

## RESEARCH NOTES AND COMMENTARIES

### DOES MARKET ORIENTATION MATTER?: A TEST OF THE RELATIONSHIP BETWEEN POSITIONAL ADVANTAGE AND PERFORMANCE

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*A recent series of articles in the Strategic Management Journal has discussed the potential value of an organization developing a market orientation in its quest to achieve success. We posit that market orientation can enhance success, but that its potential value should not be considered in isolation. Specifically, we draw on the resource-based view of the firm to suggest that four capabilities—market orientation, entrepreneurship, innovativeness, and organizational learning—each contribute to the creation of positional advantages for some firms. The data used are drawn from 181 large multinational corporations (MNC). The results indicate that positional advantages arising from the confluence of market orientation, entrepreneurship, innovativeness, and organizational learning have a positive effect on MNC performance (five-year average change in ROI, income, and stock price). Overall, the results support the contention that market orientation can enhance success, albeit within the context of other important phenomena.*

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The marketing concept and the related construct of market orientation have long been important elements of research and practice. Following a study on disruptive technological change (Christensen and Bower, 1996), three conceptual articles have recently appeared in the *Strategic Management Journal* debating the merits of developing a market orientation (Connor, 1999; Slater and Narver, 1998, 1999). In the first article in this series, Christensen and Bower (1996) suggest that the power of dominant customers contributes

to the failure of leading firms. Specifically, their in-depth qualitative research revealed that firms in the computer disk drive industry consistently devote so much attention to customers in high margin segments that the firms miss out on technologies that emerge in low margin, niche markets but ultimately supplant earlier technology. Christensen (1997) subsequently examined a variety of industries and identified the same pattern.

In a comment on Christensen and Bower's (1996) article, Slater and Narver (1998) draw a distinction between customer orientation and market orientation. Firms that adopt the former emphasize customers' expressed needs, while adherents of the latter develop long-term thinking and a desire to satisfy customers' latent needs. Connor (1999) argues that Slater and Narver's (1998) approach

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implies a false dichotomy between customer orientation and market orientation. Connor (1999) posits that firms choose a position along a continuum anchored by customer orientation and market orientation. Such a balance is needed because the funds generated by satisfying current needs are required to support long-term projects. In responding to Connor's (1999) thoughts, Slater and Narver (1999) clarify their position by stating that a market-oriented business does not ignore customers' expressed needs but rather stretches to address latent needs as well. In closing their commentary, Slater and Narver (1999:1168) make clear that much remains unknown about market orientation, and note that "the understanding of what it means to be market-oriented and how a market orientation benefits the firm continues to evolve."

The marketing literature offers some empirical evidence that informs the developing debate about market orientation. As noted by Slater and Narver (1998), many studies, including Jaworski and Kohli (1993) and Narver and Slater (1990), have found a strong relationship between market orientation and performance. The focus of these studies has been on a direct, linear link between the constructs. However, the insights generated by the current debate suggest that if market orientation does indeed play a role in organizational success, the relationship is probably more complex than previously depicted. Thus, the purpose of this study is to empirically examine whether or not market orientation influences performance, within the context of a more complex theoretical model. As such, our study is not intended to address the questions about disruptive technological change raised by Christensen and Bower (1996), but rather to inform the evolving debate on market orientation.

Specifically, we build on the resource-based view of the firm (Wernerfelt, 1984) and a framework offered by Day and Wensley (1988) to posit that market orientation is one of several capabilities (Day, 1994) that collectively give rise to a positional advantage for some firms. Based on the results of past research, we also examine the roles of entrepreneurship, innovativeness, and organizational learning. The positional advantage that these four capabilities give rise to is thought to be rare, valuable, and difficult to imitate. Thus, it should lead to superior performance (cf. Barney, 1991, 2001). The setting of our investigation is the

strategic business units (SBUs) of 181 large U.S.-based multinational corporations (MNC) (one SBU per MNC).

