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The influence of business strategy on new product activity: The role of market orientation

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Abstract

In this paper, we propose that business strategy influences new product activity both directly and indirectly via its influence on market orientation. Accordingly, we develop a framework linking firms' relative emphasis on cost leadership, product differentiation and focus strategies to firms' customer and competitor orientation as well as their new product development and introduction activity. We use this framework to develop a simultaneous equations model that is tested on survey data from 175 Dutch firms of varying size and across different industries in the manufacturing sector. The surprising findings are that a greater emphasis on a focus strategy results in a decreased emphasis on customer orientation and that competitor orientation has a negative direct influence on new product activity and an indirect positive effect via customer orientation. We discuss the implications of these findings for theory and practice.

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1. Introduction

New product development and introduction are activities of vital importance to the growth and performance of firms. Despite considerable research into factors leading to successful new product activity (e.g., Henard & Szymanski, 2001; Montoya-Weiss & Calantone, 1994) as well as the consequences of such activity (e.g., Cardozo, McLaughlin, Harmon, Reynolds, & Miller, 1993;

Manu & Sriram, 1996), little work has examined how business strategy influences the degree to which new product development and introduction is undertaken within the firm (Dröge & Calantone, 1996, p. 559; Zahra, 1993; Zahra & Covin, 1993). The limited attention to the strategy–new product activity relationship is surprising given that new product activity is of strategic importance to firms and is therefore very likely to be influenced by the firm's strategic choices. For instance, a firm that primarily follows a strategy of product differentiation is more likely to be involved in new product development than a firm that follows a cost leadership strategy (Porter, 1980). Likewise, prospector firms are likely to be more intensely involved in

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new product activity than firms that pursue other strategy types (Miles & Snow, 1978). In this paper, therefore, we focus on how firms' relative emphasis on different business strategies influences the degree to which they engage in new product development and introduction. Further, we aim to open up the 'black box' between strategy and new product activity by studying the role of a potential mediator, namely market orientation.

Recent research suggests that the degree to which a firm is involved in new product activity depends on the extent and nature of its market orientation (Athuene-Gima, 1995, 1996; Han, Kim, & Srivastava, 1998; Hurley & Hult, 1998; Narver, Slater, & MacLachlan, 2000; Ottum & Moore, 1997). Summarizing this view, Narver et al. (2000, p. 11) state that "a market orientation, whether reactive or proactive, is the foundation for a firm's innovation efforts." Market orientation may be considered at multiple levels in the firm (Deshpandé, 1999) and is, accordingly, conceptualized in two ways in the current literature: as an organizational culture and as a set of behaviors. The first, cultural view considers market orientation as a set of organization-wide shared values. It posits a causal chain leading from these values, through norms for market orientation that reflect expectations about specific behaviors, to actual market-oriented behaviors themselves (Deshpandé & Webster, 1989; Homburg & Pflesser, 2000). As business strategy is an indisputable reflection of organizational choices (Porter, 1996), a firm's strategy is also likely to be influenced by its cultural values. In the cultural view, therefore, market orientation would precede business strategy. In contrast to the cultural view, the second, behavioral view posits market orientation as consisting of a set of behaviors and resource allocations reflective of an organization-wide responsiveness to customers' needs and wants (Noble, Sinha, & Kumar, 2002; see Kohli & Jaworski, 1990; Ruekert, 1992). Such behaviors serve to implement specific choices made by an organization and are therefore likely to follow from the firm's specific strategy (Walker & Ruekert, 1987).

In this paper, we adopt the behavioral view of market orientation. Accordingly, we conceptualize strategy as influencing market orientation rather than vice versa, and hypothesize specific links between different strategies and the behavioral components of market orientation. Consistent with

Narver and Slater (1990), we consider two behavioral components of market orientation: customer and competitor orientation. Most of the large body of work on market orientation has not made the distinction between firms that are primarily customer-oriented versus those that are primarily competitor-oriented. Similar to Han et al. (1998), Noble et al. (2002), and Slater and Narver (1994), we treat the market orientation construct as multidimensional. Further, firms' orientation towards customers or competitors is likely to influence how they respond to changes in the marketplace, in particular, the extent to which firms develop and introduce new products. Therefore, the extent and nature of a firm's market orientation will at least partially mediate the relationship between the firm's business strategy and its new product activity. For example, a firm that mainly follows a differentiation strategy could pursue new product activity in different ways depending on whether its focus is on customers (pro-active) or competitors (reactive). While a proactive firm will identify and respond to long-term customer needs and thus be more customer-oriented (Narver et al., 2000; Slater & Narver, 1998), a reactive firm will identify and respond to competitors' actions and thus be more competitor-oriented (Schnaars, 1994). Our conceptualization of market orientation within the context of the business strategy of the firm—conceptualized as an antecedent of market orientation—and the actual implementation of this strategy through new product activity—conceptualized as a consequence of a specific type of market orientation—extends Jaworski and Kohli's (1993) framework of antecedents and consequences of market orientation to a strategic context. It is also consistent with the implementation literature on how strategic marketing choices are executed within the firm (Noble & Mokwa, 1999).

By doing the above, this paper contributes to the extant literature in the following ways. First, it helps to further our understanding of how firms' strategic choices influence the degree to which new product development and introduction activities are undertaken within the firm. In contrast to the existing research on new product development which typically takes a prescriptive stance (a focus on the factors that determine successful from unsuccessful products), we adopt a descriptive approach that seeks to understand

what strategic factors drive the extent to which firms engage in a specific, highly significant, market-oriented activity such as new product development. Our focus, therefore, is not on the new product development process as such (cf. Olson, Walker, & Ruekert, 1995; Sethi, 2000) but on its outcomes, specifically the extent to which new products are developed and introduced by firms (cf. Zahra, 1993). Second, by examining the potential mediating role of market orientation as a set of behaviors, we are able to better understand how business strategies drive actual implementation of cross-functional activities within the firm. Understanding the links between a firm's market orientation and its underlying business strategy is critical to understanding how an organization-wide commitment to markets can be created or, conversely, how this commitment may fail to arise in a firm. Third, as market orientation refers to the implementation of the marketing concept within the firm (Kohli & Jaworski, 1990), our approach adds insight into the role of the marketing function within the firm and its contribution towards the implementation of the firm's strategic choices (Anderson, 1982; Homburg, Workman, & Krohmer, 1999). Given that some have questioned the marketing function's contribution to new product development within the firm (e.g., Workman, 1993) as well as the need for firms to be market-oriented in general and customer-oriented in particular (Christensen & Bower, 1996), our approach speaks directly to an issue of considerable importance to business practice (see Slater & Narver, 1998).

This paper is organized as follows. First, we discuss a conceptual framework linking firms' business strategy to the nature and extent of their market orientation and extent of new product activity. Next we draw on this framework to formulate hypotheses relevant to the objectives of our study. We then discuss the method we employ to test these hypotheses, present the results of our study and discuss their implications for research and practice. We conclude with the limitations of the study and our recommendations for future research.

2. Conceptual framework

Drawing on the literature in marketing, strategy and product innovation, we develop the following

framework for the influence of business strategy on market orientation and new product activity (see Fig. 1).

The framework posits three main links: (i) a direct link between strategy and new product activity, (ii) the influence of business strategy on market orientation, and (iii) the influence of market orientation on new product activity. Thus, we hypothesize both direct and indirect effects of strategy on firms' new product activity, and elaborate on these below.

