

**COMBINATION STRATEGIES REASSESSED:
EVIDENCE FROM U.K. ENGINEERING AND ELECTRONICS FIRMS**

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ABSTRACT

A survey of executives in small and medium sized engineering and electronics manufacturing firms in the United Kingdom suggests positive linkages between performance and the pure business strategies of low cost and differentiation. However, the combination strategy of low cost and differentiation—only when accompanied by an emphasis on marketing—was also found to be positively associated with performance. Implications and future directions are elaborated.

The industrial organization (IO) (Connor, 1991; Nickerson et al; 2001; Porter, 1985) and the resource-based perspectives (Barney, 1995; Barney & Zajac 1994; Miller & Shamsie, 1996; Peteraf 1993; Wernerfelt 1995) both contribute to our understanding of competitive strategy dynamics. The IO view provides a straightforward assessment of the industry structure, whereas the resource-based view also includes some of the complex dimensions of organizational development such as culture, leadership, skills and knowledge aspects (O'Regan & Ghobadian, 2000). Indeed, this debate—now seen as a clash between the positioning (i.e., IO) and resource-based perspectives—has led to differing perspectives on the viability of combining the low cost and differentiation strategies (Mauri & Michaels, 1998).

Many scholars have sought to identify conditions under which the low cost and differentiation strategies can be combined effectively. Evidence supporting the combination strategy has emerged over the last two decades, but an overarching framework to explain the effectiveness of the combination strategy has not yet emerged (Dacko & Sudharshan, 1996). Research advances notwithstanding, the validity of these models in understanding the modern competitive environment has been challenged (Courtney et al., 1997; Markides, 1999). This criticism is grounded in part in the inability of scholars to integrate these perspectives to achieve competitive advantage.¹

Prevailing gaps in combination strategy research are due in part to the fact that most combination strategy research has only considered the “pure strategies” of low cost and differentiation. The combination of three or more pure strategies, as well as the combination of competitive strategies with those at the firm and functional levels has not received sufficient research interest. In addition, competing perspectives on the measurement of performance has made comparisons between the various studies tenuous at best.

We contend that a combination strategy approach that acknowledges the strategic orientation of the firm can be used to determine the potential activities for competitive advantage. This thinking is grounded in the provision of generic strategic choices to firms, each offering the key to gain, attain or regain sustainable competitive advantage. Accordingly, this paper tests for linkages between strategy

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.

and performance among engineering and electronics manufacturing firms in the United Kingdom by focusing on strategic orientation. Additional insight into the combination strategy phenomenon is sought by examining strategies at two levels—competitive and functional—and considering several disparate performance measures.

EMERGENCE OF THE DEBATE: AN HISTORICAL PERSPECTIVE

The Industrial Organization Perspective and Strategic Groups

Within Bain (1956) and Mason's (1939) IO framework of industry behavior, profitability emanates primarily from industry structure. Characteristics of the industry—not the business—are viewed as the key influences on organizational performance (Barney, 1986c). Early strategy researchers challenged the IO perspective, noting its inability to explain large performance variances within a single industry (Ghemawat, 2002). As a result, the strategic group level of analysis was proposed as a compromise between the deterministic, industry level of analysis developed by IO economics and the organizational level of analysis studied by strategic management researchers (Hergert, 1983; Porter, 1981). Strategic groups describe apparent clusters of businesses that exhibit similar or homogeneous behavior within a somewhat heterogeneous industry environment (Fiegenbaum, McGee, & Thomas, 1988; Nouthoofd and Heene, 1997).

Strategic group research has demonstrated group-performance linkages in the brewing (Hatten & Schendel, 1977; Hatten, Schendel, and Cooper, 1978), chemical process (Newman, 1973), 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.² However, not all studies have supported a strong relationship between strategic group membership and performance (McGee & Thomas, 1986, 1992). Ketchen and associates' (1997) meta-analysis found that strategic group membership explained only about eight percent of firm performance. 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

² See McGee and Thomas (1986) for a thorough discussion of the development of strategic group research.

link between strategy and performance appears to be moderated by organization situational variables such as the degree of emphasis on manufacturing and profitability (Davis & Schul, 1993; Zahra, 1993).

Because the strategic group level of analysis seeks to balance two fundamentally different levels of analysis, it gave rise to the development of strategy typologies and ultimately, the combination strategy debate. Business strategy typologies identifying several potentially effective 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).

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, a concern beyond the scope of this paper. Low cost and differentiation were posited as opposites on a continuum. According to Porter (1980:41), a business attempting to combine the two ends up "stuck in the middle."

A low cost strategy is effectively implemented when the business designs, produces, and markets a comparable product more efficiently than its competitors. This approach is generally associated with an emphasis on improving efficiency in production and manufacturing processes, resulting in standard product cycles. Virtually every industry contains a significant 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. 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.

