](#)). Firms in high commodity environments that are able to build and maintain strong customer relationships may create an economic dependency on the part of buyers and will thus enjoy sustained competitive advantage. [Forsyth, Gupta, Haldar, & Marn \(2000\)](#) describe the case of a resin manufacturer that had long sold its products without engaging in systematic efforts to understand its customers and meet their specific needs. After implementing processes that helped improve customer relationships, the company was able to increase its sales by 15% in a single year. We concur with [Robinson et al. \(2002\)](#), who state that “service and relationship management are key strategies used by companies to escape the commodity trap and gain competitive advantage” (p. 149). Therefore, we propose:

H3. The positive relationship between customer intimacy and firm performance is stronger in highly commoditized industries than in less commoditized industries.

4. Survey study

To empirically investigate differences in the effectiveness of the three value disciplines between lower and higher commoditized markets and to test a newly constructed commoditization scale, we conducted a large-scale survey study.

4.1. Data collection

4.1.1. Sampling procedure

The sampling frame consisted of 878 business units identified through a commercial database. Within these business units, key informants (chief executive officer, vice president of marketing, vice president of sales, marketing director, or sales director) were contacted by phone, after which they were provided with access to the questionnaire. Firms operated in one of the following ten industries: energy supply, mining, forestry and logging, agriculture and hunting, pharmaceuticals, underwear, outerwear, wearing apparel and accessories, furniture, and toys. These industries were chosen to capture a variety of firms that have commoditization levels ranging from stereotypically high to stereotypically low. After pursuing a three-wave mailing approach ([Dillman, 1978](#)) via e-mail, we received a total of 141 usable responses, yielding a response rate of 16.1%.

4.1.2. Respondent and company characteristics

The vast majority (70.2%) of respondents are male managers. The average respondent has a company affiliation of 7.4 years and a self-reported high to very high knowledge of the company's environment and strategy. The average company in the sample has annual sales between \$50 million and \$100 million and has 200 to 500 employees. In 55.6% of the companies, the proportion of direct sales to the end consumer is 20% or less of total sales. In 31.9% of the companies, the proportion is 81% or more.

4.1.3. Nonresponse bias

Following the recommendations of [Armstrong and Overton \(1977\)](#), we assessed the possibility of nonresponse bias by comparing early and late respondents. The *t*-tests of group means revealed no significant differences. In addition, we analyzed whether the firms we contacted and the firms that responded differed in terms of size (number of employees) and industry segment; we also found no significant differences there. Finally, we followed the guidelines recommended by [Mentzer et al. \(2001\)](#) and contacted a random sample of 30 nonrespondents, asking them to answer ten questions from our survey, one for each of the first-order constructs used in our study. The *t*-tests of group means revealed no significant differences between respondents and nonrespondents for any of the questions. Thus, nonresponse bias was not considered a problem in the present study.

4.2. Measures

The first-order constructs were measured using reflective indicators, formulated as Likert-type statements anchored on a five-point response scale. We took several steps to guarantee the content validity of our constructs and items ([Churchill, 1979](#); [DeVellis, 2003](#)). We based construct and item generation on an intense literature review of marketing and management journals, as well as on our field interviews with marketing executives. We used existing scales drawn from previous studies along with several new scales we developed where existing scales could not be identified. On the basis of our initial item pool, we asked ten marketing academics to perform an item-sorting task that aimed to predict the performance of the measures ([Anderson & Gerbing, 1991](#)). Before the main survey, we conducted a pretest of the preliminary questionnaire using a pool of 21 marketing executives.

4.2.1. Commoditization level

We developed multi-item scales to measure the four dimensions (product homogeneity, price sensitivity, switching cost, and industry stability) that constitute the formative second-order construct commoditization level. The indicators aimed to measure to what extent each dimension characterized the environment of the business unit. We developed items for the product homogeneity construct drawing from the work of [Sheth \(1985\)](#) and [Hill \(1990\)](#), while the development of the items for price sensitivity was guided by the considerations of [Lichtenstein et al. \(1988\)](#). To measure the switching cost dimension, we created a new item pool drawing on the work of [Burnham et al. \(2003\)](#), and we measured the industry stability construct using four indicators based on the work of [Achrol and Stern \(1988\)](#) and [Gilley and Rasheed \(2000\)](#).

4.2.2. Operational excellence

The value discipline of operational excellence aims to achieve efficiency and cost reduction in operations. Companies pursuing this competitive focus continuously optimize their business processes to attain highly competitive cost structures ([Treacy & Wiersema, 1993, 1995](#)). To measure this construct, we adopted three items from [Nayyar \(1993\)](#).

4.2.3. Product leadership

The focus of product leadership is on constant innovation and the development of the firm's product portfolio, and the offerings of

product leaders typically stand out in terms of design and brand image (Treacy & Wiersema, 1993, 1995). Measures of product leadership were adopted from Chaudhuri and Holbrook (2001), Kotha and Vadlamani (1995), Nayyar (1993), and Wirtz et al. (2007).

4.2.4. Customer intimacy

Companies pursuing a strategy of customer intimacy thoroughly understand their customers and tailor their products to those customers' needs. Customer-intimate companies invest in advertising and promotions and encourage their employees to maintain excellent relationships with customers (Treacy & Wiersema, 1993, 1995). Measures for customer intimacy were adopted from the work of Davis and Schul (1993), Jayachandran, Sharma, Kaufman, & Raman (2005), Pelham and Wilson (1996), and Kotha and Vadlamani (1995).

4.2.5. Performance

We adopted the performance measure from Vorhies and Morgan (2005) and view performance as a reflective construct with the following three dimensions: profitability, customer satisfaction, and market effectiveness. Each dimension was measured using four items adopted from Vorhies and Morgan (2005). A list of all items is provided in Appendix A.

