

2002

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Publication Info

Published in *Academy of Marketing Studies Journal*, Volume 6, Issue 1, 2002, pages 1-8.

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Pleshko, L.P., Heiens, R.A., & McGrath, L.C. (2002). A methodology towards measuring the strategic profile of first-mover firms in industrial markets. *Academy of Marketing Studies Journal*, 6(1), 1-8.

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A METHODOLOGY TOWARDS MEASURING THE STRATEGIC PROFILE OF FIRST-MOVER FIRMS IN INDUSTRIAL MARKETS

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ABSTRACT

This study goes beyond most previous research on first-mover advantages by examining the broader concept of strategic marketing initiative. Specifically, a measurement scale was developed to assess the full extent of a firm's first-mover efforts. A total of 1200 firms were surveyed, with a response rate of 12.2%. The Strategic Marketing Initiative Scale developed exhibited high reliability, and has application in assisting management in recognizing marketing areas for first mover advantages. This can result in better timing of decisions about the strategy of when to act, contributing to the ability to create a competitive advantage around marketing initiatives.

INTRODUCTION

For many years, researchers have studied the relationship between organizational strategy and the resultant effects on performance (e.g. Bharadwaj and Menon 1993; Dess and Robinson 1984; Frazier and Howell 1983; Ginsberg and Venkatraman 1985; Kohli and Jaworski 1990; McDaniel and Kolari 1987; Miles and Snow 1978; Miller 1987; Nwachukwu and Tsalikis 1990; Philips, Chang, and Buzzell 1983). One particularly well-documented strategy involves a given firm taking an aggressive approach and leading their fellow competitors with preemptive entry into product markets. As a type of business strategy, firms that engage in such proactive maneuvering have been popularly termed, "first-movers" (Kerin, Varadarajan and Peterson 1992; Lieberman and Montgomery 1998; Makadok 1998; Nakata and Sivakumar 1997).

Numerous conceptual and empirical studies appear to suggest that pioneering or first-mover firms are often able to achieve long-term competitive advantages. Specifically, first-movers in a product market have frequently been shown to have higher market shares than later entrants (Lambkin 1988, Parry and Bass 1990, Robinson 1988, Robinson and Fornell 1985). According to Lieberman and Montgomery (1988, 1998), early entrants to markets may gain advantages through the preemption of various resources, such as technology, location and personnel, and through the development of organizational capabilities that are crucial to the success of their products or services.

Order of entry, however, is not always associated with dominant and enduring market share and sustainable competitive advantage. For example, Lilien and Yoon (1990) found that the third through fifth entrants were actually more successful than first and second entrants. As Urban,

Carter, Gaskin and Mucha (1986) point out, followers may have strategic options in the form of product positioning and promotion that may be even stronger determinants of market share than simple order of entry. Because it may be more accurate to examine first-mover firms in light of the totality of proactive strategic marketing decisions they may initiate, the present article develops and validates a comprehensive measurement instrument intended to capture the broad variety of first-mover efforts.

STRATEGIC MARKETING INITIATIVE

Although previous research on first-mover advantages recognizes that order of entry into a product market is an important means with which to achieve a dominant market position, the totality of approaches employed by many market leaders are actually more complex than simply striving to be the pioneering firm in a product market (Kerin, Varadarajan and Peterson 1992). In addition to order of entry, aggressive first-mover firms may also exhibit initiative by leading and implementing other marketing strategy decisions prior to competing firms (Aaker and Day 1986; Karnani 1984; Kerin, Varadarajan and Peterson 1992, Lieberman and Montgomery 1990; Schmalensee 1982).

It has been suggested that a firm may achieve first-mover status in numerous ways. For example, the first firm to (1) produce a new product, (2) use a new process, or (3) enter a new market can claim the distinction of being a first-mover (Lieberman and Montgomery 1990). First-mover firms may also include those organizations that are the first to pursue opportunities deriving from the initiating of pricing changes or the adoption of new distribution ideas (Smith, Guthrie, and Chen 1989; McKee, Varadarajan, and Pride 1989; McDaniel and Kolari 1987). Therefore, firms with an exceptionally aggressive corporate culture may consistently strive to gain first-mover advantages in several ways. With an overall strategic posture favoring first-mover status, such firms exhibit what may be referred to as "strategic marketing initiative".

