

The Effect of Market Orientation on Product Innovation

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Numerous scholars have debated whether marketing fosters or stifles innovation. The discussions, however, have been inconclusive due to limited empirical evidence. The authors investigate the relationship between two focal constructs in the debate: market orientation and product innovation. On the basis of a sample of U.S. manufacturing companies, the authors' analysis shows that product innovation varies with market orientation. Specifically, (1) customer orientation increases the introduction of new-to-the-world products and reduces the launching of me-too products, (2) competitor orientation increases the introduction of me-too products and reduces the launching of line extensions and new-to-the-world products, and (3) interfunctional coordination increases the launching of line extensions and reduces the introduction of me-too products.

Marketing and innovation are viewed, now more than ever, as stimuli to economic growth and major components of competitive advantage. No longer concerned simply with variables that affect marketing and innovation, research has recently turned to the nature of the relationship between the two functions. A key question in this new focus is whether market orientation promotes or restrains product innovation.

Several studies indicate that market-driven businesses create products that transform market needs (e.g., Jaworski and Kohli 1993; Narver and Slater 1990). Deshpandé, Farley, and Webster (1993) and Kohli and Jaworski (1990) suggest that market-oriented behavior yields superior innovation and greater new product success. Slater and Narver (1994), extending this view, conclude that businesses with a strong market orientation are best situated for new product success, no matter what the business environment.

Taking a different position, a number of authors suggest that a strong market orientation may lead to imitations and marginally new products (e.g., Bennett and Cooper 1979, 1981). Others add that listening too closely to current markets can constitute a barrier to commercializing new technology and lead to reduced competitiveness (e.g., Christensen and Bower 1996; Leonard-Barton and Doyle 1996), echoing Tauber's (1974) contention that a market orientation is inherently biased against radically new products.

Surprisingly few studies have addressed this issue empirically. In an early attempt, Lawton and Parasuraman (1980) found no significant relationship between implementation of the marketing concept and product innovation, but they acknowledged a need for alternative measurement. More recently, Atuahene-Gima (1996) reported a significant relationship between product innovation and market orientation, while Gatignon and Xuereb (1997) only detected a significant relationship between product innovation and the extent to which market orientation was interfunctionally coordinated. All told, knowledge of the

marketing-innovation relationship remains fragmented and inconclusive.

The purpose of this study is to explore empirically how market orientation affects product innovation. Following Han, Kim, and Srivastava (1998), we take a "component-wise" approach by disaggregating market orientation into its core components and exploring how each component affects a taxonomy of product innovation. First, we discuss market orientation and product innovation in the context of strategic capabilities to provide a theoretical basis for our analysis. Then, we develop a set of hypotheses, which we test empirically. The article concludes with a discussion of the findings.

THEORETICAL BACKGROUND

Characterizations of market orientation (e.g., Kohli and Jaworski 1990; Narver and Slater 1990) and product innovation (e.g., Gatignon and Xuereb 1997; Olson, Walker, and Ruekert 1995) have become very rich in the strategic marketing literature. The growing body of research not only allows for a marketing-based view of strategy but also facilitates a more detailed examination of market orientation and product innovation in a strategy context.

Market orientation is defined as the process of generating and disseminating market intelligence for the purpose of creating superior buyer value (Kohli and Jaworski 1990; Narver and Slater 1990). There are three components of market orientation: (1) customer orientation, (2) competitor orientation, and (3) interfunctional coordination. Customer orientation and competitor orientation represent a relative emphasis on collecting and processing information pertaining to customer preferences and competitor capabilities, respectively. Interfunctional coordination encompasses the coordinated application of organizational resources to synthesize and disseminate market intelligence (Narver and Slater 1990; Slater and Narver 1994).

Product innovation is defined as the process of bringing new technology into use (Galbraith 1973; Schön 1967). Product innovation can be separated into three basic categories: (1) line extensions, (2) me-too products, and (3) new-to-the-world products. Line extensions are products still familiar to the business organization but new to the market. Me-too products are considered new to the business organization but familiar to the market; that is, imitations of competitors' products. New-to-the-world products are considered new to both the business organization and the market (Booz, Allen, and Hamilton 1982; Olson et al. 1995).¹

The emerging "capabilities" approach in the strategic marketing literature (e.g., Day 1993, 1994) offers a useful theoretical basis for analyzing the relationship between market orientation and product innovation. A capability is

a knowledge system composed of complementary behaviors and abilities, expressed through organizational processes, that enable a business to anticipate changing market conditions and respond to market requirements (Leonard-Barton 1992; Rumelt, Schendel, and Teece 1991). Market orientation and product innovation are core strategic capabilities of market-driven businesses (cf. Day 1993, 1994). Properly implemented, they are likely to be highly interrelated (Han et al. 1998). By examining the individual links between market orientation and product innovation, we can develop a finer grained understanding of the relationship between these strategic capabilities.