4.3. Common method bias

Because we obtained measures of the constructs from the same subjects, common method bias could be present in the data (Podsakoff & Organ, 1986). We took five steps to address this issue: (1) allowing the measurement scales of the dependent variable to follow the independent variables (Salancik & Pfeffer, 1977), (2) employing Harman's one-factor test (Becker, Greve, & Albers, 2009; Podsakoff & Organ, 1986), (3) testing for a latent common method factor in our empirical model (Podsakoff et al., 2003), (4) ensuring the validity of the performance information provided by the respondents by triangulating reported data with secondary data (Homburg, Schilke, Reimann, & Klarmann, 2009), and (5) sending a second questionnaire to a second manager of each firm (Jones et al., 1983). With regard to triangulation, for the subset of 54 firms for which objective performance information was publicly available, we found significant correlations between managerial and objective information on ROI ($r = .42, p < .01$) and ROS ($r = .52, p < .01$). For the 38 firms that provided a second response, the mean correlation across all pairs of respondents was .40 ($p < .01$), which compares favorably to some of the prior studies employing this procedure (e.g., Milton & Westphal, 2005; Morgan et al., 2004). These findings suggest that common method variance has not biased our measures.

4.4. Estimation

For estimation purposes, we used the partial least squares (PLS) approach to structural equation modeling, which attempts to maximize the explanation of variance in the dependent constructs of a causal model (Hulland, Chow, & Lam, 1996). PLS was chosen because it places minimal restrictions on sample size and residual distributions (Chin, Marcolin, & Newsted, 2003; Hulland, 1999) and avoids parameter estimation biases common in regression analysis (Calantone, Graham, & Mintu-Wimsatt, 1998; Fornell, Rhee, & Yi, 1991). We approximated second-order factors using the hierarchical component model (Lohmöller, 1989), creating the higher-order factors using the indicators of lower-order factors. In assessing the reliability and validity of measures and interpreting the structural model, we followed the guidelines provided by Hulland (1999).

4.5. Reliability and validity of measures

In our analysis, factor loadings, t -values, and composite reliability indicate high levels of item and convergent validity (see Appendix A).

With the exception of one item for customer intimacy (0.38), all factor loadings exceed the threshold value of 0.4 suggested by Hulland (1999). In addition, factor loading estimates are invariably significant at the 5% level. Furthermore, all measures demonstrate sufficient composite reliability by exceeding Bagozzi and Yi's (1988) recommended threshold value of 0.7. Average variance extracted is higher than the squared correlation for any pair of two latent variables, which supports the discriminant validity of the measures (Fornell & Larcker, 1981). Together with the content validity established by expert agreement in the qualitative study, these results provide empirical evidence of construct validity (Rossiter, 2002).

In addition, the two second-order factors used in this research were subject to separate analysis. We find significant ($p < .01$) coefficients for the paths between the four dimensions and the formative second-order factor commoditization level (0.42, 0.18, 0.53, and 0.25, respectively), a result that confirms the reliability and validity of the measurement of commoditization level as a four-dimensional construct. Similarly, the path coefficients between the reflective second-order factor performance and its three dimensions (0.85, 0.69, and 0.86) are significant at the 1% level.

4.6. Structural model

We next examined the structural model by assessing the explanatory power of the entire model and the predictive power of the independent variables (Chin, 1998; Hulland, 1999). Explanatory power is analyzed by looking at the squared multiple correlations (R^2) of the main dependent variable: performance. In our model, the independent variables explain 26.2% of the variation in performance. The predictive power of the independent variables is tested by examining the magnitude and significance of the standardized estimates for path coefficients. The findings show solid support for the proposed model. Examining the relationships between the value disciplines and performance, we find that all three links are positive and highly significant, with only minor differences in relative strength (see Fig. 2).

4.7. Moderation analysis

After examining the main effects of operational excellence, product leadership and customer intimacy on firm performance, we turned to a multi-group analysis (e.g., Brettel, Engelen, Heinemann, & Vadhanasindhu, 2008; Homburg, Grozdanovic, & Klarmann, 2007; Reimann et al., 2008) to gain insight into the specifics of strategy effectiveness at low versus high commoditization levels. A thorough review of the literature led to the identification of some industries as examples of those with high and low commoditization levels (e.g., Hambrick, 1983a; Hambrick, 1983b; Narver & Slater, 1990; Stanton & Herbst, 2005), which we used to assign industries to high and low commoditization groups. To confirm the appropriateness of assigning industries to the two groups, we performed a t -test with commoditization level as the differentiating factor. This test confirmed a significantly higher commoditization level for the high than the low commoditization group (see Table 1).

The standardized factor score represents the degree of commoditization of an industry. The score is obtained from PLS, reflecting a weighted average of the indicators of the four dimensions of the commoditization level. Table 2 presents the final rankings of industries with respect to commoditization level.

We obtained results for the structural model from two different subsamples, one from the low commoditization group and the other from the high commoditization group. To examine differences in path coefficients across the two subsamples, we performed pairwise t -tests (Chin, 2004; Eberl, 2005). Table 3 shows the respective path coefficients for the two groups as well as the results of the pairwise t -tests. All three paths between value disciplines and performance in the high commoditization level subsample are significantly different

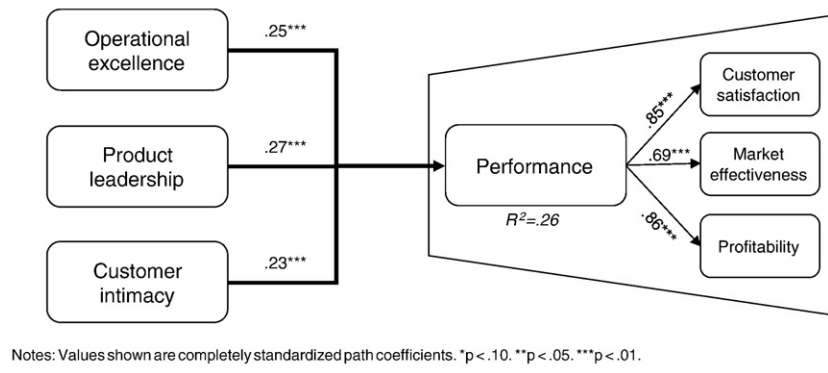


Fig. 2. Results of the structural model (entire sample).

