THE ROLE OF EFFECTIVE RESOURCE UTILIZATION ON STRATEGY'S IMPACT ON PERFORMANCE

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Researchers have investigated the link between business strategy and performance, the process of resource acquisition and employment, and issues associated with strategy implementation. However, empirical investigations into the moderating or mediating effects of resource deployment and implementation in the strategy-performance relationship have been lacking. Data analyzed in the present study lends support for the notion that the appropriate strategy should be aligned with specific resource competencies if the strategy is to be successful.

INTRODUCTION

The strategic management literature is replete with strategy typologies, research methodologies, and theories on the strategy-performance relationship. In general, researchers have demonstrated that strategies that emphasize quality, incorporate a product or service's distinctive competencies, and focus on the core business are most likely to result in superior firm performance (Dacko & Sudharshan, 1996). Advances in the field, notwithstanding, a consensus concerning the precise nature of competitive strategy and its relationship to business performance has not yet emerged (Ketchen, Combs, Russell, et al., 1997). Specifically, empirical investigations into the roles played by organizational resources

and competencies in the strategy-performance relationship have been lacking. The present study seeks to fill this gap and lay the foundation for additional research that not only considers *which* strategy is adopted, but also *how* it is aligned with organizational capabilities.

The remainder of the paper is divided into four main sections. First, a brief, historical overview of business strategy research is presented. Second, a framework integrating existing knowledge on generic strategies is developed, and propositions are presented to test for the roles played by specific strategic resources in the strategy implementation process. Third, the data collection and analysis is presented, and propositions are evaluated. Finally, challenges for future research are outlined.

AN HISTORICAL DEVELOPMENT OF BUSINESS STRATEGY THEORY

The roots of contemporary business strategy research can be traced to--among other perspectives--industrial organization theory. Within Bain (1956) and Mason's (1939) IO framework of industry behavior, characteristics of the industry--not the firm--are viewed as the primary influences on firm performance (see also Barney, 1986b; Seth & Thomas, 1994). As early strategy researchers challenged IO's inability to explain large performance variances within a single industry, Hunt (1972) proposed the strategic group level of analysis as a compromise between IO's deterministic, industry level and the firm level studied by strategic management researchers (Fiegenbaum, McGee, & Thomas, 1988; Hergert, 1983; Nouthoofd & Heene, 1997).

Strategic group research has demonstrated group-performance linkages in the consumer goods industries (Porter, 1973), paints and allied products (Dess & Davis, 1984), industrial products (Hambrick, 1983), U.S. insurance (Fiegenbaum & Thomas, 1990), and retail mail-order (Parnell & Wright, 1993) industries, among others. However, not all studies have supported a strong association (McGee & Thomas, 1986, 1992). Ketchen et al.'s (1997) meta-analysis found that only about eight percent of firm performance may be explained by strategic group membership. Katobe 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 mediated by organization situational variables, such as the degree of emphasis on manufacturing and profitability. Additional studies have also examined variables thought to mediate the strategic group-performance relationship (Davis & Schul, 1993; Zahra, 1993).

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 Miles and Snow (1978) and Porter (1980, 1987).

Miles and Snow's (1978) framework identified four strategic types: prospectors, defenders, analyzers, and reactors. Prospectors define an industry and search for new products and markets; in contrast, defenders seek to "defend" a well-defined segment of the market. Analyzers are, in some respects, hybrids of the prospectors and defenders. Reactors do not possess a coherent strategy and usually perform poorly.

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. Specifically, a low cost strategy is effectively implemented when the business designs, produces, and markets a comparable product more efficiently than its competitors. In contrast, a differentiation strategy is effectively implemented when the business provides unique and superior value to the buyer in terms of facets such as product quality, special features, or after-sale service. Differentiation leads to market success not based on a competitive price, but on the demands of a sophisticated consumer who wants a differentiated product and is willing to pay a higher price.

DEVELOPMENT OF A STRATEGY FRAMEWORK

The present study integrates contributions from the aforementioned typologies. Numerous researchers have sought common theoretical ground for combining the two approaches into a single, all-encompassing typology (Kotha & Orne, 1989). 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.

Although the contributions of Porter and Miles and Snow are clear, the strategies depicted in this framework are based on forms of *competitive advantage* achieved when resources are effectively utilized, not on *how* organizations attempt to utilize them. This perspective accepts the resource-based contention that valuable resources should be the focal point for strategy development. However, the value of a resource can only be measured through its contribution as part of an effective strategy.

The model developed in this paper examines six business strategies, each based on a unique form of competitive advantage designed to increase organizational performance. Each strategy is elaborated below and summarized in table 1. Propositions developed for each strategy suggest linkages between the strategy and resources associated with the organization.

The first three strategies represent an organization's composite *thought process* about competitive strategy, an approach generally referent to the strategies proposed by Miles and Snow. At the first level, businesses can generally seek to be (1) proactive as a first mover, (2) contemplative as a second mover, or (3) governing as a segment controller. The second three strategies represent the *competitive means* through which businesses

seek to orchestrate their competitive activities, an approach somewhat referent to Porter's typology.

TABLE 1

Revised business strategy framework

Strategy *(model abbreviation)*	Earlier References	Benefits	Costs & Risks	Industry Influence	Functional Strategy & Organizational Resource Requirements
First-mover *(fmv)*	Prospector	High Margins Development of Innovative Reputation	No Market Application Product/Service Failures	Low	Effective Product R&D Innovative Culture Speed
Second-mover *(smv)*	Analyzer	Limited Initial Investment, But Potential For Early Entry	Never First In The Market Markets Entered Are Not Fully Developed	Moderate	Marketing Expertise Flexibility in Production Speed
Segment Control *(scn)*	Defender Focus	Large Market Share Development of Expertise Through Specialization	Lost Opportunities for Synergy and New Markets	Moderate	Efficient Production Processes Market Segment Expertise
Product/ Service Breadth *(psb)*	Lack of focus	Synergy Through Satisfaction Of Related Needs	Potential For Lost Efficiencies in Production	High	Flexibility In Production Marketing Expertise
Perceived Uniqueness *(pun)*	Differen-tiation Focus	High Margins Brand Loyalty	High Marketing Costs Potential For Higher Production Costs	High	Marketing Expertise Effective Product R&D
Production & Distribution Efficiency *(pde)*	Low Cost	Ability To Survive Price Wars Potential For Low Prices and/or High Margins	Potential For Low Perceived Value Of Offerings	High	Effective Process R&D Efficient Production Processes Cost Containment Culture

At the second level, businesses can (1) seek to develop and maintain broad product/service lines, (2) develop and emphasize perceived

uniqueness, or (3) develop and maintain a high degree of production and/or distribution efficiency.

