

## The Impact of Marketing Knowledge among Managers on Marketing Capabilities and Business Performance

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*This study applied structural equation modeling to examine the relationships among marketing knowledge management, marketing capabilities and business performance for a firm. Survey data of marketing managers from Taiwanese service firms and consumer goods manufacturers was used to test the relationships between the constructs used in this study. The result demonstrates that marketing knowledge generation, dissemination and storage can enhance the marketing capabilities of distribution channels, marketing research and product/service development, promotions and pricing. Analysis also indicates that firms with superior marketing capabilities significantly outperform their rivals in term of business performance. However, marketing knowledge management only indirectly affects business performance through its association with marketing capabilities. Firms that manage to develop superior marketing capabilities through their marketing knowledge management improve their business performance.*

### Introduction

The world is entering a new “knowledge society” in which knowledge is the major form of capital. The knowledge-based view of the firm holds that knowledge is the key resource of firms for creating and sustaining economic rent. According to this view, sustainable competitive advantages and differences in business performance result from firms having unique knowledge bases and their ability to manage these different knowledge areas. Prahalad and Hamel (1990) also argued that knowledge management is increasingly considered a main source of distinctive capabilities and competitive advantage. Organizations thus are becoming knowledge-based (Nonaka and Takeuchi, 1995). Moreover, numerous recent articles have identified knowledge as the main source of competitive advantage. However, despite the theoretical strength of the idea that knowledge creates competitive advantages for firms, research on marketing knowledge management is scarce, contrasting with knowledge management research concerning other disciplines (especially operations management, information management). Instead, general marketing and strategic management academics have focused on market orientation and organizational learning. Similarly, the relationship between marketing capabilities and business performance has received little empirical attention. Research demonstrating the effect of marketing knowledge management on marketing capability and business performance is lacking. Furthermore, a review of the general marketing and strategic management literature reveals a lack of research on the conceptualization, operationalization and measurement of marketing knowledge management. Against

this backdrop, this study proposes and tests a model of the effect of marketing knowledge management on marketing capabilities and business performance.

### Marketing knowledge management

Marketing know-how is conceived more as procedural than as declarative knowledge (Nonaka, 1994). Whereas declarative knowledge refers to information or factual statements, procedural knowledge describes knowing how to do something. The term marketing knowledge management encompasses the generation, dissemination and storage of marketing knowledge. The process perspective of knowledge management holds that knowledge generation is the process by which knowledge is obtained. Meanwhile, knowledge dissemination describes the process by which knowledge from different sources is shared and thus stimulates new knowledge or understanding. Moreover, knowledge storage is the means by which knowledge is stored for future use. Additionally, marketing knowledge describes organized and structured information regarding markets, customers, competitors and trends. Marketing knowledge management is a set of processes that generate, disseminate and store knowledge of customers and their preferences, competitors, products, distribution channels and trends. This study takes process to mean a series of activities. Marketing capabilities are developed when firm marketers repeatedly apply their marketing knowledge and skills to support firm marketing decisions and activities. Firm marketing capabilities are improved when organization marketers apply marketing knowledge to solve marketing problems (Slater and Narver, 1995). Extensive knowledge allows firms to enhance customer relationships and associated revenue streams, and optimize goods and services for the markets served (Glazer, 1991). Market knowledge competence is a core organizational competence (Hamel and Prahalad, 1994; Sinkula, 1994). Glazer (1991) considered marketing knowledge to be a strategic asset for organizations. Consequently, marketing knowledge is one of the most valuable assets for a business and can provide a business with its competitive advantage, ultimately resulting in superior business performance.

H1: Marketing knowledge management is positively related to marketing capabilities.

H2: Marketing knowledge management is positively related to business performance.