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. This strategy tends to emphasize innovation and new product development.

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 (Kotha & Orne, 1989; Miller & Dess, 1993).

Although Porter's framework is the most widely cited approach, it is not the only one (Mathur, 1988; Miles & Snow, 1978). For example, Miles and Snow's framework identified four alternatives—prospectors, analyzers, defenders, and reactors—the first three of which may lead to superior performance. The Miles and Snow (1978) typology focuses on the process of adjusting to environmental change and uncertainty, and effectively takes into consideration the trade-off between external and internal strategic factors (McKee et al., 1989). Segev (1989) noted that Miles and Snow's poor-performing, inconsistent reactor type may also be equated with Porter's "stuck in the middle" concept.

Porter's typology has been criticized for its conceptual limitations, but its simplicity captures core concepts of strategic positioning that could be viewed as integral ingredients of distinct strategies. The usefulness of these typologies for senior managers lies in their predictive properties in establishing firm output and external market alignment (Gilad & Gilad, 1988; Miller, 1988). Taxonomies or typologies help bring order to the complex set of interrelated phenomena by identifying recurring patterns of decisions that provide a comprehensive, yet parsimonious, orientation to the study of strategy (Slater & Olsen, 2001).

Emergence of the Combination Strategy Debate

As researchers began 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, whereas others found that combination strategies (i.e., low cost *and* differentiation) could be optimal for some businesses.³ Attempts to resolve this conundrum have been confounded by the fact that Porter's approach does not allow for long-term viable combination strategies, whereas Miles and Snow's typology allows for one via the analyzer.⁴

³ Studies utilizing the Miles and Snow typology have also generated conflicting results.

⁴ Wright, Kroll, Pringle, and Johnson (1990) extended the Miles and Snow typology by proposing a high-performing combination strategy--the "balancer". Whereas the analyzer has been viewed as a hybrid strategy, the balancer organization operates in three separate product-market spheres simultaneously.

The first perspective embraces Porter's (1980) original contention that viable business units must seek *either* a low cost or a differentiation strategy to be successful and was supported by a number of early studies (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 identified clear strategic groups, each with its own association with performance. Within this context, a competitive strategy represents a *tradeoff* between two or more alternatives.

This perspective appears to be valid, at least in some situations. For example, if a low cost business possesses cost advantages that cannot be duplicated easily by its competitors, it may be able to benefit from below average pricing. A business whose basis of differentiation cannot be replicated by competitors may also perform particularly well. In such cases, however, combining the two approaches could be detrimental for the business. Similarly, a strategy that emphasizes new product development *costs* the organization resources in research and development, expenses that must be recouped in higher margins or increased sales if the business is to be successful.

However, a second perspective considered the combination strategy to be viable over the long run, and in many cases, to be associated with superior performance (Buzzell & Gale, 1987; Buzzell & Wiersema, 1981; Cronshaw, Davis & Kay, 1994; Hall, 1983, Helms, Dibrell, & Wright, 1997; Hill, 1988; Murray, 1988; Parnell, 1997; Parnell & Wright, 1993; Phillips, Chang, & Buzzell, 1983; Proff, 2000; White, 1986; Wright, 1987).⁵ In general, it was suggested that businesses successfully combining low costs and differentiation utilized synergies to overcome any tradeoffs that may be associated with the combination. For example, to be successful, a manufacturer pursuing a strategy that emphasizes both first-mover advantages and efficiency in production may emphasize the development of new products, which can be produced at lower costs than existing ones. Indeed, a single business might base its

⁵ Although the theoretical differences are clear, membership in one school or the other is not always easy to classify. Most researchers acknowledge limitations of both schools to some degree. Miller and Dess' (1993) assessment of Porter's model, for example, is difficult to classify.

strategy on several facets of competitive advantage, although some combinations may be easier to implement than others.

It should be noted that the notion of tradeoffs suggested by the first perspective have been acknowledged, at least to some extent, by scholars whose research predominantly supports the second perspective. For example, the concept of tradeoffs may be accurate for relatively large industrial firms because of the emphasis in such organizations on the value chain (Fjeldstad & Haanaes, 2001). It may also be appropriate for industries with uncomplicated group structures, high concentration, and relatively homogeneous competitors (Seth & Thomas, 1994).

Interestingly, the dissatisfaction with the IO overtones inherent in strategic group analysis contributed to a renewed interest in firm resources, not strategic group membership, as the foundation for business strategy (Barney, 1991; Collis, 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.⁶ Resource-based proponents have studied such firm-level issues as transaction costs (Camerer & Vepsalainen, 1988), economies of scope, and organizational culture (Barney, 1986a, 1991; Fiol, 1991). Key business-level issues include the analysis of competitive imitation (Rumelt, 1984), informational asymmetries (Barney, 1986b), causal ambiguities (Reed & DeFillippi, 1990), and the process of resource accumulation (Dierickx & Cool, 1989).