Strategy is bound to directly influence a firm's degree of new product activity. As Simon (1993) notes: "The task of strategic planning is to assure a stream of new ideas that will allow the organization to continue to adapt to its uncertain outside world" (p. 141). Innovation is a primary means of adaptation and is therefore likely to be affected by strategy in a significant way. Moreover, the extent to which a firm engages in new product activity will also depend upon the *type* of strategic choices it makes. For example, as Miles and Snow (1978) argue, prospector firms are generally more engaged in innovation than defender firms are. Similarly, in order to differentiate themselves, differentiator firms may be more involved in new product activity than firms pursuing other strategy types (Porter, 1980). Therefore, it is important to differentiate between strategy types to gain a clearer understanding of strategy's influence on product innovation. We will do so in the next section, using the strategy types proposed by Porter (1980). While several alternative typologies of business strategy exist (e.g., Mintzberg, 1973; Miles & Snow, 1978), we employ Porter's (1980) typology because it is among the most widely used (e.g., Dess, Lumpkin, & Covin, 1997; Homburg, Krohmer, & Workman, 1999; Kotha & Vadlamani, 1995) and because it has received considerable empirical support over time (Campbell-Hunt, 2000; Dess & Davis, 1984; Miller & Friesen, 1986; Robinson & Pearce, 1988).

The link between strategy and market orientation builds upon the notion that functional marketing activities, i.e., behaviors related to the gathering, dissemination and responsiveness to information on customers and competitors (Kohli & Jaworski, 1990), are likely to be influenced by strategic choices at the business level (Slater & Olson,

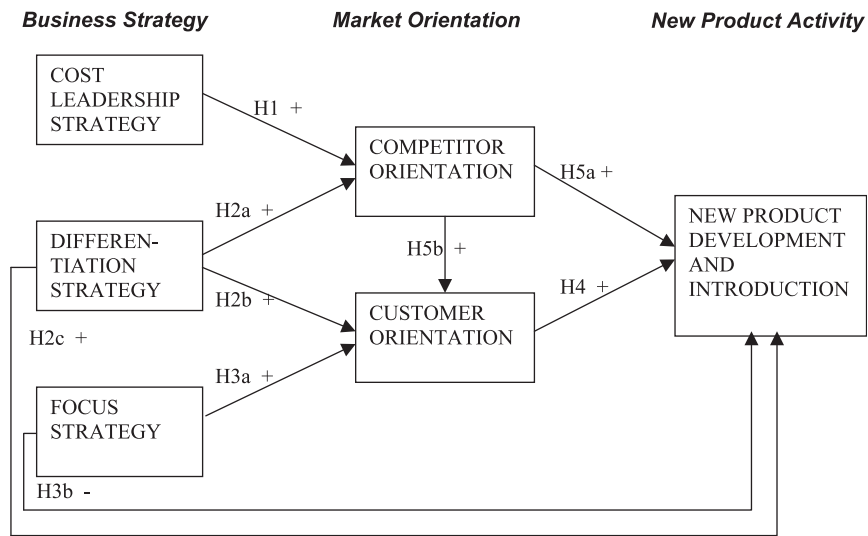


Fig. 1. Framework for the influence of business strategy on market orientation and new product activity.

2001; Walker & Ruekert, 1987). Thus, the degree to which the behavioral dimension of market orientation reflects a customer or a competitor orientation depends upon the strategy the firm pursues. Moreover, these behaviors have been found to vary systematically by strategy type (Lukas, 1999). Therefore, we conceptualize specific links between different strategies and the behavioral components of market orientation within our framework. Note that, consistent with the behavioral view of market orientation we adopt, we would naturally expect market orientation to be influenced by strategy rather than the reverse. Nevertheless, the behaviors related to customer and competitor responsiveness may be reflective of a market-oriented organizational culture to the extent that they are embedded within organizational values and norms (cf. Narver & Slater, 1990).

The link between market orientation and new product activity is based on considerable research in marketing that has focused on the consequences of market orientation. Thus, Han et al. (1998) argue that innovation is the missing link in the market orientation–performance relationship and find empirical support for this hypothesis. In a similar vein, Hurley and Hult (1998) focus on the influence of organizational antecedents, such as market and

learning orientation, on the firm's ability to successfully adopt or implement new ideas, processes or products. Their study implies that market orientation, which involves interfunctional activity, is likely to strongly influence the extent of a firm's new product activity. More recently, Narver et al. (2000) propose and find support for a positive relationship between both reactive and proactive market orientation and a firm's innovation activity. And finally, research on product innovation has also found considerable support for the stimulating role of market information on new product activity and success (e.g., Ottum & Moore, 1997).

In sum, our framework proposes that firms engage in new product activity to a greater extent depending upon the strategic choices they make (some strategies will result in more product innovation than others) and upon the degree to which their strategy influences the nature and extent of their market orientation (with one orientation stimulating product innovation more than the other). We therefore hypothesize a partially mediating role of market orientation between business strategy and new product activity.

We now use the framework to develop specific hypotheses linking various business strategies with market orientation and new product activity.

3. Hypotheses

Following our framework, we first present hypotheses linking the different business strategies to market orientation and firms' new product development and introduction. We then present hypotheses linking the two types of market orientation with new product activity.

3.1. Hypotheses linking business strategies with market orientation and new product activity

3.1.1. Cost leadership strategy

The strategy of cost leadership is aimed at achieving an above-average return on investment within an industry by means of "a high relative market share or other advantages such as favorable access to raw materials" (Porter, 1980, p. 36). Thus, cost leadership requires a strong focus on the supply side as opposed to the demand side of the market. In particular, firms pursuing a cost leadership strategy must continuously benchmark themselves against other competing firms in order to assess their relative cost (and therefore profitability) position in the marketplace. This requires a high level of *competitor orientation* (Day & Wensley, 1988). We thus expect cost leaders to be competitor rather than customer-oriented. Moreover, cost leaders are unlikely to engage in developing and launching new products, as cost leadership positions are mostly achieved by refining existing products or models (Dess & Davis, 1984). Consequently, we do not expect a direct effect of a cost leadership strategy on new product activity, after controlling for any indirect effects via competitor orientation. In sum, therefore:

H1. A firm's relative emphasis on pursuing *cost leadership* has a positive effect on its *competitor orientation*.

3.1.2. Differentiation strategy

The generic strategy of differentiation involves creating a market position that is perceived as being unique industry-wide and that is sustainable over the long run (Porter, 1980). Such differentiation can be based upon design or brand image, technology, features, customer services, distribution, and so forth. In

particular, differentiator firms create customer value by offering high-quality products supported by good service at premium prices (Walker & Ruekert, 1987). The effectiveness of a differentiation strategy depends on how well the firm can balance product benefits and product costs for the customer, relative to competitive offerings (Slater & Olson, 2001). Consequently, such a strategy requires a thorough understanding of both customer needs and the positioning of competing firms (Day & Wensley, 1988; Porter, 1996). A firm's emphasis on differentiation will, therefore, positively influence both its *customer* and *competitor orientation*.