### Marketing capabilities

Capabilities are unique combinations of the knowledge-based, tangible or intangible resources of a firm, and indicate what a firm can achieve by having teams of resources working together (Hitt et al., 1997). Capabilities are complex bundles of skills and knowledge, exercised through organizational processes, that enable firms to coordinate their activities, use their assets, and continuously learn and improve (Day, 1994). Marketing capabilities are developed by learning processes when firm marketers repeatedly apply their knowledge to solve marketing problems. Marketing capabilities development can be considered as integrative processes by which knowledge-based resources and tangible resources combine to create superior customer value. Marketing

capabilities therefore can be defined as integrative processes designed to apply the collective knowledge, skills, and resources of a firm to the market-related needs of its business, enabling the business to add value to customer value creation and be competitive. The resource-based view of the firm (RBV) advocates that the desired outcome of firm managerial effort is the creation and deployment of sustainable competitive advantage which in turn achieves superior business performance. According to the RBV, sustainable competitive advantage can be achieved by possessing certain key assets or capabilities (Barney, 1991). Since marketing processes are frequently firm specific, unique marketing capability is developed as firms combine their particular knowledge and skills with other intangible and tangible resources available to them (Day 1994). When these marketing capabilities are inimitable and nonsubstitutable, and moreover cannot be easily transferred between competitors, these capabilities provide the basis for sustainable competitive advantage (1996). Day (1994) noted that it is impossible to enumerate all possible marketing capabilities because they generally vary among businesses owing to the nature of competitive markets, past commitments and anticipated future needs. Marketing capabilities are an important source of competitive advantage for firms (Fahy et al., 2000). Song and Parry (1997) found that marketing capabilities influence competitive advantage. Additionally, Fahy et al. (2000) suggested that marketing capabilities can enhance financial and market performance.

H3: Marketing capabilities are positively related to business performance.

### Sample and Data Collection

A cross-sectional and multi-industry sample was selected to increase generalizability. Data was collected using a mail questionnaire sent to the marketing managers of 487 large Taiwanese manufacturers of consumer goods and service firms, identified from a list of the largest corporations in Taiwan from the China Credit Information Service Ltd. A summary of the findings of this study was offered to all respondents as an incentive to participate. A total of 110 usable replies were received after follow-up mailings and telephone calls, for an effective response rate of 22.6%. Most of the sampled firms have capital exceeding one billion NT dollars (55.5%), and over half of the firms in the sample employ over 1000 employees (50.5%). Nonresponse bias was examined by comparing the characteristics of early and late respondents. This comparison revealed no significant differences relevant to the study, which suggested that nonresponse bias is not a problem.

### Scales and Measurement

Marketing knowledge management: Because of the lack of empirical investigation of marketing knowledge management, the measure is derived from the marketing and knowledge management literature. This study uses the Kohli-Jaworski instrument (1993) as a starting-point, but draws heavily on the knowledge management literature. This scale is designed to measure three sub-dimensions of the marketing knowledge management construct: generation of marketing knowledge, dissemination of marketing

knowledge across departments and work groups, and storage of marketing knowledge. To assess firm marketing knowledge management, a seven point Liker-type scale was used (1= strongly disagree; 7= strongly agree). The variables assigned to each of the three sub-dimensions were subjected to principle factor analysis to ensure that they are reliable indicators. Factor loadings range from 0.695 to 0.908.

**Marketing capabilities:** Firms potentially possess diverse marketing capabilities (Day, 1994). This study focuses on five key marketing capabilities: pricing, promotions, product development, distribution channels, and marketing research development. Marketing capability scale was adopted from Vorhies and Harker (2000). To assess firm marketing capabilities, a seven point Liker-type scale was used (1= strongly disagree; 7= strongly agree). Principal component analysis with varimax rotation extracted four factors, specified based on eigenvalues of one or greater together with the screen test. These four factors combine to explain 77.7 percent of the variance in the data. Factor loadings range from 0.706 to 0.903. These factors represent channels/distribution, marketing research and product/service development, pricing, and promotional management.

**Business performance:** Business performance taps Venkatraman's (1989) four performance sub-dimensions, namely profitability, growth, adaptability and customer satisfaction. Respondents were asked to assess firm performance relative to major competitors. A seven point Liker-type scale was used for recording the responses (1= much better than competitors; 7= much worse than competitors).