STRATEGY-RESOURCE COMBINATIONS

First Mover

First movers seek to be the first to introduce new or modified products or services in their industries (Lieberman & Montgomery, 1988). First mover companies such as 3M often develop a reputation for innovation, and can generally command higher margins for their products or services because competitors cannot provide the same offering. The success of the first mover depends on its ability to efficiently develop new offerings and recoup the expenses associated with their development from the increased margins.

> ***Proposition 1**: The effectiveness of the first mover strategy is mediated by the degree to which the business (1) utilizes effective product R&D and (2) offers an innovative culture.*

First movers do not always create new products or services, but may find new ways to capitalize on existing competencies. First movers were conceptualized in Miles and Snow's (1986) typology as prospectors, organizations whose managers perceive a dynamic, uncertain environment and maintain flexibility and employ innovation to combat environmental change, often becoming the industry designers. One of Miller's (1986) forms of differentiation, product innovation, also supports the notion of the first mover. 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). For example, Caterpillar's turnaround from 1995-to-1997 was spawned by movement away from its manufacture of engines for its construction equipment to newly designed engines for use in generators, heavy-duty trucks, and boats (Elstrom, 1997). As such, a single first mover can play a

major role in redefining the success factors in a given industry (Nagle, 1993).

First movers can also substantially influence the structure of their industries. For example, John Harvard's Brew House has been delivering ales and an English pub atmosphere in Cambridge's (Massachusetts) Harvard Square since 1993, thereby developing a market virtually undeveloped ten years ago (Benavides, 1997). Some may suggest that John Harvard's is following a focus strategy within the restaurant industry, while others may contend that the business is simply a prospector within the recently developed "brewpub" industry. Regardless of level of aggregation, John Harvard's, in concert with several others, has helped define an "industry within an industry."

The first mover strategy is consistent with the resource-based theory of the firm. Drawing from the earlier work of Penrose (1959) and Wernerfelt (1984), resource-based theory emphasizes unique firm competencies and resources in strategy formulation, implementation, and performance. Resource-based proponents have studied such firm-level issues as transaction costs (Camerer & Vepsalainen, 1988), 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, 1986a), causal ambiguities (Reed & DeFillippi, 1990), and the process of resource accumulation (Dierickx & Cool, 1989).

The resource-based perspective recognizes that businesses within an industry or strategic group may control heterogeneous resources, and that heterogeneity may be long-lasting. Both industry structure and firm control over resources are dynamic. As such, resource-based theorists do not see the expectational and information asymmetry (i.e., perfect strategic factor markets) that must exist in the traditional (IO) paradigm as realistic (Barney, 1986a). They contend that firm resources include all assets, capabilities, organizational processes, firm attributes, information, and knowledge controlled by a firm--many of which may be intangible and/or difficult to measure--that enable it to conceive of and implement successful strategies (Dess, Gupta, Hennart, & Hill, 1995; Feurer & Chaharbaghi, 1994; Robins & Wiersema, 1995).

The renewing organization (see Hurst, Rush & White, 1989) implements a version of first mover strategy by seeking constant change during periods of strong performance to maintain industry leadership positions and capitalize on new business opportunities. Nike CEO Phil Knight views his company's strategy as a never-ending response mechanism designed to deliver constant strategic change based on shifts in social, "nonmarket" forces (see Baron, 1995; Lieber, 1997).

Second Mover

Second movers seek to imitate and enhance the successful product and service enhancements initiated by the first movers. Second movers resemble the analyzers proposed in Miles and Snow's original typology. Analyzers stress both stability and flexibility, attempting to capitalize on the best of both of the preceding strategic types. Although valuable to the first mover, speed--reaction time, including redesign, manufacturing, testing, and distribution--is especially critical to the effective implementation of the second mover strategy. Whereas first movers must respond effectively to changes in the external environment, second movers must respond to changes initiated by first movers.

> ***Proposition 2**: The effectiveness of the second mover strategy is mediated by the degree to which the business (1) possesses marketing expertise and (2) maintains flexibility in production.*

Marketing expertise is often critical, as customers may see the second mover's offerings as mere imitations without an effective campaign. As such, second movers accept some degree of industry influence on profitability, but seek to minimize substantial effects by modifying the change efforts initiated by the first movers.

Segment Control

Some organizations attempt to efficiently produce competitively priced products and services for an established market niche. Miles and

Snow (1978) conceptualized organizations seeking to control specific market segments as defenders. Defenders perceive the environment to be stable and certain, and thus seek stability and control in their operations to achieve maximum efficiency.

Segment controllers concentrate efforts on one or a few market segments and seek to develop a leadership position within them. In some cases, such efforts may be accompanied by a desire for growth. For example, Baby Superstore's 62-store chain seeks to control the entire infant/toddler market by selling everything a parent needs to raise a baby (Ratliff, 1996).

> ***Proposition 3**: The effectiveness of the segment control strategy is mediated by the degree to which the business (1) maintains efficient production processes, and (2) utilizes effectiveness in market segmentation.*

Many organizations implementing a segment control strategy seek to target niches left vacant by other businesses. For example, Seattle-based Advance Capital, Inc. markets commercial finance to small businesses that do not quality for traditional bank loans (Russell, 1997). Facing increased competition from larger dealerships, Kansas-based Haven Ford Sales, Inc. targets the customer who desires a "small town" relationship encompassing friendly service, no-pressure sales tactics, and a sense of fairness not typically associated with vehicle retailers (Howell, 1997).

Some companies may target two or more segments, a strategy difficult to implement but potentially rewarding. Sam's Wholesale Club sells food and other products in large quantities to small business, but also targets large families as well. Construction supplier Payless Cashways seeks to serve both professional and do-it-yourself customers (Trollinger, 1997).

Product/Service Breadth

Wide product/service lines serve multiple market segments (Kekre & Srinivasan, 1990), can lead to greater efficiencies through resource sharing (Panzar & Willig, 1981), and can deter prospective competitors by

maintaining a presence in multiple market segments (Raubitschek, 1987). However, the greater customer choice associated with greater breadth can also reduce production efficiencies associated with economics of scale if the specific combination of services does not create synergy for the organization.

