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Market Orientation: Antecedents and Consequences

This research addresses three questions: (1) Why are some organizations more market-oriented than others? (2) What effect does a market orientation have on employees and business performance? (3) Does the linkage between a market orientation and business performance depend on the environmental context? The findings from two national samples suggest that a market orientation is related to top management emphasis on the orientation, risk aversion of top managers, interdepartmental conflict and connectedness, centralization, and reward system orientation. Furthermore, the findings suggest that a market orientation is related to overall (judgmental) business performance (but not market share), employees' organizational commitment, and esprit de corps. Finally, the linkage between a market orientation and performance appears to be robust across environmental contexts that are characterized by varying degrees of market turbulence, competitive intensity, and technological turbulence.

RECENT years have witnessed a renewed emphasis on delivering superior quality products and services to customers (e.g., Bitner 1990; Day and Wensley 1988; Parasuraman, Zeithaml, and Berry 1985). Because customer needs and expectations continually evolve over time, delivering consistently high-quality products and services requires ongoing tracking and responsiveness to changing marketplace needs, i.e., being market-oriented. More formally, a market orientation refers to the organization-wide generation of market intelligence, dissemination of the intelligence across departments, and organization-wide responsiveness to it (see Kohli and Jaworski 1990).

Why are some organizations more market-oriented than others? Remarkably, this fundamental issue has not been addressed in any empirical study to date. Several propositions pertaining to the antecedents of a market orientation have recently been advanced by Kohli and Jaworski (1990). However, as they point out, these propositions need empirical validation.

Furthermore, although a market orientation is posited to lead to greater customer satisfaction and organizational commitment of employees, these relationships also have not been subjected to empirical testing. In an encouraging step, Narver and Slater (1990) report empirical support for the often-assumed or implied relationship between a market orientation and performance. However, arguments have been advanced in the literature suggesting that a market orientation may have a strong or a weak effect on business performance, depending on the environmental conditions such as market turbulence and competitive intensity (e.g., see Houston 1986). Such potential variations in the impact of a market orientation on performance remain to be empirically investigated.

The purpose of this research is to address the voids in knowledge noted above. Specifically, two national samples are investigated to determine (1) the effect of three sets of factors posited in the literature on a market orientation, (2) the hypothesized effect of a market orientation on business performance and employees, and (3) the role of environmental characteristics in

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moderating the relationship between market orientation and business performance. This research sheds light on the relative importance of a number of organizational factors that are posited to help or hinder a market orientation, as well as the nature of the impact of the orientation on employees and business performance.

In addition to testing theory, the research findings are useful to managers for undertaking change efforts directed at building market-oriented organizations (see also Day 1990). Furthermore, this research empirically addresses the issue of whether all businesses should focus on a market orientation. This is an important consideration, because devoting resources to develop a market orientation potentially may be wasteful if the orientation does not lead to higher performance in certain business environments, such as those with low competitive intensity. Finally, this research sheds light on the impact of a market orientation on the employees of an organization, an aspect of market orientation that has been underemphasized in previous writings.

First, a brief review of the literature on market orientation will be provided, and hypotheses pertaining to the antecedents and consequences of the orientation will be discussed. While internal organizational as well as external factors (e.g., competitive intensity) can be argued to be antecedents of market orientation (see Lusch and Laczniak 1987), the present study focuses on internal factors. This perspective embodies a more applied orientation, because managers have more control over internal antecedents compared to external ones. Next, two large-scale field investigations undertaken to test these hypotheses are described, followed by a discussion of the research results. The paper will conclude with a discussion of the managerial relevance of the findings and future research directions.

Background and Hypotheses

Introduced in the early 1950s, the marketing concept (the philosophical foundation of a market orientation) represents a cornerstone of marketing thought (see Borch 1957; McKitterick 1957). However, given its widely acknowledged importance, it is remarkable how little research has focused on the subject. Only a small set of conceptual articles exists that offers preliminary suggestions for engendering a market orientation (e.g., Felton 1959; Stampfl 1978; Webster 1988). And the few empirical studies that have been conducted on the subject primarily concern the extent to which organizations have adopted the marketing concept, rather than the antecedents or consequences of a market orientation (e.g., Barksdale and Darden 1971; Hise 1965; Lusch, Udell, and Laczniak 1976; McNamara 1972). There is, however, a strong resurgence of academic and practitioner interest in market orientation (e.g., Deshpande and Webster 1989; Deshpande, Farley, and Webster 1993; Houston 1986; Narver and Slater 1990; Olson 1987; Linden 1987; Shapiro 1988).

Using a theories-in-use approach described by Zaltman, LeMasters, and Heffring (1982), Kohli and Jaworski (1990) define a market orientation as composed of three sets of activities: (1) organization-wide *generation* of market intelligence pertaining to current and future customer needs, (2) *dissemination* of the intelligence across departments, and (3) organization-wide *responsiveness* to it. Furthermore the responsiveness component is defined as being composed of two sets of activities—response design (i.e., using market intelligence to develop plans) and response implementation (i.e., executing such plans). This definition focuses on specific behaviors and therefore facilitates operationalizing the market orientation construct.

The three-component conceptualization also makes possible a more focused analysis of the role of any given antecedent of a market orientation. (As will be discussed later, the same antecedent may potentially have an opposite effect on the different components of a market orientation.) Therefore, the authors adopt the three-component conceptualization of market orientation in the present study. It is useful to note that, traditionally, customers have been considered to be the primary focus of a market orientation. Consistent with Lusch and Laczniak (1987), a somewhat broader perspective is embraced, in that additional forces in a market (e.g., competition, technology, regulation) are considered to belong to the domain of the market orientation construct.

In order to guide the following discussion, a figure identifying the key constructs included in the study is provided (Figure 1). Based on the literature subsequently discussed, three sets of antecedents pertaining to top management, interdepartmental factors, and organizational systems are hypothesized to be related to market orientation, and market orientation is hypothesized to be related to employee commitment, esprit de corps, and business performance. Finally, the link between a market orientation and business performance is hypothesized to be moderated by market turbulence, competitive intensity, and technological turbulence. Because a fairly detailed discussion of the hypotheses is provided by Kohli and Jaworski (1990), only a brief synthesis is offered in order to conserve space for discussing the empirical aspects of the research in detail.