HYPOTHESIZED RELATIONSHIPS

To reduce risk of product failure, a business must develop an in-depth understanding of the target market (Day 1994; Day and Wensley 1988)—and that requires market orientation. But does market orientation promote or restrain product innovation?

We suggest that what separates innovative businesses from less innovative ones is their market orientation emphasis. A number of authors argue (in fact, the majority on this issue) that businesses that listen too carefully to their customers are less likely to launch radically innovative new products (Bennett and Cooper 1979, 1981; Christensen and Bower 1996; Leonard-Barton and Doyle 1996; Tauber 1974). The authors reason that consumers' needs are restricted to the familiar—to products they can relate to. They also agree that consumers apply technology within their bounded context and naturally will influence the development of a new product to match their needs within that particular context, consumers cannot see their world through the world of technologists and therefore cannot know what is technologically possible, and consumers are not perfectly informed about the latest market trends. Accordingly, these authors conclude that businesses are most likely to launch new products that are similar to their existing product lines if they rest their innovation process heavily on customer input. Thus, we hypothesize the following:

Hypothesis 1: The greater the customer orientation of a business, the more line extensions are introduced.

Several authors also argue that businesses are less likely to launch radically new products if they focus too closely on the competition (Bennett and Cooper 1981; Hayes and Abernathy 1980; Zahra, Nash, and Brickford 1995). Their reasoning is based on the notion that a preoccupation with competitor capabilities and product portfolios introduces businesses to a convenient source of product innovation. Attracted by the opportunity to avoid the exorbitant costs associated with basic scientific inves-

tigation and the development of novel technologies, businesses are often tempted simply to adopt competitor ideas and technology. This, in turn, precludes attempts to redefine product markets with new-to-the-world products and render the competition irrelevant. Therefore, these authors conclude that businesses are most likely to launch new products that are similar to their competitors' products if their innovation process is driven by a competitor focus. Thus, we hypothesize the following:

Hypothesis 2: The greater the competitor orientation of a business, the more me-too products are introduced.

Underlying both hypotheses is the notion that an obsessive focus on customers or competitors encourages research and development (R&D) to develop more line extensions and me-too products at the expense of new-to-the-world products. However, Griffin and Hauser (1994) and Wheelwright and Clark (1992) note that an emphasis on the interfunctional coordination of organizational resources could reverse this effect and yield products new to both the business organization and the market. Indeed, interfunctional coordination is believed to enhance the communication and exchange between all organizational functions that are concerned with customers and competitors, and to give these functions greater proximity to the latest market trends (Gatignon and Xuereb 1997). This is likely to foster both trust and dependence among the separate functional units (Damanpour 1991), which, in turn, provides an environment that is more receptive to truly new products (Argyris 1982; Han et al. 1998). In addition, interfunctional coordination is believed to remove barriers that block the flow of tacit knowledge (cf. Madhavan and Grover 1998)—knowledge that is difficult to articulate fully even by an expert and is best transferred from one person to another through a long process of apprenticeship (Polanyi 1966). Always present, tacit knowledge often serves as an informal source for breakthrough innovation (Nonaka 1991). Therefore, we hypothesize the following:

Hypothesis 3: The greater the interfunctional coordination of a business, the more new-to-the-world products are introduced.

METHODOLOGY

Data Collection

Eight hundred U.S. manufacturing companies listed in *Dun's Market Identifiers File* were randomly selected to test the hypotheses. The questionnaire was sent to key informants (Campbell 1955)—organizational members who, because of their specific knowledge, are in a unique position to report on the phenomena being studied (Heide and Weiss 1995). Despite the potential for errors owing to

position bias, vested interests, and idiosyncratic access to information (Phillips 1981; Seidler 1974), key informants are generally highly capable of valid responses; Huber and Power (1985) found that when several informants varied in their knowledge about issues, the simple average of responses was less likely to be accurate than when using a key informant.