> ***Proposition 4**: The effectiveness of the product/service breadth strategy is mediated by the degree to which the business (1) maintains flexibility in production, and (2) possesses marketing expertise.*

For businesses with broad product/service lines, specific strategies may vary from one line to another. For example, the Maxwell House Division of Kraft General Foods pursues production/distribution efficiency with its regular ground coffee, but high perceived uniqueness with some of its other offering, such as Colombian Supreme (Nayyar, 1993). Although the combination of line breadth with efficiency is difficult to achieve, Kraft is able to do so via its massive distribution efficiencies associated with its size and experience in the prepared foods market.

General Electric's "Smart Bomb" strategy illustrates the complexity of a business strategy based on breadth of the product line. In its Asian operations, GE enters geographical markets where they believe they can achieve a 20 percent return on investment. The result is a collection of business units (or sub-units, depending on one's level of aggregation) in different Asian locales, each with varying product lines and functional strategies (Grant, 1997).

Perceived Uniqueness

Businesses may choose to produce unique products or services, or at least promote the perception that its offerings differ substantially from the competition, to enhance margins associated with its perceived differentiation. In many, but not all cases, the emphasis on product or service enhancements or marketing campaigns designed to support the strategy can ultimately reduce margins. The success of a uniqueness

emphasis depends on a firm's ability to command a higher price, or, in some cases, develop economies of scale, to justify the increased expenses. One of Miller's (1986) forms of the differentiation strategy, intensive image management, highlights the creation of a positive image through marketing techniques such as advertising, market segmentation, and prestige pricing (see also Miller & Dess, 1993).

Perceived uniqueness is also consistent with the resource-based theory of the firm. From the resource-based perspective, competitive advantage occurs when a firm is implementing a value creating strategy not simultaneously being implemented by any current or potential competitors. Sustained competitive advantage exists when competitors are unable to duplicate the benefits of the strategy (Barney, 1991).

> ***Proposition 5**: The effectiveness of the perceived uniqueness strategy is mediated by the degree to which the business (1) utilizes effective product R&D, and (2) possesses marketing expertise.*

Businesses implementing a strategy emphasizing uniqueness are most vulnerable to performance declines if they begin to neglect their core business. Sytje's Pannekoeken Huis Family Restaurants, once profitable and known for its puffy pancakes and windmill-kitsch décor, began to experiment with new dining concepts and unrelated acquisitions to boost sales. This shift in attention from the facets of the company's uniqueness to factors that may proven successful for some of its competitors resulted in a muddled image and decline ending in liquidation (Fudge, 1997). On the contrary, after struggling during the early 1990s, Honda Motor Company initiated a turnaround by reemphasizing its unique approach to automobile design and manufacturing (Thornton, 1997).

A company's uniqueness need not be based on products or services sold. Rather, it can be based on a business process or philosophy. For example, Wetherill Associates crafts it strategy around high ethical standards. The 480-employee auto parts distributor builds relationships with other businesses based on honesty and integrity, and does not work with companies whose practices are suspect (Burger, 1997).

The concept of quality is often confused with that of uniqueness. Although the two often coexist, this is not always the case. Indeed, the application of quality as a functional strategy can enhance the effectiveness of any business strategy. For example, checks and forms manufacturer Short Run Companies--like a growing number of other firms--decentralized its quality effort so that line employees make relevant decisions (Heckelman, 1997). As a result, lower level employees influence the specific attributes of products in the mix. If such an effort allows line workers to make decisions affecting the introduction of new products or services or the elimination of existing ones, then the quality effort ultimately becomes a quality *and* strategy effort.

Production/Distribution Efficiency

Virtually every industry contains a sizeable number of businesses pursuing high performance via production and distribution efficiency. Although most seek to meet basic quality standards, such businesses avoid expenditures that are not directly associated with the production and distribution of a competitive product or service.

> ***Proposition 6**: The effectiveness of the production/distribution efficiency strategy is mediated by the degree to which the business (1) utilizes effective process R&D, (2) offers a cost containment culture, and (3) maintains efficient production processes.*

Businesses emphasizing efficiency are in strong competitive positions when price is the most important factor in a customer's decision. As such, they are generally able to survive and even initiate price wars. However, when price is not as critical or industry offerings are highly differentiated, efficiency-based businesses become vulnerable.

DATA COLLECTION ANALYSIS

Development of the Survey Instrument

A parsimonious self-report instrument was developed to measure each business' emphasis on the six business strategies aforementioned. Three items were developed for each strategy. The first considered the business' intended strategy (e.g., "We seek to be the first in our industry to offer new products and services"). The second examined the philosophy of the business' top executive with respect to success in the industry (e.g., "In our industry, the rewards associated with being first with new products and services outweigh the risks of failure"). The third addressed the business' realized strategy (e.g., "Although we recognize that new ideas can sometimes lead to failure, we are willing to take the risks necessary to be first with a new venture"). Responses for each item were anchored with a score of "1" for strongly disagree and a score of "5" for strongly agree. In addition, nine items--each representing a key area of resource utilization--were added to allow top executives to assess their effectiveness along these critical dimensions. The complete list of strategy items appears in table 2.

A Likert-like instrument containing these 18 items (i.e., 3 for each of the 6 strategies) was mailed to executives in 149 eating establishments to test the reliability of the instrument (see table 3). Each of the 6 3-item scales produced factor loadings in excess of 0.50 and a coefficient alpha in excess of 0.60, suggesting a level of reliability appropriate for additional research (Kuratko, Montagno & Hornsby, 1990; Peter, 1979).

Performance was measured by mean three-year return-on-assets (ROA) and annualized three-year revenue growth data provided by Stock Quest (Market Guide, Inc., 1997). Surveys were sent to the 577 retail companies included in Stock Quest's financial database of publicly-traded corporations, 231 of which were returned, resulting in a response rate of 40 percent.

Retail is the second-largest industry (or sector) in the United States both in number of establishments and number of employees, and includes such businesses as grocers, discount retailers, pharmacies, and department stores. In 1999, the industry employed 22.8 million Americans with annual retail sales of almost $3 trillion. Wal-Mart is the world's largest retailer

with over 1 million employees and more than $163 billion in sales. Chain stores account for fewer than 95 percent of all U.S. retailers, but generate over one-half of all retail store sales. Direct selling through on-line retailers, catalog companies and home shopping television channels is steadily increasing (Berman & Evans, 2000).

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Statistical Analysis

Three-item scales for each of the six strategies were factor-analyzed. Factor scores (Anderson-Rubin method) were computed from each of the six scales to serve as measures for the strategies. For each of the strategies, factor loadings exceeded 0.50 and Cronbach's alpha exceeded 0.55 (see table 5). Marginal loadings (between 0.52 and 0.55) and alpha (0.55) were found with the segment control strategy, suggesting a flexible interpretation by executives of how such an approach may be effectuated. As one executive put it, " . . . being first or second is at least easy to attempt . . . controlling part of the market is a little more complicated."