The nature of competitive advantage began to take renewed prominence within the new perspective. From the resource-based perspective, competitive advantage occurs when a business 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). Hence, the discussion has evolved from combining strategies to combining resources (Dess, Gupta, Hennart, & Hill, 1995; Feurer & Chaharbaghi, 1994; Robins & Wiersema, 1995). In many cases, researchers adopting the second combination strategy perspective migrated to the resource-based view because its notion of idiosyncratic resources could help explain the validity of the combination strategy.

⁶ See Mahoney & Pandian (1992) for an overview of the utility of resource-based theory in strategic management.

INTERNAL FACTORS AND THE COMBINATION STRATEGY

There is increasing evidence that many, if not most, businesses combine generic strategies, at least to some extent (Doty, Glick, & Huber, 1993; Kotha, Dunbar, & Bird, 1995), and that the forms of combination vary across cultures (Lemak & Arunthanes, 1997; Luo, 1997). However, Porter's "stuck in the middle" admonition should be acknowledged, as environmental and organizational factors may render some forms of combination attractive for a given competitor, while other forms may not be appropriate. This paper accepts the notion that the generic strategies of low-cost leadership and differentiation can and should be combined, at least in many situations. Six internal explanations for an effective combination strategy are elaborated below.

Intended and Realized Strategies

One explanation for the efficacy of combination strategies is associated with the gap between the strategy a business formulates—one that may emphasize a pure approach—and the one it actually implements. Mintzberg and Waters (1985) argued that real-world strategies lie on a continuum between deliberate or intended strategies and emergent strategies that are realized despite, or in the absence of, intentions. Mintzberg's (1978) elaboration of intended and emergent strategies and his conceptualization of strategic deliberateness focused on the differences between strategy formulation and implementation. According to Mintzberg (1989), the *intended* strategy is often different from the one that is actually *realized*. The gap between the intended and realized strategies may result from unforeseen environmental or organizational events, better information that was not available when the strategy was formulated, or an improvement in top management's ability to assess its environment.

The existence of successful combination approaches may be explained by the gap between the intended and realized strategies. The intended strategy may represent a pure approach to competition, whereas the realized strategy may reflect the realities of implementation that necessitate movement toward the middle. For example, a business may develop a low-cost strategy, but existing customers may pressure it to add key features to its product line, thereby raising costs to some extent.

Relationship Between Low Costs and Differentiation

Even if a tradeoff exists between low cost and differentiation, it is not certain that businesses employing both simultaneously will become "stuck in the middle" as Porter contends. The relationship

between low cost and differentiation varies among businesses and is complex. In many industries, buyers may prefer products or services positioned in the middle. A variety of factors may influence whether or not this occurs, including the nature of the industry and sophistication of the buyers.

In contrast to Porter's depiction, a synergistic relationship between the low cost and differentiation strategies has been noted by a number of researchers (Fjeldstad & Haanaes, 2001; Parnell & Wright, 1993). It is possible that success in a single pure generic strategy can lead to success in another. Considering transaction cost theory, for example, cost leadership and differentiation may not occupy 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 organization and the consumer. Since transaction costs are the main component of differentiation and production costs are the main component of cost leadership, the difference between the two strategies is one of degree rather than of kind. 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. Hence, the quality achieved through the differentiation strategy can actually lead to scale economies and consumer prices lower than those of businesses that select low cost strategies (Jones & Butler, 1988).

Success in a single pure strategy can also lead to simultaneous pursuit of the other. High performance attained from an initial emphasis on either low cost or differentiation may increase an organization's slack resources and permit it to pursue the adoption of the other approach (Dess & Davis, 1984). When a key resource or raw material is scarce, securing adequate supply at an attractive cost will ultimately improve a business' cost position without affecting its ability to differentiate its products or services.

In addition, a tradeoff between low costs and differentiation may be viewed as a short run decision. Fjeldstad and Haanaes (2001) referred to this notion as time tradeoffs, the balance between exploiting existing solutions to strategic problems and exploring ways of transcending them. In a similar vein, distinguishing low costs from differentiation may not be appropriate. Because low costs often translate into low prices, the low cost strategy can be viewed as a form of differentiation, not a different

strategy. In other words, offering products or services at lower than the average price level can differentiate a business from its competitors.