We also expect a direct effect of a differentiation strategy on *new product activity*, in addition to its indirect effects via market orientation. In particular, firms that employ technology as a primary means of achieving competitive advantage, differentiate themselves through products that employ cutting-edge technology (Hamel & Prahalad, 1991; Miller, 1986). For example, Gatignon and Xuereb (1997) found that firms with a strategic orientation towards technology marketed products that were more radical, less similar to competing offerings and provided greater benefits. Given their objective of developing new products that create new market opportunities, technology-oriented differentiators are likely to engage in innovative activities without a specific orientation towards customers or competitors (cf. Workman, 1993). Specifically, customers may not be a fruitful source of ideas for radical new products (Berthon, Hulbert, & Pitt, 1999); indeed, research suggests that a customer orientation may be harmful for innovation in such cases as it can stimulate myopia for new opportunities (Christensen & Bower, 1996). Similarly, a competitor orientation may not be necessary either as the firm's focus is likely to be beyond the products currently offered (and technology currently used) in the marketplace (Berthon et al., 1999). Therefore, we expect that differentiation will also directly influence new product activity beyond any indirect effects via market orientation. Thus:

H2a. A firm's relative emphasis on pursuing a *differentiation* strategy has a positive effect on its *customer orientation*.

H2b. A firm's relative emphasis on pursuing a *differentiation* strategy has a positive effect on its *competitor orientation*.

H2c. A firm's relative emphasis on pursuing a *differentiation* strategy has a positive direct effect on its degree of *new product activity*.

3.1.3. Focus strategy

The generic strategy of focus involves serving a narrowly defined target market extremely well. Specifically, Porter (1980) points out that a focus strategy rests on the premise that the firm is "able to serve its narrow strategic target more effectively or efficiently than competitors who are competing more broadly" (p. 38). This strategy therefore requires a thorough understanding of customers in the target segment. Hence, firms that place a greater emphasis on a focus strategy are likely to be highly *customer-oriented* (see also Campbell-Hunt, 2000, p. 143). As niche marketers operate in a specific part of the market that is relatively free of competition, firms that place a greater emphasis on a focus strategy are not likely to be competitor-oriented.

Theory also suggests a direct effect of focus on *new product activity* beyond its indirect effects via market orientation. Like differentiators, focus firms may also aim to serve the needs of their customers through innovation. This might suggest that focus firms engage in considerable new product activity. There are, however, at least three ways in which focus firms differ from differentiators (Porter, 1980). As a consequence of these differences, focus firms are likely to engage in much less new product activity relative to other firms, differentiators in particular. First, focus firms target more narrow markets than differentiators do. As product breadth is strongly related to the scope of the target market (Campbell-Hunt, 2000, p. 138), focus firms will need to develop and maintain much smaller product assortments than differentiators. Second, focus firms target fewer segments than differentiators do. While differentiators are broadly based, with industry-wide objectives that lead them to target multiple segments, focus firms aim to meet the needs of a particular, unique group of customers rather than that of the mainstream market (cf. McDougall, Covin, Robinson, & Herron, 1994). Again, this implies that the total volume of new product activity that focus firms need to engage in is considerably smaller than for differentiator firms. Specifically, given that differences will exist in consumers' preferences within

and across target segments, differentiators will need to develop and introduce many more products than focus firms will. Finally, focused firms choose market niches that are relatively free of competition. Thus, focus firms face much less competitive pressure than differentiators or cost leaders do. The lack of competitive pressure that focus firms face would, in turn, imply that they need to engage in less new product activity than other firms. In support of this view, Zahra (1993) found that focus firms engage in new product activity to a lesser extent than other types of firms. Similarly, Campbell-Hunt (2000, p. 143) found a positive relationship between differentiation and new product activity, but not between focus and new product activity. In sum, therefore:

H3a. A firm's relative emphasis on pursuing a *focus* strategy has a positive effect on its *customer orientation*;

H3b. A firm's relative emphasis on pursuing a *focus* strategy has a negative direct effect on its degree of *new product activity*.

3.2. Hypotheses linking market orientation with new product activity

3.2.1. Customer orientation

Firms may be either proactive or reactive in their approach to new product development and introduction. Firms that pursue a proactive approach are heavily customer-oriented: they focus entirely on identifying opportunities for satisfying both overt and latent customer needs (Slater & Narver, 1998). Based on the market information they obtain, such firms generate new ideas and products aimed at satisfying customer needs independent of competitors' activities (Montoya-Weiss & Calantone, 1994). Such firms also often work closely with customers (who may be other firms) in the early stages of the new product development process (Gruner & Homburg, 2000). Von Hippel (1988) refers to such customers as lead users. Firms that are pro-actively involved in new product activity identify lead users in an early stage of the new product development process in order to develop products that fit customer needs and can be commercialized on a larger scale at a later stage.

Consistent with these observations, Deshpandé, Farley, and Webster (1993) and Han et al. (1998) report positive relationships between customer orientation and organizational innovativeness. In line with these findings we hypothesize:

H4. A firm's relative emphasis on *customer* orientation has a positive effect on its degree of *new product activity*.

3.2.2. Competitor orientation

Firms may follow a reactive approach to new product development in two possible ways: they may adopt 'me-too' or 'second-but-better' reactive strategies. Accordingly, a relative emphasis on competitor orientation can influence new product activity in two ways: directly and indirectly.

Firms that adopt a me-too strategy constantly benchmark their product offerings vis-à-vis relevant competitors. In order to achieve a cost advantage or avoid a cost disadvantage, firms may choose to directly imitate competitors' new products when these products result in cost savings. For example, the competitor's product may be based on more cost-effective technology which the firm then copies (Booz, Allen & Hamilton, 1982). Alternatively, me-too firms might try to copy competing product offerings to defend a strategic position in the market. Such firms are known to focus on quickly copying a competitor's new product without paying much attention to the needs of customers (Calantone & Cooper, 1981; Urban & Star, 1991). Thus, Lukas and Ferrell (2000) found that pursuing a competitor orientation results in the launching of a larger number of me-too products by such firms. Therefore:

H5a. A firm's relative emphasis on *competitor* orientation has a positive direct influence on its degree of *new product activity*.

In contrast to me-too firms, firms that follow a second-but-better approach first await competitors' new products, evaluate these as opportunities or threats, and then respond by developing an improved new product vis-à-vis the target customer's needs (Nadler, 1991; also see Schnaars, 1994 for an extensive discussion of the benefits of imitation strategies in general). In order for a second-but-better approach to work, firms need to evaluate other positioning

opportunities than those currently being used by their competitors. This requires an understanding of the benefits that customers value, on the basis of which such firms may either develop products with different attributes than those offered by competitors or else launch products very similar to competing offerings but with a different positioning. Both approaches require that the firm's competitor orientation be complemented by a customer orientation before a new product is developed or launched.

Previous research on managers' cognitive maps supports this contention. A recent study of managers by Tyler and Gnyawali (2002) concludes that "customer orientation is the most important aspect of their firm's market orientation" in the context of new product activity (p. 273). The study finds that competitor orientation enhances customer orientation, rather than the opposite. Further, firms that are primarily customer-oriented may be less inclined to focus on competitors given their knowledge of their target customers' needs. Similarly, Day and Nedungadi (1994) report that in customer-oriented firms "managers do not track the competition to any great degree, but instead rely on their customers to tell them how they compare with competitive offerings" (p. 41). The need for customer-oriented firms to be competitor-oriented as well may therefore be much less than for competitor-oriented firms to also be customer-oriented. Consequently, we expect competitor orientation to positively influence customer orientation rather than the reverse. A second-but-better strategy thus suggests a possible alternative and indirect relationship between competitor orientation and new product activity. Therefore:

H5b. A firm's relative emphasis on *competitor* orientation has a positive indirect influence on the degree of *new product activity* via an enhanced *customer* orientation.

