

## **Outperforming the Competition in Each Stage of the Industry Life Cycle**

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*Today, businesses across the industrial landscape are feeling the heat from multiple stakeholders demanding superior products, services, and financial returns while achieving outstanding performance is becoming increasingly difficult. Organization researchers suggest that firms that can align their competitive strategies with the requirements of their environments can cope with these formidable challenges. One approach to coping with environmental requirements is for a firm to identify the stage of its industry's life cycle and then formulate and implement a competitive strategy that effectively responds to the opportunities and threats present in that life cycle stage. We examine competitive strategy-performance relationships of small manufacturing firms competing in four industry life cycle stages – introduction, growth, maturity, and decline. Results indicate that strong pursuit of some competitive strategies generate greater increases in financial performance within and across industry life cycle stages than does strong pursuit of other strategies. Also, some strategies are sustainable across multiple stages while others are effective in only one stage.*

### **INTRODUCTION**

In each stage of an industry's life cycle, companies seeking to outperform their competitors face the challenge of selecting the most effective competitive strategy. Competitive environments and firms' performance objectives may vary considerably across industry life cycle stages. Thus, competitive strategies that perform the best may also differ. For example, firms competing in the introduction stage face a high degree of uncertainty as to who their competitors and target customers are and the amount and nature of demand for their products. Sales growth is the primary financial objective while profitability is of secondary importance. On the other hand, in a mature industry, both competitors and customers are generally well known, and demand is relatively stable and predictable. While sales growth remains a key measure of performance, profitability is more or equally important. Given such variance in indicators of financial success, and significant differences in environmental conditions across the

various industry life cycle (ILC) stages, choosing the most effective competitive strategy to pursue in a particular ILC stage is a very challenging task.

Although a host of theoretical studies has explored the relationship between strategy, ILC, and performance (Grant, 1991; Hofer, 1975; Porter, 1980; Wright, et.al., 1996) few empirical studies have examined this relationship (Anderson & Zeithaml, 1984; Hambrick, et.al., 1982). Moreover, in examining this relationship, the maturity stage has been the stage of primary focus while a paucity of studies have considered the introduction, growth, and decline stages. Another limitation of prior studies is their use of piecemeal frameworks (i.e., approaches that assess pairwise relationships between individual strategic actions and performance measures) rather than relationships between performance measures and competitive strategies. Such piecemeal approaches also fail to capture the holistic nature of competitive strategy (Venkatraman & Prescott, 1990; Tan & Litschert, 1994). That is, a competitive strategy consists of a set of coherent, complementary strategic actions not a singular competitive action. As a result of the aforementioned limitations, the results of prior studies are inconclusive and provide little useful guidance to managers.

## METHODS

### Survey of Small Manufacturing Firms

We collected data for our study from small manufacturing firms operating single businesses that conformed to the Small Business Administration's definition of a small manufacturing firm – an independently owned and operated producer of goods or materials, not dominant in its market, and employing less than 500 people. Key characteristics of the firms and a tabulation of the broad industrial sectors in which they competed are presented in Table 1. Questionnaires were mailed to the CEOs of 500 small manufacturing firms randomly selected from a mid-western state's directory of manufacturers. The questionnaire was pilot-tested and modifications were made where necessary to increase the clarity of the questions. The response rate was 21.4 percent.

**TABLE 1**  
**FIRM CHARACTERISTICS AND INDUSTRIAL SECTORS**

<b>Size</b>
Number of Employees: 4 to 480 (Median: 94)
Revenues: \$250,000-\$219,000,000 (Mean: \$15,814,900)
<b>Age</b>
2 years-92 years (Mean: 45.9 years)
<u>Industrial Sectors (Number of Firms)</u>
Consumer Durables (13)
Consumer Non-Durables (8)
Capital Goods (33)
Industrial Sub-Components (28)
Industrial Supplies (11)
Raw Materials/Semi-Finished Goods (8)