($p < .1$) from their respective paths in the low commoditization level subsample.

In industries with a low commoditization level, all three value disciplines have a highly significant link to performance. The relationship is slightly larger for product leadership ($b = .30, p < .01$) than it is for operational excellence ($b = .29, p < .01$). Customer intimacy has the smallest effect ($b = .20, p < .01$) on performance. However, the similar magnitude of all of the effects indicates that firms tend to balance their strategic orientation across all three value disciplines in low commodity environments.

Highly commoditized industries present several distinctions from less commoditized markets. Here, customer intimacy has the strongest performance link ($b = .31, p < .01$), operational excellence is second ($b = .17, p < .01$), and product leadership is third ($b = .12, p < .1$). Thus, compared to the less commoditized markets, firms in highly commoditized industries tend to have a dominant (versus balanced) strategic orientation. Interestingly, that orientation is not related to operational excellence as others have indicated (Pelham, 1997), but rather is related to customer intimacy.

Our empirical analysis further supports the assertion that commoditization is an important factor in evolving markets (Heil & Helsen, 2001; Narver & Slater, 1990; Olson & Sharma, 2008; Rangan & Bowman, 1992; Reimann et al., forthcoming; Sharma & Sheth, 2004). To demonstrate its importance, we statistically compare the path coefficients of low and high commodity markets in Table 3. The table shows significant differences in links to performance for all three value disciplines across the subsamples. In support of hypotheses H1–H3, both product leadership and operational excellence have weaker relationships to performance, while customer intimacy is more strongly tied to performance in markets with a high commoditization level.

In a supplementary analysis, we conducted a comparison of firms in low and high commodity industries with regard to performance. To do so, we calculated the composite score of the performance construct, computed as the simple average of its dimensions' items. Comparing this measure for the two subgroups, we found that its mean was significantly lower in highly commoditized markets than in less commoditized markets ($p < .01$). This result lends support to the notion that increased commoditization is associated with lower firm performance (Matthyssens & Vandenbempt, 2008; Narver & Slater, 1990; Rangan & Bowman, 1992).

Table 1
Group validation.

Variable	Low commoditization group ($n_1 = 68$)	High commoditization group ($n_2 = 73$)	t-value
Commoditization level Mean (std. deviation) of standardized factor scores.	-.48 (.92)	.45 (.87)	6.13

5. Discussion and implications

While the commoditization of industries is receiving increased attention (Heil & Helsen, 2001; Narver & Slater, 1990; Olson & Sharma, 2008; Rangan & Bowman, 1992; Sharma & Sheth, 2004), this phenomenon has not been measured consistently in existing research. In the current study, we develop a multidimensional scale of commoditization level and empirically demonstrate commoditization as a multidimensional construct. Specifically, we show that product homogeneity, price sensitivity, switching cost, and industry stability jointly define an industry's commoditization level.

An important observation from our scale development and empirical analysis is that highly commoditized businesses tend to consistently rank noticeably higher on *more than one* of these dimensions. For example, the most highly commoditized industry, energy supply, scored very high with respect to both product homogeneity and industry stability (see Table 2). The second highest commoditized industry, mining, scored noticeably higher with respect to price sensitivity and switching cost relative to the other dimensions of commoditization. In contrast, the pharmaceutical industry had a positive level of industry stability but relatively lower and negative levels for the other dimensions; this industry ranked in the middle of our commoditization scale. Even at the lower end of the commoditization scale, the outerwear industry measured positive and moderately high with respect to switching cost, whereas it scored significantly lower and negative on all other dimensions. These observations show that a one-dimensional scale for commoditization may not accurately characterize all industries. Moreover, comparing firms across industries using different one-dimensional commoditization scales might lead to different conclusions about the industries' commoditization levels.

These empirical observations lead to another important insight with respect to market evolution. Specifically, they suggest that while a market can have characteristics that resemble those of commoditized industries, commoditization is not a foregone conclusion for that industry. Thus, addressing the question—"How do commoditized and non-commoditized industries function?"—the current research suggests that in evolving market competition, commoditization is a process characterized by multiple contributing factors that are present in *both* high and low commodity environments. Those factors may change over time, and as they do, the commoditization level of an industry can evolve.

In further addressing Day and Montgomery's (1999) query, we find that strategy can drive performance in both low and highly commoditized environments. However, firms leverage distinct value disciplines to drive performance differently depending on the environment. This study is among the first to hypothesize and test for specific differences between high and low commodity markets in terms of the performance potential of various strategic orientations. Our findings indicate that operational excellence and product leadership are standard levers for

Table 2
Average commoditization level of selected industries.