4. Method

4.1. Data collection and sample selection

We tested our hypotheses by means of a large-scale mail survey of manufacturing firms in the Netherlands. The questionnaire for the survey was

pre-tested sequentially in three stages (cf. Churchill, 1979). First, an initial version of the questionnaire was developed using previously developed scales in the literature. Second, experts from academia and a leading business-to-business market research agency were consulted on the face validity of the questionnaire. Third, personal interviews were held with managers of 12 large and medium-sized firms, including both general managers as well as functional area managers such as marketing managers, sales managers, financial managers and production managers. In this way, we explored whether responses differed for managers of different types or levels, and found that this was not the case. All managers were asked to fill out the questionnaire in the presence of the researcher. Ambiguities and unclear questions were identified and noted. On the basis of the input received, several items were eliminated and others modified.

The empirical study was conducted among manufacturing firms that employed a minimum of 10 persons. The study focused on manufacturing rather than service firms as the former were considered more likely to provide variance in the variables of interest to the study. For instance, costs are easier to measure in manufacturing; therefore, it is easier to identify and measure a cost leadership strategy among manufacturing than service firms. Also, new products have a clearer definition and are therefore easier to identify and measure among manufacturing than service firms (De Brentani, 1989).

The sample was drawn randomly from the population of all manufacturing firms in the Netherlands. The database was provided by a professional market research agency. The questionnaires were mailed to the general manager of the sampled firms. In the accompanying letter, the general manager of the firm or any other manager knowledgeable about the firm's business strategy, market orientation and new product activity was requested to fill out the questionnaire. As the pre-test showed no substantial differences in the responses based on the manager's level or type, we deemed the respondent's knowledge of the subject more important than his or her job title. We therefore stressed that the respondent should be the key informant within the firm on the issues being surveyed. A telephone reminder followed after 2 weeks. One hundred and eighty seven

questionnaires were returned from a gross of 1500 sent out, and this represents a 12.5% response rate. This is a conservative estimate, of course, as we did not correct for all questionnaires that proved to be undeliverable or that were falsely addressed. The response rate is also consistent with that reported by other mail surveys in related, business-to-business research (e.g., Gatignon & Xuereb, 1997).

We dropped five questionnaires that were unusable due to incompleteness. We also dropped seven questionnaires in which the respondent indicated that their firm was either a distributor, assembly plant or maintenance firm and therefore not engaged in new product activity. Thus, 175 questionnaires were used for further analyses. To investigate potential non-response bias in the data, we compared early and late responses with respect to the research variables (Armstrong & Overton, 1977). The rationale behind this method is that late respondents show a greater resemblance to non-respondents than early respondents do. We compared means on all items and found no significant differences between early and late respondents, suggesting that our data are free of response bias.

To further explore potential bias, we compared the sample characteristics with those of the population in terms of industry type and firm size (see Table 1). Respondents were distributed over a representative range of industries within manufacturing and over different firm sizes. The distribution of industries within our sample does not differ substantially from the population. A correlation analysis between the two distributions revealed a coefficient of 0.727 ($p < 0.05$). Our sample characteristics also reflect well the distribution of firms on size ($R = 0.927$, $p < 0.01$). However, firms larger than 10 employees are over represented in our sample. This is because, given the focus of our study, we excluded firms with less than 10 employees. Finally, most respondents were general (58%) or functional (21%) managers. As a result, our responses are mainly from those most knowledgeable about the issues addressed in the questionnaire, increasing the validity of our data.

4.2. Measures

Our measures of business strategy and market orientation were based on multiple-item scales test-

Table 1
Sample characteristics

Industry responses ^a		No. of employees ^a	Respondents
Foods	8% (11%)	10–19: 35% (10%)	General manager: 58%
Clothing/textile/wood/paper	10% (14%)	20–49: 23% (9%)	(Chief) financial officer: 9%
(Petro)chemicals	10% (5%)	50–99: 18% (4%)	Controller: 3%
Machinery equipment	14% (10%)	100–199: 13% (2%)	Marketing manager: 3%
Metals, construction materials	10% (5%)	≥ 200: 12% (2%)	Sales manager: 3%
Fabricated metal products	19% (16%)		HRM manager: 3%
Finished products	25% (27%)		Other: 21%
Others	3% (12%)		

^a Percentage of category within population between parentheses.

ed and used in previous studies. All scales used a five-point Likert format ranging from ‘strongly disagree’ to ‘strongly agree’. The measurement scales were obtained after a scale-purification procedure, which we discuss in the next section. See Table 2 for the items used as well as their means, standard deviations and reliability coefficients.

Business strategy was measured as a firm’s score on each of the three business strategies, i.e., differentiation, cost leadership, and focus. Each of these strategies was operationalized using multiple-item Likert scales. Items were adapted from Porter’s (1980) discussion of these strategies as well as from previous empirical studies that addressed these strategies. Differentiation was measured using a four-item scale based on Homburg et al. (1999), Miller (1988) and Porter (1980). Cost leadership was measured using a five-item scale based on Chandler and Hanks (1994), Narver and Slater (1990) and Porter (1980). Focus was operationalized using a four-item scale based on Narver and Slater (1990) and Segev (1987). Although business strategy has often been treated as a categorical variable in the strategy literature, it is also widely recognized that firms may simultaneously pursue a combination of competitive strategies (e.g., Walker & Ruekert, 1987). Conceptually, therefore, we treat the three business strategies of cost leadership, differentiation and focus as complementary rather than mutually exclusive types (Campbell-Hunt, 2000). Methodologically, we ensure this by allowing a firm’s business strategy to vary simultaneously on all three strategies. Thus any firm may score equally high (or low) on all of the three generic strategies.

Consistent with the behavioral view we adopt, *market orientation* was measured as the extent to which the firm engages in behaviors related to understanding and responding to both customers and competitors. In particular, drawing on operationalizations in previous studies that employ the behavioral view of market orientation, we included items on information processing and organizational responsiveness to customers and competitors (see Han et al., 1998; Kohli, Jaworski, & Kumar, 1993). A firm’s degree of customer or competitor orientation was assessed by using respondents’ scores on a six- and five-item scale, respectively. As with our measure of strategy, these orientations were not assumed to be mutually exclusive.

Finally, two separate measures were used for *new product activity*. Respondents were asked to indicate the actual number of new products that were currently being developed in the firm as well as the number of new products that were launched by the firm in the year prior to the survey (cf. Zahra, 1993). Quantitative measures were preferred over more perceptual, subjective measures of new product activity. This ensured an operationalization independent of the ones used for other variables in the framework, especially those related to market orientation, avoiding common method bias. Moreover, as all respondents were from manufacturing firms operating in a business-to-business context, this minimized the likelihood that they employed different definitions of ‘new products’ while providing their responses. Nevertheless, we conducted a post hoc survey to confirm that this was the case. From our original sample, we randomly selected a subsample of firms and contacted them by phone.