The reliabilities of the marketing knowledge management, marketing capabilities and business performance scales all exceed 0.7, the threshold Nunnally (1978) recommended for exploratory research. Each element illustrates significant item-to-total correlation in the anticipated direction, demonstrating the internal consistency of the scales. Table 1 lists the scale reliability values (Cronbach ) and item-to-total correlations.

**Table 1 Constructs and factors of the research model**

<u>Construct and factors</u>	<u>NO. of Items</u>	<u>Item-to-total</u>	<u>Cronbach <math>\alpha</math></u>
<b>Marketing knowledge management</b>			
Marketing knowledge generation (MKG)	6	>0.57	0.86
Marketing knowledge dissemination (MKD)	4	>0.55	0.79
Marketing knowledge storage (MKS)	6	>0.68	0.91
<b>Marketing capabilities</b>			
Channels/ Distribution (CD)	3	>0.78	0.92
Marketing Research & Product Development (MR&PD)	4	>0.63	0.84
Pricing (P)	3	>0.63	0.80
Promotional Management (PM)	2	>0.65	0.78
<b>Business performance</b>			
Growth	3	>0.63	0.86
Profitability	3	>0.90	0.97
Customer Satisfaction	2	>0.80	0.89
Adaptability	2	>0.68	0.81

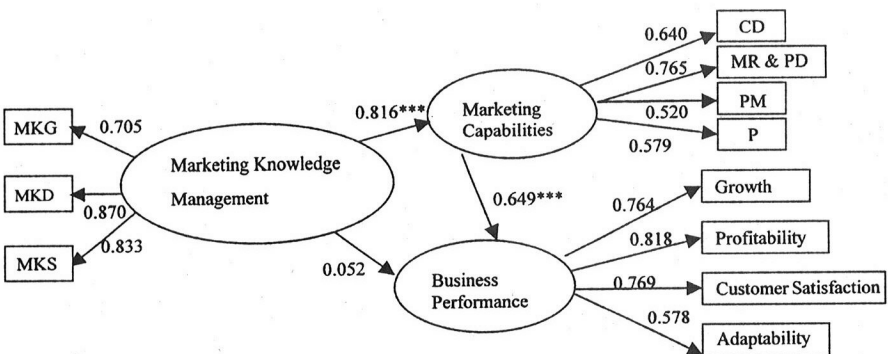
### Analysis and Result

The research hypotheses were tested using structural equation modeling. Figure 1 shows that the model has a significant chi-square statistic ( $=50.08, df=41, P=0.115$ ), suggesting good model fit. Associated fit indices ( $GFI=0.922, AGFI=0.874, RMSR=0.091$ ) also demonstrate that the sample data fit the hypothesized model well. These analytical results are mirrored by the pattern of loadings between the unobserved constructs and their measured dimensions. Regarding associative order and interpretation, the formative (unobserved) constructs are predicted by, or a function of, their underlying dimensions. Figure 1 also illustrates that marketing knowledge management significantly affects marketing capabilities (path coefficient= $0.816, p<0.001$ ), and moreover marketing capabilities significantly influence business performance (path coefficient= $0.649, p<0.001$ ). The data support H1 and H3. However, the data do not support H2, which predicts that marketing knowledge management directly influences business performance, since the corresponding p value exceeds 0.05.

### Conclusion and Implication

The findings of this study demonstrate that firms can enhance their marketing capabilities through marketing knowledge management. Effective marketing knowledge management helps improve marketing capabilities. This analytical result is consistent with the view of Slater and Narver (1995) that firms enhance their marketing capabilities by applying marketing knowledge to solve marketing problems. This study also provides empirical support for the idea that firms with superior marketing capabilities outperform their competitors. This finding suggests that strategic managers can gain desired growth,

