

THE STRATEGY-PERFORMANCE RELATIONSHIP REVISITED: THE BLESSING AND CURSE OF THE COMBINATION STRATEGY

**John A. Parnell
Lewis Hershey**

This study considers the viability of the combination strategy with regard to the Porter and Miles & Snow generic strategy typologies. Within each framework, it is possible to pursue a "combination strategy," whereby dimensions of two or more pure strategies are incorporated simultaneously. The present study presents findings from a recent assessment of perceptions of 415 American and Mexican managers regarding their firms' strategies and levels of performance. Data suggests that combination strategies can be associated with either inferior or superior performance. This paper also suggests that additional research should considerre-visit the I/O versus resource-based schism and seek to integrate the two schools of thought into a broader consensus.

INTRODUCTION

There is an abundance of published competitive strategy models and theories (Dacko & Sudharshan, 1996; Mauri & Michaels, 1998). However, a variety of conceptual and empirical problems exist, leading a number of scholars to question the direction in which the field is headed (Ketchen, Combs, et al., 1997; Short, Ketchen, and Palmer, 2002). This appears to be especially true in the area of international competitive strategy.

Over the years research on competitive strategy has addressed the fundamental causes of strategy formulation. From this debate, two lines of research or schools of thought have emerged: the industrial organization (I/O) school and the resource-based school. The I/O school emphasizes the characteristics of an industry as essentially defining and delimiting the choices available for developing competitive strategy. In contrast, the resource-based school emphasizes the availability of key resources such as management talent and experience, access to capital markets, brand equity, as well as expertise in production and physical distribution, as the essential determinants used in developing competitive strategy.

Within this context, the issue of combination strategy viability—whether or not dimensions from two or more “pure” strategies in a typology can be combined and effectively implemented—has been widely debated, but not resolved. This lack of resolution can be traced to fundamental differences in the competing industry/resource-based perspectives on strategy

and the application of strategy typologies based on those perspectives.¹ Indeed, this debate, which may be viewed as a clash between industrial organization (IO) and resource-based theories, has led to differing perspectives on the nature of strategic groups and the viability of combination strategies (Mauri & Michaels, 1998).

The present study seeks to move toward resolution of this conundrum by considering strategic perceptions of a cross-cultural sample. Following an overview of the field, this paper presents results of a survey of American and Mexican perceptions of their firms' strategies and performance. Results of the survey are analyzed to provide insight into the combination strategy debate. Implications for future research are also provided.

THE EMERGENCE OF STRATEGIC MANAGEMENT

The roots of contemporary business strategy research can be traced to—among other traditions—industrial organization theory. Within Bain (1956) and Mason's (1939) I/O framework of industry behavior, firm profitability is viewed as a function of industry structure. Characteristics of the industry—not the firm—are viewed as the primary influences on firm performance. More recently, Bain and Mason's basic structure-conduct-performance model has been posited as most appropriate for industries with uncomplicated group structures, high concentration, and relatively homogeneous firms (Seth & Thomas, 1994).

Dissatisfaction with the limitations of the I/O school may have been the primary impetus for a renewed interest in firm resources as foundation for firm strategy (Barney, 1991; Collis, 1991; Conner, 1991; Grant, 1991; Lawless, Bergh, & Wilstead, 1989). The resulting paradigm, resource-based theory, drew from the earlier work of Penrose (1959) and Wernerfelt (1984) and emphasized unique firm competencies and resources in strategy formulation, implementation, and performance.² Resource-based proponents have studied such firm-level issues as transaction costs (Camerer & Vepsäläinen, 1988; Mahoney, 2001), economies of scope, and organizational culture (Barney, 1991; Fiol, 1991). Key business-level issues include the analysis of competitive imitation (Rumelt, 1984), informational asymmetries (Barney, 1986), causal ambiguities (Reed & DeFillippi, 1990), and the process of resource accumulation (Dierickx & Cool, 1989; Harrison, Hitt, Hoskisson, and Ireland, 2001).

In contrast to I/O, the resource-based perspective views firm profitability as primarily a function of firm resources, not industry profitability (Dess, Gupta, Hennart, & Hill, 1995; Feurer & Chaharbaghi, 1994; Robins & Wiersema, 1995). Following this logic, competitive advantage occurs when a firm is implementing a value creating strategy not simultaneously being implemented by any current or potential competitors (Peteraf, 1993). Sustained competitive advantage exists when competitors are unable to duplicate the benefits of the strategy (Barney, 1991; Barney, 2001).

¹ This is not to suggest that industrial organization and resource-based perspectives have not been viewed as somewhat complimentary. See Mahoney and Pandian (1992) for a discussion of some of the conceptual overlap between the two theories.

² See Mahoney & Pandian (1992) for an excellent overview of the utility of resource-based theory in strategic management.

Strategic Group Typologies

The resource-based school evolved in contrast to the suppositions of the I/O scholarly strategy researchers challenged the I/O perspective, *noting its inability* to explain large performance variances within a single industry. As a result, the strategic group level of analysis was proposed as a compromise between the deterministic, industry level of analysis proposed and developed by industrial organizational economics and the firm or business level of analysis studied by strategic management researchers (Hergert, 1983; Porter, 1981). While temporally prior to the emergence of the resource-based school and an outgrowth of the I/O school, strategic group theory and its resulting typologies have characteristics common to both. As a result, strategic group typologies may serve as a theoretical point-of-departure for examining the debate between the I/O and resource-based schools of strategy formulation.

Strategic groups describe apparent clusters of firms that exhibit similar or homogeneous behavior within a somewhat *heterogeneous* industry environment (Fiegenbaum, McGee, & Thomas, 1988). Strategic group research has demonstrated group-performance linkages in a number of industries, and so share conceptual similarity with resource-based theories (Parnell & Wright, 1993).³ However, not all studies have supported a strong association between strategic group membership and performance (McGee & Thomas, 1986, 1992). For example, Ketchen et al.'s (1997) meta-analysis found that only about eight percent of firms' performance can be explained by strategic group membership. Kotabe and Duhan (1993) identified three strategy clusters among Japanese businesses--"brand skeptics, mavericks, and true believers"--and found that membership in one of the groups was not a significant predictor of performance. Rather, the link between strategy and performance was moderated by organization situational variables such as the degree of emphasis on manufacturing and profitability. Additional studies have also examined variables thought to moderate the strategic group-performance relationship (Davis & Schul, 1993; Lee, Lee, & Rho, 2002; Zahra, 1993).