## THEORETICAL BACKGROUND AND HYPOTHESIS

Past empirical research has focused on a potential linear relationship between market orientation and performance. Based on the discussion among Slater and Narver and Connor, consideration of a broader framework might be useful. Day and Wensley (1988) introduce, and Day (1994) elaborates upon, a potentially valuable framework. These authors suggest that an organization's capabilities (i.e., "complex bundles of skills" that are "deeply embedded" in organizational routines—Day, 1994:38) can lead to a positional advantage based upon innovative offerings or superior service. Firms that possess such an advantage should enjoy superior performance. As shown in Figure 1, we examine four capabilities, each of which has a strong foundation in the literature.

In examining the model, we adopt the resource-based view (RBV) of the firm as our theoretical foundation. This perspective focuses careful attention on resources, which can be defined as "those assets that are tied semi-permanently to the firm" (Wernerfelt, 1984:173). According to the RBV, unique assets, such as patents and reputations, are much more important than others. Unique assets are difficult for competitors to replicate and thus serve to differentiate their possessors (Barney, 1991). We do not suggest that market orientation, entrepreneurship, innovation, and organizational learning constitute unique resources independently, but rather that they can *collectively* contribute to the creation of a unique resource (cf. Day, 1994). These four elements are each necessary but are not individually sufficient for creating what Day and Wensley (1988) label "positional advantage." As detailed below, past research suggests that each element is adequate to offer strengths, but together they can help a firm be uniquely competitive.

As defined by Slater and Narver (1999:1165) market oriented firms "seek to understand customers' expressed and latent needs, and develop superior solutions to those needs." Among the capabilities, market orientation highlights