## **Framework**

Our study sheds light on which competitive strategies yield superior performance in each of the four basic ILC stages – introduction, growth, maturity, and decline. The study employs a comprehensive framework of competitive strategies based on the popular generic competitive strategy frameworks developed by Porter (1980) and Mintzberg (1988) along with further research proposing combination competitive strategies (Hill, 1988; Murray, 1998; Miller & Dess, 1993). Also, in recognition of the relative importance that executives place on measures of financial performance depending upon the stage of the ILC in which their firms compete, three performance measures were used – sales growth for the introduction stage, a composite measure (sales growth, profit growth, amount of profit, return on sales (ROS), return on assets (ROA), return on investment (ROI)) for the growth and maturity stages, and a composite measure (amount of profit, ROA, ROS, and ROI) for the decline stage. Using this approach, we identified generic and combination competitive strategies that yielded the highest levels of performance in each of the stages of the ILC, as well competitive strategies that produced superior performance across two or three stages.

## **The Industry Life Cycle**

For more than two decades, strategists have considered the ILC a key variable in selecting an appropriate competitive strategy to pursue (Hofer, 1975). The strategic importance of the ILC is based on the fact that environmental conditions (e.g., the intensity of competitive forces, the abundance and variety of opportunities and threats) vary substantially depending upon the stage of an industry's life cycle. Each stage has different implications regarding the effectiveness of alternative competitive strategies. For example, a competitive strategy that is effective in an industry's introduction stage, when building product acceptability is of primary importance, may not be effective in the maturity stage, when price competition tends to dominate. Thus, managers are confronted with formulating and implementing competitive strategies that enable their firms to take advantage of environmental opportunities and to minimize or eliminate threats given the stage of the industry's evolution.

Although the ILC model can be a useful tool in determining an appropriate competitive strategy, a major caveat must be considered in using it: industry life cycles vary considerably in shape (i.e., the number of cycles) and duration (i.e., length of time) (Grant, 1991). The traditional ILC model, which was used in this study, consists of four distinct stages or competitive environments – introduction (embryonic), growth, maturity, and decline (Grant, 1991). Other models include the boom, the bust, and the fad (Evans & Berman, 1992). We used the traditional model because industries generally evolve through at least four stages, and we wanted to overcome a major limitation of previous research – the virtually exclusive focus on mature industries when examining the relationship between competitive strategy and firm performance. Thus, we examined the relationship in the aforementioned four industry environments.

A multi-item scale of eight variables was used to determine the stage of the ILC in which each firm was operating. For each variable, the respondents (CEOs of the firms) were asked to circle a number (1, 2, 3, or 4) corresponding to the term which most accurately reflected the condition in their industry environment (see Table 2). Each author independently assigned each firm to an ILC stage based on his individual analysis of the CEO's responses. Growth in sales was the key variable in determining the assignment of a firm to a particular ILC stage. We analyzed the CEO's pattern of responses to the sales growth variable and the other seven

variables to determine the appropriate ILC stage assignment. In our first round of assignments, agreement was 90 percent. We resolved our differences on the remaining 10 percent by discussing each individual case. The rate of growth of industry sales was the pivotal variable in determining the appropriate assignment. Of the 97 firms providing sufficient data, the assignments were: introduction stage – 20 firms, growth stage – 13 firms, maturity stage – 57 firms, and decline stage – 7 firms.

**TABLE 2**  
**INDUSTRY LIFE CYCLE VARIABLES**

Variable	Descriptive Action or Characteristic			
	1	2	3	4
1. During the past five years, industry sales	increased slowly	increased rapidly	stabilized	declined
2. Customers' willingness and ability to purchase the industry's products has	just begun	grown rapidly	peaked	declined
3. Most of the industry's products are	brand new	improving in design & quality	uniform & well established	becoming obsolete
4. For the vast majority of prospective customers, information about the industry's products is	just being disseminated	increasingly available	widely available	no longer necessary
5. Over the past five years, plant capacity of firms in the industry has generally	exceeded demand	not kept up with demand	about equaled demand	increasingly exceeded demand
6. Prices for most of the industry's products are	very high	High	low	very low
7. During the past five years, the number of different types of outlets through which firms in the industry distribute their products has	increased slowly	increased rapidly	stabilized	declined
8. Over the past five years, the amount of money spent by firms in the industry on advertising or promotion has	increased rapidly	increased slowly	changed very little	declined significantly