Antecedents to a Market Orientation

The first set of antecedents included in the present study pertains to top management in an organization. Sev-

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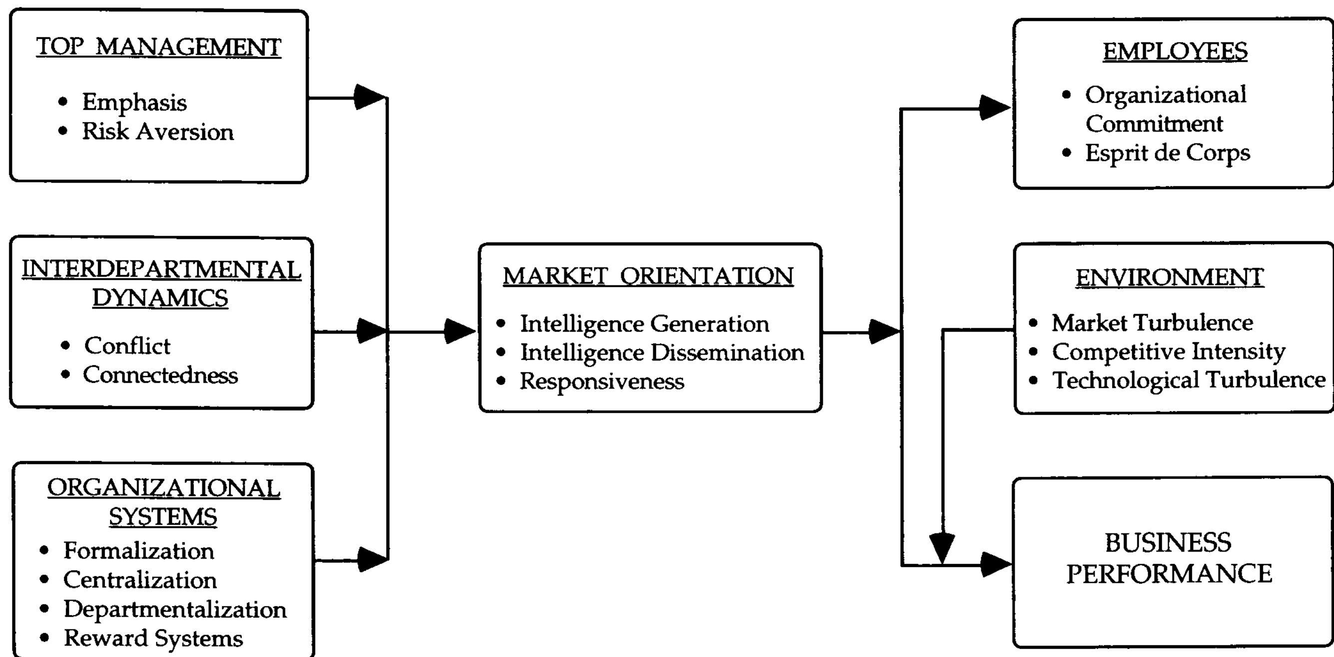
FIGURE 1
Antecedents and Consequences of Market Orientation



eral authors suggest that top managers play a critical role in shaping an organization's values and orientation (e.g., see Felton 1959; Hambrick and Mason 1984; Webster 1988). The central theme in these writings is that unless an organization gets clear signals from top managers about the importance of being responsive to customer needs, the organization is not likely to be market-oriented (see Levitt 1969, p. 244; Webster 1988, p. 37). Top management reinforcement of the importance of a market orientation is likely to encourage individuals in the organization to track changing markets, share market intelligence with others in the organization, and be responsive to market needs. Therefore:

> H_1: The greater the top management emphasis on a market orientation, the greater the (1) market intelligence generation, (2) intelligence dissemination, and (3) responsiveness of the organization.

A second antecedent of market orientation relates to top managers' risk posture. Responsiveness to changing market needs often calls for the introduction of new products and services to match the evolving customer needs and expectations. But new products, services, and programs often run a high risk of failure and tend to be more salient than established products. Kohli and Jaworski (1990) argue that if top management demonstrates a willingness to take risks and to accept occasional failures as being natural, junior managers are more likely to propose and introduce new offerings in response to changes in customer needs. By contrast, if top management is risk aversive and intolerant of failures, subordinates are less likely to focus on generating or disseminating market intelligence or responding to changes in customer needs. Therefore, it can be expected that

> H_2: The greater the risk aversion of top management, the lower the (1) market intelligence generation, (2) intelligence dissemination, and (3) responsiveness of the organization.

The second set of factors that is hypothesized to have an effect on a market orientation pertains to interdepartmental dynamics. A particularly salient factor proposed to affect a market orientation is interdepartmental conflict, which refers to the tension among departments arising from the incompatibility of actual or desired responses (cf. Gaski 1984; Raven and Kruglanski 1970, p. 70). Several authors point to interdepartmental conflict as an inhibitor of a market orientation (see Levitt 1969; Lusch, Udell and Laczniak 1976; Felton 1959). Essentially, interdepartmental conflict is likely to inhibit communication across departments (cf. Ruekert and Walker 1987), thereby lowering market intelligence dissemination. In addition, tension among departments is likely to inhibit a

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concerted response by the departments to market needs, thereby hampering a market orientation. No effects are expected for intelligence generation, because interdepartmental conflict should not affect the information acquisition process in a given department. Hence:

> H_3: The greater the interdepartmental conflict, the lower the (1) market intelligence dissemination and (2) responsiveness of the organization.

A market orientation is also posited to be affected by interdepartmental connectedness, which refers to the degree of formal and informal *direct* contact among employees across departments. Several related streams of research suggest that connectedness facilitates interaction and exchange of information, as well as the actual utilization of the information (see Cronbach and Associates 1981; Deshpande and Zaltman 1982; Patton 1978). Therefore, it can be expected that the greater the extent to which individuals across departments are directly connected (or networked), the more they are likely to exchange market intelligence and respond to it in a concerted fashion (see also Kohli and Jaworski 1990). As before, no effects are expected for the intelligence generation component. Thus:

> H_4: The greater the interdepartmental connectedness, the greater the (1) market intelligence dissemination and (2) responsiveness of the organization.

The third set of antecedents that is proposed to affect a market orientation pertains to organizational structure and systems. Three structural variables—formalization, centralization, and departmentalization—must first be considered. Formalization represents the degree to which rules define roles, authority relations, communications, norms and sanctions, and procedures (Hall, Haas, and Johnson 1967). Centralization refers to the inverse of the amount of delegation of decision-making authority throughout an organization and the extent of participation by organizational members in decision-making (Aiken and Hage 1968). Departmentalization refers to the number of departments into which organizational activities are segregated and compartmentalized.

Research to date suggests that both formalization and centralization are inversely related to information utilization (see Deshpande and Zaltman 1982; Hage and Aiken 1970; Zaltman, Duncan, and Holbek 1973). In the present context, information utilization corresponds to designing programs in response to market intelligence. Therefore, as Stampfl (1978) argues, it appears that formalization and centralization are inversely related to an organization's responsiveness. Similarly, Lundstrom (1976) and Levitt (1969) discuss departmentalization as a barrier to communication and, hence, to market intelligence dissemination.

Interestingly, there is reason to believe that the organizational structure may not affect the three components of a market orientation in the same fashion. As noted earlier, because a market orientation essentially involves doing something new or different in response to market conditions, it may be viewed as a form of innovative behavior. Zaltman, Duncan, and Holbek (1973, p. 62) characterize innovative behavior as being composed of two stages: (1) the initiation stage (i.e., awareness and decision-making) and (2) the implementation stage (i.e., carrying out the decision). In the present context, the initiation stage corresponds to intelligence generation, dissemination, and the design of organizational response, whereas the implementation stage corresponds to the actual organizational response.