Competitive Strategy Typologies

As strategic group assessments identified clusters of businesses employing similar strategies, researchers were beginning to categorize similarities within the strategic groups across studies. Business strategy typologies identifying several generic strategic approaches were developed and utilized as a theoretical basis for identifying strategic groups in industries. Although strategic groups are an industry-specific phenomenon, many strategic group researchers began to utilize approaches believed to be *generalizable* across industries, specifically those proposed by Porter (1980) and by Miles and Snow (1978, 1986). This theoretical extension across industries is important for considering strategy typologies as a conceptual bridge between the I/O and resource-based schools.

According to Porter's framework, a business can maximize performance either by striving to be the *low cost* producer in an industry or by *differentiating* its line of products or services from those of other businesses; either of these two approaches can be accompanied by a *focus* of organizational efforts on a given segment of the market. Miles and Snow's (1978) framework identified four strategic types: prospectors, defenders, analyzers, and reactors. *Prospectors* perceive a dynamic, uncertain environment. They maintain flexibility and employ innovation to combat environmental change, often becoming the industry designers (Miles & Snow, 1986). In

³ See Hunt (1972), Newman (1973), and McGee and Thomas (1986) for a thorough discussion of the development of strategic group research.

contrast, *defenders* perceive the environment to be stable and certain, and thus seek stability and control in their operations to achieve maximum efficiency. *Analyzers* stress both stability and flexibility, attempting to capitalize on the best of both of the preceding strategic types. *Reactors* lack consistency in strategic choice and perform poorly. Although attempts have been made to further develop both typologies, the original versions of the typologies appear to remain the most widely cited and tested (Eng, 1994; Wright, Kroll, Pringle, & Johnson, 1990).⁴

The Combination Strategy

While many researchers were utilizing and/or extending one typology or the other in their strategy-performance studies, others were seeking common theoretical ground for combining the two approaches into a single, all-encompassing typology (Kotha & Orne, 1989; Spanos & Lioukas, 2001). Indeed, a comparison between the two typologies suggested that strategic types within both classification schemes could be categorized along the two dimensions of consistency and proactiveness. For example, differentiation and prospecting strategies tend to emphasize proactivity, while cost leadership and defender strategies are more reactive. Segev (1989) noted that Miles and Snow's reactor type may also be equated with Porter's "stuck in the middle" (1980, p. 41) type as strategies that lack consistency. Miller (1987) emphasized four integrated types: innovation, market differentiation, breadth, and cost control. Chrisman, Hofer, & Boulton's (1988) framework considers differentiation, scope, and competitive methods.

As researchers continued to study the relationship between strategy and performance, some studies concluded that only "pure" strategies (i.e., cost minimization *or* differentiation) were associated with superior performance. These studies embraced Porter's (1980, 1985) original contention that viable business units must seek *either* a low cost or a differentiation strategy to be successful (Dess & Davis, 1984; Hambrick, 1981, 1982; Hawes & Crittendon, 1984). For example, Dess and Davis (1984) examined 19 industrial products businesses and suggested that superior performance was achieved through the adoption of a single strategy. Similar results were found in Hambrick's (1983) investigation of capital goods producers and industrial product manufacturers. Indeed, most studies defending the single strategy position have identified clear strategic groups, each with its own association with performance.

Other studies found that combination strategies (i.e., low cost *and* differentiation) were optimal.⁵ Researchers in this group considered the combination strategy to be viable over the long-run, and in many cases, to be associated with superior performance (Buzzell & Gale, 1987; Hill, 1988; Murray, 1988; Parnell & Wright, 1993; Phillips, Chang, & Buzzell, 1983; White, 1986; Wright, 1987).⁶ It is this second group of studies that provides the operational support of the concept of the combination strategy. Whereas, the "pure" strategy proponents reject the suggestion that strategy formulation can successfully cross typology lines of demarcation, researchers in the second group assert that findings of management-in-practice suggest that strategy in competition makes no such academic distinction.

⁴ For example, considering Porter's model, Miller's (1986) expansion suggested two different types of differentiation strategies. One type--intensive image management--highlights the creation of a positive image through marketing techniques such as advertising, market segmentation, and prestige pricing. The second type--product innovation--involves the application of new or flexible technologies as well as unanticipated customer and competitor reactions (Miles & Snow, 1978; Miller, 1988; Miller & Friesen, 1984; Scherer, 1980)

⁵ Studies utilizing the Miles and Snow typology also generated conflicting results.

⁶ Although the theoretical differences are clear, membership in one interpretative community or the other is not always easy to classify. Most researchers acknowledge limitations of both interpretations of the typologies to some degree. Miller and Dess' (1993) assessment of Porter's model, for example, is difficult to classify.

Although both sides appear to have moved toward common ground, a substantial gap remains. Specifically, little—if any—research published in recent years has suggested that strategies *cannot* be effectively combined, or that combination strategies are necessarily effective in all industries. However, no consensus has yet emerged.⁷

Still, there are at least three bases for the construct validity of the combination strategy that are cogent to the present study. These bases center on issues of research methodology, competing organizational theories, and the real-world relationships among the generic typologies themselves. First, researchers disagree on methodological issues. Miller and Friesen (1986) contend that studies by researchers supporting the first group reported by Dess and Davis (1984) and Hambrick (1983) considered only certain industrial markets, where buyers are typically better informed and more rational than consumer buyers. Chen and Smith (1987) and others have argued that data bases utilized in many of these first group studies—including the PIMS data base—do not necessarily constitute representative samples (see also Zeithaml & Fry, 1984). Barney and Hoskisson (1990) questioned the validity of many strategy-performance studies, which utilized cluster analysis, a technique commonly utilized by this line of research. Others contended that the data collection techniques of such “pure strategy” studies, many of which utilize top executive and perceptual data, were not necessarily valid or reliable (Golden, 1992).