### **Competitive Strategies**

During the past two decades, strategy scholars introduced several competitive strategy frameworks (Mintzberg, 1988; Miles & Snow, 1978). Arguably, the most popular and widely used of these among strategic managers and strategy researchers is Michael Porter's generic strategies (Porter, 1980). Porter asserts that there are two basic ways that firms can secure sustainable competitive advantage – being more efficient than rivals (i.e., cost leadership) or providing some uniqueness that customers value (i.e., differentiation). In combining these two types of competitive advantage with the scope of a firm's activities, he developed a framework of four generic competitive strategies – cost leadership, differentiation, cost focus, and differentiation focus.

Porter also asserted that in order for a firm to attain a competitive advantage it must choose between differentiation and low cost because successful implementation of the two strategies requires different capabilities and organizational structures. Moreover, he theorized that if a firm

tries to attain competitive advantage on both dimensions simultaneously, it would at best be a mediocre performer with no competitive advantage. However, in a recent meta-analysis study (a quantitative, structured analysis of empirical studies examining a theoretical relationship), Campbell-Hunt (2000) found minimal support for this hypothesis.

Building on Porter’s model, Mintzberg (1988) developed a competitive strategy framework based on (1) his belief that generic strategies are strategies that “distinguish the core business,” (2) his view, contrary to Porter’s, that cost leadership is just another form of differentiation (i.e., price differentiation), and (3) agreement with Porter that scope of activities is also a means of distinguishing the core business. Mintzberg’s framework of six differentiation strategies is shown in Table 3.

**TABLE 3**  
**MINTZBERG’S DIFFERENTIATION STRATEGIES**

<b>Strategy</b>	<b>Description</b>
Price Differentiation	Differentiating by charging a lower price for a product than competitors.
Image Differentiation	Using marketing to create a distinctive image for a product even though differences with competitive products are merely cosmetic.
Support Differentiation	Differentiating by providing a distinctive service prior to the purchase, during the purchase, or after the purchase of a product.
Quality Differentiation	Offering a superior quality product based on its reliability, durability, or superior performance.
Design Differentiation	Offering a product possessing unique features.
Undifferentiation	Possessing no basis of differentiation – a copycat.

Although Mintzberg noted that other writers had observed that some Japanese automobile manufacturers (e.g., Nissan, Toyota) have successfully combined cost leadership and some form of differentiation (e.g., quality), simultaneously, he did not include any such combination strategies in his competitive strategy framework. We, too, are aware of highly successful companies, Sony and Pioneer, for example, in consumer electronics that have simultaneously pursued cost leadership and some type of differentiation. Moreover, small firms, the focus of our study, typically have highly flexible, efficient structures and processes that may enable them to satisfy simultaneously the requirements of low cost (efficiency) and differentiation (flexibility). Thus, we expect to find some firms in our study that pursue combination strategies as well as generic ones.

We have also observed, contrary to Mintzberg’s assertion, that low cost leaders do not always offer lower prices than their competitors. Some do while others set prices at market. For example, the candy maker, Tootsie Roll Industries, Inc., the low cost leader in its market niche, sets prices at market rather than below market. Thus we agree with Porter that cost leadership is a distinctive way of gaining competitive advantage not another form of differentiation as Mintzberg asserts. Based on our analysis of Porter’s and Mintzberg’s models, we developed a competitive strategy framework that incorporates (1) Porter’s original two forms of competitive advantage, cost leadership and differentiation, (2) Mintzberg’s differentiation strategies, and (3) combination strategies (Dess & Davis, 1984; Miller, 1988). In addition, Mintzberg’s dimension, scope (i.e., the breadth of products and services offered), is not applicable to our study of small manufacturing firms since small firms have narrow scopes.