The Renewing Organization

Another explanation for the viability of the combination strategy is embedded within the concepts of organizational learning and innovation. The renewing organization seeks constant change during periods of strong performance to maintain industry leadership positions and capitalize on new business opportunities (Hurst, Rush & White, 1989). As such, effective organizations are constantly discovering and implementing means of lowering costs and differentiating its products. Successful implementation of the combination strategy may be especially appropriate for high performers in an industry (Hawawini, Subramanian, & Verdin, 2003; Parnell, 1997; Parnell & Wright, 1993). For example, Nike executives view the company's strategy as a never-ending response mechanism designed to deliver constant strategic change based on shifts in social, nonmarket forces (Baron, 1995; Lieber, 1997).

Multiple Strategies Versus Combination Strategies

Business activity in multiple segments can lead to multiple strategies, an approach that can be easily confused with the combination strategy. It is possible for a business to occupy within two or more segments, a strategy difficult to implement but potentially rewarding. Like many automakers Toyota emphasizes low costs in some vehicles and differentiation with others. 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).

Wide product/service lines serve multiple market segments, can lead to greater efficiencies through resource sharing, and can deter prospective competitors by maintaining a presence in multiple market segments. 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.

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.

Quality Versus Differentiation

The concept of quality should be distinguished from that of differentiation. Confusing the two may lead one to conclude that differentiation necessitates expenditures targeted at enhancing quality. While quality may be utilized as a form of differentiation, this is not always the case. For example, Hambrick (1983) noted that an industry's successful competitors could compete on quality or price, but not both.

Implementing a successful low-cost strategy can contribute to organizational learning, experience, and even restructuring efforts, all of which can enhance product quality *without consciously identifying quality as a means of differentiation*. For example, checks and forms manufacturer Short Run Companies 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.

Resource-Based View

The resource-based view can also explain the viability of the combination strategy. According to IO theory, just as industries may be identified based on similarities shared by its members, strategic groups within the industry can be defined based on strategic commonalties shared by their members. Indeed, the notion of strategic groups is intuitively appealing and emphasizes the similarities among groups of businesses in an industry. However, the notion of pure and combination strategies perpetuated by strategic group thinking may not be appropriate. Rather, resource-based theorists might argue that *all strategies* reflect unique combinations of resources, and that all businesses employ combination strategies to varying degrees.

Innovation can also help a firm develop its base of resources and ultimately influence its strategy. Process innovations can improve an organization's cost position, whereby product innovations are designed to improve a business' basis for differentiation. However, systems innovations (i.e.,

improvements in organizational systems) can improve a business' cost position and its ability to differentiate. Similarly, it has been argued that the fundamental aim of strategy is to *transcend* the apparent tradeoffs in strategic activities by exploring new technologies or ways of doing business rather than to choose between them (Fjeldstad & Haanaes, 2001).

EXTERNAL FACTORS AND THE COMBINATION STRATEGY

A number of changes in the external environments of competitors suggest that the combination strategy can be a viable alternative. Five external explanations for effective competitive strategies are discussed herein.

Industry Dynamics

Since Porter's (1980) framework for analyzing an industry's structure, researchers have noted the role of industry-specific factors in the strategy-performance relationship (Ghemawat, 2002). Indeed, the relative effects of industry and organizational factors on firm performance has been widely debated (Bowman & Helfat, 2001; McNamara, Deephouse, & Luce, 2003; Ruefli & Wiggins, 2003). It is also possible that in stable, mature industries, pure strategies may yield the highest performance levels, whereas combination strategies may be more appropriate in volatile, dynamic industries (Parnell, 1997).

The nature of a given industry may reinforce or preclude a given strategy, albeit a pure approach or a combination. For example, the attractiveness of the warehouse club industry in the United States is directly associated with cost containment. Small business owners and consumers shop at warehouse clubs because they can offer lower prices through high volume and limited service. As such, each of its primary competitors—Costco, Sam's Club, and BJ's Wholesale—have implemented a competitive strategy based primarily on low costs. A differentiation strategy in this industry is probably not feasible.

Disaggregation and Reaggregation

The rise of the Internet and related technologies have resulted in pronounced changes in the strategic management process. The Internet has provided a new channel of distribution, a more efficient means of gathering and disseminating strategic information, and a new way of communicating with customers. The most fundamental change, however, concerns the dramatic shifts in organizational structure promoted in part by the Internet and their influences on viable business models.