Following the guidance of Campbell (1955) and Heide and Weiss (1995), we took specific prescreening and selection steps to ensure the validity of the key informant responses. Initially, our representatives—12 telemarketers who each had a minimum of 5 years' telemarketing experience—called the company headquarters of the 800 sample companies with the request to speak to an available company executive. Each executive was briefed on the research project and, upon agreeing to participate, was asked to identify a key informant in the company's core strategic business unit (SBU). That key informant was then called to verify both motivation and ability to describe the research phenomena. Several follow-up calls were required, since the key informants were often away from their desks and, in most cases, executives did not permit substitute key informants to be approached.

After an informant agreed to accept our survey in the mail, the telemarketers addressed the survey envelope and added a handwritten thank-you note as a postscript on the cover letter. Each questionnaire was self-addressed and postage-paid, merely requiring the respondent to tape one side and place it in the mail. After approximately 5 weeks, a replacement copy of the questionnaire, together with another cover letter, was mailed to the key informants. All participants were given the option of receiving a summary of the research results and were assured confidentiality.

Response Rates

Key informants in 561 SBUs agreed to receive our questionnaire. Citing confidentiality reasons, 239 companies declined participation. Completed questionnaires were received from 194 SBUs for a return rate of 34.6 percent.

Two procedures were used to evaluate possible nonresponse bias. The first procedure focused on differences at the corporate level and involved using secondary data from Dun & Bradstreet Information Services. After dividing our sample of 800 manufacturing companies into nonrespondents and respondents, we found no significant differences across Standard Industrial Classification (SIC) codes, total number of employees, or overall corporate sales revenue. The second procedure focused on the SBU level and involved an extrapolation procedure used by Kazanjian and Drazin (1989). Drawing on the work of Armstrong and Overton (1977), these authors show that the profile of nonrespondents is likely to be more similar to that of late respondents than that of early respondents.

The means of the variables included in our study did not differ significantly when we compared early and late respondents.

Sample Characteristics

On average, the 194 SBUs in our sample had been in operation for 28 years, employed 267 employees, and earned \$51 million in sales revenue per year. Approximately 35 percent of the SBUs used mass production technology; the remaining 65 percent used customized production technology. Of the key informants responding to the survey, 32 percent held a marketing title and 68 percent held a nonmarketing title.

Research Instruments

Market orientation. We adopted Narver and Slater's (1990) market orientation scale, which has been used in a variety of market orientation studies (e.g., Gatignon and Xuereb 1997; Han et al. 1998; Siguaw, Brown, and Widing 1994). Six items measured customer orientation, four items measured competitor orientation, and five items measured interfunctional coordination (see the appendix). All items were scored on a 7-point rating scale ranging from *not at all* to *an extreme extent*. The coefficient alphas were .83 (customer orientation), .64 (competitor orientation), and .80 (interfunctional coordination), and are similar to reliabilities reported by Gatignon and Xuereb (1997), which were .85 (customer orientation), .60 (competitor orientation), and .77 (interfunctional coordination).

Product innovation. We employed the new-product taxonomy described earlier in the article (line extensions, me-too products, and new-to-the-world products), using the three descriptions separately as ratio-scaled measures (see the appendix). Respondents were asked to count how many new products they had launched during the past 3 years in each category. To correct for possible nonnormality and heteroscedasticity, data values for the new product types were subject to a square root transformation, which is best suited for frequency counts (Hair, Anderson, Tatham, and Black 1998:77).

Data Analysis

Table 1 shows the correlation matrix for the variables. The matrix suggests that the collinearity among the variables is low to moderate. We tested the hypotheses following a two-step approach recommended by Hair et al. (1998): first, we used canonical correlation analysis; then we followed up with regression analysis (cf. Hult, Ferrell, and Schul 1998). This two-step approach is recommended, in particular, when the data analyst has little prior

TABLE 1
The Effect of Market Orientation on
Product Innovation—Correlation Matrix

Variable	1	2	3	4	5	6
1. Line extensions	1.00					
2. Me-too products	-.03	1.00				
3. New-to-the-world products	.01	-.05	1.00			
4. Customer orientation	.16*	-.18*	.37***	1.00		
5. Competitor orientation	.04	.30***	-.11	.32***	1.00	
6. Interfunctional coordination	.43***	-.15*	.07	.58***	.43***	1.00

* $p < .05$. *** $p < .001$.

knowledge about relationships among sets of variables (Hair et al. 1998). Indeed, despite all the theorizing about a strong relationship between market orientation and product innovation, empirical findings point to an insignificant relationship (Lawton and Parasuraman 1980) or limited relationship (e.g., Gatignon and Xuereb 1997). The overall canonical correlation analysis provided an overview of the relationship between the three market orientation variables and the three product innovation variables. The follow-up regression analysis tested directly the specific relationships described in the hypotheses.