Zaltman, Duncan, and Holbek (1973) draw on numerous studies to argue that organizational dimensions such as formalization, centralization, and departmentalization may have opposite effects on the two stages of the innovative behavior. In particular, they indicate that, whereas these variables may hinder the initiation stage of innovative behavior, the same variables may actually facilitate the implementation stage of innovative behavior. This suggests that formalization, centralization, and departmentalization may be inversely related to market intelligence generation, dissemination, and response design but positively related to response implementation. Therefore, it is hypothesized that:

> H_5: The greater the formalization, (1) the lower the intelligence generation, dissemination, and response design and (2) the greater the response implementation.
>
> H_6: The greater the centralization, (1) the lower the intelligence generation, dissemination, and response design and (2) the greater the response implementation.
>
> H_7: The greater the departmentalization, (1) the lower the intelligence generation, dissemination, and response design and (2) the greater the response implementation.

The last antecedent investigated in this study relates to the measurement and reward system that is in place within an organization. Literature on the subject suggests that measurement/reward systems are instrumental in shaping the behaviors of employees (cf. Anderson and Chambers 1985; Jaworski 1988; Lawler and Rhode 1976; Hopwood 1974). In the present context, Webster (1988, p. 38) argues that ". . . the key to developing a market-driven, customer-oriented business lies in how managers are evaluated and rewarded." He observes that if managers primarily are evaluated on the basis of short-term profitability and sales, they are likely to focus on these criteria and neglect market factors such as customer satisfaction that assure the long-term health of an organization. Consistent with the preceding arguments, it can be expected that individuals in organizations that empha-

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size customer satisfaction and market-oriented behavior as bases for administering rewards will more readily generate market intelligence, disseminate it internally, and be responsive to market needs. That is:

> H_8: The greater the reliance on market-based factors for evaluating and rewarding managers, the greater the (1) market intelligence generation, (2) intelligence dissemination, and (3) responsiveness of the organization.

Consequences of a Market Orientation

A market orientation is frequently posited to improve business performance. The argument is that organizations that are market-oriented, i.e., those that track and respond to customer needs and preferences can better satisfy customers and, hence, perform at higher levels. The study by Lusch and Laczniak (1987) provides some support for this relationship. A more recent study by Narver and Slater (1990) also offers empirical support for the relationship posited between market orientation and business performance. The formal hypothesis to be tested is:

> H_9: The greater the market orientation of an organization, the higher its business performance.

The next set of consequences examined in the study focus on organizational employees. The research reported by Kohli and Jaworski (1990) suggests that a market orientation affords a number of psychological and social benefits to employees. Specifically, a market orientation is argued to lead to a sense of pride in belonging to an organization in which all departments and individuals work toward the common goal of satisfying customers. Accomplishment of this objective is posited to result in employees sharing a feeling of worthwhile contribution, a sense of belongingness, and, therefore, commitment to the organization. The formal testable hypothesis is:

> H_{10}: The greater the market orientation, the greater the (1) esprit de corps and (2) organizational commitment of employees.

As noted earlier, several scholars suggest that the environmental context of an organization is likely to influence its level of market orientation. As a result, organizations in more competitive environments may be expected to be more market-oriented (Lusch and Laczniak 1987). Several scholars draw on this general argument to suggest that the importance of market orientation varies with the environmental context (see Bennett and Cooper 1981; Houston 1986; Tauber 1974). Stated differently, they argue that the linkage between market orientation and performance depends on the environmental characteristics of an organization.

In the present study, three environmental characteristics are included that have been proposed by Kohli and Jaworski (1990) to influence the linkage between a market orientation and performance. First, market turbulence—the rate of change in the composition of customers and their preferences—is considered. Organizations that operate in the more turbulent markets are likely to have to modify their products and services continually in order to satisfactorily cater to customers' changing preferences. By contrast, an organization's products and services are likely to require relatively little modification in stable markets where the customers' preferences do not change very much. Therefore, businesses operating in the more turbulent markets are likely to have a greater need to be market-oriented, (i.e., to track and respond to evolving customer preferences) compared to businesses in stable markets. In other words, a market orientation is likely to be more strongly related to performance in turbulent markets than in stable markets. Stated formally:

> H_{11}: The greater the market turbulence, the stronger the relationship between a market orientation and business performance.

A second environmental factor that may be argued to moderate the linkage between a market orientation and business performance is competitive intensity. As Houston (1986) and Kohli and Jaworski (1990) observe, in the absence of competition, an organization may perform well, even if it is not very market-oriented, because customers are "stuck" with the organization's products and services. By contrast, under conditions of high competition, customers have many alternative options to satisfy their needs and wants. As a result, an organization that is not very market-oriented is likely to lose customers to competition and fare poorly, so a market orientation is expected to be a more important determinant of performance under conditions of high competitive intensity. That is:

> H_{12}: The greater the competitive intensity, the stronger the relationship between a market orientation and business performance.

The third environmental factor posited to moderate the relationship between a market orientation and business performance is technological turbulence—the rate of technological change. A market orientation essentially is a means to developing a competitive advantage, because it enables an organization to understand customer needs and offer products and services that meet those needs. While this is important, there may be alternative avenues to gaining a competitive advantage. To the extent such alternative avenues exist, the importance of a market orientation is likely to be diminished. One such avenue is technology. Organizations that work with nascent technologies that are undergoing rapid change may be able to obtain a competitive advantage through technological innovation, thereby diminishing—but not eliminating—the importance of a market orientation. By contrast, or-

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ganizations that work with stable (mature) technologies are relatively poorly positioned to leverage technology for gaining a competitive advantage and must rely on market orientation to a greater extent. For additional arguments along similar lines, see Bennett and Cooper (1981), Houston (1986), Kaldor (1971), and Tauber (1974). The discussion above suggests that:

H_{13}: The greater the technological turbulence, the weaker the relationship between a market orientation and business performance.

Data Collection

Sample I

The first sample was drawn from the member companies of the Marketing Science Institute (MSI) and the top 1000 companies (in sales revenues) listed in the Dun and Bradstreet *Million Dollar Directory*. A multiple-informant design was employed in this sample.

A letter from the MSI executive director was mailed to a senior executive at all forty-nine MSI member companies requesting that they participate in the study. Each executive was asked to provide the names of a senior marketing and a senior nonmarketing executive in one or more of the SBUs of the company for subsequent contact by the researchers. Out of a total of forty-nine companies, thirteen companies agreed to participate in the study and provided names of individuals in twenty-seven SBUs. The names of both a marketing and nonmarketing executive were provided for each SBU. A copy of the questionnaire, together with a personalized letter and a return envelope, was mailed to the two informants in each SBU. A reminder postcard was mailed to each individual approximately 1 week after the initial mailing. After approximately 3 weeks, a replacement copy of the questionnaire, together with another personalized letter, was mailed to the informants. The response rate was 88.9% for the marketing executives and 77.8% for the nonmarketing executives.

From the D&B sampling frame, 500 companies were chosen from among the top 1000 by selecting every alternate listing. The initial contact was made with the CEO of each company in a personalized letter requesting the company's participation in the study. A total of twenty-one companies could not be reached because of incorrect addresses and CEO successions, resulting in an effective base of 479 companies. The CEOs were requested to provide the names of two senior executives (one marketing and the other nonmarketing) in their SBUs to serve as informants. A total of 102 companies agreed to participate, and 229 SBU names were obtained. Names were provided for 206 marketing and 187 nonmarketing executives. Informants in these SBUs were then contacted directly by the researchers and requested to complete and return the study questionnaire according to the procedure described for the MSI companies. The response rate was 79.6% for the marketing executives and 70% for the nonmarketing executives.