During the past two decades, organizations have engaged in a process of disaggregation and reaggregation (Malone & Laubaucher, 1998; Tapscott, Ticoll, & Lowy, 2000). The economic basis for this transformation was proposed by Nobel Laureate Ronald Coase (1990) in what is now referred to as Coase's law: A firm will tend to expand until the costs of organizing an extra transaction within the firm becomes equal to the costs of carrying out the same transaction on the open market. In other words, large firms exist because they can perform most tasks—raw material procurement, production, human resource management, sales, and so forth—more efficiently than they would otherwise be performed if outsourced to the open market. Recent technological advances, most notably the development of the Internet, have reduced the costs of these transactions. As a result, progressive firms have placed less emphasis on performing all of the required activities themselves, and have formed partnerships to manage many of the functions that were previously handled in-house. Hence, it is not uncommon for a number of strategic activities to be performed and managed outside of the firm.

Effect of the Internet on Cost Structures

The development of the Internet and related technologies have modified the traditional cost structures present in many industries. Firms that effectively leverage the Internet can improve speed and flexibility, while lowering costs (Fjeldstad & Haanaes, 2001). The Internet offers numerous opportunities to improve the speed of the actual transaction, as well as the process that leads up to and follows it. Consumers and businesses alike can research information 24 hours a day, and orders placed online may be processed immediately. Software engineers in the United States can work on projects during the day and then pass their work along to their counterparts in India who can continue work while the Americans sleep.

The Internet can foster both low costs and differentiation. It provides many businesses with opportunities to minimize their costs—both fixed and variable—and thereby enhance flexibility. Information can be distributed to thousands or millions of recipients without either the expense associated with the mail system or the equipment required to do so. It can also enable a business to differentiate its products more effectively from those of its competitors by allowing it to target prospective buyers most likely to appreciate the business' form of differentiation.

It is interesting to note that Porter and others have argued that the fundamental strategy-performance relationship has not been altered significantly by the Internet. According to Porter

(2001:72), “many of the pioneers of Internet business...have competed in ways that violate nearly every precept of good strategy...By ignoring strategy, many companies have undermined the structure of their industries...and reduced the likelihood that they or anyone else will gain a competitive advantage.” In essence, Porter contends that the market forces that governed the traditional economy have not disappeared in the Internet economy.

Abrupt Industry Declines

An abrupt decline in an industry can place substantial pressure on competitors pursuing a differentiated strategy to integrate cost reductions. The effect of the September 11, 2001 terrorist attacks on the airline industry is a valid example of this phenomenon. Prior to this date, major airlines such as United, American, Northwest, and Delta attempted to differentiate their coach services on the basis of such factors as in-flight meals, seat leg room, and on-time arrivals.⁷ Following the attacks, however, passenger safety concerns and increased government regulations resulted in a substantial short run decline in demand, especially in the United States. Industry analysts also suggested that American flying habits could change permanently, at least to some extent (Hansson, Ringbeck, & Franke, 2003).

Interestingly, low cost Southwest Airlines was the only major U.S.-based airline—mirrored by Ryanair in Europe—to realize a profit in 2001, a year in which all its larger competitors reported staggering losses. Traditionally, Southwest reduced costs by concentrating on high demand routes, promoting high occupancy of its aircraft, and offering only snacks to its passengers during flights. In late 2001, most large U.S.-based airlines adopted many of Southwest’s tactics, eliminating meals on most routes and reducing the number of flights and cities served to promote higher occupancy. As a result, the *degree* of differentiation employed by these airlines declined considerably (Carey & McCartney, 2003).

Movement Toward Information Symmetry

The increased application of technology, including the Internet, has created a movement toward information symmetry, a state whereby all parties to a transaction share the same information concerning that transaction. Information symmetry is an underlying assumption of the economics-based models of pure competition, and is the primary reason why many markets that might otherwise tend toward pure

⁷ Technically, these airlines employed multiple strategies by offering additional services to business and first class passengers. This example pertains only to their approach to coach passengers.

competition remain marginally competitive. When buyers become more informed, they often become more focused on value, a concept associated with both low costs and differentiation.

METHODS

Because of the myriad of prospective viable strategy combinations, detailed hypotheses were not developed. Rather, this study tests Porter's general thesis that pure strategies would be associated with superior firm performance. Specifically, this study would support Porter's thesis if significant relationships are found *only* between pure strategies and performance. The existence of interactive effects whereby strategy-performance links involve more than a single strategy would suggest the viability of combination strategies.

This study examined 218 engineering and electronics manufacturing firms in the United Kingdom. This sample was selected for a number of reasons. Engineering organizations tend to operate in a mature market, whereas electronic firms operate in a market characterized by short product life cycles. Hence, the presence of a large number of small and medium sized firms within these two sectors provides a diverse sample. Manufacturing firms were chosen because the levels of fixed commitment and capital are typically higher than in service firms (Swartz & Iacobucci, 2000).

Scales were developed to measure strategic emphasis on differentiation, low cost leadership, marketing and customer-orientation, and staff development. The latter two emphases reflect functional rather than business strategies and were included to provide a richer perspective on the strategy-performance relationship. A five-point scale was utilized to measure items in each scale, with five representing much importance and one representing no importance. To ensure reliability of the scales, items in each one were factor analyzed as elaborated below. Complete results are presented in table 1.