Industry	Commoditization level (group allocation)	Standardized factor scores Mean (std. deviation)					
		Commoditization level	Product homogeneity	Price sensitivity	Switching cost	Industry stability	
Energy supply	High	.55 (.92)	.66 (.87)	.14 (1.15)	.18 (1.00)	.43 (.99)	
Mining		.41 (.76)	.23 (.69)	.45 (.85)	.44 (.58)	.05 (.66)	
Forestry and logging		.16 (.35)	-.51 (.78)	-.14 (.64)	.68 (.61)	.61 (.20)	
Agriculture and hunting		-.18 (.44)	.17 (.48)	-.20 (1.15)	-.49 (.42)	-.11 (.51)	
Pharmaceuticals		-.25 (1.04)	-.38 (.98)	-.33 (1.14)	-.02 (1.03)	.07 (.59)	
Underwear		-.40 (.66)	-.42 (.96)	-.30 (.55)	.17 (.66)	-.68 (.98)	
Furniture		-.47 (.91)	-.54 (.85)	-.05 (.84)	-.45 (1.18)	-.03 (.87)	
Wearing apparel and accessories		-.54 (1.23)	-.52 (.85)	.26 (1.12)	-.30 (1.23)	-.79 (1.56)	
Outerwear		Low	-.62 (.96)	-.64 (.94)	-.53 (.62)	.37 (.78)	-1.18 (.78)
Toys			-.72 (.61)	-.84 (.95)	-.32 (.62)	.00 (.66)	-.81 (.85)

competing in both environments. Product leadership can allow the firm to appeal to diverse demand, and operational excellence can contribute to significantly lower costs. Customer intimacy can also play an important role in both types of markets because it can inform the firm as to how to enhance its offerings or better serve its customers.

However, our empirical analysis shows that as markets become more commoditized, firms leverage operational excellence and product leadership to drive performance to a much lower extent. The reason could be that changes occur in customers as markets evolve. As markets mature, total market spending on marketing and promotions typically increases. As a result, customer knowledge grows, and customer preferences can become more clearly defined. Focusing on customer intimacy allows firms to better understand those preferences and meet the needs of customers. Ultimately, customer intimacy may be the critical and essential factor driving performance. The importance of understanding customer needs and preferences could also explain the shift from a more balanced strategic emphasis on less commoditized markets to a single dominating strategic emphasis, that is specifically directed at customer intimacy in more commoditized markets. Thus, the critical factor influencing which value discipline is best suited to the environment is the *customer* (Shah et al., 2006). Customers evolve as markets evolve, which may ultimately lead firms to assume different strategic positions and effectively drive their performance.

These findings suggest a number of specific actions for firms. First, we can deduce that firms should invest in systems and processes that enhance customer intimacy *early on*, before a market becomes highly commoditized. While the most significant benefits of this investment may not manifest until the market matures, our findings regarding less commoditized markets indicate that benefits can emerge even sooner. Early investment allows the firm to leverage key customer insights and compete *while* (not after) customers evolve and as their preferences become more defined.

Because of the philosophical similarity between the customer intimacy value discipline and the concept of CRM, one would expect that customer intimacy could be enhanced by the adoption of a CRM process or a CRM system. Researchers have investigated the issues associated with implementing CRM systems (e.g., Bohling, Bowman, LaValle, Mittal, Narayandas, Ramani, & Varadarajan, 2006), but to our knowledge, no prior studies have made recommendations with

respect to timing the adoption of these systems. Thus, the notable aspect of this first recommendation is the timing for investing in systems and processes that enhance customer intimacy.

A second recommendation arising from this research relates to the product leadership value discipline. Table 3 shows that the biggest change as markets become commoditized is that product leadership becomes less important to performance. This result suggests that firms facing increasing commoditization should assess their investments in product leadership and determine whether and how they want to scale back. Given our first recommendation, our second recommendation is that managers leverage the insights they can gain from their customer intimacy efforts to determine when and how to scale back on the product leadership front. Specifically, market researchers or customer insight managers can track the stability in consumers' preferences and demand for innovations. As consumer preferences become more stable, the demand for product innovations can become more focused and may possibly decrease.

Our third managerial recommendation is that firms also leverage customer intimacy insights to enhance their operations. Operationally excellent firms create value by offering customers a low-cost product made possible through efficiency and cost reductions in operations. Our research suggests that operational excellence is important regardless of the market's commoditization level. However, firms must be careful when striving for efficiency because some efficiency measures can inadvertently evoke a negative reaction among target consumers. Thus, the key is to strive for efficiency without adversely affecting consumer demand. Insights derived from customer intimacy initiatives can help in this regard. For example, insights pertaining to distribution or communication preferences could lead to lower-cost alternatives that improve operational excellence.

6. Limitations and future research

This study responds to the call by Heil and Montgomery (2001) for research examining the various aspects of changing competitive environments and their consequences for the marketing strategy of firms. Specifically, this study breaks new ground in the conceptualization, measurement, and empirical understanding of the commoditization phenomenon. We find that industries vary in terms of commoditization

Table 3
Multi-group analysis.

	Group 1		Group 2		Group difference	
	Low commoditization level		High commoditization level			
	Path coefficient	t-value	Path coefficient	t-value	Path coefficient	t-value
Operational excellence → performance	0.29	5.97	0.17	2.55	0.12	1.52
Product leadership → performance	0.30	5.19	0.12	1.36	0.17	1.60
Customer intimacy → performance	0.20	2.53	0.31	3.63	-0.11	-1.35

and that significant differences exist between high and low commodity markets in terms of the impact of different value disciplines on firm performance. These important findings are subject to a few limitations, resulting in various avenues for future research.

First, while we strove for a parsimonious representation of marketing strategy by leveraging Treacy and Wiersema's (1993) widely used taxonomy, the chosen set of factors is not an exhaustive list. Further research might include other dimensions of marketing strategy (for a review, see Varadarajan & Jayachandran, 1999) and investigate their performance impact across different commoditization levels.

Second, although our study analyzes the effects of value disciplines on firm performance and considers the moderating role of industry commoditization, it does not incorporate other potential moderators. Clearly, future research should aim for a more complete representation of relevant contingencies, including the firm's resources and capabilities, as well as certain characteristics of the top management team.

Third, an important proposition of the value disciplines framework—the recommendation that although firms should concentrate on only one value discipline, they should remain competent in all three areas (Treacy & Wiersema, 1993)—has not been explored in this research. The reason is that this proposition does not pertain to the main research question underlying the current article. Future research, however, should examine whether certain threshold levels exist that must be exceeded for all three value disciplines to achieve success.