FINDINGS AND DISCUSSION

Table 4 presents correlations between the strategy factors while table 5 presents correlations between strategy factor scores and resource utilization effectiveness measures. Results supported each of the hypothesized strategy-resource combinations, although numerous additional significant combinations were also found. For example, the first mover strategy was found to significantly correlate with not only an innovative culture and product R&D, but also with efficient production. In addition, negative correlations were found with cost-containment culture and process R&D.

Given the existence of a variety of strategy-resource correlations not originally hypothesized, structural equation models were developed to examine the validity of the proposed model associated with each proposition. Figures 1-6 illustrate the results of the best fitting model tested for each strategy.

Test statistics are summarized in table 6. Although the chi-square is the most widely accepted overall measure of fit for a structural equation model, three additional measures warrant consideration (Arbuckle, 1997). First, the Bentler-Bonett (1980) normed fit index (NFI) compares the proposed model to a baseline model. Bentler and Bonett (1980) suggested that NFI statistics above .90 suggest that the model cannot be improved substantially.

TABLE 2

Strategy Survey Items

First-Mover Items
1. We seek to be the first in our industry to offer new products and services.
2. In our industry, the rewards associated with being first with new products and services outweigh the risks of failure.
3. Although we recognize that new ideas can sometimes lead to failure, we are willing to take the risks necessary to be first with a new venture.

Second-Mover Items
1. We watch our competitors' new product or service introductions and imitate them when they are successful.
2. In our industry, it makes sense to watch the innovators closely and quickly adopt the new products, services, or changes that seem to work well for them.
3. Although being second with a good idea is sometimes too late, we prefer to let our competitors test the waters before we follow.

Segment Control Items
1. We strive to serve only one or two established market segments exceptionally well.
2. In our industry, it is best to identify one or a few established customer groups and serve them well.
3. Although we forego opportunities to serve new markets, we prefer to focus on meeting the needs of our existing customer base exceptionally well.

Product/Service Breadth Items
1. We attempt to offer a very wide assortment of products of services.
2. It is important in our industry to offer a wide selection of products and services.
3. Although producing a wide variety of products and services hurts our production efficiency, we succeed by satisfying more of our customers' needs through our wide variety.

Perceived Uniqueness Items

1. We strive to differentiate our products from others in the market place.
2. The most successful companies in our industry produce products or services which customers perceive to be unique.
3. Although producing and marketing a unique product or service can increase costs, our customers are willing to pay for the difference.

Production/Distribution Efficiency Items

1. We place a great emphasis on producing our products and services at the lowest cost in the industry.
2. One of the best ways to attain success in our industry is to produce our products and services at a cost level lower than that of our competitors.
3. Although our products and services may not be perceived as unique, our emphasis on minimizing production costs gives us a superior competitive position in the marketplace.

TABLE 3

Factor Analysis for Strategy Items

Strategy Item	Factor Loading	% of variance	Cumulative % of variance	Coefficient Alpha
First Mover: Intended	.782	67.8	67.8	
First Mover: Philosophy	.561	20.9	88.7	
First Mover: Realized	.690	11.3	100.0	.76
Second Mover: Intended	.633	64.2	64.2	
Second Mover: Philosophy	.623	18.9	83.2	
Second Mover: Realized	.672	16.8	100.0	.72
Segment Control: Intended	.519	52.9	52.9	
Segment Control: Philosophy	.546	24.0	77.0	
Segment Control: Realized	.522	23.0	100.0	.55
Product/Service Breadth: Intended	.656	72.7	72.7	
Product/Service Breadth: Philosophy	.689	18.4	91.1	
Product/Service Breadth: Realized	.835	8.9	100.0	.81
Perceived Uniqueness: Intended	.700	65.4	65.4	
Perceived Uniqueness: Philosophy	.669	19.6	85.0	
Perceived Uniqueness: Realized	.592	15.0	100.0	.73
Prod./Dist. Efficiency: Intended	.619	68.1	68.1	
Prod./Dist. Efficiency: Philosophy	.665	19.3	87.4	
Prod./Dist. Efficiency: Realized	.760	12.6	100.0	.77

TABLE 4

Correlations

	Strategy					
	First Mover	Second Mover	Segment Control	Prod/Ser Breadth	Perceived Unique.	Prod/Dist. Efficiency
Strategy						
First Mover						
Second Mover	-.319*					
Segment Control	-.176*	-.323*				
Prod/Service Breadth	.250*	-.179*	.262*			
Perceived Uniqueness	.174*	.342*	-.520*	-.244*		
Prod/Dist Efficiency	-.287*	.274*	.053	.129	.089	