Second, there are competing organizational theories that differ in their application to the discussion. For example, citing transaction cost theory, Jones and Butler (1988) contend that cost leadership and differentiation are not at opposite ends of a strategy continuum because both strategies are subject to the same underlying cost tradeoffs. Transaction costs are the negotiating, monitoring, and enforcement costs associated with the transfer of goods and services between the firm and the consumer (Jones & Butler, 1988). Since transaction costs are the main component of differentiation and production costs are the main component of cost leadership, Jones and Butler assert that the difference between the two strategies is one of degree rather than of kind. Indeed, there is increasing evidence that many, if not most, businesses combine generic strategies to some extent (Kotha, Dunbar, & Bird, 1995), and that the forms of combination vary across cultures (Lemak & Arunthanes, 1997; Luo, 1997).

Third, the relationships among the generic strategies are often disputed. Researchers in the first school tend to see various generic strategies as mutually exclusive. In contrast, members of the second school argue that a business' ability to effectively implement one strategy may lead to its adoption of another. For example, Jones and Butler (1988) suggested that effective differentiation can actually lead to improved economies of scale. When sophisticated consumers demand a differentiated, quality product, its producer can raise production capacity in order to enjoy economies of scale, driving down production costs, total costs, and (potentially) price. Thus, the quality achieved through the differentiation strategy can actually lead to scale economies and consumer prices lower than those of firms that select low cost strategies.

The present study suggests that sufficient research evidence exists for consideration of the combination strategy as a viable theory for further study. In the context of the I/O versus resource-based strategy debate, the combination strategy is particularly useful in that it affords researchers the possibility of identifying strategies-in-practice that may demonstrate features of either school without unduly biasing data collection under the presumption of seeking to confirm or deny the tenets of either.

⁷ Attempts to resolve this conundrum have not accounted for one primary difference. Porter's approach does not allow for long-term viable combination strategies. Miles and Snow's typology allows for one via the analyzer.

Within this context of exploratory descriptive research, the present study reports findings from data collection from a sample of managers of American and Mexican firms. This sample seems especially relevant to the controversy relating to typologies and to the I/O versus resource-based debate in that the comparison of responses from more than one culture can promote generalizability and thus screen for practices that might be limited to a single resource or a single industry phenomenon.⁸

METHODS & FINDINGS

In the present study, competitive strategy is assessed via previously validated scales to measure strategic emphasis on first mover advantages, second mover advantages, segment control, product/service breadth, perceived uniqueness, and production/distribution efficiency, as well as a three-item scale to measure satisfaction with organizational performance (Parnell, 2000; Parnell & Carraher, 2002). A total of 415 middle and upper-level managers from Texas and Mexico were surveyed, with 55.2 percent (229) of the respondents reporting American citizenship, 41.7 percent (173) Mexican, and 3.1 percent (13) "other." About two-thirds (68.4 percent) of the respondents were male. The Mexican managers were fluent in English and well-versed in American business practices. Because the constructs measured are believed to be universal, managers with various nationalities were included in the sample.

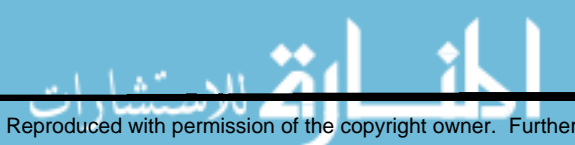
Respondents represented a variety of industries with the majority coming from the manufacturing sector. Although this condition introduces some degree of inter-industry variation into the study, the constructs and relationships were expected to be consistent across industries. Although support for relationships with a cross-industry sample may be more difficult to engender, it would lend greater credence to the generalizability of the findings.

TABLE 1

Results of Factor Analyses

<u>Item</u>	<u>Summary</u>	<u>Loading</u>
<u>FIRSTMOVER subscale (alpha=.6388)</u>		
FIRSTMOVER1	My company seeks to be the first in our industry	.718
FIRSTMOVER2	Rewards associated with being first outweigh risks	.732
FIRSTMOVER3	Willing to take risks necessary to be first with a new venture	.841
<u>SECONDMOVER subscale (alpha=.5408)</u>		
SECONDMOVER1	Imitate competitors' new product/service introductions	.827
SECONDMOVER2	Watch the innovators closely and quickly adopt	.712
SECONDMOVER3	Let competitors test the waters before we follow	.508

⁸ This is not to suggest that *no* differences exist between managerial decision-making from different cultures. Gree and Stephens (2001), for example, found significant differences in the confidence Mexican managers had in their escalatory decisions relative to US-based managers.



SEGMENT subscale (alpha=.6803)

SEGMENT1	Serve only one/two established market segments exceptionally well	
	.762	
SEGMENT2	Identify one or a few established customer groups and serve well	.812
SEGMENT3	Focus on meeting the needs of our existing customer base	.770

BREADTH subscale (alpha=.7364)

BREADTH1	Attempt to offer a very wide assortment of products of services	.819
BREADTH2	Important to offer a wide selection of products and services	.888
BREADTH3	Satisfying more of our customers' needs through our wide variety	.720

UNIQUE subscale (alpha=.6940)

UNIQUE1	Strive to differentiate our products from others in the market place	.726
UNIQUE2	produce products or services that customers perceive to be unique	.799
UNIQUE3	Customers are willing to pay for our uniqueness	.836

EFFICIENCY subscale (alpha=.6399)

EFFICIENCY1	Emphasis on producing our products and services at the lowest cost	
	.720	
EFFICIENCY2	Success by producing at a cost level below our competitors	.808
EFFICIENCY3	Minimizing production costs creates competitive advantage	.759

The principal components factor extraction technique resulted in single factor loadings in the strategy scales ranging from .508 to .888 (see table 1). Scholars and statisticians have suggested desired minimum loadings ranging from .500 to .700. Coefficient alpha for the scales ranged from .541 to .736, indicating a moderate level of internal consistency, an important indication of reliability (Kuratko, Montagno & Hornsby, 1990; Peter, 1979). The three-item scale to measure satisfaction with performance produced loadings ranging from .777 to .842, with a coefficient alpha of .775. Factor scores (regression method) were computed to serve as composite measures for each of the factors. The cases were cluster analyzed along the six strategy measures utilizing Ward's clustering algorithm.