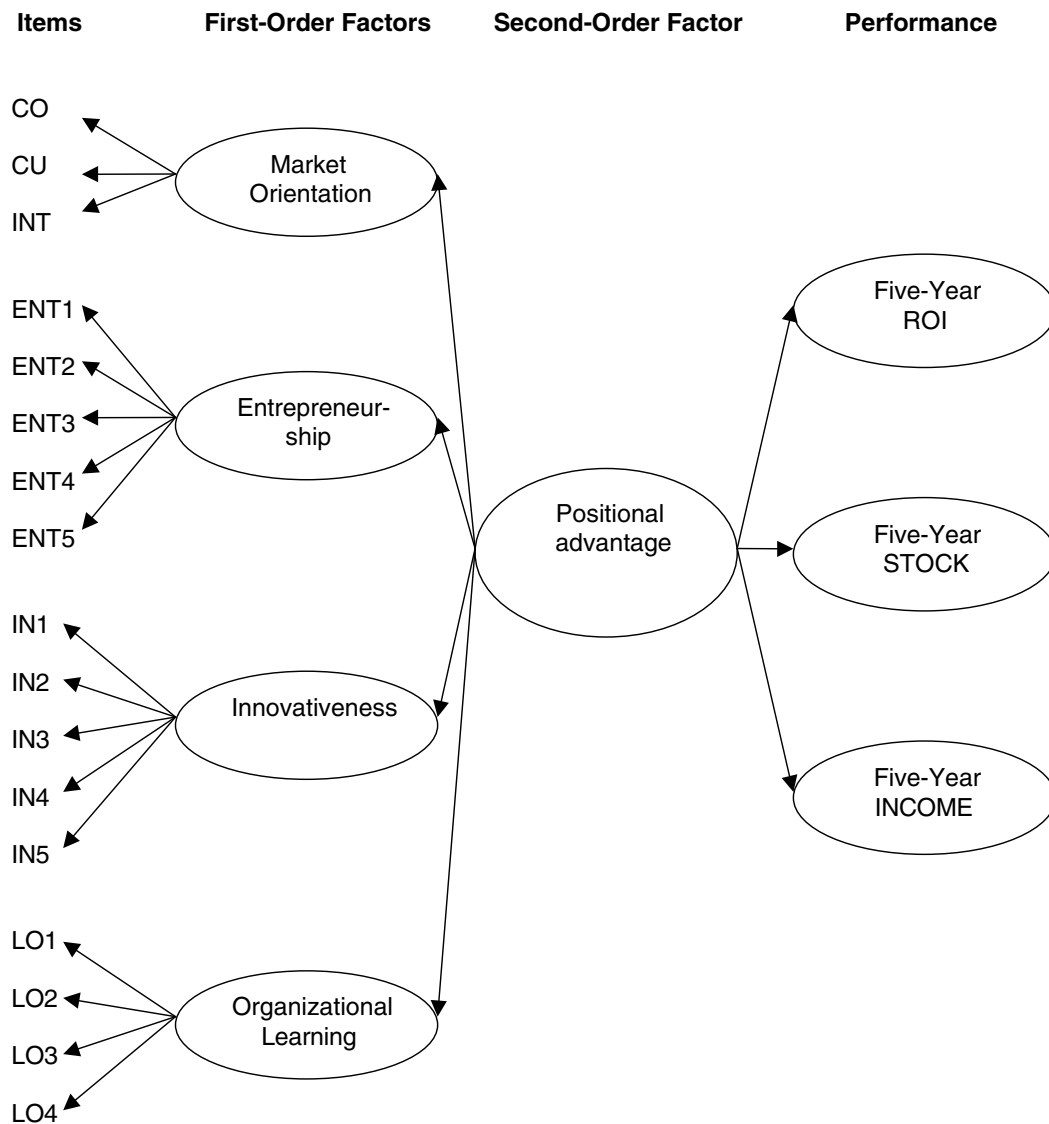


Figure 1. A higher-order model of positional advantage and long-term performance

most clearly the need for an organization's culture to be oriented around customers and competitors. Day's (1994) conceptualization holds that market-oriented companies have processes for collecting market intelligence about customers and competitors and integrating them with strategic decision-making processes. He suggests that market intelligence comes from outside-in processes that link with spanning processes (e.g., strategic planning) that facilitate integration and implementation. As such, we argue that the distinguishing characteristic of market orientation is system-wide attention to markets (customers,

competitors and other entities in the environment) throughout the organization.

Entrepreneurship refers to the pursuit of new market opportunities and the renewal of existing areas of operation (Naman and Slevin, 1993). Entrepreneurial organizations have been found to perform well in dynamic environments (e.g., McDougall *et al.*, 1994), but not in regulated markets (Snow and Hrebiniak, 1980). Further, Zammuto (1988) predicts low performance in stable environments because the slow pace of change in these settings rewards efficiently exploiting extant opportunities, not aggressiveness. Thus,

entrepreneurship may be beneficial in many contexts, but does not, by itself, provide a sustainable competitive advantage.

Innovativeness is present when the implementation of new ideas, products, or processes is encouraged (e.g., Hurley and Hult, 1998). Innovation is a critical complement to entrepreneurship because an organization that pursues new opportunities, but is not innovative in meeting the desires of the market, is unlikely to enjoy long-term success (Van de Ven and Polley, 1992). Also, innovation alone does not guarantee success. For example, innovation may only improve outcomes if the organization is entrepreneurial, i.e., if the organization leverages innovation to enter new arenas or to renew its presence in existing ones (Garud and Nayyar, 1994).

Organizational learning refers to the generation of new insights that have the potential to reshape behavior (Huber, 1991). For example, an organization can extract lessons from both successes and failures in order to develop a greater competitive repertoire (Sitkin, 1992). Like entrepreneurship and innovation, organizational learning alone is not sufficient to develop sustained advantages. For example, organizations that are proficient at making their own products but lag competitors' innovations risk downturns (Tushman, Newman, and Romanelli, 1986).