These procedures resulted in responses from a total of 222 business units. The market share for these business units ranges from 1% to 100%, with an average share of 30%. For the purposes of analysis, the responses of the two informants were averaged to obtain scores for each business unit. In the relatively few instances where only one informant provided the data, the responses were used in the original form.

Sample II

In order to cross-validate the findings from the sample above, data were obtained from a second sample. The sampling frame for this group was the American Marketing Association membership roster, which provided the names of additional informants. From this sampling frame, 500 names were selected at random, after first eliminating those whose titles suggested that they were relatively low in their organizational hierarchy. From this set, thirteen individuals could not be reached because of incorrect addresses, resulting in an effective base of 487. The 3-wave mailing procedure described earlier was used to obtain data from this sample. A total of 230 responses were obtained, for a response rate of 47.2%.

Instrument Development and Refinement

The study used existing scales for measuring the organizational structure constructs of formalization, centralization, and departmentalization. Scales for the other constructs included in the study were not available in the literature. Therefore, the first step entailed the development of new scales for these constructs. The following 4-phase iterative procedure was adopted for the purpose.

First, the authors independently generated a large pool of items for each of the constructs included in the study. Care was taken to tap the domain of each construct as closely as possible. For example, multiple items were generated to correspond to each of the three components of market orientation. From this pool of items, a subset was selected using the criteria of uniqueness and the ability to convey "different shades of meaning" to informants (see Churchill 1979). Several items were reverse-scored in order to minimize response set bias.

Next, because of the centrality of the market orientation scale, its items were tested for clarity and appropriateness in personally administered pretests with

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twenty-seven managers from marketing as well as nonmarketing departments and also from top management levels. The managers were asked to complete a questionnaire that included the items and indicate any ambiguity or other difficulty they experienced in responding to the items, as well as offer any suggestions they deemed appropriate. Based on the feedback received from the managers, some items were eliminated, others were modified, and additional items were developed.

This was followed by another phase of pretests in which the scales for all constructs were clearly marked as such and presented to seven academic experts, who were asked to critically evaluate the items from the standpoint of domain representativeness, item specificity, and clarity of construction. Based on the detailed critique received, some items were eliminated and others revised to improve their specificity and precision.

The items that were developed and refined were subjected to yet another phase of pretests involving personal interviews with seven managers, who were asked to complete a questionnaire that included the measure items as they applied to their business unit. At this stage, very few concerns were raised and only very minor refinements were made. A brief description of the final scale items follows. The complete scales are provided in the Appendix.

Market orientation was measured by a 32-item scale. Of these items, ten pertain to market intelligence generation, eight to intelligence dissemination, and fourteen to responsiveness at the business unit level. Of the fourteen responsiveness items, seven tap the extent to which an organization develops plans in response to market intelligence (response design), and the remaining seven assess the actual implementation of these plans (response implementation). Consistent with Lusch and Laczniak (1987), items that tapped the three components were interwoven with issues related to the needs and preferences of customers and end users, competitiors' moves, and regulatory trends. Sample items for the three components were: (1) "In our business unit, intelligence on our competitors is generated independently by several departments," (2) "We have interdepartmental meetings at least once a quarter to discuss market trends and developments," and (3) "Customer complaints fall on deaf ears in this business unit" (reverse-scored). Each item was scored on a 5-point scale, ranging from "strongly disagree" to "strongly agree."

Top management emphasis on market orientation and risk aversion were measured by two separate scales. The first scale was composed of four items (e.g., "Top managers repeatedly tell employees that this business unit's survival depends on its adapting to market needs"). Items in this scale focused on the verbal reinforcement top managers provided for market-oriented activities. The risk aversion scale was composed of six items (e.g., "Top managers in this business unit like to "play it safe"), and tapped top managers' disposition toward innovative actions in the face of risk and uncertainty. Items for each scale were scored on a 5-point scale, ranging from "strongly disagree" to "strongly agree."

The two constructs pertaining to interdepartmental dynamics—*conflict and connectedness*—were each measured by 7-item scales. The conflict items pertained to the extent to which the goals of the different departments were incompatible and tension prevailed in interdepartmental interactions (e.g., "Protecting one's departmental turf is considered to be a way of life in this business unit"). The connectedness items tapped notions of the extent to which individuals in a department were networked to various levels of the hierarchy in other departments (e.g., "In this business unit, it is easy to talk with virtually anyone you need to, regardless of rank or position"). Items for each scale were scored on a 5-point scale, ranging from "strongly disagree" to "strongly agree."

Formalization and centralization were measured by the widely used scales developed by Aiken and Hage (1966, 1968). The 9-item formalization scale assessed the extent to which jobs in the organization were codified, and there was an emphasis on observing rules (e.g., "How things are done around here is left up to the person doing the work" [reverse-coded]). The 5-item centralization scale assessed the degree of hierarchical authority within an organization (e.g., "A person who wants to make his own decisions would be quickly discouraged here"). All items were scored on a 5-point scale, ranging from "strongly disagree" to "strongly agree."

Departmentalization was measured by a count of the number of departments in the business unit. *Reward system orientation* was measured by a 6-item scale that assessed the extent to which customer relations, customer satisfaction, and market-oriented behaviors were used to evaluate and reward individuals in the organization. For example, "Customer satisfaction assessments influence senior managers' pay in this business unit." A 5-point scoring format (1 = strongly disagree; 5 = strongly agree) was employed for these items.

Market turbulence, competitive intensity, and technological turbulence were measured by three scales composed of six, six, and five items, respectively. The items for the market turbulence scale assessed the extent to which the composition and preferences of an organization's customers tended to change over time (e.g., "We are witnessing demand for our products and services from customers who never bought them before"). Competitive intensity scale items assessed

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the behavior, resources, and ability of competitors to differentiate (e.g., "Anything that one competitor can offer, others can match readily"). Technological turbulence items tapped the extent to which technology in an industry was in a state of flux (e.g., "The technology in our industry is changing rapidly"). A 5-point scoring format (1 = strongly disagree; 5 = strongly agree) was employed for all items.

Business performance was measured using two distinct approaches reflected in the literature—judgmental as well as objective measures. The judgmental measure asked informants for their assessment of the overall performance of the business and its overall performance relative to major competitors, rated on a 5-point scale ranging from "poor" to "excellent." The objective measure was the dollar share of the served market.

Organizational commitment and esprit de corps were measured by two 7-item scales. The organizational commitment scale items tapped the extent to which a business unit's employees were fond of the organization, saw their future tied to that of the organization, and were willing to make personal sacrifices for the business unit (e.g., "Employees often go above and beyond the call of duty to ensure this business unit's well-being"). The esprit de corps scale assessed the extent to which a team spirit prevailed in the organization (e.g., "People in this business unit are genuinely concerned about the needs and problems of each other"). All items were scored on a 5-point scale, ranging from "strongly disagree" to "strongly agree."