We used 23 variables to operationalize the generic strategies, 11 of which were derived from operationalizations of Porter's generic strategies by Dess and Davis and Miller, the remaining 12 variables were based on our analysis of Mintzberg's differentiation strategies. Respondents indicated the extent to which their firms emphasized (no emphasis to major/constant emphasis) each of the strategic actions during the past three years. Five competitive strategy dimensions corresponding to our a priori expectation were derived from an exploratory factor analysis, the factor solution accounting for 64.5% of the variance. Each factor had an eigenvalue greater than one. The competitive strategy dimensions were interpreted as: innovation differentiation (alpha = 0.86), marketing (image) differentiation (alpha = 0.80), quality differentiation (alpha = 0.78), service differentiation (alpha = 0.71), and low cost leadership (alpha = 0.84).

Our framework consists of both generic and combination competitive strategy dimensions. The generic competitive strategy dimensions include (1) Porter's cost leadership, (2) Mintzberg's differentiation strategy dimensions – image differentiation, support differentiation, design differentiation, and quality differentiation. In developing the combination strategy dimensions, we recognized that combination strategies are not limited to combining cost leadership and various forms of differentiation but can also include combining different forms of differentiation. For example, firms can gain competitive advantage by combining innovation differentiation and marketing differentiation (e.g., Pfizer, Intel). Although combination strategies can consist of two or more generic competitive strategies, in the interest of simplicity, we limited our study to combinations of only two generic strategy dimensions in examining the relationship between competitive strategy and performance across the four ILC stages. Employing this constraint yielded 10 combination competitive strategy dimensions as shown in Table 4 along with the six generic competitive strategy dimensions.

**TABLE 4**  
**GENERIC AND COMBINATION COMPETITIVE STRATEGIES**

<b>Strategy</b>	<b>Description</b>
<b>Generic Strategies</b>	
Innovation Differentiation	Offering a product possessing unique features or performance characteristics.
Marketing Differentiation	Using marketing to create a distinctive image for a product even though differences with competitive products are merely cosmetic
Service Differentiation	Differentiating by providing a distinctive service prior to the purchase, during the purchase, or after the purchase of a product.
Quality Differentiation	Offering a superior quality product based on its reliability or, durability.
Low Cost Leadership	Striving to be the lowest cost producer in the industry.
<b>Combination Strategies</b>	
Innovation Differentiation + Marketing Differentiation	Simultaneously pursuing innovation differentiation and marketing differentiation.
Innovation Differentiation + Service Differentiation	Simultaneously pursuing innovation differentiation and service differentiation.
Innovation Differentiation + Quality Differentiation	Simultaneously pursuing innovation differentiation and quality differentiation.
Marketing Differentiation +	Simultaneously pursuing marketing differentiation and service

Service Differentiation	differentiation.
Marketing Differentiation + Quality Differentiation	Simultaneously pursuing marketing differentiation and quality differentiation.
Service Differentiation + Quality Differentiation	Simultaneously pursuing service differentiation and quality differentiation.
Low Cost Leadership + Innovation Differentiation	Simultaneously pursuing low cost leadership and innovation differentiation.
Low Cost Leadership + Marketing Differentiation	Simultaneously pursuing low cost leadership and marketing differentiation.
Low Cost Leadership + Service Differentiation	Simultaneously pursuing low cost leadership and service differentiation.
Low Cost Leadership + Quality Differentiation	Simultaneously pursuing low cost leadership and quality differentiation.