It is important to note that our predictions linking market orientation, entrepreneurship, innovation, and organizational learning with positional advantage are not causal. The four capabilities are not expected to "cause" advantages, but rather they are predicted to be elements that collectively contribute to the development of this latent, intangible construct (cf. Jöreskog and Sörbom, 1996). While other indicators are plausible, the focus is on the present four because of their deep roots in past research. Specifically:

*Hypothesis 1: Market orientation is a positive first-order indicator of the higher-order factor of positional advantage.*

*Hypothesis 2: Entrepreneurship is a positive first-order indicator of the higher-order factor of positional advantage.*

*Hypothesis 3: Innovativeness is a positive first-order indicator of the higher-order factor of positional advantage.*

*Hypothesis 4: Organizational learning is a positive first-order indicator of the higher-order factor of positional advantage.*

The resource-based view of the firm provides the theoretical basis for the model's expectation that the higher-order positional advantage will positively affect performance. Wernerfelt (1984) argued that the possession of resources help explain important outcomes. Specifically, the offerings that can arise from any firm's idiosyncratic array of resources are unique. Potential customers prefer some offerings to others. Each firm would, if possible, rush to fulfill customers' desires, but is limited by its resources to providing a finite set of potential outputs. As a result, performance differences emerge. Subsequent inquiry explained the conditions under which performance differences persist. In order to be a source of superior performance, a resource must be valuable (i.e., customers are willing to purchase the outputs of the resources at prices well above their costs), rare (i.e., close substitute outputs are not available), and inimitable (i.e., it is hard to duplicate the resources) (Barney, 1991).

Based on the arguments preceding Hypotheses 1–4, we suggest that the phenomenon of higher-order positional advantage is valuable, rare, and difficult to acquire. Thus, this resource should be related to performance. Accordingly, the following hypotheses were examined:

*Hypothesis 5: The higher-order positional advantage positively affects an organization's five-year return-on-investment (ROI5).*

*Hypothesis 6: The higher-order positional advantage positively affects an organization's five-year percentage change in income (INCOME5).*

*Hypothesis 7: The higher-order positional advantage positively affects an organization's five-year percentage change in stock price (STOCK5).*

## METHOD

### Sample and procedure

The sample was drawn from Dun and Bradstreet Information Services, and consisted of a random sample of 1,000 multinational corporations (MNC) with an annual sales volume in excess of 100 million dollars, and with operations in more than 50 countries. Senior executives in one SBU per MNC were targeted as key informants in assessing the four capabilities. Using this sample

of large MNCs, the study focused on examining the effects of a positional advantage on long-term performance in firms that, by design, spend considerable resources on being fully integrated internationally in areas such as marketing, human resources, finance, and production.

The survey mailing resulted in returned responses from business executives of 181 SBUs (one SBU per MNC). Fifty-four surveys were discarded (i.e., individual no longer with the corporation, wrong address, or refusal to participate in the survey). Thus, the overall response rate for the study was 19.1% (181/944). These SBUs had an average of 8,998 employees (range: 54 to 58,300) and an average annual sales volume of \$1.420 billion (range: \$181 million to \$15 billion). Eighty-seven SBUs had primarily a product orientation, while ninety-four SBUs had primarily a service orientation (as determined by the statistics provided in Dun's Market Identifiers File).

The extrapolation procedure suggested by Armstrong and Overton (1977) was used to assess non-response bias. No significant differences were found between scores of the early ( $n = 45$ ) and late quartiles ( $n = 45$ ) of the respondents on the study constructs. Likewise, no significant differences were found in the response rates and average scale responses between product and service organizations.

## Measurements

Established scales were used to measure market orientation (see Narver and Slater, 1990), innovativeness (see Hurley and Hult, 1998), and organizational learning (see Hult, 1998; Hult *et al.*, 2000). To assess entrepreneurship, we used five items from Naman and Slevin's (1993) entrepreneurship scale: We believe that wide-ranging acts are necessary to achieve our objectives; we initiate actions to which other organizations respond; we are fast to introduce new products and services to the marketplace; we have a strong proclivity for high risk projects; and we are bold in our efforts to maximize the probability of exploiting opportunities. Seven-point Likert scales anchored by 'strongly disagree' and 'strongly agree' were used.