MEASUREMENT INSTRUMENT

Recognizing the variety of proactive strategic efforts a firm may undertake, the current study goes beyond most previous research on first-mover advantages by examining the broader concept of strategic marketing initiative. Rather than relying on order of entry into a product market as the sole strategic decision used to classify first-mover firms, the authors propose and validate a measurement instrument intended to more adequately capture the multi-dimensional concept of strategic marketing initiative (SMI).

In the development of a measurement instrument for the SMI construct, perceptual measures were used. Perceptual measures were used because they avoid the variable accounting methods associated with objective measures (Varadarajan 1986; Keats and Hitt 1988; Miller 1987,1988; Frazier and Howell 1983; Sharma and Mahajan 1980). Moreover, perceptual measures have been shown to strongly correlate with objective measures of the same firm (Pearce, Robbins, and Robinson 1987; Dess and Robinson 1984).

A total of fifteen items pertaining to the strategy and performance of the firm were included in the original questionnaire. All proposed items in the Strategic Marketing Initiative Scale were assessed through the use of 7-point Likert scaled measures. Statements were made and respondents were asked to indicate their level of agreement with the statement as it pertains to their view of the firm. Response options were anchored from 1 (strongly disagree) to 7 (strongly agree).

SAMPLE DESCRIPTION

Research on first-mover advantages seems to indicate that these advantages are apt to differ significantly across product categories (Lieberman and Montgomery 1998). Consequently, a sample of chief executive officers was taken from four randomly selected NAICS code groups across the United States. A systematic sample of twelve hundred was drawn equally from among firms in four manufacturing industries: food and kindred products, textile mill products, primary metal industries, and miscellaneous manufacturing industries.

A single mailing was directed to the chief executive in each of the selected firms. The mailing included a personalized cover letter, a two-page questionnaire, and a self-addressed stamped return envelope. This procedure yielded 141 useable surveys, a 12.2% response rate. Of those responding, 81% were either chief executive officers or owners, with the remainder being functional managers and/or other high level staff.

The breakdown of the respondents by NAICS groups is shown below in Table 1 along with the selected sample. A Chi-square test of responses versus the sample indicated that the responding firms were evenly distributed across the four groups (Chi-sq = 0.84, $p < 0.80$). Additionally, an analysis of variance was performed to determine if the respondents from each of the NAICS groups differed from one another in terms of firm size. Neither mean differences in annual sales ($p < .15$) nor number of employees ($p < .20$) were significant. Thus, the respondents appear to include a representative cross-section of industrial and consumer products firms in their respective industries.

SIC	Sample		Respondents	
	Frequency	%	Frequency	%
Food & Kindred Products	300	25	33	23.4
Textile Mills	300	25	28	19.9
Primary Metals	300	25	34	24.1
Misc. Manufacturing	300	25	29	20.6
uncategorized	0	0	17	12.0
	1200	100%	141	100%

RESULTS

According to Churchill (1976), coefficient alpha absolutely should be the first statistic one must calculate to adequately assess the quality of a proposed measurement instrument. When subjecting the original fifteen items to factor analysis, the results indicated that the six items included in Table 2 loaded highly on a single factor. The resulting factor exhibited a reliability estimate of 0.848 using coefficient alpha.

TABLE 2	
STRATEGIC MARKETING INITIATIVE SCALE	
SMI 1	Always the first to introduce new services or variations
SMI 2	Always the first to introduce a new advertising campaign
SMI 3	Always the first to initiate pricing changes
SMI 4	Always the first to adopt new distribution ideas
SMI 5	Always the first to adopt new technology
SMI 6	Always the first to seek out new markets for our products

TABLE 3							
CORRELATION MATRIX							
	S1						
SMI1	1.0	S2					
SMI2	.63	1.0	S3				
SMI3	.51	.48	1.0	S4			
SMI4	.46	.56	.48	1.0	S5		
SMI5	.50	.43	.36	.36	1.0	S6	
SMI6	.57	.59	.37	.47	.46	1.0	SMI
SMI	.82	.82	.71	.74	.68	.76	1.0

Note: Correlations above .18 are significant at the .05 level

Based on these results, it appears as if firms may consistently attempt to gain first-mover advantages in at least six important areas. These areas include (1) the introduction of new products,

(2) the introduction of new advertising campaigns, (3) the initiating of pricing changes, (4) the adoption of new distribution ideas, (5) the adoption of new technology, and (6) the seeking out of new markets. Consequently, the findings suggest that an overall indicator of Strategic Marketing Initiative (SMI) may be constructed by summing the six items in Table 2.