Each of the scales described above was refined in the following manner. The reliability of each scale was estimated by computing its coefficient alpha. Items that exhibited low inter-item correlations were eliminated, in order to improve the internal consistency of the scales. The reliability coefficient of each of the refined scales is reported in the Appendix (except for the overall responsiveness construct, which has a reliability coefficient of .89). As may be seen from the Appendix, the refined scales generally have good to high reliability coefficients that exceed the levels recommended by Nunnally (1978).

Analyses and Results

The data obtained from Sample I were analyzed to assess the degree of congruence between the two informants. First, the difference in the ratings of the two informants for each of the twenty-six constructs included in the study was computed. The average absolute differences for twenty-one of the twenty-six constructs were less than 1.0. In the case of five constructs, the average absolute differences ranged from 1.01 to 3.86. Given that most scales include multiple items, each rated on a 5-point scale, the differences noted were extremely small (on the order of 5% or less) and seemed to indicate the lack of a systematic bias in one direction or another in the reports of the marketing and nonmarketing managers.

Second, for each of the constructs, the correlation between the responses of the marketing executives and nonmarketing executives was computed. In general, the correlations are moderate and positive (.09, .17, .35, .28, .39, .29, .24, −.07, .31, .36, .52, .84, .02, .29, .17, .24, .18, .26, .42, .53, .37, .33, .51, .17, .33, .34). Although the two reports were positively correlated, the correlations were not perfect, which suggests that the two informants were keying in on different perspectives in providing their responses. (The lack of perfect congruence between the informants was entirely consistent with the results from previous multiple-informant studies (e.g., Silk and Kalwani (1982) reported in the literature.) Therefore, the scores obtained from the two informants were averaged to derive the score for each construct, in an attempt to obtain more complete measurement of the focal organizational characteristics.

Next, the scores for market orientation (and the other multi-item constructs) were computed by equally weighting and adding the corresponding item scores. (As a result, the market orientation score was the unweighted sum of the three components of generation, dissemination, and responsiveness.) The mean score of market orientation was 113.95, with a standard deviation of 15.80 and a range of 68.5 to 150 (out of a possible range of 31 to 155). The correlation between the generation and dissemination component was .62, between dissemination and responsiveness .70, and between responsiveness and generation .55. Furthermore, the correlations between the overall market orientation and the generation, dissemination, and responsiveness components were .79, .88, and .92, respectively.

The first nine hypotheses (H_1 through H_9) related to the antecedents of a market orientation. These were tested by estimating the following regression equations:

$$Y_1 = b_1X_1 + b_2X_2 + \ldots + b_8X_8 + e_1$$
$$Y_2 = b_1X_1 + b_2X_2 + \ldots + b_8X_8 + e_2$$
$$Y_3 = b_1X_1 + b_2X_2 + \ldots + b_8X_8 + e_3$$
$$Y_4 = b_1X_1 + b_2X_2 + \ldots + b_8X_8 + e_4$$

where Y_1 denotes overall market orientation, Y_2 through Y_4 denote market intelligence generation, market intelligence dissemination, and responsiveness, respectively, and X_1 through X_8 correspond to (1) top management emphasis on market orientation, (2) top management risk aversion, (3) interdepartmental conflict, (4) interdepartmental connectedness, (5) for-

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malization, (6) centralization, (7) departmentalization, and (8) reward system orientation. The e's are the error terms. Because interdepartmental conflict and connectedness were hypothesized to affect intelligence dissemination and responsiveness, but not intelligence generation (H_3, H_4), conflict and connectedness were not included as predictors of intelligence generation in the second equation above. The results obtained from estimating the four equations with Sample I and Sample II are provided in Tables 1 and 2.

Additionally, H_5 through H_7 hypothesized opposite effects of formalization, centralization, and departmentalization on the two components of responsiveness—response design and response implementation. Accordingly, two additional regression equations were estimated by incorporating response design and response implementation as the dependent variables and the eight independent variables previously noted. The results obtained for the effects of formalization, centralization, and departmentalization on the two components of responsiveness in both samples were identical to those obtained for overall responsiveness reported in Tables 1 and 2.

Hypotheses 9 and 10 pertained to the effect of a market orientation on business performance and employees' organizational commitment and esprit de corps. These were tested by regressing performance (using, in turn, the judgmental measure as well as the objective measure of market share) on market orientation. To control for the effects of additional determinants of performance, six control variables were incorporated as independent variables in the regression equations. The control variables related to competitive intensity, buyer power, supplier power, entry barriers, pressure from substitute products, and product quality. The literature suggests these variables to be important determinants of performance (e.g., Boulding and Staelin 1990; Jacobson and Aaker 1987; Porter 1980). Measures of these variables were specifically

TABLE 1
Antecedents of a Market Orientation: Standardized Regression Coefficients Estimated With Sample I

Independent Variables	Dependent Variables			
	Market Orientation	Intelligence Generation	Intelligence Dissemination	Responsiveness
Top Management Emphasis	.24***	.27***	.25***	.20**
Top Management Risk Aversion	ns	ns	ns	−.24***
Interdepartmental Conflict	−.17*	—	−.27***	−.23**
Interdepartmental Connectedness	.20**	—	ns	ns
Formalization	ns	ns	ns	ns
Centralization	−.22**	ns	−.14*	−.22**
Departmentalization	ns	ns	ns	ns
Reward System Orientation	.30***	.39***	.24***	.16*
R^2	.63	.34	.49	.54
N	134	144	154	150

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

TABLE 2
Antecedents of a Market Orientation: Standardized Regression Coefficients Estimated With Sample II

Independent Variables	Dependent Variables			
	Market Orientation	Intelligence Generation	Intelligence Dissemination	Responsiveness
Top Management Emphasis	.24***	.20*	.28***	.24***
Top Management Risk Aversion	ns	ns	ns	−.12*
Interdepartmental Conflict	−.28***	—	−.20*	−.32***
Interdepartmental Connectedness	.22**	—	.27**	ns
Formalization	ns	ns	ns	ns
Centralization	ns	−.34**	ns	ns
Departmentalization	ns	ns	ns	ns
Reward System Orientation	.31***	.38***	.20**	.19**
R^2	.58	.33	.38	.55
N	123	130	138	138

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

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developed for the study. Similarly, employees' organizational commitment and esprit de corps were separately regressed on market orientation and the control variables to test H_9 and H_{10}. The results obtained are reported in Tables 3 and 4.

Finally, H_{11} thru H_{13} hypothesized that the impact of a market orientation was contingent upon the level of market turbulence, competitive intensity, and technological turbulence. To test for the moderating effect of the three moderator variables, a split group analysis was performed, with both Sample I and Sample II separately (see Arnold 1982). First, the sample was sorted in ascending order of a moderator variable (e.g., market turbulence) and then it was split at the median to form two groups, one with relatively low market turbulence and the other with relatively high market turbulence. Next, performance was regressed on market orientation and the six control variables in the full sample, while allowing all regression coefficients to take on different values in the two subgroups.