### **Firm Performance**

In measuring firm performance we used the CEOs' assessments of how well their firms performed against several indicators of financial performance, including sales growth and several measures of profitability (Dess & Robinson, 1984). Although organizational researchers generally agree that objective measures of performance are preferable, when studying small firms, reliable, accurate objective measures of their performance is normally not available because small firms are usually privately held and are not required by law to publish their financial results nor are they usually willing, as Dess and Robinson report, to provide such information to outsiders. Even when such data is made available its accuracy is questionable because it is usually unaudited. Thus researchers desiring to include the performance of small firms in their empirical studies often resort to subjective measures. We used a modified approach developed by Naman and Slevin (1993). CEOs responding to the questionnaire indicated on five-point scales ranging from very unimportant to very important the degree of importance they placed on each of six financial performance indicators that included: sales growth and five profitability metrics – (1) growth in net profit, (2) return on sales, (3) return on investment, (4) return on assets, and (5) total amount of net profit. In addition, the respondents were asked to indicate the extent of their satisfaction (ranging from very dissatisfied to very satisfied) with their firms' performance on each of the six performance indicators. To determine each firm's overall financial performance the six satisfaction scores were multiplied by their importance ratings and the result averaged to construct a composite measure of performance.

The composite performance measure was used in assessing performance in the growth and maturity stages because sales growth and profitability are key indicators of performance in those stages. For the introduction stage, sales growth was used as the performance measure because firms competing in this stage are most concerned with growth while profitability is relatively unimportant. On the other hand, in the decline stage of the ILC, sales growth is relatively unimportant while profitability is key. Thus a composite profitability measure consisting of the five profitability metrics was used for assessing performance in the decline stage.

## RESULTS

### **Effective Competitive Strategies in the Introduction (Embryonic) Stage**

An industry that is being formed is in its introduction (or embryonic) stage. Small pioneering companies, innovative new products, first-time buyers, low consumer demand, and competing technologies characterize this stage (Hill & Jones, 1998; Onkist & Shaw, 1989). Customer awareness and acceptance of the new products reflected in purchases determines the viability of the embryonic industry and thus the survival and success of its members.

Customer awareness of the industry's new innovative products can be created in several ways – free publicity generated by the business press; press releases by pioneering firms; advertising and promotional campaigns targeting early adopters (i.e., customers that habitually seek out new products); and word-of-mouth. Customer awareness, while important, is not sufficient to stimulate actual purchases. Purchasers must perceive the products as creating something they value (Grant, 1991). The initial and primary purchasers of an embryonic industry's products are early adopters, who value products with unique features or designs (Onkist & Shaw, 1989). Thus, innovation differentiators, firms producing and marketing truly distinctive products, should experience outstanding sales growth arising from the purchases of customer innovators. Indeed, we found that firms that vigorously pursued innovation differentiation (ID) realized significant growth in sales – the stronger the emphasis on this competitive strategy the higher the growth in sales. Apparently, as generally expected, in embryonic industries, firms with a distinctive competency in new product development do have a competitive advantage.

We also found that strong pursuit of the combination of ID and marketing differentiation (MD) is associated with higher sales growth. This result is reasonable because a distinctive competency in marketing enables firms to create the awareness required for new products while ID delivers the product uniqueness required.

One factor often contributing to low consumer demand in the introduction stage is poor product quality (Hill & Jones, 1998; Utterback & Abernathy, 1975). Many new products do not possess the reliability and dependability that more discerning customer innovators demand. While these buyers are attracted to innovative products, product quality is also of primary importance to them. Thus, in embryonic industries, firms with high quality offerings should receive the patronage of quality conscious buyers. In our study, strong pursuit of quality differentiation (QD) did lead to higher growth in sales. Moreover, as one might anticipate, strong pursuit of the combination strategy of innovation and quality differentiation (IDQD) also yielded higher sales growth.

In summary, we found four competitive strategies – ID, QD, IDMD, and IDQD – to be more effective in the introduction stage than other competitive strategies examined. These results have several implications. First, in embryonic industries, differences in customer requirements – innovative product features, product quality, and innovative features/product information – create strategic choice for competing firms. There is no one best strategy that firms must pursue. Second, although strategic choice is operational, choice is constrained, as there are only four alternative competitive strategies from which to choose, if a firm's goal is higher sales growth. Third, in order for a firm to take advantage of customer requirements for innovative product features, product quality, or innovative features/product information, it must have a distinctive competency in new product development, total quality management, or and marketing, respectively.