FINDINGS & DISCUSSION

Five strategy clusters—with 97, 52, 53, 153, and 60 cases respectively—were generated. The figures in table 2 represent mean scores for the six strategy measures and satisfaction with performance for each of the clusters. A score of zero would indicate that the mean response for the cluster is identical to that of the entire sample. Positive and negative scores reflect higher and lower means.

TABLE 2

Results of Cluster Analysis*

Cluster	First Mover	Second Mover	Focus on Segment	Product Breadth	Emphasize Uniqueness	Production Efficiency	Performance Satisfaction
1-Low Cost (n=97)	-.023	.151	-.636	.434	-.463	.289	-.022
2-Reactor (n=52)	-1.391	-.555	-.313	.264	.159	-.921	-.538
3-Analyzer (n=53)	-1.010	.604	.355	-.984	-1.282	-.415	-.383
4-LC & Diff. (n=153)	.585	.244	.191	.502	.584	.227	.297
5-Prospector (n=60)	.648	-.918	.500	-.134	.255	.119	.084

*N=415.

The first cluster of managers emphasized efficient production or a wide product line for the mass market, an approach consistent with Porter's *low cost strategy*. The second cluster emphasized uniqueness with a broad product line, while de-emphasizing first and second mover advantages and production efficiency, an inconsistent strategic approach that resembles Miles and Snow's *reactor* strategy. The third cluster emphasized second mover tendencies and a niche focus while de-emphasizing first-mover advantages and production efficiency, an approach somewhat similar to Miles and Snow's *analyzer* strategy. The fourth cluster emphasized all of the strategic dimensions, an approach consistent with the *combination low cost-differentiation strategy*. The fifth strategy emphasized first (but not second) mover tendencies in a focused manner, an approach consistent with the *prospector* strategy.

Three key findings concerning the clusters are worth noting. First, not surprisingly, managers in the reactor cluster were least satisfied with their performance. This finding is consistent with the aforementioned typologies as well as virtually all subsequent research on the strategy-performance linkage. Simply stated, a strategy that lacks internal consistency is not likely to achieve superior performance.

Second, after the reactors, managers in the analyzer cluster were the least satisfied with their performance when only viable strategy clusters were considered. As a hybrid strategy, the analyzer approach appears to be susceptible to Porter's "stuck in the middle" admonition for combination strategies.

Third, the group most satisfied with performance consisted of managers who reported emphasis on all six dimensions above the mean. Interestingly, this combination strategy of sorts scored highest along only two of the dimensions. Hence, recognition of some degree of choice among competing approaches (e.g., low cost vs. differentiation, narrow vs. wide product lines, etc.) appears to be evident. Nonetheless, this group also sought a blend of multiple approaches simultaneously.

It appears that, following resource-based theory, a business may, *given the proper array of resources*, succeed by implementing any single strategy in the framework or any combination of strategies. However, following the I/O model, some combinations appear *more likely* to be effective than others, and such combinations may be common in a given industry, thereby forming strategy groups. This finding suggests that the combination strategy may be effective only under unusual industry conditions. For example, first-movers may be most likely to also develop perceived uniqueness, but less able to emphasize production and distribution

efficiencies. In contrast, segment controllers may be well equipped to emphasize efficiency but not uniqueness. Previous research has focused predominantly on combinations of the uniqueness and efficiency strategies (i.e., differentiation and low cost), perhaps one of the least attractive combinations in the framework. Additional research may develop a taxonomy of combination strategies.

In its simplest form, the I/O-resource-based theory debate can be reduced to a single question: Are organizational factors more or less important than industry factors in determining firm performance. Henderson and Mitchell (1997) suggest that attempting to answer this question may be a fruitless exercise, since organizational capabilities, competition, strategy, and performance are fundamentally endogenous. In a similar vein, McGahan and Porter (1997) found that industry accounted for 19 percent of variance in profitability within specific SIC categories, and that this difference varied substantially across industries. Powell (1996) suggested that industry accounts for between 17 and 20 percent of performance variance (see also Rumelt, 1991; Stimpert & Duhaime, 1997). Hence, *both* sets of factors are important, and research should proceed based on this assumption.

Because the present study supports the idea that a combination strategy can in essence be either a blessing or curse, it provides opportunities to further integration of competing schools of thought into a comprehensive perspective on strategy combinations (Roquebert, Phillips, & Westfall, 1996). Although past approaches aimed at expanding or integrating the original typologies proposed by Porter and Miles and Snow represent useful strategy frameworks, they do not account for different perspectives on the viability of combination strategies or the role of industry in business performance. The influence of industry on performance appears to be greatest when businesses choose to *adapt* to existing conditions rather than attempt to *influence* them. Specifically, strategies that emphasize adaptation enhance industry's role, whereas those that emphasize enactment minimize it. In industries where strategic groups may exist, businesses choose whether or not to join them.

The industry-level of analysis should not be discarded in an attempt to better comprehend the business strategy-performance relationship (Zahra & Pearce, 1990). Indeed, the two perspectives can be complementary and are both necessary for a holistic perspective. For example, recent studies (e.g., Dooley, Fowler, & Miller, 1996; Miles, Snow, & Sharfman, 1993) have concluded that high strategic heterogeneity positively influences the overall profitability of an industry.⁹ Although these investigations have occurred at the industry level of analysis, implications for the business level are clear. Simply stated, the strategy-performance relationship may be moderated by the strategies implemented by one's competitors. Hence, industry-level studies such as these continue to increase the wealth of knowledge about individual firm strategies and performance.

LIMITATIONS AND FUTURE RESEARCH

The present study supports the notion that combination strategies may lead to superior performance, but can actually reduce satisfaction with performance when the various dimensions of the strategy are inconsistent. The implications for practitioners are clear. Strategic managers should develop a clear, internally consistent strategy for the firm. They should consider

⁹ The U-shaped relationship between strategic heterogeneity and industry performance reported by Miles et. al (1993) and Dooley et al. (1996) has not been replicated in all studies. See Hansen (1998) for a detailed discussion.

combining elements of low cost and differentiation to the extent that the firm's unique array of strategic resources permits them to do so. Delivering value to customers via the combination strategy can be an effective strategic choice.