Then, the regression equation was reestimated, this time constraining the coefficient associated with market orientation to take on the same value in the two subgroups. The Chow (1960) test was performed to assess the statistical significance of the difference in the regression coefficients of the market orientation variable across the low and high market turbulence sub-groups. The hypothesized moderating effects of competitive intensity and technological turbulence were tested in a similar fashion by re-sorting the samples using these variables in turn and proceeding as described.

Findings and Discussion

In this section, the focus is on the substantive interpretation of the results and the emergent findings. Additionally, several methodological issues that are germane to the substantive interpretation of the results are discussed.

TABLE 3
Consequences of a Market Orientation: Standardized Regression Coefficients Estimated With Sample I

Independent Variables	Dependent Variables: Overall Performance	Market Share	Organizational Commitment	Esprit de Corps
Market Orientation	.23**	ns	.44***	.51***
Product Quality	.24**	ns	.18*	.18*
Competitive Intensity	ns	−.39***	ns	ns
Buyer Power	ns	ns	ns	ns
Supplier Power	ns	.22*	ns	ns
Entry Barriers	ns	ns	ns	ns
Substitutes	ns	ns	ns	ns
R^2	.18	.06	.31	.40
N	145	112	153	153

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

TABLE 4
Consequences of a Market Orientation: Standardized Regression Coefficients Estimated With Sample II

Independent Variables	Dependent Variables: Overall Performance	Market Share	Organizational Commitment	Esprit de Corps
Market Orientation	.36***	ns	.66***	.58***
Product Quality	ns	ns	ns	ns
Competitive Intensity	ns	−.21*	ns	ns
Buyer Power	ns	ns	ns	ns
Supplier Power	ns	ns	ns	ns
Entry Barriers	ns	ns	ns	ns
Substitutes	ns	ns	ns	ns
R^2	.25	.11	.50	.39
N	136	89	139	135

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

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First, focusing on the antecedents of a market orientation, there is strong convergence in the findings from the two samples. The only exceptions relate to the role of interdepartmental connectedness and organizational centralization (see Tables 1, 2). Overall, the results suggest that several factors drive the market orientation of a business. The amount of emphasis top managers place on a market orientation appears to affect the generation of market intelligence ($b = .27$, $p < .001$, Sample I; $b = .20$, $p < .05$, Sample II), its dissemination within the organization ($b = .25$, $p < .001$, Sample I; $b = .28$, $p < .001$, Sample II), and the responsiveness of the organization ($b = .20$, $p < .01$, Sample I; $b = .24$, $p < .001$, Sample II). Therefore, it appears important that top managers continually emphasize the need for ongoing tracking and responding to market developments to employees. Top managers' risk aversion does not appear to affect intelligence generation or dissemination, but it seems to have a negative effect on the responsiveness of the organization ($b = -.24$, $p < .001$, Sample I; $b = -.12$, $p < .05$, Sample II). These findings support the earlier expectation that responding to market developments entails some amount of risk and that if top managers are unwilling to assume these risks, the organization is less likely to be responsive to the changing preferences of customers.

Interdepartmental conflict, as expected, appears to inhibit intelligence dissemination ($b = -.27$, $p < .001$, Sample I; $b = -.20$, $p < .05$, Sample II) as well as the responsiveness of an organization ($b = -.23$, $p < .01$, Sample I; $b = -.32$, $p < .001$, Sample II). This supports the expectation that individuals in organizations in which tension prevails across departments are less likely to be willing to share market information or to work in concert with other departments to satisfy customer needs and expectations.

Results from both samples suggest that connectedness among departments promotes a market orientation. The results from Sample II suggest that connectedness facilitates the dissemination of intelligence within an organization ($b = .27$, $p < .01$), thereby improving the market orientation. Curiously, in Sample I, connectedness does not appear to be related to intelligence dissemination, although it is related to overall market orientation ($b = .20$, $p < .01$). These results call for additional research to examine the linkage between connectedness and a market orientation.

Turning now to the role of organization-wide systems, a market orientation appears to be very strongly related to the orientation of the reward systems within the organization ($b = .30$, $p < .001$, Sample I; $b = .31$, $p < .001$, Sample II). Organizations that reward employees on the basis of factors such as customer satisfaction, building customer relationships, and so on tend to be more market-oriented.

Comparisons of the standardized regression coefficients in both Sample I and Sample II suggest that the design of reward systems has the strongest impact on market orientation from among the set included in the study. The "right" reward systems appear to facilitate all three components of a market orientation—intelligence generation ($b = .39$, $p < .001$, Sample I; $b = .38$, $p < .001$, Sample II), intelligence dissemination ($b = .24$, $p < .001$, Sample I; $b = .20$, $p < .01$, Sample II), and responsiveness ($b = 16$, $p < .05$, Sample I; $b = .19$, $p < .01$, Sample II).

The results from both samples suggest that centralization of decision-making serves as a barrier to a market orientation. However, the patterns of results for this variable across the two samples is different. In sample I, centralization is inversely related to intelligence dissemination ($b = -.14$, $p < .05$) and responsiveness ($b = -.22$, $p < .01$), and in sample II, centralization is inversely related to intelligence generation ($b = -.34$, $p < .01$).

Contrary to prior hypotheses, formalization does not appear to be related to a market orientation. This result parallels in part the results reported by Narver and Slater (1991), who suggest that programmatic approaches to improving market orientation may not be effective. Formalization refers to the existence of formal rules and regulations in an organization and the organization's efforts to enforce those rules.

Emphasis on rules is typically argued to make an organization less adaptive to external changes. While the results suggest that formalization is unrelated to a market orientation, an alternative interpretation is that mere emphasis on rules is less relevant than the precise nature of the rules in an organization. In other words, it is possible that, if properly designed, rules may facilitate rather than hinder a market orientation. For example, an organization may use rules to mandate that the various departments meet every month for a "market assessment" meeting. Such a rule is likely to enhance intelligence dissemination. Similarly, other rules may mandate fast response to customer complaints or other market developments, thereby improving a market orientation. Similarly, the lack of a relationship between departmentalization and a market orientation suggests that the sheer number of departments is less important than the connectedness and level of conflict among departments.

What are the hypothesized effects of a market orientation on business performance and employees? As shown in Tables 3 and 4, a market orientation appears to be significantly related to business performance when overall performance is assessed using judgmental measures ($b = .23$, $p < .01$, Sample I; $b = .36$, $p < .001$, Sample II). By contrast, a market orientation does not appear to be related to performance using the more objective measure of market share. These results

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would appear to provide somewhat mixed support for the importance of a market orientation. However, several issues warrant mention in this context.

First, it is unclear whether market share is a particularly appropriate indicator of performance. For example, it is possible that certain high-performing companies may deliberately pursue a "focus" strategy and be unconcerned about share positions (cf. Porter 1980). The literature is replete with examples of low-share companies outperforming high-share companies (e.g., Inland Steel vs. USX). In such instances, market share may be a less accurate indicator of performance compared to judgmental assessments that take into account the particular strategy of a company.