Table 2

Scale reliabilities (Cronbach alpha), scale items, and item means, standard deviations and standardized regression coefficients (estimates from confirmatory factor analyses with corresponding *z*-values)^a

Business strategy	Mean ^b	S.D.	Coefficient/ <i>z</i> -value	
<i>Differentiation (alpha = 0.691; n = 173)</i>				
1. Our firm is always the first to market a new product.	2.67	1.152	0.676	n.a.
2. Relative to competition, our firm is always ahead in technological innovations.	3.31	1.202	0.609	6.404
3. Research and development of new products is very important within our firm.	3.44	1.283	0.735	7.177
4. Our organization distinguishes itself from competition by the quality of its products.	4.28	0.718	0.329	3.715
<i>Cost leadership (alpha = 0.660; n = 174)</i>				
1. Our organization emphasizes cost reduction in all its business activities.	3.69	1.082	0.460	n.a.
2. In our organization, the production process changes all the time with the goal of constantly reducing production costs.	3.13	1.333	0.742	4.791
3. Our organization invests mainly in large projects to realize economies of scale.	2.58	1.219	0.589	4.543
4. In our organization, cost is the most important consideration in the choice of distribution system.	3.01	1.155	0.414	3.754
5. Our organization tries to force competitors out of the market by good cost control.	3.28	1.155	0.417	3.766
<i>Focus (alpha = 0.682; n = 173)</i>				
1. Our firm produces one single, unique product.	1.79	1.243	0.442	n.a.
2. Our firm attempts to specialize by concentrating on producing a limited number of products.	3.26	1.362	0.677	4.561
3. Our firm is active in a broad domain of products (Reversed scale).	2.66	1.476	0.704	4.589
4. Our firm targets a specific, limited part of the markets with her products.	3.31	1.404	0.552	4.254
<i>Market orientation</i>				
	Mean	S.D.	Coefficient/ <i>z</i> -value	
<i>Customer orientation (alpha = 0.719; n = 173)</i>				
1. Our organization puts a lot of time into after sales service.	3.11	1.252	0.595	n.a.
2. Our organization is better than competitors in knowing the wants and needs of customers.	3.50	0.964	0.480	5.295
3. In our organization, information about customers is regularly and systematically collected.	3.35	1.155	0.490	5.385
4. In our organization, there are specific plans for different segments of the market.	3.35	1.277	0.688	6.946

Table 2 (continued)

Market orientation	Mean	S.D.	Coefficient/z-value	
<i>Customer orientation (Continued)</i>				
5. Quality improvement is based on suggestions made by customers.	3.50	1.066	0.418	4.715
6. Information about customers is used in our organization to make technological improvements.	3.50	1.134	0.576	6.102
<i>Competitor orientation (alpha = 0.802; n = 175)</i>				
1. In our organization, information about competitors is regularly and systematically collected.	3.18	1.249	0.719	n.a.
2. In our organization, potential future competitors are carefully monitored.	3.37	1.242	0.646	7.724
3. Employees in the sales and/or marketing department of our organization spend much time exchanging information on strategies of competitors.	2.47	1.198	0.666	7.952
4. During management meetings, strengths and weaknesses of competitors are always on the agenda.	2.07	1.127	0.561	6.748
5. We react quickly to competitors' actions.	3.16	1.149	0.754	8.900
<i>New product activity (alpha n.a.)</i>				
How many new products are currently being developed by your company? (number)	4.64	9.973		
How many new products were introduced by your firm in the past year? (number)		9.17	34.216	

^a In the estimation of the measurement model, every first item for each construct was fixed; therefore, no z-values are available for these items.

^b All measures relate to five-point Likert scales (5 = strongly agree) except for new product activity, which was measured on a continuous scale.

Of the 46 responding firms, 34 (74%) indicated that they considered both radically and incrementally new products as 'new'; 9 (19%) only considered radically new products as 'new'; and 3 (6%) refrained from answering the question. These findings provide strong evidence that most respondents in our sample used a similar conceptualization of new products in their response to our survey.

4.3. Reliability and validity of the measurement model

Following the approach proposed by Anderson and Gerbing (1988), we first assessed the measurement model before estimating the research model. In order to obtain reliable and valid measures of the focal constructs within our study, the items that were administered in the questionnaire were subjected to a scale purification procedure. Examination

of face validity, inter-item, and item-to-total correlations resulted in the construction of the scales described above. All scales show satisfactory reliabilities (see Table 2), with Cronbach's alpha ranging from 0.660 for cost leadership to 0.802 for competitor orientation.

Next, the unidimensionality of the constructs, reflected by the extent to which a single construct underlies a set of measures (items), was explored by means of confirmatory factor analysis. The overall fit of the measurement model provides the necessary information to determine whether unidimensionality is satisfied (Gerbing & Anderson, 1988; Steenkamp & Van Trijp, 1991). The overall fit of the model is good (see Table 2 for standardized estimates and z-values of individual regression coefficients). The Comparative Fit Index (CFI=0.975) is well above the recommended threshold of 0.90

Table 3
Mediator test for market orientation between business strategy and new product activity (regressions)

Dependent variable	Relation/independent variable										
	Strategy → NPA			Strategy → MO			MO → NPA	Strategy + MO → NPA			
	Diff	CostL	Foc	Diff	CostL	Foc	MO	Diff	CostL	Foc	MO
Market orientation				0.45***	0.17**	n.s.					
NPA	0.10***	n.s.	-0.11***				0.14***	0.08***	n.s.	-0.06**	0.04*

Based on standardized variable scores, standardized coefficients reported.

n.s. = $p > 0.10$.

* $p < 0.10$.

** $p < 0.05$.

*** $p < 0.005$.

for a satisfactory goodness of fit (Bentler, 1992). Also the parsimonious fit measure χ^2/df (582.670/309) is below the recommended threshold of 2.0 (1.886) and the root mean square error of approximation (RMSEA) is below the recommended 0.08 level (0.071). Therefore we can conclude that the unidimensionality criterion is satisfied.

Discriminant validity was assessed by estimating a series of confirmatory factor analyses, in which the correlation between pairs of constructs was restricted to 1. In the event that the χ^2 measure of the restrained model is significantly worse, the constructs can be considered to be discriminantly valid. All estimated models satisfied this criterion at the 0.05 significance level. Discriminant validity can also be assessed by means of a more stringent test which requires that the amount of variance extracted for each construct should exceed the squared correlation between them (Fornell & Larcker, 1981). All constructs meet the Fornell and

Larcker criterion, except for customer orientation with respect to its correlation with competitor orientation ($\text{variance}_{\text{customer orientation}} = 0.553 < \text{squared correlation}_{\text{customer orientation} - \text{competitor orientation}} = 0.692$), although the latter is below the suggested threshold of 0.85. Moreover, as we hypothesized a path from competitor orientation to customer orientation, the relatively high correlation is not surprising.