TABLE 5

Correlations

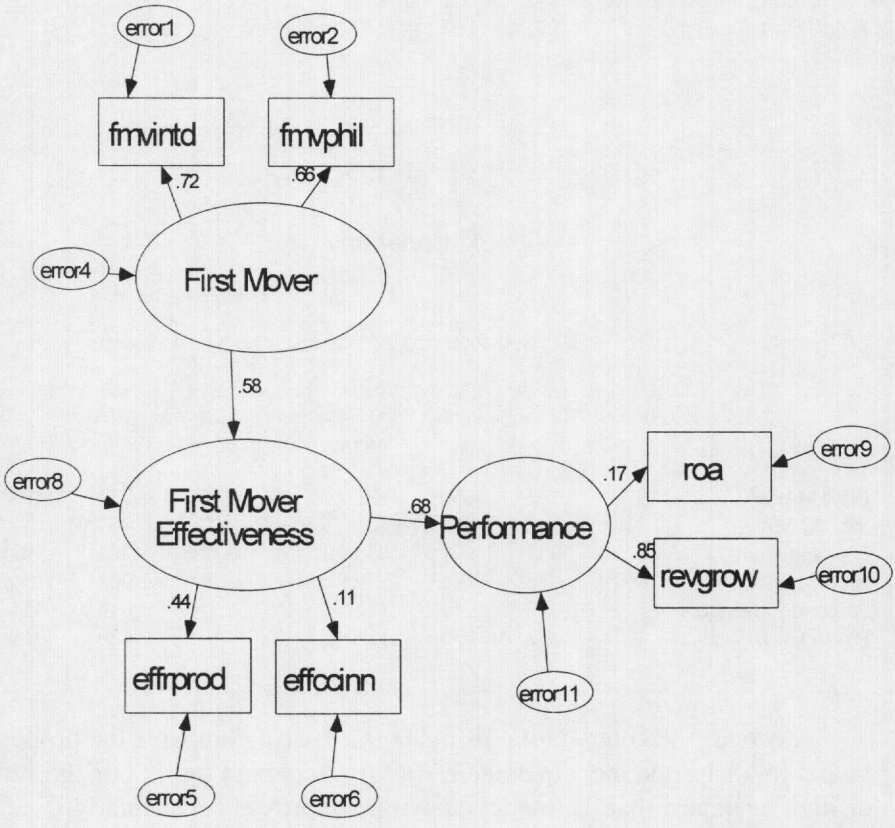
	Self-Reported Effectiveness *(model abbreviations)*							
Strategy	Cost-Contain Culture *(effcccos)*	Innovat. Culture *(effccinn)*	Efficient Product'n *(effeffpr)*	Flexible Product'n *(effflexp)*	Market Segment *(effmkseg)*	Market'g Expertise *(effmktex)*	Process R&D *(effrproc)*	Product R&D *(effrprod)*
First Mover	-.320*	.197*	.130*	-.081	.184	-.070	-.254*	.183*
Second Mover	.236*	-.340	.058	.406*	.044	.217*	.267*	.131*
Segment Control	.221*	.063*	.191*	-.033	.190*	-.086	.002	-.392*
Prod/Service Breadth	.067	-.036	.166*	.330*	.179*	.266*	-.007	-.156*
Perceived Uniqueness	.142*	-.017	.159*	.112	.102	.147*	-.016	.454*
Prod/Dist Efficiency	.467*	-.232*	.505*	.370*	.280*	.015	.620*	.025

Second, the comparative fit index (CFI) also compares the proposed model to a baseline model (Bentler, 1990). Scores in the .90 or .95 range or higher suggest that the model cannot be improved substantially.

Finally, the "root mean square error of approximation" (RMSEA) statistic attempts to overcome the bias of chi-square in favor of simple model by compensating for model complexity. Browne and Cudeck (1993) suggested that values of .08 or less represent reasonable errors or approximation, whereas values greater than .10 represent unreasonable errors.

FIGURE 1

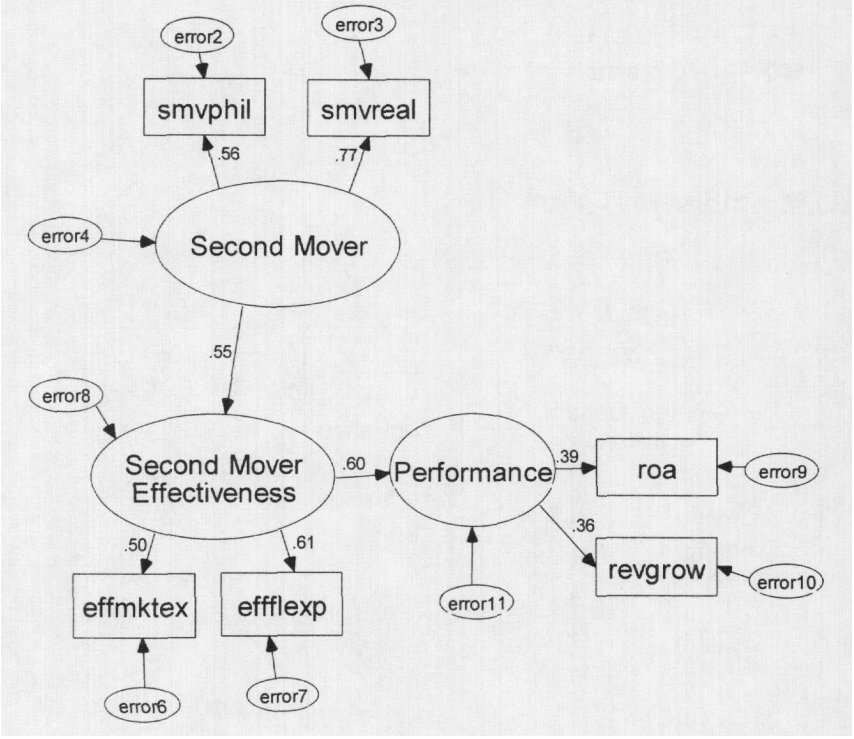
SEM Model for the First Mover Strategy



The best models for each strategy retained only two measures of the strategy and two measures of implementation effectiveness. The segment control and perceived uniqueness models were supported along each of the four measures. The remaining 4 models failed the chi-square test, but passed the NFI and CFI thresholds, while RMSEA statistics were inconclusive.

FIGURE 2

SEM Model for the Second Mover Strategy



Results of the analysis lend support to the basic argument posed in this paper, but do not conclusively support each model. It is especially noteworthy to consider the significant correlations between strategies and resources *not* included in the final model (see table 7). Specifically, four such relationships warrant additional consideration.