Second, it is possible that there is a lag in the effect of market orientation on market share, i.e., a market orientation leads to higher market share over a relatively long period of time. If so, such effects may not be captured in the cross-sectional design employed in the study. Based on these considerations, the authors tend to place more confidence in the results obtained using judgmental measures of performance. (The results also suggest that product quality is not related to market share, a finding that diverges from the results of studies using the PIMS database.)

The results reported in Tables 3 and 4 provide strong support for the hypothesized effects of a market orientation on employees' organizational commitment ($b = .44, p < .001$, Sample I; $b = .66, p < .001$, Sample II) and esprit de corps ($b = .51, p < .001$, Sample I; $b = .58, p < .001$, Sample II). It appears that a market orientation nurtures a bonding between employees and the organization, as well as promotes a feeling of belonging to one big organizational family dedicated to meeting and exceeding market needs and expectations.

Finally, the tests of the hypothesized moderating effects of market turbulence, competitive intensity, and technological turbulence on the linkage between market orientation and performance (H_{11}–H_{13}) are examined. The differences in regression coefficients associated with market orientation are not statistically significant ($p < .05$) across environments characterized by high and low levels of the three moderator variables in both samples. These results do not support the hypothesized moderating effects for any of the three moderator variables. In other words, the linkage between a market orientation and performance appears to be robust across contexts characterized by varying levels of market turbulence, competitive intensity, and technological turbulence. (Alternatively, it is possible that the hypothesized moderating effects do exist but were not detected because of the potentially insufficient power of the statistical test as a result of the relatively small sample size or because the reliabilities of the measures were not sufficiently high.)

Conclusion

Managerial Implications

The purpose of the study was to empirically test several hypotheses advanced in the literature regarding antecedents and consequences of a market orientation. The findings of the study suggest that the market orientation of a business is an important determinant of its performance, regardless of the market turbulence, competitive intensity, or the technological turbulence of the environment in which it operates. As such, it appears that managers should strive to improve the market orientation of their businesses in their efforts to attain higher business performance. It should be noted that, although a relationship between market orientation and market share was not found in this study, this finding should be tempered by the considerations discussed earlier in the paper.

The study suggests several factors as important determinants of a market orientation. Specifically, a market orientation appears to be facilitated by the amount of emphasis top managers place on market orientation through continual reminders to employees that it is critical for them to be sensitive and responsive to market developments. Importantly, a market orientation appears to require a certain level of risk-taking on the part of senior managers and a willingness to accept occasional failures of new products and services as being a normal part of business life. In the absence of such a willingness to take calculated risks, employees in the lower levels of an organizational hierarchy are unlikely to want to respond to market developments with new products, services, or programs.

While the role of top managers in engendering a market orientation is important, it appears that the nature of interdepartmental dynamics also plays a very important role in determining the level of market orientation of a business. Two factors that appear to affect a market orientation are interdepartmental connectedness and conflict. Interdepartmental conflict appears to reduce a market orientation, whereas connectedness appears to play a facilitative role. As such, it may be useful to promote interdepartmental connectedness through physical proximity of departments and through telematics (e.g., computer hookups, voice mail). While some level of interdepartmental conflict is inherent in the charters of the different departments, it appears useful to reduce the level of conflict by using various means such as interdepartmental training programs, cross-functional activities, and alignment of departmental performance objectives by focusing them on markets (e.g., customer satisfaction).

The role of market-based reward systems and decentralized decision-making in engendering a market orientation appears to be strong, suggesting that reward systems should take into account the contribu-

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tions of individuals in sensing and responding to market needs. Additionally, the negative relationship between centralization and market orientation suggests that it may be useful to "empower" employees to make decisions at lower levels of organizations rather than concentrate decision-making in the upper echelons of an organization. Although formalization and departmentalization do not appear to affect a market orientation, it would seem that the content of formal rules, rather than their mere presence, is a more important determinant of market orientation. Similarly, the manner in which the various departments interact with each other appears to be a more important determinant of market orientation than the sheer number of departments in a business.

Research Directions

There appear to be several areas in need of further research. Perhaps the most important relates to an assessment of the impact of a market orientation on business performance. Although the results of this study provide support for a relationship between market orientation and a judgmental measure of performance, the posited relationship between market orientation and market share was not supported. In this regard, it is important to note that business performance is a multidimensional construct and may be characterized in a number of ways, including effectiveness, efficiency, and adaptability (see Walker and Ruekert 1987). Furthermore, performance on one dimension may run counter to performance on other dimensions. Therefore, it would be useful to explore the complexities of the relationship between market orientation and alternative dimensions of business performance in future studies. It would also be useful to assess the relationship between a market orientation and business performance over extended periods of time.

Second, it seems desirable to assess the role of additional factors in influencing the market orientation of an organization. For example, do certain in characteristics of employees (personality, attitudes) help or hinder a market orientation? Similarly, some of the variables included in the present study deserve further investigation. For example, while formalization was hypothesized to affect a market orientation, it was found to be unrelated to it or any of its components. Future research is needed to assess the characteristics of rules that facilitate or hinder a market orientation.

Furthermore, it is possible to argue that certain variables, such as interdepartmental conflict, modeled in the study as antecedents of a market orientation can also be treated as consequences of market orientation. It would be useful to conduct studies to assess the size and direction of the relationship between interdepartmental conflict and market orientation. In a similar vein, it appears likely that the environmental variables modeled in this study as moderators act *in tandem* either to increase or decrease the importance of market orientation for business performance. The limited sample size in this study precludes an analysis of such joint moderating effects. It would be useful to perform such analyses in future studies to better understand the conditions under which market orientation is particularly important for business performance.

From a methodological standpoint, data in this study were obtained from senior managers in each of the SBUs. It would be useful to obtain a broader sample of managers and perhaps even nonmanagers in SBUs in future studies. This would minimize any potential bias in the data resulting from the level of the informants. Furthermore, it would be very interesting to compare perceptions of employees at different levels of an SBU and account for differences in perceptions, if any, concerning the SBU's market orientation. It also would be useful to try to measure market orientation using unobtrusive measures, such as content analysis of internal company memos, annual reports, and so on and relate these to other measures of market orientation, such as the one used in this study.

Finally, this study employs a cross-sectional analysis of a large number of businesses. While providing important insights into the determinants of a market orientation, it does not shed much light on the change processes involved in improving a market orientation. For example, a relatively low level of market orientation may in fact lead managers to alter certain antecedents such as reward systems which, in turn, lead to a higher level of market orientation. In this regard, it would be useful to conduct in-depth studies of a few organizations engaged in the change process so as to better understand the factors that influence the initiation and implementation of change efforts directed at improving the market orientation of a business.