Additional avenues for future research result from the empirical focus and methods adopted in our study. The current study is restricted to analyzing commoditization in ten industries. Future research might identify more industries and derive broader generalizations regarding the commoditization phenomenon across industries. Moreover, although we collected performance data from objective sources, we do not have these data for all firms in our sample. Future studies should thus be designed to test the proposed relationships on the basis of secondary data.

Moreover, based on a multi-group analysis comparing two subsamples, we find significant differences in strategy effectiveness between low and high commodity markets. However, our analysis does not allow the assessment of potential nonlinear moderating effects. Thus, future studies should examine larger samples that may enable researchers to perform more detailed analyses of the moderating effect of commoditization, possibly comparing more than two subgroups

and evaluating the effect of competitive foci for various degrees of commoditization.

Our research suggests only initial conclusions regarding the consequences of a dynamic commoditization process on marketing strategy. Thus, for further theorizing in this direction, longitudinal studies analyzing the change in the commoditization level and how effective marketing strategy evolves over time would be helpful. The importance of the multi-level interplay between industry and organizational processes and the need for detail make ethnography a particularly suitable methodology for such research endeavors.

7. Conclusions

Despite its limitations, the current research offers valuable insights to managers. Our findings suggest that even in industries with high commoditization levels, firms can respond to environmental challenges with several strategy levers that affect performance. This result implies that there are indeed ways to fight or cope with what has been labeled the “commodity status” (Greenstein, 2004) or “commodity trap” (Sanford & Taylor, 2005). Furthermore, we find that in lower commodity environments, a strategy that is balanced across the value disciplines of operational excellence, product leadership, and customer intimacy is critical to driving performance. However, as markets become more commoditized, a stronger competitive focus on customer intimacy seems to have the greatest impact on performance. In sum, our findings emphasize that a commoditization assessment can become a vital part of a firm's efforts to address evolving marketing competition.

Acknowledgments

The authors are thankful for the valuable comments from editors Oliver Heil, David B. Montgomery, and Stefan Stremersch, as well as the area editor and two anonymous reviewers. We also thank Bruce Clark, Margit Enke, Christian Homburg, Richard Köhler, and Chris White, the session participants at the Conference on Evolving Marketing Competition in the 21st Century, the American Marketing Association Winter Educator's Conference, and the Academy of Marketing Science Annual Conference for feedback on the earlier versions of this research. For financial support, we thank Northwestern University and Deutsche Forschungsgemeinschaft (grant RE 2252/5-1).

Appendix A. Reliability and validity of measures

Factor	Indicator	Mean	Standard deviation	Loading	t-value	CR
<i>Commoditization level</i>						
To what extent do you agree with the following statements?						
Product homogeneity	In our industry, most products have no intrinsic differences from competing offerings.	2.52	1.09	.82	20.87	.91
	In our industry, product offerings are highly standardized.	2.68	1.20	.90	55.01	
	In our industry, homogeneity of technology and markets is high.	2.45	1.00	.78	19.87	
	In our industry, many products are identical in quality and performance.	2.44	1.05	.87	43.06	
Price sensitivity	In our industry, customers check prices even for low-value products.	3.04	1.12	.36	1.88	.79
	In our industry, customers buy the lowest-priced products that will suit their needs.	3.04	1.07	.86	12.00	
	In our industry, customers rely heavily on price when it comes to choosing a product.	2.70	.98	.94	28.36	
Switching cost	In our industry, customers' costs in switching to another supplier (switching cost) are low.	2.12	1.16	.81	23.10	.90
	In our industry, applying another supplier's product would be easy for the customer.	2.12	1.09	.87	31.20	
	In our industry, the process of switching to a new supplier is quick and easy for the customer.	2.35	1.13	.86	25.47	
	In our industry, switching to a new supplier does not bear risk for the customer.	2.57	1.06	.77	20.32	
Industry stability	In our industry, there are no frequent changes in customer preferences.	2.62	.88	.73	12.00	.83
	In our industry, there are no frequent changes in the product mix of suppliers	2.47	.82	.70	8.08	
	In our industry, technology changes are slow and predictable.	2.43	.90	.79	18.37	
	In our industry, product obsolescence is slow.	2.51	1.07	.74	11.28	
<i>Operational excellence</i>						
To what extent do you agree with the following statements?						
Operational excellence	We continuously improve our processes in order to keep costs low.	2.13	.65	.81	10.29	.86
	We are constantly improving our operating efficiency.	2.22	.68	.93	28.09	
	We continuously strive for product cost reduction.	2.24	.73	.69	4.44	

(continued on next page)

Appendix A (continued)