Performance was measured via three objective indicators: five-year average change in return-on-investment (ROI5), five-year percentage change in income (INCOME5), and five-year percentage

change in stock price (STOCK5). The data pertained to the years of 1995-1999. The ROI5 and INCOME5 figures were measures of the SBU's performance while STOCK5 was a measure of the firm's performance. The rationale for including both SBU- and firm-level performance indicators stems from the fact that each SBU is directly responsible for their own performance (ROI5 and INCOME5) as well as contributing to the overall performance of the firm (STOCK5). The results of the measurement analysis are presented in Table 1. Table 1a summarizes the means, standard deviations, average variances extracted, construct reliabilities, loadings, and fit indices. Table 1b reports the intercorrelations and shared variances for the study constructs.

After the data were collected, the measures were subjected to a purification process involving a series of reliability and validity assessments. The psychometric properties of the subjective constructs were evaluated simultaneously in one confirmatory factor model using LISREL 8.30 (Jöreskog and Sörbom, 1996). The model fits were evaluated using the DELTA2 index (Bollen, 1989), the relative noncentrality index (RNI) (McDonald and Marsh, 1990), and the comparative fit index (CFI) (Bentler, 1990). The Root Mean Square Residual index (RMSR) and the Chi-Square index ( $\chi^2$ ) with appropriate degrees of freedom are included for comparison purposes. DELTA2, RNI, and CFI were all 0.89 ( $\chi^2 = 750.32$ ,  $df = 362$ ; RMSR = 0.06), indicating a good model fit (Table 1a). In addition, the specific items were evaluated based on the item's error variance, modification index, and residual covariation (Fornell and Larcker, 1981; Jöreskog and Sörbom, 1996).

Within the confirmatory factor analysis setting, composite reliability was calculated using the procedures outlined by Fornell and Larcker (1981). The composite reliabilities ranged between 0.82 and 0.90, indicating excellent reliability of the study measures (Table 1a). We also examined the parameter estimates and their associated  $t$ -values, and assessed the average variance extracted for each construct (Table 1a). Discriminant validity was established by calculating the shared variance between pairs of constructs and verifying that it was lower than the variances extracted for the individual constructs (Fornell and Larcker, 1981). The shared variances between pairs of all possible scale combinations ranged from a 21% to 46%, which

Table 1a. Summary statistics of the measurement analysis ( $n = 181$ )<sup>a</sup>

Variable	Mean	Std Dev	Variance Extracted	Composite Reliability	Loadings	$\chi^2$	df	$\Delta 2$	RNI	CFI	RMSR
						750.3	362	0.89	0.89	0.89	0.06
–CO	5.36	1.10	52.5%	0.82	0.68–0.78						
–CU	5.49	1.07	59.7	0.90	0.63–0.82						
–INT	4.64	1.15	59.2	0.88	0.63–0.87						
–ENT	4.43	1.27	57.4	0.88	0.61–0.87						
–IN	5.25	1.15	60.8	0.88	0.62–0.86						
–OL	5.64	1.02	60.5	0.85	0.50–0.92						

<sup>a</sup> Competitor orientation (CO), customer orientation (CU), interfunctional coordination (INT), entrepreneurship (ENT), innovativeness (IN), and organizational learning (OL). All loadings were significant at the  $p < 0.01$  level.

Table 1b. Intercorrelations and shared variances of measures ( $n = 181$ )<sup>a</sup>

Variable	1	2	3	4	5	6	7	8	9
1. Competitor Orientation	—	0.41	0.46	0.25	0.25	0.26	0.04	0.03	0.01
2. Customer Orientation	0.64	—	0.53	0.31	0.36	0.34	0.00	0.00	0.01
3. Interfunc. Coordination	0.68	0.73	—	0.32	0.30	0.32	0.04	0.06	0.03
4. Entrepreneurship	0.50	0.56	0.57	—	0.38	0.21	0.04	0.08	0.05
5. Innovativeness	0.50	0.60	0.55	0.62	—	0.27	0.04	0.03	0.07
6. Organizational learning	0.51	0.58	0.57	0.46	0.52	—	0.08	0.07	0.01
7. ROI5	0.21	0.04	0.19	0.19	0.19	0.28	—	0.79	0.00
8. STOCK5	0.18	0.02	0.24	0.28	0.16	0.26	0.89	—	0.00
9. INCOME5	0.12	0.11	0.17	0.23	0.27	0.09	0.02	0.03	—