FIGURE 3

SEM Model for the Segment Control Strategy

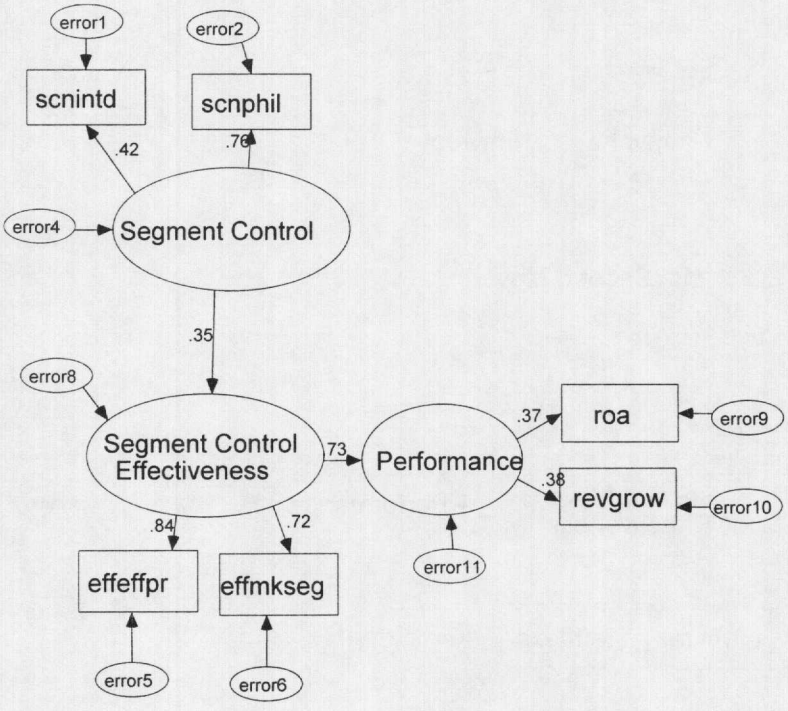


FIGURE 4

SEM Model for the Product/Service Breadth Strategy

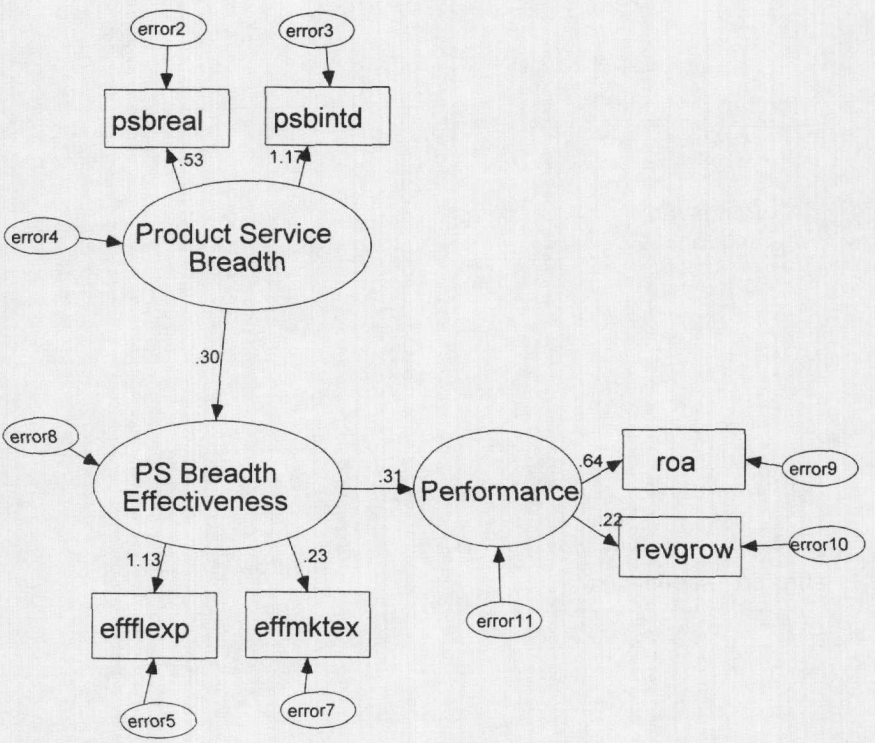


FIGURE 5

SEM Model for the Perceived Uniqueness Strategy

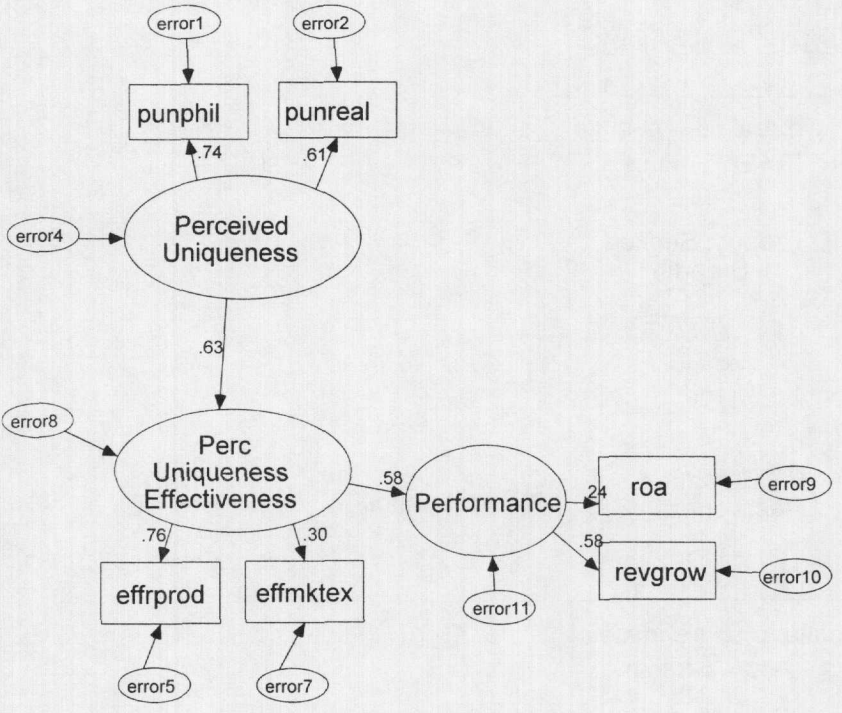


FIGURE 6

SEM Model for the Production/Distribution Efficiency Strategy

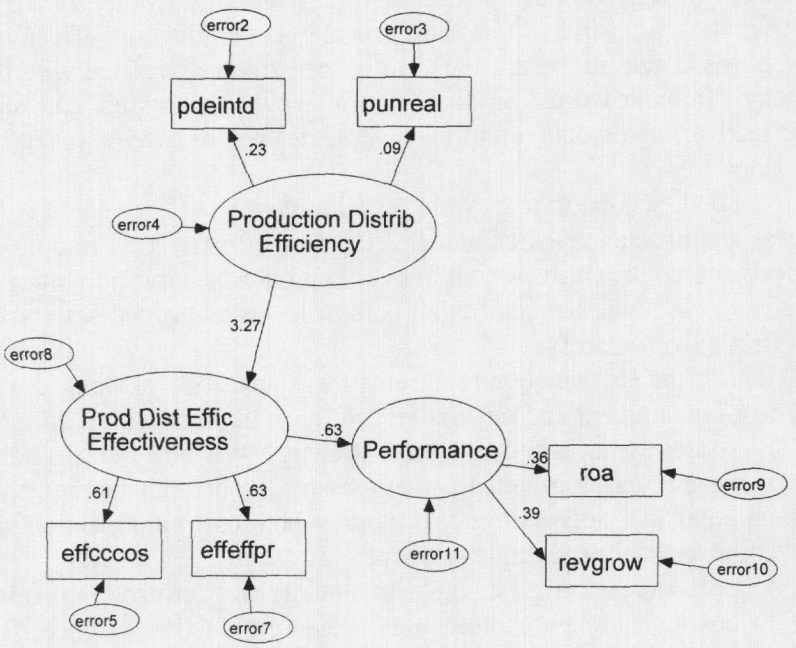


TABLE 6

SEM Models

Model	Chi-Square	d.f.	prob.	NFI	CFI	RMSEA
First Mover	21.198	7	.003	.988	.992	.094
Second Mover	41.134	12	.000	.983	.988	.103
Segment Control	12.547	7	.084	.994	.997	.059
Product/Service Breadth	20.624	7	.004	.989	.993	.092
Perceived Uniqueness	9.058	7	.249	.995	.999	.035
Prod/Dist Efficiency	24.351	7	.001	.988	.991	.104

First, the first mover strategy was positively associated with efficient production. Although theorists have argued that first mover advantages are *necessarily* associated with inefficient activities and risk taking, the data examined in the present study suggests that efficient production is also associated with the strategy's success. Although production efficiency was found to have a positive effect, cost-containment culture and effectiveness in process R&D activities were found to be *negatively* associated with the strategy. In other words, production efficiency, if harnessed, can support the effective implementation of even strategies whose success is not built on efficiency.