Appendix

Scale	Scale Items	Coefficient Alpha
Market Orientation (Intelligence Generation)	1. In this business unit, we meet with customers at least once a year to find out what products or services they will need in the future. 2. Individuals from our manufacturing department interact directly with customers to learn how to serve them better.	.71

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	3. In this business unit, we do a lot of in-house market research 4. We are slow to detect changes in our customers' product preferences. 5. We poll end users at least once a year to assess the quality of our products and services. 6. We often talk with or survey those who can influence our end users' purchases (e.g., retailers, distributors). 7. We collect industry information through informal means (e.g., lunch with industry friends, talks with trade partners). 8. In our business unit, intelligence on our competitors is generated independently by several departments. 9. We are slow to detect fundamental shifts in our industry (e.g., competition, technology, regulation). 10. We periodically review the likely effect of changes in our business environment (e.g., regulation) on customers.	
Market Orientation (Intelligence Dissemination)	1. A lot of informal "hall talk" in this business unit concerns our competitors' tactics or strategies.* 2. We have interdepartmental meetings at least once a quarter to discuss market trends and developments. 3. Marketing personnel in our business unit spend time discussing customers' future needs with *other* functional departments. 4. Our business unit periodically circulates documents (e.g., reports, newsletters) that provide information on our customers. 5. When something important happens to a major customer or market, the whole business unit knows about it in a short period. 6. Data on customer satisfaction are disseminated at all levels in this business unit on a regular basis. 7. There is minimal communication between marketing and manufacturing departments concerning market developments. 8. When one department finds out something important about competitors, it is slow to alert other departments.	.82
Market Orientation (Response Design)	1. It takes us forever to decide how to respond to our competitors' price changes. 2. Principles of market segmentation drive new product development efforts in this business unit. 3. For one reason or another we tend to ignore changes in our customers' product or service needs. 4. We periodically review our product development efforts to ensure that they are in line with what customers want. 5. Our business plans are driven more by technological advances than by market research. 6. Several departments get together periodically to plan a response to changes taking place in our business environment. 7. The product lines we sell depend more on internal politics than real market needs.	.78
Market Orientation (Response Implementation)	1. If a major competitor were to launch an intensive campaign targeted at our customers, we would implement a response immediately. 2. The activities of the different departments in this business unit are well coordinated. 3. Customer complaints fall on deaf ears in this business unit. 4. Even if we came up with a great marketing plan, we probably would not be able to implement it in a timely fashion. 5. We are quick to respond to significant changes in our competitors' pricing structures. 6. When we find out that customers are unhappy with the quality of our service, we take corrective action immediately. 7. When we find that customers would like us to modify a product or service, the departments involved make concerted efforts to do so.	.82
Top Management Emphasis	1. Top managers repeatedly tell employees that this business unit's survival depends on its adapting to market trends.	.66

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	2. Top managers often tell employees to be sensitive to the activities of our competitors. 3. Top managers keep telling people around here that they must gear up now to meet customers' future needs. 4. According to top managers here, serving customers is the most important thing our business unit does.	
Top Management Risk Aversion	1. Top managers in this business unit believe that higher financial risks are worth taking for higher rewards. 2. Top managers here accept occasional new product failures as being normal.* 3. Top managers in this business unit like to take big financial risks. 4. Top managers here encourage the development of innovative marketing strategies, knowing well that some will fail. 5. Top managers in this business unit like to "play it safe." 6. Top managers around here like to implement plans only if they are very certain that they will work.	.85
Interdepartmental Conflict	1. Most departments in this business get along well with each other. 2. When members of several departments get together, tensions frequently run high. 3. People in one department generally dislike interacting with those from other departments. 4. Employees from different departments feel that the goals of their respective departments are in harmony with each other. 5. Protecting one's departmental turf is considered to be a way of life in this business unit. 6. The objectives pursued by the marketing department are incompatible with those of the manufacturing department. 7. There is little or no interdepartmental conflict in this business unit.	.87
Interdepartmental Connectedness	1. In this business unit, it is easy to talk with virtually anyone you need to, regardless of rank or position. 2. There is ample opportunity for informal "hall talk" among individuals from different departments in this business unit. 3. In this business unit, employees from different departments feel comfortable calling each other when the need arises. 4. Managers here discourage employees from discussing work-related matters with those who are not their immediate superiors or subordinates. 5. People around here are quite accessible to those in other departments. 6. Communications from one department to another are expected to be routed through "proper channels."* 7. Junior managers in my department can easily schedule meetings with junior managers in other departments.	.80
Formalization	1. I feel that I am my own boss in most matters. 2. A person can make his own decisions without checking with anybody else. 3. How things are done around here is left up to the person doing the work. 4. People here are allowed to do almost as they please. 5. Most people here make their own rules on the job. 6. The employees are constantly being checked on for rule violations. 7. People here feel as though they are constantly being watched to see that they obey all the rules.	.76
Centralization	1. There can be little action taken here until a supervisor approves a decision. 2. A person who wants to make his own decision would be quickly discouraged here.	.88

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	3. Even small matters have to be referred to someone higher up for a final answer. 4. I have to ask my boss before I do almost anything. 5. Any decision I make has to have my boss' approval.	
Reward System Orientation	1. No matter which department they are in, people in this business unit get recognized for being sensitive to competitive moves. 2. Customer satisfaction assessments influence senior managers' pay in this business unit. 3. Formal rewards (i.e., pay raise, promotion) are forthcoming to anyone who consistently provides good market intelligence. 4. Salespeople's performance in this business unit is measured by the strength of relationships they build with customers. 5. Salespeople's monetary compensation is almost entirely based on their sales volume.* 6. We use customer polls for evaluating our salespeople.	.73
Organizational Commitment	1. Employees feel as though their future is intimately linked to that of this organization. 2. Employees would be happy to make personal sacrifices if it were important for the business unit's well-being. 3. The bonds between this organization and its employees are weak. 4. In general, employees are proud to work for this business unit. 5. Employees often go above and beyond the call of duty to ensure this business unit's well being. 6. Our people have little or no commitment to this business unit. 7. It is clear that employees are fond of this business unit.	.89
Esprit de Corps	1. People in this business unit are genuinely concerned about the needs and problems of each other. 2. A team spirit pervades all ranks in this business unit. 3. Working for this business unit is like being a part of a big family. 4. People in this business unit feel emotionally attached to each other. 5. People in this organization feel like they are "in it together." 6. This business unit lacks an "espirit de corps." 7. People in this business unit view themselves as independent individuals who have to tolerate others around them.	.90
Overall Performance	1. Overall performance of the business unit last year. 2. Overall performance relative to major competitors last year.	.83
Market Turbulence	1. In our kind of business, customers' product preferences change quite a bit over time. 2. Our customers tend to look for new product all the time. 3. Sometimes our customers are very price-sensitive, but on other occasions, price is relatively unimportant.* 4. We are witnessing demand for our products and services from customers who never bought them before. 5. New customers tend to have product-related needs that are different from those of our existing customers. 6. We cater to many of the same customers that we used to in the past.	.68
Competitive Intensity	1. Competition in our industry is cutthroat. 2. There are many "promotion wars" in our industry. 3. Anything that one competitor can offer, others can match readily. 4. Price competition is a hallmark of our industry. 5. One hears of a new competitive move almost every day. 6. Our competitors are relatively weak.	.81
Technological Turbulence	1. The technology in our industry is changing rapidly. 2. Technological changes provide big opportunities in our industry.	.88

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3. It is very difficult to forecast where the technology in our industry will be in the next 2 to 3 years.*
4. A large number of new product ideas have been made possible through technological breakthroughs in our industry.
5. Technological developments in our industry are rather minor.

*This item was eliminated, based on the scale refinement procedure described in the text.

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