In canonical correlation analysis, the association between a set of predictor variables (here, market orientation variables) and a set of criterion variables (here, product innovation variables) is assessed by establishing the canonical correlation coefficient and the redundancy index for each pair of linear composites derived from the data. The canonical correlation coefficient estimates the strength of the relationship between the linear composites of the predictor and criterion sets of variables. The canonical redundancy index summarizes how much variance in one set of variables is shared by the other set (Lambert and Durand 1975).

The relative importance of a variable in each set of variables is indicated by the canonical weight and the canonical loading extracted for the variable. The canonical weight indicates how much a variable in the predictor or criterion set contributes to the canonical function. Variables whose weights are larger contribute more to the function. The canonical loading measures the simple linear correlation between an original observed variable in the predictor or criterion set and the set's linear composite and is interpreted like a factor loading (Hair et al. 1998).

An important concern in canonical correlation analysis is weight instability, meaning that the canonical weights can vary across repeated samples from the same population (Alpert and Peterson 1972; Lambert and Durand 1975), and therefore a statistically significant canonical

TABLE 2
The Effect of Market Orientation
on Product Innovation—Results of
Canonical Correlation Analysis

Variable	Canonical Weight			Canonical Loading
	1st Split Sample (N = 94)	2d Split Sample (N = 100)	Total Sample (N = 194)	
Criterion set—product innovation				
1. Line extensions	.36	.40	.48	.51
2. Me-too products	-.70	-.71	-.66	-.71
3. New-to-the-world products	.54	.51	.51	.55
			Redundancy index = .14	
Predictor set—market orientation				
1. Customer orientation	.63	.60	.54	.62
2. Competitor orientation	-.84	-.84	-.82	-.38
3. Interfunctional coordination	.51	.56	.60	.56
			Redundancy index = .11	
Canonical correlation coefficient	.62	.60	.62	
Canonical root (eigenvalue)	.61	.61	.64	

NOTE: Canonical loadings are provided only for the total sample group. Canonical weights are provided for all three groups (total group and both subsample groups) for diagnostic purposes.

correlation may appear despite a weak relationship between criterion and predictor sets. To gain insights into the nature of instability, Sharma (1996) suggests a split sample analysis, where the data set is randomly divided into two subsamples and separate canonical correlation analyses are run for each subsample. High associations between the respective linear composites in the two samples provide evidence of the stability of the canonical coefficients.

EMPIRICAL FINDINGS

Table 2 reports the results of the canonical correlation analysis with the three market orientation variables as the predictor set and the three product innovation variables as the criterion set. The split sample analysis suggested by Sharma (1996) and reported in the two split sample columns of Table 2 indicates that the canonical coefficients are stable.

The overall canonical correlation analysis yielded two significant canonical functions. The first canonical function produced a canonical correlation value of .62, and the redundancy index for the criterion set shows that 14 percent of the variance in the introduction of new products is

TABLE 3
The Effect of Market Orientation on
Product Innovation—Results of Multiple
Regression Analysis (standardized
regression estimates)

Variable	Line Extensions	Me-Too Products	New-to-the-World Products
Customer orientation	-.11	-.18*	.53***
Competitor orientation	-.16*	.48***	-.23**
Interfunctional coordination	.57***	-.25**	-.14
R ²	.22	.22	.20
N	194	194	194

* $p < .05$. ** $p < .01$. *** $p < .001$.

explained by the variation in market orientation. Thus, the overall canonical correlation analysis provides support for a relationship between market orientation and product innovation. Moreover, the high values for the canonical weights and canonical loadings associated with the three market orientation variables and the three product innovation variables indicate that each product innovation variable should be regressed on all three market orientation variables in the follow-up regression analysis. Because the second canonical function did not provide additional insight, it is not reported here.

Table 3 reports the results of the follow-up regression analysis. The first regression, with line extensions as the dependent variable, tests Hypothesis 1 (i.e., more line extensions are introduced when customer orientation increases). This hypothesis is not supported; customer orientation is not related to line extensions. However, competitor orientation ($b = -.16, p < .05$) and interfunctional coordination ($b = .57, p < .001$) are significantly related to line extensions. The directionality of the standardized regression coefficients suggests that a business launches more line extensions when it becomes less competitor oriented and more interfunctionally coordinated.