Second, second movers were found to possess effectiveness in both process and product research and development efforts. This finding supports the notion of the second mover approach as a hybrid strategy whose success hinges on improving both products and processes associated with first mover successes.

Third, the segment control strategy was positively associated with *both* cost-containment and innovative cultures. In other words, it appears that this strategy may also be a hybrid strategy. Whereas the second mover may be more research-oriented and emphasize the broader market, the segment controller appears to be focused on both cost minimization and innovation, but within a single segment.

Fourth, the perceived uniqueness strategy was positively correlated with the cost-containment culture and efficient production. Hence, producing a differentiated product or service is not sufficient; cost-containment and production efficiency are also critical to the success of organizations emphasizing uniqueness.

In sum, these four points emphasize the complex nature of successful competitive strategies. In some respects, they require necessary trade-offs, referent to Porter's notion of organizations that find themselves "stuck in the middle" when they "combine" strategies. However, superior performance does not appear to be associated with the implementation of a strategy that emphasizes only a single dimension. In other words, concern for both cost- and differentiation-related issues are important to all businesses, regardless of strategy.

TABLE 7

Significant Strategy-Resource Correlations Not Included In Original Propositions

Strategy	Positive Correlations	Negative Correlations
First Mover	Efficient Production	Cost-Containment Culture Process R&D
Second Mover	Cost-Containment Culture Process R&D Product R&D	
Segment Control	Cost-Containment Culture Innovative Culture	Product R&D
Product/Service Breadth	Efficient Production Market Segmentation	Product R&D
Perceived Uniqueness	Cost-Containment Culture Efficient Production	
Production/Distribution Efficiency	Flexible Production Market Segmentation	Innovative Culture

Three additional points also warrant discussion. First, it is possible that effectiveness items (i.e., resources) for the perceived uniqueness models were better developed in the propositions. However, it should be noted that there is no clear theoretical justification to explain why this particular model passed the chi-square test and the others did not. In a similar vein, there is no satisfactory explanation as to why it was necessary to eliminate one of the three measures associated with each strategy to attain the best fit.

Second, the relative weights of the two performance measures--ROA and growth in revenues--varied substantially among the models. This variance suggests that some strategies may be best suited for increases in financial returns, whereas others may contribute most to revenue growth.

Finally, when strategies were linked *directly* to performance, coefficients were negative. Hence, strategies impact on performance is best seen through effectiveness measures, and not through the strategy itself.

FUTURE CHALLENGES

This study lends support to the idea that business performance is a function of the effective deployment of resources associated with the strategy, not simply the content of the strategy. The present study also presents a variety of challenges for future investigation. First, future research should consider additional industries. Indeed, the application of the findings in this study to non-retail businesses should be made with caution. As with most similar studies, it is likely that part of the significant relationships found in the study can be attributed to industry-specific factors.

The second challenge is associated with research methodology. The application of any business strategy framework must allow for valid and reliable measurement if it is to contribute to an understanding of strategy's influence on performance (Barney & Hoskisson, 1990; Ketchen & Shook, 1996; Nayyar, McGee & Thomas, 1989; Thomas & Venkatraman, 1988). The present strategies relied on three measures; additional measures can be added.

Second, future studies may seek a more holistic measurement of performance (Venkatraman & Ramanujam, 1986). While strategy researchers struggle with various performance measures, such as ROA and revenue growth, many companies are beginning to use a mixture of financial and non-financial measures for performance (Kaplan & Norton, 1997; Wiliford, 1997). Researchers should utilize varying measures of performance in future studies reflecting both quantitative and qualitative outcomes. Stock price, earnings share, and other financial measures may be employed.

Third, consideration to managerial consensus—the degree to which managers (especially members of the top management team) agree on strategy—can enhance the validity of the strategy measure. If consensus is linked to performance—an argument advanced by Bowman and Ambrosini

(1997) and others—then one may argue that some competitive strategies 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 be 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).

Finally, this framework provides a unique opportunity to promote practical applications of strategic management research. Indeed, the field has been replete with concerns about its practical relevance (Gopinath & Hoffman, 1995). Critics charge that research that cannot provide strategic managers with improved decision-making abilities does not serve one of the field's primary constituencies (see also Dacko & Sudharshan, 1996). Indeed, the combination strategy is a matter of degree and not of form. As such, tests of the framework proposed in this paper (while following methodological suggestions aforementioned) can move beyond the issue of *whether* strategies can be combined and suggest *which forms* of competitive advantage can likely be pursued in a single coherent strategy.

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 IO model, some combinations appear *more likely* to be effective than others (Wright, Kroll, Pringle, & Johnson, 1990), and such combinations may be common in a given industry, thereby forming strategy groups. 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.

REFERENCES

Arbuckle, J.L. (1997). *AMOS user's guide version 3.6.* Chicago, IL: Smallwaters Corporation.

Bain, J.S. (1956). *Barriers to new competition.* Cambridge, MA: Harvard University Press.

Bain, J.S. (1968). *Industrial organization* (2nd ed.). New York: Wiley.

Baron, D.P. (1995). Integrated strategy: Market and nonmarket components. *California Management Review,* 37(2): 47-65.

Barney, J.B. (1991). Firm resources and sustained competitive advantage. *Journal of Management,* 17: 99-120.

Barney, J.B. (1986a). Strategic factor markets: Expectations, luck, and business strategy. *Management Science,* 32: 1231-1241.

Barney, J.B. (1986b). Types of competition and the theory of strategy: Toward an integrated framework. *Academy of Management Review,* 11: 791-800.

Barney, J.B. & Hoskisson, R.E. (1990). Strategic groups: Untested assertions and research proposals. *Managerial and Decision Economics,* 11: 187-198.