 Insert table 1 about here

The four-item scale to measure differentiation on the basis of quality contains items emphasizing better product features, better product durability, better product serviceability, and better product reliability. Factor loadings ranged from .795 to .856 with a coefficient alpha of .842, suggesting high scale reliability.

The three-item scale to measure low cost leadership contained items emphasizing price as a competitive factor, a desire to sell at the lowest price in the market, and lower unit costs. Factor loadings ranged from .663 to .768 with a coefficient alpha of .501. Although a higher coefficient alpha would have been preferred, the sensitivity of alpha to number of items suggests that .50 is acceptable for a three-item scale.

The four-item scale to measure marketing and customer-orientation contained items emphasizing focus on key customers, effective market coverage, flexible market coverage, and flexible operations. Factor loadings for the items ranged from .723 to .830 with a coefficient alpha of .785, suggesting high scale reliability.

The four-item scale to measure staff development contained items emphasizing staff creativity, staff competencies, effective use of the learning curve, and effective staff involvement in decision-making. Factor loadings for the items ranged from .733 to .851 with a coefficient alpha of .827, suggesting high scale reliability.

Factor scores were calculated for each scale and utilized as measures for each of the four areas of strategic emphasis. From a competitive standpoint, actual scores along the various scales are not as important as a firm's position relative to other firms within the same industry. Hence, median splits of the factor scores were utilized so that each organization could be classified as "low" or "high" along each strategic dimension.

In addition to strategy concerns, respondents were also asked to evaluate the effect of their organizations' strategies along five areas: Overall financial performance, customer satisfaction, customer retention, market share, and manufacturing learning. A five-point scale was applied, with five representing a very positive effect and one representing a very negative effect. These areas represent unique perspectives on the multifaceted performance construct.

Top management perceptions of strategy were utilized, an approach consistent with a number of recent studies (Chattopadhyay, Glick, Miller, & Huber, 1999; Hillman & Klein, 2001; Spanos & Lioukas, 2001). Support for reliance on CEO perceptions of strategy can be found throughout the literature. Gioia and Chittipeddi (1991:434) viewed the CEO as "someone who has primary responsibility for setting strategic directions and plans for the organisation, as well as responsibility for guiding actions that will realise those plans." Garg and associates (2003:703) noted that CEOs act on

their perceptions, adding that “the study of strategy processes is likely to benefit most from the use of perceptual measures.” In addition, Westphal and Frederickson (2001) found that top management has a significant influence on strategic direction and change in the organization.

To test for strategy-performance linkages, a multivariate general linear model (GLM) was developed, with measures representing the low-high strategy distinction serving as independent variables and the five strategy effectiveness items serving as dependent variables. To initial statistical tests were performed at the outset, however. Box’s test of equality of covariance matrices produced an F-value of 1.073 and a significance level of .241, suggesting that the covariance matrices for dependent variables are not significantly different. Levene’s test for equality of error variances produced F-values ranging from 0.514 to 1.537 and significance levels ranging from .100 to .930, suggesting that none of the error variances of the dependent variables differ significantly. Hence, the model is suitable for further testing. Results of the multivariate GLM are summarized in table 2.

 Insert table 2 about here

FINDINGS

Results suggest significant effects at a 95 percent confidence interval for the effects of the differentiation, marketing, and staff development strategies alone and for the combinations of differentiation-marketing and low cost-marketing. At a 90 percent confidence interval, the solo effect of the low cost strategy and the three-way combination of differentiation-low cost-marketing were also significant. No other combination effects were significant (see table 3). Given limits placed on the number of organizations in each cell, relaxing the confidence interval to 90 percent was deemed appropriate for this study. In the present study, utilizing the 90 percent confidence interval provides greater insight into possible courses of future research without compromising the findings that would be suggested if a 95 percent confidence interval had been strictly employed.

 Insert table 3 about here

These findings did not lend support to Porter's general thesis that positive strategy-performance linkages should only be found when pure strategies are considered. The existence of performance linkages when the differentiation-marketing and low-cost-marketing combinations are considered suggests that effective marketing can support either a low-cost or a differentiation approach. The existence of a performance linkage with a three-way combination of low-cost, differentiation, and marketing suggests that the low cost and differentiation strategies may work in concert, especially when an emphasis on marketing is also involved.