Factor	Indicator	Mean	Standard deviation	Loading	t-value	CR
<i>Product leadership</i>						
To what extent do you agree with the following statements?						
Product leadership	We continuously refine and improve existing products.	2.43	.91	.71	13.14	.88
	We have a high share of new products in our product portfolio.	3.20	1.07	.75	11.46	
	We undertake new product development above the industry average.	3.09	1.09	.80	21.14	
	The design and functionality of our products is crucial to our competitive positioning.	2.60	1.30	.81	19.83	
	Our brand is different from other brands in terms of actual product attributes (features that can be physically identified by touch, smell, sight, taste etc.).	3.32	1.30	.74	13.39	
	Our brand is different from other brands in terms of overall perceived quality (including non-tangible, psychological perceptions of the customer).	2.70	1.11	.65	9.93	
<i>Customer intimacy</i>						
To what extent do you agree with the following statements?						
Customer intimacy	Our company's strategy to achieve competitive advantage is based on our thorough understanding of our customers' needs.	2.47	.76	.57	4.43	.71
	We design or produce our products to order.	2.43	.98	.69	8.92	
	Orders are packaged and shipped in a way appropriate to each customer.	3.44	1.29	.44	2.49	
	A key criterion for evaluating those of our employees who come in contact with our customers is the quality of customer relationships.	3.08	1.01	.38	2.10	
	Our employees are encouraged to focus on customer relationships.	2.44	.73	.41	2.47	
	We conduct advertising at a level above the industry average.	3.30	1.04	.52	2.48	
We conduct promotions at a level above the industry average.	3.21	1.02	.54	2.60		
<i>Performance</i>						
Please evaluate the customer satisfaction of your business over the past year relative to your major competitors.						
Customer satisfaction	Customer satisfaction	2.33	.66	.74	14.29	.81
	Delivering value to your customers	2.34	.64	.73	12.49	
	Delivering what your customers want	2.52	.65	.60	7.11	
	Retaining valued customers	2.33	.66	.78	18.48	
Please evaluate the market effectiveness of your business over the past year relative to your major competitors.						
Market effectiveness	Market share growth	2.62	.70	.87	39.93	.88
	Growth in sales revenue	2.55	.73	.87	42.08	
	Acquiring new customers	2.70	.73	.72	10.89	
	Increasing sales to existing customers	2.65	.60	.73	15.23	
Please evaluate the profitability of your business over the past year relative to your major competitors.						
Profitability	Business unit profitability	2.67	.64	.87	27.02	.94
	Return on investment (ROI)	2.62	.67	.91	51.76	
	Return on sales (ROS)	2.70	.58	.90	36.06	
	Reaching financial goals	2.62	.67	.90	44.13	

References

- Achrol, R. S., & Stern, L. W. (1988). Environmental determinants of decision-making uncertainty in marketing channels. *Journal of Marketing Research*, 25(1), 36–50.
- Alajoutsijärvi, K., Klint, M. B., & Tikkanen, H. (2001). Customer relationship strategies and the smoothing of industry-specific business cycles: The case of the global fine paper. *Industrial Marketing Management*, 30(6), 487–497.
- Anderson, J. C., & Gerbing, D. W. (1991). Predicting the performance of measures in a confirmatory factor analysis with a pretest assessment of their substantive validities. *Journal of Applied Psychology*, 76(5), 732–740.
- Armstrong, J. S., & Overton, T. S. (1977). Estimating nonresponse bias in mail surveys. *Journal of Marketing Research*, 14(3), 396–402.
- Bagozzi, R. P., & Yi, Y. (1988). On the evaluation of structural equation models. *Journal of the Academy of Marketing Science*, 16(1), 74–94.
- Bakos, J. Y. (1997). Reducing buyer search costs: Implications for electronic marketplaces. *Management Science*, 43(12), 1676–1692.
- Becker, J. U., Greve, G., & Albers, S. (2009). The impact of technological and organizational implementation of CRM on customer acquisition, maintenance, and retention. *International Journal of Research in Marketing*, 26(3), 207–215.
- Bohling, T., Bowman, D., LaValle, S., Mittal, V., Narayandas, D., Ramani, G., & Varadarajan, R. (2006). CRM implementation: Effectiveness issues and insights. *Journal of Service Research*, 9(2), 184–194.
- Brettel, M., Engelen, A., Heinemann, F., & Vadhanasindhu, P. (2008). Antecedents of market orientation: A cross-cultural comparison. *Journal of International Marketing*, 16(2), 84–119.
- Burnham, T. A., Frels, J. K., & Mahajan, V. (2003). Consumer switching costs: A typology, antecedents, and consequences. *Journal of the Academy of Marketing Science*, 31(2), 109–126.
- Calantone, R. J., Graham, J. L., & Mintu-Wimsatt, A. (1998). Problem-solving approach in an international context: Antecedents and outcome. *International Journal of Research in Marketing*, 15(1), 19–35.
- Chaudhuri, A., & Holbrook, M. B. (2001). The chain of effects from brand trust and brand affect to brand performance: The role of brand loyalty. *Journal of Marketing*, 65(2), 81–93.
- Chin, W. W. (1998). The partial least squares approach to structural equation modeling. In G. A. Marcoulides (Ed.), *Modern methods for business research* (pp. 295–336). Mahwah, NJ: Lawrence Erlbaum.
- Chin, W. W. (2004). Frequently asked questions – Partial least squares & PLS-graph. Retrieved June 10, 2006, from <http://disc-nt.cba.uh.edu/chin/plsfaq.htm>
- Chin, W. W., Marcolin, B. L., & Newsted, P. R. (2003). A partial least squares latent variable modeling approach for measuring interaction effects: Results from a monte carlo simulation study and an electronic-mail emotion/adoption study. *Information Systems Research*, 14(2), 189–217.
- Christensen, C. M., & Raynor, M. E. (2003). *The innovator's solution: Creating and sustaining successful growth*. Cambridge, Massachusetts: Harvard Business School Press.
- Churchill, G. A. (1979). A paradigm for developing better measures of marketing constructs. *Journal of Marketing Research*, 16(1), 64–73.
- Davenport, T. H. (2005). The coming commoditization of processes. *Harvard Business Review*, 83(6), 100–108.
- Davis, P. S., & Schul, P. L. (1993). Addressing the contingent effects of business unit strategic orientation on relationships between organizational context and business unit performance. *Journal of Business Research*, 27(3), 183–200.
- Day, G. S., & Montgomery, D. B. (1999). Charting new directions for marketing. *Journal of Marketing*, 63(5), 3–13.
- Day, G. S., & Wensley, R. (1983). Marketing theory with a strategic orientation. *Journal of Marketing*, 47(4), 79–89.
- DeVellis, R. F. (2003). *Scale development: Theory and applications*, 2 ed. Thousand Oaks CA: Sage.
- Dillman, D. A. (1978). *Mail and telephone surveys: The total design method*. New York, NY: Wiley.
- Eberl, M. (2005). An application of PLS in multi-group analysis: The need for differentiated corporate-level marketing in the mobile communications industry. In T. Aluja, J. Casanovas, V. Esposito Vinzi, A. Morrineau, & M. Tenenhaus (Eds.), *PLS and related methods – Proceedings of the PLS '05 International Symposium* (pp. 203–210). Paris: Decisia.
- Fornell, C., & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research*, 18(1), 39–50.
- Fornell, C., Rhee, B. -D., & Yi, Y. (1991). Direct regression, reverse regression, and covariance structure analysis. *Marketing Letters*, 2(3), 309–320.