There are at least four important limitations of the study, however, each of which also connotes a direction for future research. The first limitation concerns the uniqueness of the sample. Because respondents represented multiple industries, it was not possible to test for industry effects on performance. In addition, the Mexican respondents' fluency in English and familiarity with American business practices suggests that they may not completely representative of Mexican managers in general. In addition, the myriad cultural differences between American and Mexican managers (see Kras, 1995) were not elaborated as part of the present study. Hence, broad conclusions concerning the tendencies of Mexican managers cannot be reached. Future studies limited to one or two industries would enable the measurement of both industry and firm effects on performance.

Second, cluster analysis has been the predominant tool of strategic group researchers for classifying businesses into strategic groups (Cool & Schendel, 1988; Derajtys, Chrisman, & Bauerschmidt, 1993). However, the appropriateness of this technique has been seriously questioned (Ketchen & Shook, 1996; Nayyar, McGee & Thomas, 1989; Thomas & Venkatraman, 1988). Hatten and Schendel (1977) cautioned that the application of factor analysis or clustering algorithms to discover strategic groups in an industry rests on the untested assertion that these groups actually exist. Barney and Hoskisson (1990) noted that on industry data as well as theoretical data, any clustering algorithm, when applied to analyze data, will yield a set of clusters. These resultant clusters should not necessarily be directly interpreted as strategic groups. The theoretical question as to whether strategic groups actually exist or whether they are simply artifacts of the algorithms utilized to generate clusters still remains unanswered. Although cluster analysis remains the chosen methodology for most strategy-performance studies (Cool & Schendel, 1988; Derajtys, Chrisman, & Bauerschmidt, 1993), researchers have begun to more greatly emphasize the importance of classification schemes utilized in configuration studies (Dess, Newport & Rasheed, 1994).

The primary weakness of cluster analysis is that it concentrates on similarities and does not account for strategy differences. As such, it is suggested that studies featuring cluster analytic techniques *also* utilize an alternative means of strategy assignment that allow for *degrees* of strategy measurement and compare results. Strictly interpreted, resource-based theory would argue that forcing classifications based on any limited sets of generic strategies is inconsistent with an emphasis on firm resources, this approach provides a compromise that allows for unique strategy assignments while enabling tests of the strategy-performance linkage. Multiple methods, including cluster analytic techniques, can provide a richer, more valid assessment of strategy.

Third, it is not sufficient to investigate the strategy-performance relationship without giving consideration to managerial consensus—the degree to which managers (especially members of the top management team) agree on strategy (Thomas & Ramaswamy, 1996). If consensus is linked to performance—an argument advanced by Bowman and Ambrosini (1997) and others—then some competitive strategies may lend themselves to greater agreement among managers. For example, consensus may be high among segment controllers where everyone seems to understand the niche being targeted by the business, but low among first movers where the essence of the strategy is not always well understood (Wooldridge & Floyd, 1990).

Strategy coherence--the consistency of strategic choices across business and functional levels--has also been linked to performance (Nath & Sudharshan, 1994). There is also increasing evidence that strategy formulation is linked to the top executive's personal philosophy and personality (Kotey & Meredith, 1997). Management's self-interest, their personalities, interpretations, and influences on strategy have been examined (Guth & MacMillan, 1986; Janis, 1972; Smircich & Stubbart, 1985; Walsh & Fahey, 1986). Others have noted the degree of centralization of the organization and its importance on managerial consensus (Love, Priem, & Lumpkin, 2002). Future research considering the responses of multiple managers within the same firm would be appropriate.

Fourth, the measurement of performance has also plagued strategy researchers for more than two decades (Venkatraman & Ramanujam, 1986). While strategy researchers struggle with various performance measures such as return-on-assets, stock price and revenue growth, many companies are beginning to use a mixture of financial and non-financial measures for performance (Kaplan & Norton, 1997; Wiliford, 1997). Most researchers agree that multiple measures offer a rich perspective that cannot be seen by a single approach. However, a consensus on which combination is most appropriate has not yet emerged (Wiliford, 1997). Although the present study emphasized performance perceptions, additional research that follows hybrid approaches would be less susceptible to validity or reliability concerns associated with a single method.

REFERENCES

- Bain, J.S. (1956). *Barriers to new competition*. Cambridge: Harvard University Press.
- Bain, J.S. (1968). *Industrial Organization* (2nd ed.). New York: Wiley.
- Barney, J. B. (2001). Resource-based theories of competitive advantage: A ten year retrospective on the resource-based view. *Journal of Management* 27, 643-650.
- Barney, J.B. (1991). Firm resources and sustained competitive advantage. *Journal of Management*, 17, 99-120.
- Barney, J.B. (1986). Strategic factor markets: Expectations, luck, and business strategy. *Management Science*, 32, 1231-1241.
- Barney, J.B. and Hoskisson, R.E. (1990). Strategic groups: Untested assertions and research proposals. *Managerial and Decision Economics*, 11, 187-198.
- Bettis, R.A., & Hitt, M.A. (1995). The new competitive landscape. *Strategic Management Journal*, 16 (special issue), 7-19.
- Bowman, C., & Ambrosini, V. (1997). Perceptions of strategic priorities, consensus and firm performance. *Journal of Management Studies*, 34, 241-258.
- Bronn, Carl. (1998). Applying epistemic logic and evidential theory to strategic arguments. *Strategic Management Journal*, 1991(1), 81-95
- Camerer, C., & Vepsalainen, A. (1988). The economic efficiency of corporate culture. *Strategic Management Journal*, 9, 115-126.
- Chen, M.J., & Smith, K.G. (1987). Samples used in strategic management research. *Academy of Management Best Paper Proceedings*, 47, 7-11.
- Child, J.S. (1972). Organizational structure, environment, and performance. *Sociology*, 6, 1-22.
- Chrisman, J.J., Hofer, C.W., & Boulton, W.R. (1988). Toward a system for classifying business strategies. *Academy of Management Review*, 13, 413-428.