Although the application of a 90 percent confidence interval suggests the need for additional research, this finding could provide a possible explanation for disparities among studies addressing the combination strategy-performance linkage. It has been widely accepted that industry factors influence the nature of the strategy-performance relationship, but it is also possible that the effectiveness of certain competitive strategies—including combinations—may be associated with the implementation of functional strategies designed to support them

The performance effect of an emphasis on differentiation based on quality was significant along the performance dimensions of customer satisfaction and market share. This finding supports Porter's original thesis that an emphasis on differentiation alone should be positively associated with organizational performance.

The performance effect of an emphasis on low cost leadership was significant along the performance dimension of manufacturing learning. This finding also supports Porter's original thesis that an emphasis on low cost leadership alone should be positively associated with organizational performance. A low cost leadership strategy involves competitive factor pricing based on lower unit costs. It is generally associated with a focus on production and manufacturing processes. Manufacturing learning also focuses on the adoption of new products and/or processes to increase competitiveness and overall profitability, as well as new ways of identifying the needs of new and existing customers (Mone et al., 1989). The influence of a low cost leadership strategy on manufacturing learning is particularly appropriate to SMEs given their renowned ability to learn quickly (Vossen, 1998).

The performance effect of an emphasis on marketing was significant along the performance dimensions of customer retention and manufacturing learning. Most successful large firms expressly

focus on the needs of existing and potential customers. A strong customer orientation can ensure that customer needs are effectively met using greater manufacturing learning.

The performance effect of an emphasis on staff development was also significant along the performance dimensions of customer retention and manufacturing learning. Staff development and creativity aims to maximize staff competencies by focusing on more effective use of the learning curve. This means that new ways of identifying and meeting existing and new customer demands are more likely. This means that customer retention is also likely to be emphasized.

The effect of an emphasis on the combination of differentiation and marketing on performance was significant along the performance dimensions of overall financial performance. Differentiation involves better products based on features, durability, serviceability and reliability. Focusing differentiated products on customer needs is arguably one of the main ways towards achieving increasing productivity and overall financial performance. Whether or not this is an industry-specific phenomenon is inconclusive.

The effect of an emphasis on combination of low cost and marketing on performance was significant along the performance dimensions of customer retention. This means that customers likely to defect to other suppliers are attracted by low cost. Arguably, these customers prefer standard products. Whether or not this effect is more prominent among engineering and electronics firms is not clear.

The effect of an emphasis on the three-way combination of differentiation, low cost, and marketing on performance was significant along the performance dimension of market share. Hence, it is possible that the combination of more than two competitive emphases may result in superior performance.

LIMITATIONS, CONCLUSIONS & FUTURE RESEARCH

Before conclusions can be suggested, four limitations should be acknowledged. First, the present study considered only a limited number of pure and combination strategies. Low-cost and differentiation were considered at the competitive level but were not dissected further. Only two functional strategy emphases were considered as well.

Second, the present study considers differentiation along the lines of quality. However, the concept of quality should be distinguished from that of differentiation. Confusing the two may lead one to conclude that differentiation necessitates expenditures targeted at enhancing quality. While quality

may be utilized as a form of differentiation, this is not always the case. For example, Hambrick (1983) noted that an industry's successful competitors could compete on quality or price, but not both.

Third, the present study considered subjective measures of performance along a variety of dimensions but it did not incorporate actual financial measures. In many studies, financial measures of performance provide objective artifacts of an organization's performance. Accounting data such as return on assets (ROA), return on investment, revenue growth, and market share have been applied to numerous studies. Proponents of using financial measures emphasize the objectivity associated with comparing the performance level of various business units along standardized lines. Although financial measures remain the most popular and widely accepted approach in strategy-performance studies, non-financial measures include subjective areas of performance such as ethical behavior and stakeholder satisfaction with performance. Nonetheless, although viewing performance through a non-financial lens can provide insight into organizational process and outcomes that cannot be seen via financial measures, it is also the more subjective alternative. Interestingly, turnover/sales is the most commonly used performance indicator among small firms (Delmar, 1997).

Finally, a distinction should be made between the concept of a combination strategy and multiple strategies. When a combination strategy is employed, a business implements a *single* strategy utilizing components of two or more pure strategies. When multiple strategies are employed, however, a business implements more than one different strategy simultaneously, each for a different market segment. For example, 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). It is difficult to distinguish empirically between businesses implementing combination strategies and those implementing multiple strategies.

Several conclusions are noteworthy. First, the present study suggests that some, but not all combination strategies may be associated with performance. Hence, the combination strategy-performance debate must encompass various forms of combination. As such, research 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, and such combinations may be common in a given industry, thereby forming strategy groups. 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.

The present study identified effective combinations between business-level strategies (i.e., low cost and differentiation) and functional level strategies (e.g., marketing). It is possible that inconsistencies in the literature concerning the strategy-performance relationship may emanate from the consideration of only business-level strategy combinations. Considering business strategy combinations with functional or even firm level strategies may yield additional insight.