The resulting SMI scores ranged from a low of six to a high of forty-two. The mean for the measure was 24.897, and the standard deviation 7.833. All six items were highly correlated, and the correlations between the individual items and the constructed SMI variable are presented in a correlation matrix, as shown in Table 3.

CONCLUSION AND SUGGESTIONS FOR FUTURE RESEARCH

In today's highly dynamic environment, the impact of first mover advantage is shrinking because in general strategic time lines are shrinking. The decision by management regarding when to make a competitive move is a critical issue of timing. Sometimes seizing the window of opportunity for a first mover competitive advantage may result in above average returns for a firm. Recognizing common marketing areas where these opportunities are likely to be found can assist a firm in achieving this success.

The results from the SMI scale indicate that firms may attempt to gain first-mover advantages in at least six important areas, specifically (1) the introduction of new products, (2) the introduction of new advertising campaigns, (3) the initiating of pricing changes, (4) the adoption of new distribution ideas, (5) the adoption of new technology, and (6) the seeking out of new markets.

Because managers appear to answer the questions presented in Table 2 in a consistent manner, one may conclude that the resulting SMI scale may be a useful measurement instrument for assessing the variety of marketing strategies pursued by first-mover firms. As such, future studies seeking to elucidate the nature of first-mover advantages may use the SMI scale as means to classify the strategic marketing position of first-mover firms.

Building on previous research examining the relationship between first-mover status and market share performance, future studies may also seek to examine the relationship between strategic marketing initiative of first mover status and market share performance. Also, in addition to market share, future studies may look at the link between strategic marketing initiative and different performance measures.

One should be careful when generalizing the present findings to firms in every industry. A systematic investigation of other industries would validate the current research if the SMI scale identifies the same six areas for first mover advantage as the present study.

Overall, management that creates an entrepreneurial culture in crafting marketing strategy is generally seeking to identify areas in which to use first mover advantage successfully. Since the impact of this first mover action in marketing strategy changes the dynamics of competition within an industry, the identification of the SMI scale for use in crafting this strategy is very valuable. Knowledge that improves the ability of management to recognize marketing areas for first mover advantage results in better timing decisions about the strategy of when to act, and this contributes to the ability to create a competitive advantage around marketing initiatives.