- Collis, D.J. (1991). A resource-based analysis of global competition: The case of the bearings industry. *Strategic Management Journal*, 12, 49-68.
- Cool, K., & Schendel, D. (1988). Performance differences among strategic group members. *Strategic Management Journal*, 9, 207-213.
- Dacko, S.G., & Sudharshan, D. (1996). Managers will find academic journals helpful. *Marketing News*, 30 (21), 10.
- Davis, P.S., & Schul, P.L. (1993). Addressing the contingent effects of business unit strategic orientation on relationships between organizational context and business unit performance. *Journal of Business Research*, 27, 183-200.
- Deephouse, D.L. (1999). To be different, or to be the same? It's a question (and theory) of strategic balance. *Strategic Management Journal*, 20 (2), 147-166.
- Derajtys, J.M., Chrisman, J.J., & Bauerschmidt, A. (1993). The shakeout in microcomputers: Causes and consequences. *Long Range Planning*, 26, 86-97.
- Dess, G.G., & Davis, P.S. (1984). Porter's generic strategies as determinants of strategic group membership and performance. *Academy of Management Journal*, 26, 467-488.
- Dess, G.G., Gupta, A., Hennart, J.F., & Hill, C.W.L. (1995). Conducting and integrating strategy research at the international, corporate, and business levels: Issues and directions. *Journal of Management*, 21, 357-393.
- Dess, G.G., Newport, S., & Rasheed, A.M.A. (1993). Configuration research in strategic management. *Journal of Management*, 19, 775-795.
- Dierickx, I., & Cool, K. (1989). Asset stock accumulation and sustainability of competitive advantage. *Management Science*, 35, 1504-1511.
- Dooley, R.S., Fowler, D.M., & Miller, A. (1996). The benefits of strategic homogeneity and strategic heterogeneity: Theoretical and empirical evidence resolving past differences. *Strategic Management Journal*, 17, 293-305.
- Eng, L.G. (1994). Using generic strategies: Some caveats. *Singapore Management Review*, 16(1), 43-48.
- Feurer, R., & Chaharbaghi, K. (1994). Defining competitiveness: A holistic approach. *Management Decision*, 32, 49-58.
- Fiegenbaum, A., McGee, J., & Thomas, H. (1988). Exploring the linkage between strategic groups and competitive strategy. *International Studies of Management & Organization*, 18(1), 6-25.
- Fiol, C.M. (1991). Managing culture as a competitive resource: An identity-based view of sustainable competitive advantage. *Journal of Management*, 17, 191-211.
- Godfrey, Paul C., & Hill, Charles W.L. (1995). The problem of unobservables in strategic management research. *Strategic Management Journal* 16(7), 519-533.
- Golden, B.R. (1992). The past is the past--or is it? The use of retrospective accounts as indicators of past strategy. *Academy of Management Journal*, 35, 848-860.
- Grant, R.M. (1991). The resource-based theory of competitive advantage: Implications for strategy formulation. *California Management Review*, 33(3), 114-135.
- Gree, C. R. and Stephens, G. K. (2001). Escalation of commitment: A comparison of differences between Mexican and U.S. decision-makers. *Journal of Management* 27, 51-78.
- Guth, W.D., & Macmillan, I.C. (1986). Strategy implementation versus middle management self-interest. *Strategic Management Journal*, 7, 313-327.
- Hambrick, D.C. (1982). Environmental scanning and organizational strategy. *Strategic Management Journal*, 3, 159-174.

- Hambrick, D.C. (1983). Some tests of the effectiveness and functional attributes of miles and snow's strategic types. *Academy of Management Journal*, 26, 5-26.
- Hambrick, D.C. (1981). Strategic awareness within top management teams. *Strategic Management Journal*, 2, 263-279.
- Hamel, G., & Prahalad, C.K. (1996). Competing in the new economy: Managing out of bounds. *Strategic Management Journal*. 17(3), 237-242.
- Hansen, J. (1998). Just when we thought it was resolved: More conflicting evidence on the link between industry strategic heterogeneity and industry performance. Paper presented at the 1998 *Academy of Management Meeting*, San Diego, CA.
- Harrison, J. S., Hitt, M. A., Hoskisson, R. E, and Ireland, R. D. (2001). Resource complementarity in business combinations: Extending the logic to organizational alliances. *Journal of Management* 27, 679-690.
- Hatten, K.J., & Schendel, D.E. (1977). Heterogeneity within an industry: Firm conduct in the U.S. brewing industry, 1952-1971. *Journal of Industrial Economics*, 26, 97-112.
- Henderson, R., & Mitchell, W. (1997). The Interactions of organizational and competitive influences on strategy and performance. *Strategic Management Journal*, 18 (Special Summer Issue), 5-14.
- Hergert, M.L. (1983). *The incidence and implications of strategic groupings in U.S. manufacturing industries*. Unpublished doctoral dissertation, Harvard University.
- Hill, C.W.L. (1988). Differentiation versus low cost or differentiation and low cost: A contingency framework. *Academy of Management Review*, 13, 401-412.
- Hoskisson, R.E., Hitt, M.A., Wan, W.P., & Yiu, D. (1999). Theory and research in strategic management: Swings of a pendulum. *Journal of Management*. 25 (3), 417-456.
- Hubbard, R., Vetter, D.E., & Little, E.L. (1998). Replication in strategic management: Science testing for validity, generalizability, and usefulness. *Strategic Management Journal*, 19 (3), 243-254.
- Hulland, J. (1999). Use of partial least squares (PLS) in strategic management research: A review of four recent studies. *Strategic Management Journal*, 20 (2), 195-204.
- Hunt, M.S. (1972). *Competition in the major home appliance industry 1960-1970*. Unpublished doctoral dissertation, Harvard University.
- Janis, I.L. (1972). *Victims of groupthink*. Boston: Houghton-Mifflin.
- Jones, G.R., and Butler, J.E. (1988). Costs, revenue, and business-level strategy. *Academy of Management Review*, 13, 202-213.
- Kaplan, R.S., & Norton, D.P. (1997). Why does business need a balanced scorecard? *Journal of Cost Management*, 11, 5-10.
- Kotabe, M., & Duhan, D.F. (1993). Strategy clusters in Japanese markets: Firm performance implications. *Journal of the Academy of Marketing Science*, 21, 21-31.
- Ketchen, D.J., Combs, J.G., Russell, C.J., et al. (1997). Organizational configurations and performance: A meta-analysis. *Academy of Management Journal*, 40, 223-240.
- Ketchen, D.J., & Shook, C.L. (1996). The application of cluster analysis in strategic management research: An analysis and critique. *Strategic Management Journal*, 17, 441-458.
- Kotey, B., & Meredith, G.G. (1997). Relationships among owner/manager personal values, business strategies, and enterprise performance. *Journal of Small Business Management*, 35(2), 37-61.