Figure 1. Results of the Structural Equation Model



Chi-square=50.08 (p=0.115);  
 GFI=0.922; AGFI=0.874; RMSR=0.091  
 \*: p<0.05, \*\*: p<0.01, \*\*\*: p<0.001

profitability, customer satisfaction and adaptability by improving the marketing capabilities of their firms. This study demonstrates that marketing knowledge management affects firm marketing capabilities. Therefore, firms should strive to generate, disseminate, and store marketing knowledge regarding customers, markets, competitors, and trends. Effective marketing knowledge management provides a firm with a set of marketing capabilities, in turn enhancing business performance. This investigation provides evidence supporting a resource-based explanation of business performance, revealing a strong positive association between marketing capabilities and business performance. The results are consistent with those of previous studies finding that marketing capabilities affect competitive advantage (Song and Parry, 1997) and can boost financial and market performance (Fahy et al., 2000). Specifically, sound marketing capabilities translate into increased sales growth, profitability, customer satisfaction and adaptability. Superior marketing capabilities enable firms to meet customer wants and needs and develop appropriate strategic and tactical responses. Hence, firms with better marketing capabilities tend to enjoy better business performance.

Future research should examine what factors facilitate the development of marketing knowledge management. Specifically, future research could focus on identifying antecedents of marketing knowledge management. For example, research could examine the relationships among information technology, organizational structure, organizational culture and marketing knowledge management. Future research also could investigate the most common methods or techniques of companies employ for marketing knowledge management. Finally, future research could examine how to motivate marketers to share marketing knowledge and how to facilitate flow of marketing knowledge through human resource management.

### References

- Barney, J. B. (1991), "Firm Resources and Sustained Competitive Advantage", *Journal of Management*, 17 (1), 99-120.
- Day, G. S. (1994), "The Capabilities of Market-Driven Organizations" , *Journal of Marketing*, 58 (4), 37-52.
- Fahy, J., G. Hooley, T. Cox, J. Beracs, K. Fonfara, and B. Snoj (2000), "The Development and Impact of Marketing Capabilities in Central Europe", *Journal of International Business Studies*, 31(1), 63-81.
- Glazer, R. (1991), "Marketing in an Information-Intensive Environment: Strategic Implications of Knowledge as an Asset", *Journal of Marketing*, 55 (4), 1-19.
- Grant, R. M. (1996), "Prospering in Dynamically-Competitive Environments: Organizational Capability", *Organizational Science*, 7 (4), 375-387.
- Hamel, G. and C. K. Prahalad (1994), *Competing for the Future*, Harvard Business School Press, Cambridge.

Hitt, M. A., R. D. Ireland, and R. E. Hoskisson (1997), *Strategy Management*, West, New York.

Jaworski, B. J. and A. K. Kohli (1993), "Market Orientation: Antecedents and Consequences", *Journal of Marketing*, 57 (3), 1-18.

Nonaka, I. (1994), "A Dynamic Theory of Organizational Knowledge Creation", *Organization Science*, 5 (1), 14-37.

Nonaka, I. and H. Takeuchi (1995), *The knowledge Creating Company*, Oxford University Press, New York.

Nunnally, J. C. (1978), *Psychometric Theory*, McGraw Hill, New York.

Prehalad, C.K. and G. Hamel (1990), "The Core Competence of the Corporation", *Harvard Business Review*, 68 (3), 79-91.

Sinkula, J. M. (1994), "Market Information Processing and Organizational Learning", *Journal of Marketing*, 58 (1), 35-45.

Slater, S. F. and J. C. Narver (1995), "Market Orientation and the Learning organization", *Journal of Marketing*, 59 (3), 63-74.

Song, X. M. and M. E. Parry (1997), "A Cross-National Comparative Study of New Product Development Processes: Japan and the United States", *Journal of Marketing*, 61 (2), 1-18.

Vorhies, D. W. and M. Harker (2000), "The Capabilities and Performance Advantages of Market-Driven Firms: An Empirical Investigation", *Australian Journal of Management*, 25 (2), 145-171.

Venkatraman, N. (1989), "Strategic Orientation of Business Enterprises: The Construct, Dimensionality and Measurement", *Management Science*, 35 (8), 942-962.

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