4.4. Estimation of the research model

We performed two types of statistical analysis on our data. First, to test for the mediating role of market orientation, we followed the procedure proposed by Baron and Kenny (1986). Second, we used three-stage least squares (3SLS) analysis to estimate the system of equations depicted in Fig. 1 and outlined below.¹

$$\text{CuO} = \beta_0 + \beta_1(\text{Diff}) + \beta_2(\text{Foc}) + \beta_3(\text{CostL}) + \beta_4(\text{CoO}) + \varepsilon_1 \tag{1}$$

$$\text{CoO} = \beta_5 + \beta_6(\text{Diff}) + \beta_7(\text{Foc}) + \beta_8(\text{CostL}) + \varepsilon_2 \tag{2}$$

$$\text{NPA} = \beta_9 + \beta_{10}(\text{Diff}) + \beta_{11}(\text{Foc}) + \beta_{12}(\text{CostL}) + \beta_{13}(\text{CuO}) + \beta_{14}(\text{CoO}) + \varepsilon_3 \tag{3}$$

where CuO = customer orientation, CoO = competitor orientation, Diff = differentiation strategy, CostL = cost leadership strategy, Foc = focus strategy, NPA = new

Table 4
3SLS model estimation results for market orientation as mediator between business strategy and new product activity (hypothesized model with simultaneous effects on NPA)

Dependent variable	Independent variable				
	Diff	CostL	Foc	CuO	CoO
Customer orientation	0.43***	(0.14**)	-0.12**		1.05***
Competitor orientation	0.40***	0.15**	n.s.		
NPA	0.12**	n.s.	-0.25***	1.85***	-1.78***

Based on standardized variable scores.

Non-hypothesized effects found to be significant are indicated in parentheses.

n.s. = $p > 0.10$.

** $p < 0.05$.

*** $p < 0.005$.

¹ We also included non-hypothesized effects in order to ensure that they were indeed non-significant as expected.

Table 5

Direct and indirect (via market orientation) effects of business strategy on new product activity (based on 3SLS results of hypothesized model)

	Direct effects	Indirect effects	
<i>Business strategy</i> → <i>NPA</i>			
Cost leader strategy	–	– 0.26	(CL → CoO)*(CoO → NPA) [0.15*–1.78]
		0.29	(CL → CoO)*(CoO → CuO)*(CuO → NPA) [0.15*1.05*1.85]
		0.25	(CL → CuO)*(CuO → NPA) [0.14*1.85]
Differentiation strategy	0.12	0.79	(Diff → CuO)*(CuO → NPA) [0.43*1.85]
		– 0.71	(Diff → CoO)*(CoO → NPA) [0.40*–1.78]
		0.77	(Diff → CoO)*(CoO → CuO)*(CuO → NPA) [0.40*1.05*1.85]
Focus strategy	– 0.25	– 0.22	(Focus → CuO)*(CuO → NPA) [– 0.12*1.85]
<i>Market orientation</i> → <i>NPA</i>			
Competitor orientation	– 1.78	1.94	(CoO → CuO)*(CuO → NPA) [1.05*1.85]
Customer orientation	1.85	–	

Based on standardized variable scores.

product activity, and all ε 's = disturbance terms for the respective equations.

The 3SLS procedure is ideal for dealing with the simultaneous effects in our model as it handles both the endogeneity of the market orientation variables as well as the possibility of correlated errors between the independent variables (Greene, 2002). Moreover, our use of 3SLS is consistent with that of comparable studies (e.g., Han et al., 1998).

5. Results

5.1. The mediating role of market orientation

A key premise of our framework is that the influence of business strategy on new product activity is at least partially mediated by market orientation. For full mediation, four conditions have to be met (Baron & Kenny, 1986) (see Table 3 for results of these tests). First, the antecedent independent variables (business strategies) should influence the dependent variable (new product activity). To test for this, we estimated a model of the three business strategies on new product activity and found that differentiation ($\beta=0.10$,² $p<0.005$) and focus ($\beta=-0.11$, $p<0.005$) significantly influence new product activity (see Table 3). Second, business strategy should influence the mediator (market ori-

entation). To test for this, we estimated a model of the 3 business strategies on market orientation collapsed into a single construct³ (cf. Han et al., 1998) and found that differentiation ($\beta=0.45$, $p<0.005$) and cost leadership ($\beta=0.17$, $p<0.05$) significantly influence market orientation. Third, the mediator (market orientation) should influence the dependent variable (new product activity). We found that this was true ($\beta=0.14$, $p<0.005$). And finally, the mediator (market orientation) should influence the dependent variable (new product activity) controlling for the direct effect of the independent variables (business strategies). The results indicate that the condition is not fully satisfied. While the influence of market orientation on new product activity is significant ($\beta=0.04$, $p<0.10$), so too is the influence of differentiation ($\beta=0.08$, $p<0.005$) and focus ($\beta=-0.06$, $p<0.05$). Taken together, these results provide support for a *partially mediating* role of market orientation between business strategy and new product activity (see Baron & Kenny, 1986).⁴

³ In the 3SLS estimation below, we also test for mediation with individual market orientations.

⁴ We also tested for a potentially moderating influence of market orientation on the business strategy–new product activity relationship (Matsuno & Mentzer, 2000). None of the interaction terms between the three business strategies and the market orientation construct were significant, suggesting no support for a moderating effect of market orientation on the business strategy–new product activity link.

² All β 's are standardized.

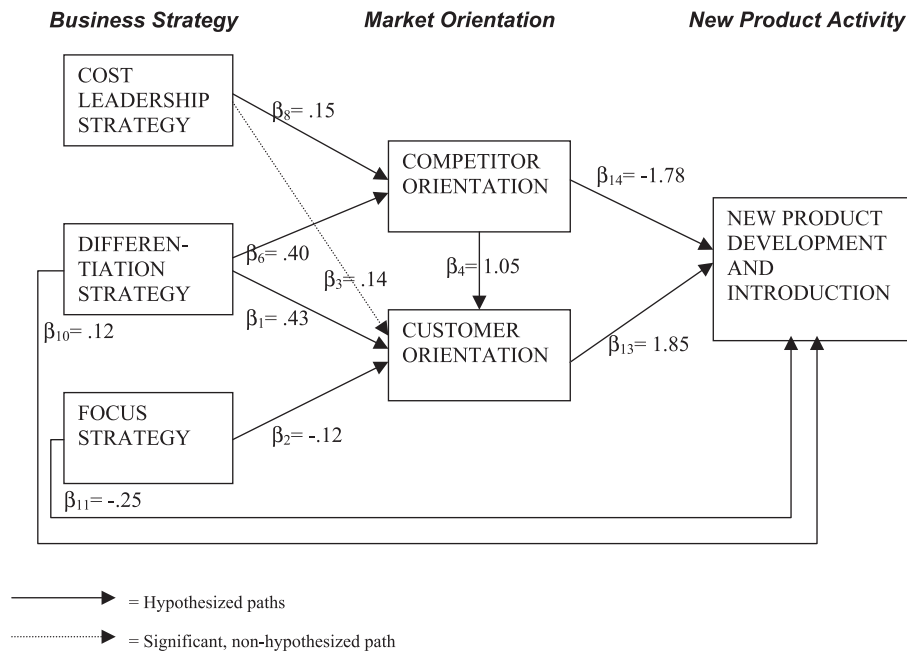


Fig. 2. Results for the influence of business strategy on market orientation and new product activity. Significant coefficients (see Table 4) from 3SLS results are reported (based upon standardized variable scores).