<sup>a</sup> The correlations are included in the lower triangle of the matrix. All correlations above 0.10 are significant at the 0.05 level (correlations at or below 0.10 are not significant). Shared variances are included in the upper triangle of the matrix.

is below the average variances extracted for each construct (range: 53% to 61%). Thus, the scales exhibited strong reliability and validity.

## ANALYSIS AND RESULTS

The hypotheses were tested through a higher-order structural equation analysis via the use of LISREL 8.30 (Jöreskog and Sörbom, 1996). To assess the intricacies of the model relationships, separate hierarchical models were conducted for each of the performance measures.

### ROI5 results

The analysis of the hypothesized model in Figure 1, using ROI5 as the performance indicator, resulted in an excellent fit to the data ( $\chi^2 = 340.0$ ,  $df = 131$ ,  $\Delta 2 = 0.90$ ,  $RNI = 0.90$ ,  $CFI = 0.90$ ,  $RMSR = 0.07$ ). In addition, Hypotheses 1–5 were supported in the analysis. As such, market orientation (loading = 0.87,  $t$ -value = 9.94,  $R^2 =$

0.76), entrepreneurship (loading = 0.80,  $t$ -value = 7.51,  $R^2 = 0.64$ ), innovativeness (loading = 0.82,  $t$ -value = 9.24,  $R^2 = 0.68$ ), and organizational learning (loading = 0.71,  $t$ -value = 8.76,  $R^2 = 0.51$ ) function as first-order indicators of the higher-order latent variable of positional advantage ( $p < 0.01$ ). This positional advantage has a direct positive effect on five-year return-on-investment (ROI5), with a loading of 0.31 ( $t$ -value = 3.46,  $p < 0.01$ ), explaining 9.3% of the variance.

### INCOME5 results

Using INCOME5 as the performance indicator in the hypothesized model resulted in a good fit to the data ( $\chi^2 = 370.6$ ,  $df = 131$ ,  $\Delta 2 = 0.88$ ,  $RNI = 0.88$ ,  $CFI = 0.88$ ,  $RMSR = 0.07$ ). In addition, hypotheses 1, 2, 3, 4 and 6 were supported in the analysis. As such, market orientation (loading = 0.85,  $t$ -value = 9.69,  $R^2 = 0.72$ ), entrepreneurship (loading = 0.81,  $t$ -value = 7.60,  $R^2 = 0.66$ ), innovativeness (loading = 0.85,  $t$ -value = 9.53,  $R^2 = 0.73$ ), and organizational

learning (loading = 0.68,  $t$ -value = 8.40,  $R^2$  = 0.47) function as first-order indicators of the higher-order positional advantage which, in turn, has a direct positive effect on five-year percentage change in income (INCOME5), with a loading of 0.36 ( $t$ -value = 4.13,  $p$  < 0.01), explaining 13.0% of the variance.

### STOCK5 results

Using STOCK5 as the performance indicator, the hypothesized model resulted in a good fit to the data ( $\chi^2$  = 364.0,  $df$  = 131, DELTA2 = 0.89, RNI = 0.88, CFI = 0.88, RMSR = 0.07). In addition, hypotheses 1, 2, 3, 4 and 7 were supported in the analysis. As such, market orientation (loading = 0.87,  $t$ -value = 9.92,  $R^2$  = 0.76), entrepreneurship (loading = 0.80,  $t$ -value = 7.51,  $R^2$  = 0.65), innovativeness (loading = 0.83,  $t$ -value = 9.26,  $R^2$  = 0.68), and organizational learning (loading = 0.71,  $t$ -value = 8.72,  $R^2$  = 0.50) function as first-order indicators of the higher-order positional advantage ( $p$  < 0.01). The positional advantage has a direct positive effect on the five-year percentage change in stock price (STOCK5), with a loading of 0.27 ( $t$ -value = 3.00,  $p$  < 0.01), explaining 7.1% of the variance.