REFERENCES

- Aaker, D.A. & G.S. Day. (1986). The perils of high growth markets, *Strategic Management Journal*, 7(6), pp. 409-421.
- Bharadwaj, S.G. & A. Menon. (1993). Determinants of success in service industries: A PIMS-based empirical investigation, *Journal of Services Marketing*, 7(4), pp. 19-40.
- Bond, R.S. & D.F. Lean. (1977). Sales promotion and product differentiation in two prescription drug markets, *Economic Report*, Washington, DC: U.S. Federal Trade Commission.
- Churchill, G.A. (1976). A paradigm for developing better measures of marketing constructs, *Journal of Marketing Research*, 16, 64-73.
- Dess, G. & R. Robinson, Jr. (1984). Porter's generic (1980) strategies as determinants of strategic group membership and organizational performance, *Academy of Management Journal*, 27, 467-488.
- Frazier, G. L. & R.D. Howell. (1983). Business definition and performance, *Journal of Marketing*, 47, 59-67.
- Ginsberg, A. & N. Venkatraman. (1985). Contingency perspectives of organizational strategy: A critical review of empirical research, *Academy of Management Review*, 10(3), 421-434.
- Karnani, A. (1984). The value of market share and product life cycle: A game theoretic approach, *Management Science*, 30(6), 696-712.
- Keats, B.W. & M. A. Hitt. (1988). A causal model of linkages among environmental dimensions, macro organizational characteristics, and performance, *Academy of Management Journal*, 31, 570-598.
- Kerin, R.A., P.R. Varadarajan & R.A. Peterson. (1992). First-mover advantage: A synthesis, conceptual framework, and research propositions, *Journal of Marketing*, 56 (October), 33-52.
- Kholi, A. & B. J. Jaworski. (1990). Market-orientation: The construct, research propositions, and managerial implications, *Journal of Marketing*, 51, 1-18.
- Lambkin, M. (1988). Order of entry and performance in new markets, *Strategic Management Journal*, 9 (Summer), 127-140.
- Lieberman, M.B. & D.B. Montgomery. (1988). First-mover advantages, *Strategic Management Journal*, 9 (Summer), 41-58.
- Lieberman, M.B. & D.B. Montgomery. (1990). Strategy of market entry: To pioneer or follow?, In H.E. Glass (Ed.) *Handbook of Business Strategy*, 2nd ed., New York: Warren, Gorham and Lamont, 21-29.
- Lieberman, M.B. & D.B. Montgomery. (1998). First-mover (dis)advantages: Restrospective and link with resource-based view, *Strategic Management Journal*, 19(12), 1111-1125.
- Lilien, G.L. & E. Yoon. (1990). The timing of competitive market entry: An exploratory study of new industrial products, *Management Science*, 36 (May), 568-585.
- Makadok, R. (1998). Can first-mover and early-mover advantages be sustained in an industry with low barriers to entry/imitation?, *Strategic Management Journal*, 19(7), 683-697.

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- McDaniel, S. W. & J.W. Kolari. (1987). Marketing strategy implications of the Miles and Snow typology, *Journal of Marketing*, 51 (October), 19-30.
- McKee, D.O., P.R. Varadarajan & W.M. Pride. (1989). Strategic adaptability and firm performance: A market-contingent perspective, *Journal of Marketing*, 53, 21-35.
- Miles, R. E. & C.C. Snow. (1978). *Organizational Strategy, Structure, and Process*. New York: McGraw-Hill.
- Miller, D. (1987). Strategy making and structure: Analysis and implications for performance, *Academy of Management Journal*, 30, 7-32.
- Miller, D. (1988). Relating Porter's business strategies to environment and structure: Analysis and performance implications, *Academy of Management Journal*, 31, 280-308.
- Nakata, C. & K. Sivakumar. (1997). Emerging market conditions and their impact on first mover advantages, *International Marketing Review*, 14(6), 461-486.
- Nwachukwu, O. & J. Tsalikis. (1990). Environmental heterogeneity, strategy-making, structure and small business performance: A path analytic model, *The Journal of Applied Business Research*, 7, 38-44.
- Parry, M. & F. M. Bass. (1990). When to lead or follow? It depends, *Marketing Letters*, 1 (November), 187-198.
- Pearce, J.A., D.K. Robbins & R.B. Robinson. (1987). The impact of grand strategy and planning formality on financial performance, *Strategic Management Journal*, 8 (March/April), 125-134.
- Philips, L.W., D.R. Chang & R.D. Buzzell. (1983). Product quality, cost position and business performance: A test of some key hypotheses, *Journal of Marketing*, 47 (Spring), 26-43.
- Robinson, W.T. (1988). Sources of market pioneer advantages: The case of industrial goods industries, *Journal of Marketing Research*, 25 (February), 87-94.
- Robinson, W.T. & C. Fornell. (1985). Sources of market pioneer advantages in consumer goods industries, *Journal of Marketing Research*, 22 (August), 305-317.
- Schmalensee, R. (1982). Product differentiation advantages of pioneering brands, *American Economic Review*, 72(3), 349-365.
- Sharma, S. & V. Mahajan. (1980). Early warning indicators of business failure, *Journal of Marketing*, 44, 80-89.
- Smith, K., J. Guthrie & M. Chen. (1989). Strategy, size, and performance, *Organizational Studies*, 10, 63-81.
- Urban, G.L., T. Carter, S. Gaskin & Z. Mucha. (1986). Market share rewards to pioneering brands: An empirical analysis and strategic implications, *Management Science*, 32 (June), 645-659.