The second regression, with me-too products as the dependent variable, tests Hypothesis 2 (i.e., more me-too products are launched when competitor orientation increases). This hypothesis is supported; competitor orientation has a positive and significant effect on me-too products ($b = .48, p < .001$). In addition, customer orientation ($b = -.18, p < .05$) and interfunctional coordination ($b = -.25, p < .01$) have a negative and significant effect on me-too products. These findings suggest that a business launches more product imitations when it becomes more competitor oriented, less customer oriented, and less interfunctionally coordinated.

The third and final regression, with new-to-the-world products as the dependent variable, tests Hypothesis 3 (i.e., more new-to-the-world products are launched when interfunctional coordination increases). This hypothesis is

not supported; interfunctional coordination is not related to new-to-the-world products. Customer orientation ($b = .53, p < .001$) and competitor orientation ($b = -.23, p < .01$) are, however, significantly related to new-to-the-world products. The directionality of the standardized regression coefficients suggests that a business launches more breakthrough innovations when it becomes more customer oriented and less competitor oriented.

DISCUSSION

Three basic findings emerged from our study. First, the results show that a greater emphasis on customer orientation increases the introduction of new-to-the-world products and reduces the number of me-too products launched. These findings run counter to our notion as well as the arguments of others that customer orientation is a source of marginal innovation (e.g., Bennett and Cooper 1979, 1981; Christensen and Bower 1996; Leonard-Barton and Doyle 1996; Tauber 1974). One explanation for this difference may be that customer-oriented businesses are becoming more proficient in uncovering latent customer needs and stimulating customers to suggest new products beyond their usual frame of mind as well as what they believe to be technologically possible. Indeed, Slater and Narver (1998) suggest that businesses can enhance their innovation capability if they learn to complement traditional market research tools, such as focus groups and surveys, with advanced techniques, such as customer observation, market experimentation, and selective partnering with the most demanding users. Another explanation may be simply that more customers are well-informed, have high expectations, and thus are less likely to be myopic and conventional than in the past.

Second, our results indicate that a greater emphasis on competitor orientation increases the introduction of me-too products and reduces the number of line extensions and new-to-the-world products launched. These findings support those that suggest that competitor orientation is a source of product imitation (e.g., Bennett and Cooper 1981; Hayes and Abernathy 1980; Zahra et al. 1995), thereby confirming assertions that competitor-oriented businesses, when provided with the opportunity, are likely to adopt competitor ideas and technology rather than pursue development of their own.

Third, our results reveal that a greater emphasis on interfunctional coordination increases the introduction of line extensions and reduces the number of me-too products launched. These findings are not consistent with our reasoning and the view of those who suggest that interfunctional coordination is a source of "true" innovation (e.g., Griffin and Hauser 1994; Wheelwright and Clark 1992). A

plausible explanation for this inconsistency may be that as more functional units become vocal and involved directly in new product development through interfunctional coordination processes, organizational stress is likely to increase, especially when organizational resources are integrated in the absence of preestablished rules or procedures to follow (cf. Argyris 1982)—and one way to minimize stress is to avoid unfamiliar projects and leverage existing development routines (cf. Carmel 1995; Crawford 1992). Consequently, businesses might prefer to extend their current product offerings and forgo those opportunities for breakthrough products that are identified through greater interfunctional coordination.

Research Implications

The primary focus of past market orientation research has been on the combined effects of the market orientation components (Han et al. 1998). But treating the concept of market orientation as an aggregate construct of equally important behavioral orientations can be misleading and limit its strategic value for management practice. Our results, taken together, suggest that product innovation varies with customer orientation, competitor orientation, and interfunctional coordination. This underscores the importance of a component-wise approach to answering the question of whether market orientation is "good" or "bad" for product innovation.

Despite our findings, a definite answer to this question depends on a variety of factors that we did not address in the present study. Of particular importance are environmental factors. Han et al. (1998) found that the extent to which organizational innovations vary with market orientation depends on the level of technological turbulence and market turbulence. Specifically, the authors found that customer orientation, competitor orientation, and interfunctional coordination facilitate technological and administrative innovations when technological turbulence is high. However, when market turbulence is high, only interfunctional coordination was found to have a positive effect. Moreover, in an earlier study, Gatignon and Xuereb (1997) found that the extent to which an innovation's market performance varies with market orientation depends on the level of demand uncertainty—a specific aspect of market turbulence. The authors found that when demand is uncertain, a customer orientation has a positive influence on the commercial performance of a product innovation, and a competitor orientation has a detrimental effect on an innovation's market performance. However, when demand is more certain, it is a competitor orientation, not a customer orientation, that was found to yield superior innovation performance. In light of these findings, future studies should explore whether and how environmental

factors, especially technological turbulence and market turbulence, moderate the impact of market orientation components on product innovation taxonomies.