### CONCLUSIONS

This study informs the recent debate in *SMJ* about the role of market orientation in affecting organizational performance (Christensen and Bower, 1996; Connor, 1999; Slater and Narver, 1998, 1999). Our results suggest that the linkage is not linear, but rather is embedded within a more complex web of relationships. Specifically, we found that the higher-order, intangible construct called positional advantage (Day, 1994; Day and Wensley, 1988), via the first-order indicators of market orientation, entrepreneurship, innovativeness, and organizational learning, has a positive effect on two SBU-level performance indicators and one firm-level performance indicator.

Viewed broadly, the results augment a growing set of studies that support the resource-based view's contention that unique resources influence important outcomes (e.g., Barney, 1991; Wernerfelt, 1984). As such, we suggest that the construct of positional advantage (Day, 1994; Day and Wensley, 1988) fits Barney's (2001:54) resource-framework: "resources are the tangible

and intangible assets a firm uses to choose and implement its strategies."

Of the four capabilities examined, market orientation had the greatest explanatory power on positional advantage. This suggests that market orientation should be taken into account as strategy researchers continue their effort to explain the determinants of performance. Indeed, our results lend support to Slater and Narver's (1999:1167) contention that examination of market orientation "is in the domain of strategy scholars as much as it is of marketing scholars."

We found that promoting the aggressive pursuit of opportunities via wide-ranging acts, initiatives, new administrative techniques, involvement in high-risk projects, and taking bold efforts to exploit opportunities (i.e., entrepreneurship) can be a great asset. Regarding innovativeness, the focus was on the degree to which the SBU within large MNCs encourages the introduction of new ideas and processes. As such, the focus was on the early portion of the innovation process, i.e., the "openness to innovation" aspects of the process where cultural values and beliefs of innovativeness are formed and acted upon to achieve strong long-term performance. Using this theoretical foundation, innovativeness was found to be a very important factor in developing a positional advantage of the MNC. Finally, the fourth factor—organizational learning—involves the development of new knowledge in the MNC's SBUs. This knowledge base is generated and disseminated throughout the MNC to achieve a greater degree of shared knowledge among the participants. Learning was found to be less important than the other capabilities, but it does contribute to building (and maintaining) a positional advantage.

In summary, this study provides initial empirical evidence to address some, but certainly not all, of the conceptual arguments presented in the *SMJ* debate on market orientation. Although our model is relatively complex, involving first-order indicators of the higher-order phenomenon of positional advantage that subsequently affect performance, the number of constructs involved are limited. As such, while our study offers an important extension of the *SMJ* debate on market orientation, it provides only initial results directly related to the debate. Future studies need to address the potential intricacies of the relationships among market orientation, entrepreneurship, innovativeness, and organizational learning, and in different

market conditions, using diverse firm types, and with varying degrees of resource endowments (cf. Connor, 1999). Also, while our study included five years worth of performance data, such a period is not enough to detect certain important phenomena, such as the issues surrounding disruptive technologies raised by Christensen and Bower (1996) and Christensen (1997). At the same time, the results of this study showed that it is essential to incorporate market orientation into strategic management research to fully understand and predict important outcomes.