### **Effective Competitive Strategies in the Growth Stage**

Rapidly increasing demand, the entrance of newly formed companies and existing firms competing in other industries, multiple product and process technologies, and increasing availability of information about competing products and firms characterize the growth stage of industry evolution (Grant 1991; Macdonald, 1985). Customer innovators joined by many new first-time buyers with different needs and desires create a variety of market niches (Porter, 1980). Some customers base their buying decisions on the images associated with particular companies, their products, or the channels through which the products are sold (Mintzberg, 1988), while other customers are attracted to firms offering distinctive services (Porter, 1980), and still others are captivated by products of superior quality. Moreover, other firms that have the lowest overall production, marketing, and administrative costs are well positioned to realize significant increases in sales and profitability by offering below average prices to price-conscious buyers (Macdonald, 1985). Enjoying this smorgasbord of opportunities, firms position themselves in the niches in which they can best utilize their competencies and other resources to achieve superior performance. Thus, there are many alternative competitive strategies that may be equally effective in the munificent growth stage of the ILC (Miller & Dess, 1993). Our study supported this idea. Firms that strongly pursued low cost (LC) as well as firms that differentiated on the basis of quality, innovation, image, and service all achieved higher levels of overall financial performance. Moreover, firms implementing each of the combination strategies also realized higher levels of overall financial performance. Thus all of the competitive strategies examined proved highly effective in the growth stage. Apparently, growth markets in general are highly differentiated thus offering many niches that support different product/service emphases or different competitive strategies.

The foregoing discussion and our findings suggest that in munificent environments, many strategic choices are available to firms that enhance their performance. Unlike the embryonic stage where limited opportunities constrained the range of viable strategic options, the abundance of opportunities present in the growth stage set no limits on the choice of viable strategies. Thus, in the growth stage of the ILC, there is little constraint on strategic choices and no best strategy that firms must pursue. The risk of choosing an ineffective strategy is reduced because high levels of performance can be achieved by pursuing any number of competitive strategies. In the growth stage of the ILC, firms must pursue strategies that best align with their core capabilities. Such firms will stand to enhance their performance because of the existence of a variety of product-market niches that reflect differing customer needs.

### **Effective Competitive Strategies in the Maturity Stage**

The maturity stage of industry evolution is characterized by slow or no growth in demand for the industry's products, however total demand exceeds that of the growth stage (Porter, 1980). In addition, well informed and demanding customers, widespread availability of information on the industry and its products or services, intense price or market share competition, a standard product design or a few dominant product designs, and increasing emphasis on reducing operating costs and improving processes are found (Grant, 1991; Hill, 1988; Utterback, 1994). These conditions prescribe a less munificent environment (i.e., fewer opportunities and more threats) than that of the growth stage. As a result, strategic choice is more constrained. That is, firms seeking to outperform their rivals have fewer competitive strategies from which to choose (Porter, 1980). For example, customers' familiarity with and knowledge of the industry's products imbues them with significant bargaining power reflected in their demand for lower

prices; meanwhile, the battle amongst competitors for market share intensifies often erupting into price wars forcing most, if not all, firms to try to become the lowest cost producer. This constraint on strategic choice is apparent as strong pursuit of only five competitive strategies – the generic strategies of LC and QD and the combination strategies of LCQD, LCMD, and LCSD – yielded higher levels of overall financial performance.

Interestingly, low cost leadership was involved in four of the five effective strategies - as a generic strategy, LC, and as a component of the three combination strategies. This is consistent with the findings of several previous studies. Anderson and Zeithaml (1984), for example, found positive relationships between cost efficiency measures and return on investment (ROI) in their study of firms competing in mature industries. Apparently, distinctive competencies in lowering and controlling manufacturing, distribution, and administrative costs are key sources of competitive advantage in mature industries. Moreover, combining these distinctive competencies with outstanding expertise in total quality management, marketing, or customer service provides competitive advantage to firms competing in market segments demanding highly reliable products, prestigious brands, or support services.