- Forsyth, J. E., Gupta, A., Haldar, S., & Marn, M. V. (2000). Shedding the commodity mindset. *McKinsey Quarterly*, 4, 78–85.
- Gilley, K. M., & Rasheed, A. (2000). Making more by doing less: An analysis of outsourcing and its effects on firm performance. *Journal of Management*, 26(4), 763–790.
- Greenstein, S. (2004). The paradox of commodities. *IEEE Micro*, 24(2), 73–75.
- Guiltinan, J. P., & Gundlach, G. T. (1996). Aggressive and predatory pricing: A framework for analysis. *Journal of Marketing*, 60(3), 87–102.
- Hambrick, D. C. (1983). An empirical typology of mature industrial-product environments. *Academy of Management Journal*, 26(2), 213–230.
- Hambrick, D. C. (1983). High profit strategies in mature capital goods industries: A contingency approach. *Academy of Management Journal*, 26(4), 687–707.
- Heil, O. P., & Helsen, K. (2001). Toward an understanding of price wars: Their nature and how they erupt. *International Journal of Research in Marketing*, 18(1–2), 83–98.
- Heil, O. P., & Montgomery, D. B. (2001). Introduction to the special issue on competition and marketing. *International Journal of Research in Marketing*, 18(1–2), 1–3.
- Hill, C. W. (1988). Differentiation versus low cost or differentiation and low cost: A contingency framework. *Academy of Management Review*, 13(3), 401–412.
- Hill, N. (1990). Commodity products and stalemate industries: Is there a role for marketing? *Journal of Marketing Management*, 5(3), 259–281.
- Homburg, C., Grozdanovic, M., & Klarmann, M. (2007). Responsiveness to customers and competitors: The role of affective and cognitive organizational systems. *Journal of Marketing*, 71(3), 18–38.
- Homburg, C., Schilke, O., Reimann, M., & Klarmann, M. (2009). Triangulation of survey data in marketing and management research: Concepts, findings, and guidelines. Paper presented at the 2009 American Marketing Association Winter Educator's Conference, Tampa, MI.
- Hulland, J. (1999). Use of partial least squares (PLS) in strategic management research: A review of four recent studies. *Strategic Management Journal*, 20(2), 195–204.
- Hulland, J., Chow, Y. H., & Lam, S. (1996). Use of causal models in marketing research: A review. *International Journal of Research in Marketing*, 13(3), 181–197.
- Jayachandran, S., Sharma, S., Kaufman, P., & Raman, P. (2005). The role of relational information processes and technology use in customer relationship management. *Journal of Marketing*, 69(4), 177–192.
- Johnson, M. D., Herrmann, A., & Huber, F. (2006). The evolution of loyalty intentions. *Journal of Marketing*, 70(2), 122–132.
- Jones, A. P., Johnson, L. A., Butler, M. C., & Main, D. S. (1983). Apples and oranges: An empirical comparison of commonly used indices of interrater agreement. *Academy of Management Journal*, 26(3), 507–519.
- Kampas, P. J. (2003). Shifting cultural gears in technology-driven industries. *MIT Sloan Management Review*, 44(2), 41–48.
- Kohli, C., & Thakor, M. (1997). Branding consumer goods: Insights from theory and practice. *Journal of Consumer Marketing*, 14(3), 206–219.
- Kotha, S., & Vadlamani, B. L. (1995). Assessing generic strategies: An empirical investigation of two competing typologies in discrete manufacturing industries. *Strategic Management Journal*, 16(1), 75–83.
- Krasnikov, A., & Jayachandran, S. (2008). The relative impact of marketing, research-and-development, and operations capabilities on firm performance. *Journal of Marketing*, 72(4), 1–11.
- Leeftang, P. S. H., & Wittink, D. R. (2000). Building models for marketing decisions: Past, present and future. *International Journal of Research in Marketing*, 17(2–3), 105–126.
- Levitt, T. (1980). Marketing success through differentiation – of anything. *Harvard Business Review*, 58(1), 83–91.
- Lichtenstein, D. R., Bloch, P. H., & Black, W. C. (1988). Correlates of price acceptability. *Journal of Consumer Research*, 15(2), 243–242.
- Lohmöller, J.-B. (1989). Latent variable path modeling with partial least squares Heidelberg: Physica.
- Matthyssens, P., & Vandenbempt, K. (2008). Moving from basic offerings to value-added solutions: Strategies, barriers and alignment. *Industrial Marketing Management*, 37(3), 316–328.
- Mentzer, J. T., Flint, D. J., & Hult, G. T. M. (2001). Logistics service quality as a segment-customized process. *Journal of Marketing*, 65(4), 82–104.
- Milton, L. P., & Westphal, J. D. (2005). Identity confirmation networks and cooperation in work groups. *Academy of Management Journal*, 48(2), 191–212.
- Morgan, N. A., Kaleka, A., & Katsikeas, C. S. (2004). Antecedents of export venture performance: A theoretical model and empirical assessment. *Journal of Marketing*, 68(1), 90–108.
- Narver, J. C., & Slater, S. F. (1990). The effect of a market orientation on business profitability. *Journal of Marketing*, 54(4), 20–35.
- Nayyar, P. R. (1993). On the measurement of competitive strategy: Evidence from a large multiproduct U.S. Firm. *Academy of Management Journal*, 36(6), 1652–1669.
- Olson, E. G., & Sharma, D. (2008). Beating the commoditization trend: A framework for the electronics industry. *Journal of Business Strategy*, 29(4), 22–28.