5.2. Business strategy, market orientation and new product activity

Table 4 reports the results of the 3SLS analysis conducted to test our hypotheses as represented in Fig. 1 and Eqs. (1)–(3) above. Table 5 reports the direct and indirect effects of the variables in the model, computed using the standardized coefficients from Table 4. Finally, Fig. 2 reports these results in the context of our conceptual framework, representing the standardized estimates on the corresponding individual pathways.⁵

The results show support for H1. The influence of cost leadership on competitor orientation is positive and significant as predicted ($\beta_8 = 0.15$, $p < 0.05$).

The results support H2a and H2b. Specifically, as predicted, differentiation has a positive significant influence on customer ($\beta_1 = 0.43$, $p < 0.005$) and competitor orientation ($\beta_6 = 0.40$, $p < 0.005$), respectively. H2c is also supported as differentiation has a positive

significant direct influence on new product activity ($\beta_{10} = 0.12$, $p < 0.05$).

In contrast to H3a, which hypothesizes a positive influence of focus on customer orientation, the results suggest a negative effect ($\beta_2 = -0.12$, $p < 0.05$). However, H3b is supported as focus has a negative influence on new product activity ($\beta_{11} = -0.25$, $p < 0.005$).

In support of H4, customer orientation has a positive influence on new product activity ($\beta_{13} = 1.85$, $p < 0.005$). However, in contrast to H5a, competitor orientation has a negative influence on new product activity ($\beta_{14} = -1.78$, $p < 0.005$).⁶ However, in support

⁵ We also ran models that controlled for firm size and age. Neither of these controls was significant. Further, our results were robust across models controlling for size and age.

⁶ We conducted several tests to check if this negative effect was due to multicollinearity. We found no evidence of multicollinearity. Specifically, the condition number of customer and competitor orientation was 2.15, well below the cutoff of 20 (Belsley, Kuh, & Welsch, 1980) and the variance inflation factor (vif) statistics of various OLS formulations of new product activity versus customer and competitor orientation and focus, differentiation and cost leadership were never greater than 2.13, well below the cutoff level of 10. Moreover, the negative coefficient between competitor orientation and new product activity was robust to alternative 3SLS specifications in which we first dropped and then reversed the CoO → CuO link.

of H5b, competitor orientation also has a positive significant influence on customer orientation ($\beta_4 = 1.05$, $p < 0.005$). Finally, the only non-hypothesized effect that was found to be significant was the influence of cost leadership on customer orientation ($\beta_3 = 0.14$, $p < 0.05$).

In sum, the 3SLS results provide considerable support for our hypotheses as well as for a partially mediating role of market orientation in the strategy \rightarrow NPA relationship.

6. Discussion

The results of this study provide general support for our conceptual framework and hypotheses. The results show that new product activity is simultaneously influenced by business strategy both directly and indirectly via market orientation. The results also support more specific conclusions. First, our general claim that a firm's strategy influences the nature and the extent of its market orientation is well supported. Firms that place a greater emphasis on a differentiation strategy or a cost leadership strategy are more likely to be both customer and competitor-oriented. Further, a greater emphasis on a focus strategy leads to less emphasis on customer orientation. Second, the results also support the claim that a different emphasis on different components of market orientation leads to varying amounts of new product activity. Thus, greater customer orientation leads directly to increased new product activity. Greater competitor orientation, on the other hand, has a negative direct effect on new product activity and only indirectly leads to increased new product activity via increased customer orientation. Finally, business strategy also directly influences new product activity in addition to its indirect effects via market orientation. Thus, differentiation increases and focus decreases a firm's level of new product activity. Indirectly, cost leaders show higher levels of new product activity given that they are also more customer-oriented.

Three unexpected findings of our study merit further discussion: (i) the negative effect of a focus strategy on customer orientation, (ii) the negative effect of competitor orientation on new product activity, and (iii) the positive effect of a cost leadership

strategy on customer orientation. To shed more light on these findings, we conducted follow-up interviews with managers of several firms similar to the ones in our sample. We integrate the insights from these interviews with other relevant research in a discussion of these unexpected findings.

6.1. The negative effect of a focus strategy on customer orientation

A study of successful niche marketers by Hamermesh, Anderson, and Harris (1978) suggests a possible explanation for this finding. Their study found that niche firms: (1) focus their activities only in areas where they have specific strengths, (2) make efficient use of R&D resources, and (3) place considerable emphasis on operations. In other words, niche firms are successful vis-à-vis other firms in the industry precisely because they focus on a narrow market in combination with a focus on a specific technology. As the manager of a focused firm we interviewed said: "We first look at our own possibilities and only then listen to the customer." Another manager, from a similar type of firm, said that "distinctive technology and quality matter most to us." Thus, marketing's role in focused firms may be limited, as Workman (1993) discovered in his in-depth study of a firm focused on computer services. The logic voiced by the managers we interviewed also provides further understanding of why a relative emphasis on a focus strategy leads to a direct negative effect on new product activity, as we found in our study.

Another explanation for our finding may be the scarcity of resources that focus firms are likely to suffer from. Due to a lack of access to resources, such firms may spend less time and money on customer research and new product development. Instead, they may spend resources on utilizing and/or improving their unique existing portfolio. Based on a study of the relationship between strategy, resources and performance among service and retail firms within the U.S., Brush and Chaganti (1998) conclude that "there are certain contexts," such as when firms with limited resources are involved, in which "strategy choice matters less than resources" (p. 253). To the extent that our finding is due to the scarcity of resources that niche firms face (after

controlling for firm size, which showed no effect), this finding provides support for the resource-based view of the firm (Wernerfelt, 1984) rather than the market orientation view that has been so influential in the recent marketing literature.

6.2. *The negative effect of competitor orientation on new product activity*

Our results show that competitor-oriented firms are either less engaged in new product activity or engage in such activity only if they also have a higher degree of customer orientation as well. The former view is consistent with Han et al.'s (1998) finding that a firm's competitor orientation shows no relation to its innovative activity. To the extent that a greater customer orientation reflects a more proactive market orientation than does a greater competitor orientation (cf. Slater & Narver, 1998), this is also consistent with Narver et al.'s (2000) finding that a proactive market orientation is more highly related to innovation than a reactive market orientation is. Our finding that competitor-oriented firms only engage in higher degrees of new product activity in the event that they are also more customer-oriented suggests that a pure imitation or me-too strategy, defined as one in which a competitor's product is copied immediately on its introduction without any customer research whatsoever, is a very rare phenomenon indeed. Reactive strategies are likely to involve some amount of customer research subsequent to competitor intelligence, either to improve on the competitor's product vis-à-vis the target customers, or in order to test the me-too product on customers (cf. Schnaars, 1994). As markets become increasingly competitive, the need for understanding both competitors and customers in order to innovate successfully becomes more pronounced (which is also illustrated by the high correlation between customer and competitor orientation that we found in this study). Our finding that customer orientation rather than competitor orientation drives new product activity was also supported by the general view of managers that market orientation in essence relates to "a central focus on the customer," and that product development is thus driven by "beginning with customers and evaluating how we can satisfy their needs."

6.3. *The positive effect of cost leadership strategy on customer orientation*

Our findings suggest that firms pursuing a cost leadership strategy also carefully monitor customers in addition to competitors. An important reason for this may be that cost leaders need to understand the drivers of perceived customer value in order to assess whether cost advantages should be passed on to the customer. Also, a sound knowledge of the customer market is essential in order to make choices on how the marketing effort can be minimized in the most effective way. Both aspects are critical as they can affect profitability substantially (Slater & Olson, 2001). Furthermore, customers may be an important source of information on the cost position of competitors, especially in business-to-business markets. Our interviews indicated that firms mostly learn about competitors by talking to their customers. As one manager we interviewed said: "Our management meets with our 10 to 12 key customers every three months in order to discuss the key players and issues within the market."