Second, the present study suggests that different strategies and strategy combinations effect organizational performance in different ways (Hawawini, Subramanian, & Verdin, 2003). In a similar vein, these findings suggest that the specific strategy-performance relationships identified as significant in a given study may change substantially when different performance measures are utilized. Indeed, 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).

Researchers adopting different perspectives often disagree on methodological issues. Miller and Friesen (1986) contend that studies by researchers supporting the first school 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 databases utilized in many of the first school studies—including the PIMS database—do not necessarily constitute representative samples (see also Zeithaml & Fry, 1984). Researchers including Barney and Hoskisson (1990) and Ketchen and Shook (1996) questioned the validity of many strategy-performance studies, which utilized cluster analysis, a technique commonly utilized by first school research. Others contended that the data collection techniques of second school studies, many of which utilize top executive and perceptual data, were not necessarily valid or reliable (Golden, 1992).

Interestingly, obtaining measures of performance for smaller firms is notoriously difficult. According to Laitinen (2002), performance can be defined as the ability of an object to produce results in a dimension determined a priori, relative to a target. He also suggests that a well-organized system of performance measurement may be the single most powerful mechanism at management's disposal to enhance the probability of successful strategy implementation. Nevertheless, Daily et al (2002) suggest that there is a distinct lack of consistency in what constitutes firm performance.

Three specific opportunities for future research on the effectiveness of combination strategies have been identified. First, additional studies can expand the taxonomy of competitive strategies beyond low cost and differentiation, possibly including various forms of differentiation (e.g., Miller, 1986). Further, studies can refine and examine additional functional strategies, such as an emphasis on the application of technology or specific compensation and reward programs. The efficacy of various combinations between competitive and firm level strategies is also worthy of consideration.

Second, additional studies can expand and refine the measurement of performance, including the use of financial measures. Acknowledging the various dimensions of performance and the relationships among them is a critical part of the analysis. For example, high customer retention may be positively associated with financial returns per se, whereas the programs employed to raise customer retention may ultimately lower financial returns. Understanding the complexity of these relationships is key to understanding the combination strategy-performance linkage.

Third, the refinement of scales to measure strategy emphasis is needed. It is possible, however, that in some cases different scales may be required for different industries, an approach that can improve the richness of research findings while creating generalizability challenges.

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Table 1. Strategy Measurement Scales

<u>Scale Item</u>	<u>Factor Loading</u>
<u>Differentiation (alpha=.842)</u>	
Better product features and most competitors	.795
Better product durability than most competitors	.856
Better product serviceability than most competitors	.805
Better product reliability than others	.839
<u>Low Cost Leadership (alpha=.501)</u>	
Competitive factor price	.768
Desire to sell at the lowest price in the market	.501
Emphasis on lower unit costs	.663
<u>Marketing and Customer-Orientation (alpha=.785)</u>	
Focus on key customers	.785
Effective market coverage	.786
Flexible market coverage	.830
Flexible operations to meet customer needs	.723
<u>Staff Development (alpha=.827)</u>	
Focus on the development of staff creativity	.832
Focus on the development of staff competencies	.851
Effective use of the learning curve	.733
Effective staff development in decision making	.829

Table 2. Multivariate Test Results

<u>Effect</u>	<u>Pillai's Trace</u> <u>F-value</u>	<u>Significance</u> <u>Level</u>
Differentiation	2.308	.048
Low Cost	2.150	.063
Marketing	2.621	.027
Staff Development	3.832	.003
Differentiation * Low Cost	1.133	.346
Differentiation * Marketing	2.715	.023
Differentiation * Staff Development	1.313	.262
Low Cost * Marketing	2.341	.045
Low Cost * Staff Development	0.383	.860
Marketing * Staff Development	1.295	.270
Differentiation * Low Cost * Marketing	1.936	.092
Differentiation * Low Cost * Staff Development	0.448	.814
Differentiation * Marketing * Staff Development	1.480	.200
Low Cost * Marketing * Staff Development	1.357	.244
Differentiation * Low Cost * Marketing * Staff Development	1.579	.170

Table 3. Dependent Variables Significant at the 90 Percent Confidence Interval.

<u>Source</u>	<u>Dependent Variable</u>	<u>Signif. Level</u>
Differentiation	Customer satisfaction	.098
	Market share	.005
Low Cost	Manufacturing learning	.020
Marketing	Customer retention	.001
	Manufacturing learning	.067
Staff Development	Customer satisfaction	.093
	Manufacturing learning	.002
Differentiation * Marketing	Overall financial performance	.008
Low Cost * Marketing	Customer retention	.057
Differ. * Low Cost * Marketing	Market share	.017