- Payne, A., & Holt, S. (2001). Diagnosing customer value: Integrating the value process and relationship marketing. *British Journal of Management*, 12(2), 159–182.
- Pelham, A. M. (1997). Market orientation and performance: The moderating effects of product and customer differentiation. *Journal of Business and Industrial Marketing*, 12(5), 276–296.
- Pelham, A. M., & Wilson, D. T. (1996). A longitudinal study of the impact of market structure, firm structure, strategy, and market orientation culture on dimensions of small-firm performance. *Journal of the Academy of Marketing Science*, 24(1), 27–43.
- Podsakoff, P. M., MacKenzie, S. B., Lee, J.-Y., & Podsakoff, N. P. (2003). Common method biases in behavioral research: A critical review of the literature and recommended remedies. *Journal of Applied Psychology*, 88(5), 879–903.
- Podsakoff, P. M., & Organ, D. W. (1986). Self-reports in organizational research: Problems and prospects. *Journal of Management*, 12(4), 531–544.
- Porter, M. E. (1980). *Competitive strategy* New York, NY: Free Press.
- Porter, M. E. (1981). The contributions of industrial organization to strategic management. *Academy of Management Review*, 6(4), 609–620.
- Rangan, V. K., & Bowman, G. T. (1992). Beating the commodity magnet. *Industrial Marketing Management*, 21(3), 215–224.
- Reimann, M., Lünemann, U. F., & Chase, R. B. (2008). Uncertainty avoidance as a moderator of the relationship between perceived service quality and customer satisfaction. *Journal of Service Research*, 11(1), 63–73.
- Reimann, M., Schilke, O., & Thomas, J.S. (forthcoming). Customer relationship management and firm performance: The mediating role of business strategy. *Journal of the Academy of Marketing Science*, 1–21, DOI:10.1007/s11747-009-0164-y
- Robinson, T., Clarke-Hill, C. M., & Clarkson, R. (2002). Differentiation through service: A perspective from the commodity chemicals sector. *Service Industries Journal*, 22(3), 149–166.
- Rossiter, J. R. (2002). The C-OAR-SE procedure for scale development in marketing. *International Journal of Research in Marketing*, 19(4), 305–335.
- Salancik, G. R., & Pfeffer, J. (1977). An examination of need-satisfaction models of job attitudes. *Administrative Science Quarterly*, 22(3), 427–456.
- Sanford, L. S., & Taylor, D. (2005). Let go to grow: Escaping the commodity trap Upper Saddle River, NJ: Prentice Hall.
- Schnaars, S. P. (1991). *Marketing strategy: Customers and competition* New York, NY: Free Press.
- Shah, D., Rust, R. T., Parasuraman, A., Staelin, R., & Day, G. S. (2006). The path to customer centricity. *Journal of Service Research*, 9(2), 113–124.
- Shapiro, B. P. (1987). Specialties vs. commodities: The battle for profit margins.
- Shapiro, B. P. (2002). Commodities, specialties and the great in-between, Harvard Business School working paper #9-999-005.
- Sharma, A., & Sheth, J. N. (2004). Web-based marketing: The coming revolution in marketing thought and strategy. *Journal of Business Research*, 57(7), 696–702.
- Sheth, J. N. (1985). New determinants of competitive structures in industrial markets. In R. E. Spekman, & D. T. Wilson (Eds.), *A strategic approach to business marketing* (pp. 1–8). Chicago: American Marketing Association.
- Sheth, J. N., Sisodia, R. S., & Sharma, A. (2000). The antecedents and consequences of customer-centric marketing. *Journal of the Academy of Marketing Science*, 28(1), 55–67.
- Slater, S. F., Olson, E. M., & Reddy, V. K. (1997). Strategy-based performance measurement. *Business Horizons*, 40(4), 37–44.
- Stanton, J. L., & Herbst, K. C. (2005). Commodities must begin to act like branded companies: Some perspectives from the united states. *Journal of Marketing Management*, 21(1/2), 7–18.
- Tallon, P. P. (2007). A process-oriented perspective on the alignment of information technology and business strategy. *Journal of Management Information Systems*, 24(3), 227–268.
- Treacy, M., & Wiersema, F. (1993). Customer intimacy and other value disciplines. *Harvard Business Review*, 71(1), 84–93.
- Treacy, M., & Wiersema, F. (1995). *The discipline of market leaders*. Reading, MA: Perseus.
- Ullaga, W. (2001). Customer value in business markets: An agenda for inquiry. *Industrial Marketing Management*, 30(4), 315–319.
- Ullaga, W., & Chacour, S. (2001). Measuring customer-perceived value in business markets: A prerequisite for marketing strategy development and implementation. *Industrial Marketing Management*, 30(6), 525–540.
- Unger, L. (1983). Strategic planning for commodities and specialties: A strategic industry study based on the example of the chemical industry. *Long Range Planning*, 16(4), 12–20.
- Varadarajan, P. R., & Jayachandran, S. (1999). Marketing strategy: An assessment of the state of the field and outlook. *Journal of the Academy of Marketing Science*, 27(2), 120–143.
- Vorhies, D. W., & Morgan, N. A. (2005). Benchmarking marketing capabilities for sustainable competitive advantage. *Journal of Marketing*, 69(1), 80–94.
- Weitz, B. A. (1985). Introduction to special issue on competition in marketing. *Journal of Marketing Research*, 22(3), 229–237.
- Wirtz, B. W., Mathieu, A., & Schilke, O. (2007). Strategy in high-velocity environments. *Long Range Planning*, 40(3), 295–313.