7. Implications for research and practice

Taken together the findings of our study have several important implications for research and practice. First, our findings point to the critical role of customer orientation as a mediator between business strategy and new product activity. As differentiation, cost leadership and focus are all directly related to customer orientation, customer orientation emerges as a central feature of the link between business strategy and market orientation. Further, customer orientation is the only aspect of market orientation that has a positive effect on new product activity. The implication of this for research is that it clearly supports the prevailing view that customers are the key focus of any market-oriented firm (Deshpandé & Farley, 1996; Deshpandé et al., 1993; Tyler & Gnyawali, 2002). Specifically, our results support Deshpandé and Farley's (1996) definition of market orientation as "the set of cross-functional processes and activities directed at creating and satisfying customers through continuous needs-assessment." The implication for practice is that a prerequisite for improving market-

oriented activities like new product development is the need to focus on customers above other aspects of the market. Firms that fail to focus on customers are likely to fail to develop and introduce products into the market, and this will of course have a damaging impact on their long-term growth and survival. Successful NPD requires both an organization-wide commitment to customer-oriented behavior as well as an organizational culture that is supportive of it (e.g., Homburg & Pflesser, 2000).

Second, our findings suggest different pathways to innovation. Specifically, our findings support existing research that distinguishes between proactive approaches in which firms are primarily customer-oriented and reactive approaches in which they are primarily competitor-oriented. Moreover, our findings also suggest that reactive approaches are of two types: me-too firms are competitor-oriented without being customer-oriented and second-but better firms are first competitor and then customer-oriented. The implication of these findings for research is that they support the view that true customer orientation is a *long-term* commitment to understanding customer needs rather than merely a short-term philosophy in which the organization responds to customers' *expressed* wants (Slater & Narver, 1998, p. 1002). This is because the latter approach is typical of a 'customer-led' rather than a 'market-oriented' firm (Slater & Narver, 1998). Our study shows that such proactive, customer-oriented approaches are indeed widespread among firms, in particular among those pursuing product differentiation. The implication of these findings for practice is that, while proactive approaches are important and widespread, they are by no means the only ones available to firms. Firms may also pursue imitative new product strategies with great success (see Schnaars, 1994), especially if the imitative strategy is a second-but-better rather than simply a me-too approach. Thus, firms that are unable or unwilling to invest in the considerable costs involved in being proactive may also quite effectively step-up their new product activity by first scanning the competitive environment for new product ideas, and then improving these ideas with some additional customer analysis to introduce products that are better in features or positioning to those that exist in the marketplace.

Our finding of different pathways to new product activity via customer and competitor orientation also implies that studying market orientation as a composite construct might result in ignoring subtleties due to its multidimensionality. Such a practice might in turn lead to incomplete or misleading conclusions about the usefulness to firms of being market-oriented as such. Specifically, our findings strongly suggest that the individual dimensions of market orientation—customer and competitor orientation—may not be equally or always relevant to a particular firm (see also Noble et al., 2002). Depending on a firm's strategy, it may place greater emphasis on, say, customers rather than competitors, before executing cross functional, market related activities such as new product development and introduction. The implication of this finding for theory is that future research should disentangle the effects of competitor and customer orientation rather than treat them as one composite construct. The implication for practice is that it would be wrong to exhort firms to be market-oriented as such rather than more customer- or competitor-oriented, depending upon their strategic objectives. Instead, firms would need to consistently and synergistically align their strategic choices with an emphasis on different players in the market. Pursuing an orientation towards different players without carefully embedding these activities within overall strategic choices could harm firms' specific operations (cf. Berthon et al., 1999).

The variation we find in firms' emphasis on the individual dimensions of market orientation suggests a fourth implication of our paper. Considerable past research has found that the relative importance of market orientation to a firm's success depends critically on the environment in which the firm operates (Greenley & Foxall, 1998; Grewal & Tansuhaj, 2001; Han et al., 1998; Homburg & Pflesser, 2000). To the extent that a firm's strategy is an adaptive response to the environment in which it operates (Porter, 1980, 1996), our results support the conclusions of research on the contingent role of market orientation across environmental contexts. However, our findings also suggest an additional contingency effect that has not been highlighted in the literature: the resources of the firm. As we point out above, a key finding of our study is that firms that follow a focus strategy are

less rather than more customer-oriented. Our interviews suggest that this has an explanation in the resources available to firms: focus firms are likely to lack resources, which means they are less able to spend time and money on customer research and new product development. The implication of this finding for theory is that future research may wish to integrate a resource-based view of the firm (Brush & Chaganti, 1998; Wernerfelt, 1984) with existing research on environmental effects to develop a more complete contingency theory of market orientation. The implication for practice is that firms should combine an evaluation of their resources as much as their environment in selecting the relative emphasis they place on, and resources they devote to, individual dimensions of market orientation and subsequent market-oriented activities such as new product development.

8. Limitations and future research

The limitations of this study also offer several opportunities for future research. First, this paper seeks to enhance our understanding of how strategy affects new product activity through the firm's market orientation. The focus is therefore more on a descriptive understanding of the forces driving new product activity within the firm rather than prescribing how new product activities should be executed. Although we deliberately excluded new product success as a dependent measure of interest, future research could examine how different strategic choices affect new product success given the extent and nature of the firm's market orientation. Such research would extend and integrate previous research that has been conducted on the strategy-new product success relationship (e.g., Dyer & Song, 1998) and the market orientation–new product success relationship (Athuene-Gima, 1995), respectively.

Second, we employ a conceptualization of market orientation that reflects market-oriented behaviors embedded within a larger market-oriented organizational culture. However, we do not explicitly consider the role of shared values and norms that may be related to a market-oriented culture. Nevertheless, such norms and values may influence both business strategy choices as well as market-oriented behaviors

(Homburg & Pflesser, 2000). By building on the behavioral and cultural views of market orientation, and by including constructs related to both a market-oriented organizational culture as well as market-oriented behaviors, future research can shed light on the evolving debate about market orientation as a multiple-level construct within the firm (e.g., see Matsuno & Mentzer, 2000). Specifically, future research may model market-oriented values and norms as antecedents of business strategy, in addition to modeling market-oriented behaviors and activities (such as new product activity) as consequences of strategy.

Third, future studies may benefit by incorporating more fine-grained measures of, in particular, new products and a differentiation strategy, respectively. In the present research, we focused on 'new products' in general. These products could be either new to the firm or new to the market. Moreover, they could be either incrementally new or radically new. Using our study as a starting point, future research may employ more fine-grained definitions of new products to examine the influence of business strategy and market orientation on the development and introduction of incremental versus radical products, thus building upon the recent work in market orientation on reactive versus proactive approaches to innovation (Narver et al., 2000). Finally, our measure of a differentiation strategy is more reflective of product and technology rather than, say, distribution-based differentiation (cf. Miller's, 1986 distinction between innovation and marketing orientation). Future studies could use a broadened scope in measuring differentiation in order to reflect drivers not considered here.

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