Furthermore, if future studies could address our research limitations, additional insights into the subject matter would be gained. Because we collected data on both the independent and dependent variables simultaneously, shared-methods variance may have inflated the significance of our data. Future studies could compare perceptions of customers and managers, and account for any differences, concerning a SBU's market orientation (cf. Jaworski and Kohli 1993). Deshpandé et al. (1993) provide a useful blueprint for such an approach. The authors describe a sampling and analytic method to carefully match self-reported and customer-reported perceptions of customer orientation. Another limitation of this study is related to our reliance on Narver and Slater (1990) to operationalize market orientation. The literature provides a variety of market orientation measures (e.g., Deshpandé et al. 1993; Kohli, Jaworski, and Kumar 1993; Ruekert 1992), some of which should be employed in future research to validate the findings reported here. To this end, future studies could follow Deshpandé and Farley (1998), who examined the effect of three different market orientation measures on performance using the same data set. Finally, our sample is confined to the manufacturing industry. Future studies should examine whether the relationships reported here differ across industries.

Strategy Implications

Although subject to verification and refinement through additional research, our study provides important strategy guidelines, especially for manufacturing businesses. Our findings suggest that businesses seeking to commercialize more breakthrough innovations should focus on a strong customer orientation, businesses wishing to match their competitors with comparable products should direct their attention toward a strong competitor orientation, and businesses seeking to extend existing product lines should focus on a strong interfunctional coordination. However, businesses should note that while emphasizing one aspect of market orientation over another may favor development of one new product type, it will probably limit development of another. The potential trade-offs should be carefully weighed while developing a market-focused strategy (cf. Lukas 1999).

These suggestions highlight intriguing strategic issues. For example, when would/should businesses wish to merely match competitors or to merely introduce line extensions? Would not all businesses prefer to strive for breakthrough innovations? If not, what types of market and/or company characteristics are likely to determine

whether some type(s) of innovations are more appropriate than others in certain contexts?² Answers to these kinds of questions will place research concerning the effect of market orientation on product innovation in the appropriate strategic context.

APPENDIX

Measures and Items

MARKET ORIENTATION

Adapted from Narver and Slater (1990).

Respondents selected from 1 = *not at all* to 7 = *to an extreme extent*.

Customer Orientation (coefficient alpha = .83)

In comparison with our competitors:

1. ___ We constantly monitor our level of commitment and orientation to serving customers' needs.
2. ___ Our business objectives are driven primarily by customer satisfaction.
3. ___ Our strategy for competitive advantage is based on our understanding of customer needs.
4. ___ Our business strategies are driven by our beliefs about how we can create greater value for customers.
5. ___ We measure customer satisfaction systematically and frequently.
6. ___ We give close attention to after-sales service.

Competitor Orientation (coefficient alpha = .64)

In comparison with our competitors:

1. ___ We rapidly respond to competitive actions that threaten us.
2. ___ Our salespeople regularly share information within our organization concerning competitors' strategies.
3. ___ Top management regularly discusses competitors' strengths and strategies.
4. ___ We target customers where we have an opportunity for competitive advantage.

Interfunctional Coordination (coefficient alpha = .80)

In comparison with our competitors:

1. ___ All of our business functions (e.g., marketing/sales, manufacturing, research and development [R&D], etc.) are integrated in serving the needs of our target markets.
2. ___ All of our business functions and departments are responsive to each other's needs and requests.
3. ___ Our top managers from every function regularly visit our current and prospective customers.
4. ___ We freely communicate information about our successful and unsuccessful customer experiences across all business functions.

5. ___ Our managers understand how everyone in our business can contribute to creating customer value.

PRODUCT INNOVATION

Respondents indicated how many new products their SBU had introduced during the past three years using the descriptions below.

1. ___ Number of line extensions (products not very new to your organization but new to your market).
2. ___ Number of me-too products (products new to your organization but not new to your market).
3. ___ Number of new-to-the-world products (products new to your organization and new to your market).

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NOTES

1. Booz, Allen, and Hamilton (1982) mention "product modifications" as yet another category of product innovation. Because product modifications are familiar to both the business organization and the market (Olson, Walker, and Ruekert 1995), we do not consider them product innovations in a strict sense.

2. We thank A. Parasuraman for raising these important strategic issues.

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