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## REFERENCES

- Armstrong JS, Overton TS. 1977. Estimating nonresponse bias in mail surveys. *Journal of Marketing Research* **14** (August): 396–402.
- Barney JB. 1991. Firm resources and sustained competitive advantage. *Journal of Management* **17**: 99–120.
- Barney JB. 2001. Is the resource-based 'view' a useful perspective for strategic management research? Yes. *Academy of Management Review* **26**(1): 41–56.
- Bentler PM. 1990. Comparative fit indexes in structural equation modeling. *Psychological Bulletin* **107**: 238–246.
- Bollen KA. 1989. *Structural Equations with Latent Variables*. Wiley and Sons: New York.
- Christensen CM. 1997 (revised edition). *The Innovator's Dilemma: When New Technologies Cause Great Firms to Fail*. Harvard Business School Press: Boston, MA.
- Christensen CM, Bower JL. 1996. Customer power, strategic investment, and the failure of leading firms. *Strategic Management Journal* **17**(3): 197–218.
- Connor T. 1999. Customer-led and market-oriented: a matter of balance. *Strategic Management Journal* **20**(1): 1157–1163.
- Day GS. 1994. The capabilities of market-driven organizations. *Journal of Marketing* **58** (October): 37–52.
- Day GS, Wensley R. 1988. Assessing advantage: a framework for diagnosing competitive superiority. *Journal of Marketing* **52** (April): 1–20.
- Fornell C, Larcker DF. 1981. Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research* **18** (February): 39–50.
- Garud R, Nayyar P. 1994. Transformative capacity: continual structuring by intertemporal technology transfer. *Strategic Management Journal* **15**(5): 365–385.
- Huber GP. 1991. Organizational learning: the contributing processes and the literatures. *Organization Science* **2** (February): 88–115.
- Hult GTM. 1998. Managing the international strategic sourcing function as a market-driven organizational learning system. *Decision Sciences* **29** (Winter): 193–216.
- Hult GTM, Hurley RF, Giunipero LC, Nichols Jr. EL. 2000. Organizational learning in global purchasing: a model and test of internal users and corporate buyers. *Decision Sciences* **31**(2): 293–325.
- Hurley RF, Hult GTM. 1998. Innovation, market orientation, and organizational learning: an integration and empirical examination. *Journal of Marketing* **62** (July): 42–54.
- Jaworski BJ, Kohli AK. 1993. Market orientation: antecedents and consequences. *Journal of Marketing* **52** (July): 53–70.
- Jöreskog KG, Sörbom D. 1996. *LISREL 8: User's Reference Guide*. Scientific Software International: Chicago, IL.
- McDonald RP, Marsh HW. 1990. Choosing a multivariate model: noncentrality and goodness of fit. *Psychological Bulletin* **107**(2): 247–255.
- McDougall PP, Covin JG, Robinson RB, Herron L. 1994. The effects of industry growth and strategic breadth on new venture performance and strategy content. *Strategic Management Journal* **15**(7): 537–554.
- Naman JL, Slevin DP. 1993. Entrepreneurship and the concept of fit: a model and empirical tests. *Strategic Management Journal* **14**(iss2): 137–154.
- Narver JC, Slater SF. 1990. The effect of a market orientation on business profitability. *Journal of Marketing* **54** (October): 20–35.
- Sitkin SB. 1992. Learning through failure: the strategy of small losses. In *Research in Organizational Behavior*, Cummings LL, Staw BM (eds.) JAI Press: Greenwich, CT: 231–266.
- Slater SF, Narver JC. 1998. Customer-led and market-oriented: let's not confuse the two. *Strategic Management Journal* **19**(10): 1001–1006.
- Slater SF, Narver JC. 1999. Market-oriented is more than being customer-led. *Strategic Management Journal* **20**(12): 1165–1168.
- Snow CC, Hrebiniak LG. 1980. Strategy, distinctive competence, and organizational performance. *Administrative Science Quarterly* **25**: 317–335.
- Tushman ML, Newman WH, Romanelli E. 1986. Convergence and upheaval: managing the unsteady pace of organizational evolution. *California Management Review* **29**: 20–32.
- Van de Ven A, Polley D. 1992. Learning while innovating. *Organization Science* **3**: 92–116.
- Wernerfelt B. 1984. A resource-based view of the firm. *Strategic Management Journal* **5**(2): 171–180.
- Zammuto RF. 1988. Organizational adaptation: some implications of organizational ecology for strategic choice. *Journal of Management Studies* **25**(2): 105–120.