- Kotha, S., Dunbar, R.L.M., & Bird, A. (1995). Strategic action generation: A comparison of emphasis placed on generic competitive methods by U.S. and Japanese managers. *Strategic Management Journal*, 16, 195-220.
- Kotha, S., & Orne, D. (1989). Generic manufacturing strategies: A conceptual synthesis. *Strategic Management Journal*, 10, 211-231.
- Kras, E.S. (1995). *Management in two cultures*. Yarmouth: Intercultural Press.
- Kroll, M., Wright, P., & Heiens, R. A. (1999). The contribution of product quality to competitive advantage: Impacts on systematic variance and unexplained variance in returns. *Strategic Management Journal*, 20(4), 375-384.
- Kuratko, D.F., Montagno, R.V., & Hornsby, J.S. (1990). Developing an intrapreneurial assessment instrument for an effective corporate entrepreneurial environment. *Strategic Management Journal*, 11, 49-58.
- Lawless, M.W., Bergh, D.D., & Wilstead, W.D. (1989). Performance variations among strategic group members: An examination of individual firm capability. *Journal of Management*, 15, 649-661.
- Lee, J., Lee, K., Rho, S. (2002). An evolutionary perspective on strategic group emergence: A genetic algorithm-based model. *Strategic Management Journal*, 23, (8), 727-746.
- Lemak, D.J., & Arunthanes, W. (1997). Global business strategy: A contingency approach. *Multinational Business Review*, 5(1), 26-37.
- Lengnick- Hall, C.A. & Wolff, J.A. (1999). Similarities and contradictions in the core logic of three strategy research streams. *Strategic Management Journal*, 20 (12), 1109-1132.
- Lieberman, M.B. & Montgomery, D.B. (1998). First-mover (dis)advantages: Retrospective and link with the resource-based view. *Strategic Management Journal*, 19(12), 1111-1125.
- Love, L. G., Priem, R. L., and Lumpkin, G.T. (2002). Explicitly articulated strategy and firm performance under alternative levels of centralization. *Journal of Management*, 28, 611-627.
- Luo, Y. (1997). Performance implications of international strategy: An empirical study of foreign-invested enterprises in China. *Group & Organization Management*, 22(1), 87-116.
- Mahoney, J.T., & Pandian, J.R. (1992). The resource-based view within the conversation of strategic management. *Strategic Management Journal*, 13, 363-380.
- Mason, E.S. (1939). Price and production policies of large-scale enterprises. *American Economic Review*, 29, 61-74.
- Mauri, A.J., & Michaels, M.P. (1998). Firm and industry effects within strategic management: An empirical examination. *Strategic Management Review*, 19, 211-219.
- McGahan, A.M., & Porter, M.E. (1997). How much does industry matter, really? *Strategic Management Journal*, 18 (Summer Special Issue), 15-30.
- McGee, J., & Thomas, H. (1992). Strategic groups and intra-industry competition. *International Review of Strategic Management*, 3, 77-98.
- McGee, J., & Thomas, H. (1986). Strategic groups: Theory, research and taxonomy. *Strategic Management Journal*, 7, 141-160.
- Miles, G., Snow, C.C., & Sharfman, P. (1993). Industry variety and performance. *Strategic Management Journal*, 14, 163-177.
- Miles, R.E., & Snow, C.C. (1978). *Organizational strategy, structure, and process*. New York: West.

- Miles, R.E., & Snow, C.C. (1986). Organizations: New concepts for new forms. *California Management Review*, 18(3), 62-73.
- Miller, A. (1988). A taxonomy of technological settings, with related strategies and performance levels. *Strategic Management Journal*, 9, 239-254.
- Miller, A., & Dess, G.G. (1993). Assessing Porter's 1980 model in terms of its generalizability, accuracy and simplicity. *Journal of Management Studies*, 30, 553-585.
- Miller, D. (1986). Configurations of strategy and structure. *Strategic Management Journal*, 7, 233-249.
- Miller, D. (1987). The structural and environmental correlates of business strategy. *Strategic Management Journal*, 8, 55-76.
- Miller, D., & Friesen, P.H. (1984). *Organizations: A quantum view*. Englewood Cliffs: Prentice-Hall.
- Miller, D., & Friesen, P.H. (1986). Porter's 1980 generic strategies and performance: An empirical examination with American data. Part II: Performance implications. *Organization Studies*, 7, 255-261
- Mahoney, J. (2001). A resource-based theory of sustainable rents. *Journal of Management*, 27, 651-660.
- Murray, A.I. (1988). A contingency view of Porter's "generic strategies." *Academy of Management Review*, 13, 390-400.
- Nath, D., & Sudharshan, D. (1994). Measuring strategy coherence through patterns of strategic choices. *Strategic Management Journal*, 15, 43-61.
- Nayyar, P.R. (1993). On the measurement of competitive strategy: Evidence from a large multiproduct U.S. firm. *Academy of Management Journal*, 36, 1652-1669.
- Newman, H.H. (1973). Strategic groups and the structure performance relationship: A study with respect to the chemical process industries. Unpublished doctoral dissertation, Harvard University.
- Nouthoofd, N., & Heene, A. (1997). Strategic groups as subsets of strategic scope groups in the Belgian brewing industry. *Strategic Management Journal*, 18, 653-666.
- Park, S.H. & Gordon, M.E. (1996). Publications records and tenure decisions in the field of strategic management. *Strategic Management Journal*, 17(2), 109-128.
- Parnell, J.A. (2000). Reframing the combination strategy debate: Defining forms of combination. *Journal of Applied Management Studies*, 9(1), 33-54;
- Parnell, J.A., & Carraher, S. (2002). The role of effective resource utilization in strategy's impact on performance. *International Journal of Commerce and Management*, 13(3), 1-34.
- Parnell, J.A., & Wright, P. (1993). Generic strategy and performance: An empirical test of the Miles and Snow typology. *British Journal of Management*, 4, 29-36.
- Penrose, E. (1959). *The theory of the growth of the firm*. New York: Sharpe.
- Peteraf, M.A. (1993). The cornerstones of competitive advantage: A resource-based view. *Strategic Management Journal*, 14(3), 179-191.
- Peteraf, M.A. & Shanley, M. (1997). Getting to know you: A theory of strategic group identity. *Strategic Management Journal*, 18, 165-186.
- Peter, J.P. (1979). Reliability: A review of psychometric basics and recent marketing practices. *Journal of Marketing Research*, 16 (1), 6-17.
- Phillips, L.W., Chang, D.R., & Buzzell, R.D. (1983). Product quality, cost position, and business performance: A test of some key hypotheses. *Journal of Marketing*, 47 (2), 26-43.
- Porter, M.E. (1985). *Competitive advantage*. New York: Free Press.