Benavides, L. (1997). John Harvard brews up expansion strategy. *Boston Business Journal,* 17(8: 3-4.

Bentler, P.M. (1980). Multivariate analysis with latent variables: Causal modeling. *Annual Review of Psychology,* 31: 419-456.

Bentler, P.M. & Bonett, D.G. (1980). Significance tests and goodness of fit in the analysis of covariance structures. *Psychological Bulletin,* 88: 588-606.

Berman, B., & Evans, J.R. (2000). *Retail management: A strategic approach.* Englewood Cliffs, NJ: Prentice-Hall.

Bowman, C., & Ambrosini, V. (1997). Perceptions of strategic priorities, consensus and firm performance. *Journal of Management Studies,* 34: 241-258.

Browne, M.W., & Cudeck, R. (1993). Alternative ways of assessing model fit. In Bollen, K.A. & Long, J.S. (Eds.) *Testing structural equation models.* Newbury Park, CA: Sage Publications, pp. 136-162.

Burger, K. (1997). Righteousness pays. *Forbes,* 160(6): 200-201.

Camerer, C., & Vepsalainen, A. (1988). The economic efficiency of corporate culture. *Strategic Management Journal,* 9: 115-126.

Chrisman, J.J., Hofer, C.W., & Boulton, W.R. (1988). Toward a system for classifying business strategies. *Academy of Management Review,* 13: 413-428.

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.

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.

Dierickx, I., & Cool, K. (1989). Asset stock accumulation and sustainability of competitive advantage. *Management Science,* 35: 1504-1511.

Elstrom, P. (1997). The cat keeps on purring. *Business Week,* 3510: 82-83.

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.

Fiegenbaum, A., & Thomas, H. (1990). Strategic groups and performance: The U.S. insurance industry, 1970-84. *Strategic Management Journal,* 11: 197-215.

Fiol, C.M. (1991). Managing culture as a competitive resource: An identity-based view of sustainable competitive advantage. *Journal of Management,* 17: 191-211.

Fudge, T. (1997). Flapjack chain runs out of dough. *Inc.,* 19(14): 25.

Gopinath, C., & Hoffman, R.C. (1995). The relevance of strategy research: Practitioner and academic viewpoints. *Journal of Management Studies,* 32: 575-594.

Grant, L. (1997). GE's 'smart bomb' strategy. *Fortune,* 136(2): 109-110.

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.

Heckelman, J. (1997). Strategy emphasizes total quality management. *Business Forms, Labels & Systems,* 35(10): 96.

Hergert, M.L. (1983). *The incidence and implications of strategic groupings in U.S. manufacturing industries.* Unpublished doctoral dissertation, Harvard University.

Howell, M. (1997). 'Working-class dealership' finds niche in small-town auto sales. *Wichita Business Journal,* 12(25): 23-24.

Hunt, M.S. (1972). *Competition in the major home appliance industry 1960-1970.* Unpublished doctoral dissertation, Harvard University.

Hurst, D, Rush, J., & White, R. (1989). Top management teams and organization renewal. *Strategic Management Journal,* 10: 87-105.

Kaplan, R.S., & Norton, D.P. (1997). Why does business need a balanced scorecard? *Journal of Cost Management,* 11: 5-10.

Katobe, 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., & Orne, D. (1989). Generic manufacturing strategies: A conceptual synthesis. *Strategic Management Journal,* 10: 211-231.

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.

Lemak, D.J., & Arunthanes, W. (1997). Global business strategy: A contingency approach. *Multinational Business Review,* 5(1): 26-37.

Lieber, R.B. (1997). Just redo it: Whenever business slows at sports giant Nike Inc., the company simply renews itself. *Fortune,* 135(12): 72.

Lieberman, M.B., & Montgomery, D.B. (1988) First-mover advantages. *Strategic Management Journal,* 9(Special Summer Issue): 41-58.

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.

Market Guide, Inc., (1997). *Stock quest* (version 2.23). Lake Success, NY: Market Guide, Inc.

Mason, E.S. (1939). Price and production policies of large-scale enterprises. *American Economic Review,* 29: 61-74.

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, 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, NJ: 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.

Nayyar, P., McGee, J., & Thomas, H. (1989). Strategic groups: A comment; a further comment. *Strategic Management Journal,* 10: 101-107.

Nagle, T.T. (1993). Managing price competition. *Marketing Management,* 2: 1, 36-45.

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.

Nouthoofd, N., & Heene, A. (1997). Strategic groups as subsets of strategic scope groups in the Belgian brewing industry. *Strategic Management Journal,* 18: 653-666.

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.

Peter, J.P. (1979). Reliability: A review of psychometric basics and recent marketing practices. *Journal of Marketing Research, 16,* 6-17.

Peteraf, M.A. (1993). The cornerstones of competitive advantage: A resource-based view. *Strategic Management Journal,* 14(3): 179-191.

Porter, M.E. (1980). *Competitive strategy.* New York: Free Press.

Porter, M.E. (1987). From competitive advantage to corporate strategy. *Harvard Business Review,* 65: 43-59.

Porter, M.E. (1973). *Retailer power, manufacturer strategy and performance in consumer goods industries.* Unpublished doctoral dissertation, Harvard University.

Powell, T.C. (1996). How much does industry matter? An alternative empirical test. *Strategic Management Journal,* 17: 323-334.

Ratliff, D. (1996). Baby superstore grows up. *Discount Merchandiser,* 36(2): 22-24.

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.

Rumelt, R. (1984). Towards a strategic theory of the firm. In R. Lamb (Ed.), *Competitive strategic management* (pp. 556-570). Englewood Cliffs, NJ: Prentice-Hall.

Russell, F.M. (1997). Advance capital sees big market in small business. *Puget Sound Business Journal,* 17(35): 27.

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.

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.

Thomas, H., & Venkatraman, N. (1988). Research on strategic groups: Progress and proposals. *Journal of Management Studies,* 25: 537-555.

Thornton, E. (1997). The man who put Honda back in the race. *Business Week,* 3543: 106.

Trollinger, A. (1997). Will Payless' dual path plan lead company to recovery? *Kansas City Business Journal,* 15(32): 3-4.

Venkatraman, N., & Ramanujam, V. (1986). Measurement of business performance in strategy research: A comparison of approaches. *Academy of Management Review*, 11: 801-814.

Wernerfelt, B. (1984). A resource-based theory of the firm. *Strategic Management Journal.* 5: 171-180.

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., 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.

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