- Porter, M.E. (1980). *Competitive strategy*. New York: Free Press.
- Porter, M.E. (1981). The contributions of industrial organization to strategic management. *Academy of Management Review*, 6, 609-620.
- Porter, M.E. (1979). How competitive forces shape strategy. *Harvard Business Review*, 57 (2), 137-145.
- Porter, M.E. (2001). Strategy and the Internet. *Harvard Business Review*, 79(3), 72.
- Powell, T.C. (1996). How much does industry matter? An alternative empirical test. *Strategic Management Journal*, 17, 323-334.
- Reed, R., & DeFillippi, R.J. (1990). Causal ambiguity, barriers to imitation, and sustainable competitive advantage. *Academy of Management Review*, 15, 88-102.
- Robins, J., & Wiersema, M.F. (1995). A resource-based approach to the multibusiness firm: Empirical analysis of portfolio interrelationships and corporate financial performance. *Strategic Management Journal*, 16, 277-299.
- Roquebert, J.A., Phillips, R.L., & Westfall, P.A. (1996). Markets vs. management: What "drives" profitability? *Strategic Management Journal*, 17, 653-664.
- Rumelt, R. 1991. How much does industry matter? *Strategic Management Journal*, 12: 167-185.
- Rumelt, R. (1984). Towards a strategic theory of the firm.(pp. 556-570). In R. Lamb (Ed.). *Competitive Strategic Management*. Englewood Cliffs: Prentice-Hall.
- Scherer, F. (1980). *Industrial market structure and economic performance*. Chicago: Rand McNally.
- Segev, E. (1989). A systematic comparative analysis and synthesis of two business-level strategic typologies. *Strategic Management Journal*, 10, 487-505.
- Seth, A., & Thomas, H. (1994). Theories of the firm: Implications for strategy research. *Journal of Management Studies*, 31, 165-191.
- Short, J. C., Ketchen, D. J., and Palmer, T.B. (2002). The role of sampling in strategic management research on performance: A two-study analysis. *Journal of Management*, 28, 363-385.
- Spanos, Y.E., & Lioukas, S. (2001). An examination into the causal logic of rent generation: Contrasting Porter's competitive strategy framework and the resource-based perspective. *Strategic Management Journal*, 22, (10), 907-934.
- Smircich, L., & Stubbart, C. (1985). Strategic management in an enacted world. *Academy of Management Review*, 10, 724-736.
- Stimpert, L., & Duhaime, I.M. (1997). Seeing the big picture: The influence of industry, diversification, and business strategy on performance. *Academy of Management Journal*, 40, 560-583.
- Tahai, A. & Meyer, M.J. (1999). A revealed preference study of management journals' direct influences. *Strategic Management Journal*, 20(3), 279-296.
- Thomas, A.S., & Ramaswamy, K. (1996). Matching managers to strategy: Further tests of the Miles and Snow typology. *British Journal of Management*, 7, 247-261.
- Thomas, H., & Venkatraman, N. (1988). Research on strategic groups: Progress and proposals. *Journal of Management Studies*, 25, 537-555.
- Venkatraman, N., & Ramanujam, V. (1986). Measurement of business performance in strategy research: A comparison of approaches. *Academy of Management Review*, 11, 801-814.
- Walsh, J.P., & Fahey, L. (1986). The role of negotiated belief structures in strategy making. *Journal of Management*, 12, 325-338.

- Wernerfelt, B. (1984). A resource-based theory of the firm. *Strategic Management Journal*, 5, 171-180.
- White, R.E. (1986). Generic business strategies, organizational context, and performance: An empirical investigation. *Strategic Management Journal*, 7, 217-231.
- Wiliford, S. (1997). 'Scorecard': A new way to manage business strategy. *Memphis Business Journal*, 18(48), 7.
- Wooldridge, B., & Floyd, S.W. (1990). The strategy process, middle management involvement, and organizational performance. *Strategic Management Journal*, 11, 231-241.
- Wright, P. (1987). A refinement of Porter's strategies. *Strategic Management Journal*, 8, 93-101.
- Wright, P., Kroll, M., Pringle, C., & Johnson, J. (1990). Organization types, conduct, profitability and risk in the semiconductor industry. *Journal of Management Systems*, 2(2), 33-48.
- Zahra, S.A. (1993). Environment, corporate entrepreneurship, and financial performance: A taxonomic approach. *Journal of Business Venturing*, 8, 319-340.
- Zahra, S.A., & Pearce, J.A. (1990). Research evidence on the Miles-Snow typology. *Journal of Management*, 16, 751-768.
- Zeithaml, C.P., & Fry, L.W. (1984). Contextual and strategic differences among mature businesses in four dynamic performance situations. *Academy of Management Journal*, 27, 841-860.

Dr. John A. Parnell is a belk distinguished professor of management at University of North Carolina, Pembroke.

Dr. Lewis Hershey is an associate professor of marketing at Fayetteville State University.