Somewhat surprisingly, however, strong pursuit of the generic strategy, QD, was also associated with higher overall financial performance while implementation of the generic strategies, MD and SD, was not (although these strategies in combination with LC enhanced overall performance). Given that mature markets tend to accompany consolidation, perhaps differentiation becomes blurred; products become more like commodities, and various differentiation strategies are no longer successful. However, quality appears to be of primary importance to some buyers in mature industries as quality differentiation as a singular strategic approach and in combination with low cost yielded superior performance. Competitive advantage, on the other hand, does not accrue to firms implementing generic differentiation strategies based on, product image or support services. These strategies are only effective when combined with low cost leadership.

In addition, we did not find the generic strategy, ID, to be effective in the maturity stage, nor did the combination strategy, LCID, lead to higher overall financial performance. Collectively, the aforementioned results tend to demonstrate that opportunities for enhanced performance are not as plentiful and strategic choice is more limited in the maturity stage than in the growth stage.

### **Effective Competitive Strategies in the Decline Stage**

Several years of declining revenues and unit sales, fierce price competition, perception of products as commodities, excess capacity, an increasing number of firm withdrawals and failures (i.e., bankruptcies and liquidations), and major reductions in advertising and promotional expenditures characterize the decline stage of the ILC (Anderson & Zeithaml, 1984; Porter, 1980; Wasson, 1974). These conditions creating downward pressure on profitability are compounded by the proclivity of buyers to base their purchases on the lowest prices offered by sellers and the tendency of sellers to cut price to maintain market shares and at least marginal profitability (Hill & Jones, 1998). Moreover, the decline stage is often brought on by customers turning to substitute products offering superior performance, quality, or convenience, technological innovations, or significantly lower prices (Wright, et.al., 1996). In this environment of low munificence, opportunities are scarce and threats prevalent, severely limiting strategic choice. In fact, strong pursuit of only one competitive strategy – low cost leadership – led to higher levels of profitability.

This finding suggests that for customers purchasing the products of a declining industry price is the overriding determinant, at least in the case of this study. One reason price may be the overwhelming factor in customers' purchase decisions is that the industry's products may be considered virtually obsolete but still functional; hence the primary value of the products is their low price. Another reason that price may predominate is that price wars are being waged by competing firms. In both cases, the only firms that can earn profits exceeding those of their competitors are low cost leaders. Differentiation provides no basis for competitive advantage. Competitive advantage accrues to those firms that have distinctive competencies based on operational and administrative efficiency.

### **The Effectiveness of the Competitive Strategies Across the ILC**

Let us now take a look at the effectiveness of competitive strategies across all four industry life cycle stages for the six industrial sectors represented by the firms studied. In the interest of brevity, we will limit our discussion to the effectiveness of generic competitive strategies across the ILC because we found that if any two generic strategies were highly effective in a particular ILC stage the combination of these two strategies was also highly effective in that stage. For example, strong pursuit of both ID and QD produced outstanding performance in the introduction stage, as did the combination (IDQD) of these two strategies.

Innovation differentiation (ID) appears to generate above average financial performance in only two life cycle stages – introduction and growth. As generally expected, implementation of ID yielded higher sales growth in the introduction stage and higher overall financial performance in the growth stage. However, it did not produce higher than average overall performance in the maturity stage or higher than average profitability in the decline stage. Thus, in helping to establish an embryonic industry, firms implementing ID successfully can initially look forward to higher than average sales growth and subsequently to above-average overall financial performance if their industry progresses to the growth stage. However, to remain outstanding performers they will have to change their strategic approach as their industry becomes mature, as ID will no longer provide a competitive advantage.

Quality differentiation (QD) appears to offer a more sustainable competitive advantage than ID as the study revealed QD to be highly effective in three stages – introduction, growth, and maturity – and ineffective in only one stage, decline. Apparently, firms that possess distinctive competencies in developing, producing, and marketing products of superior quality can continue to realize enhanced financial performance as their industry evolves from the embryonic stage through growth to maturity. If an industry enters the decline stage, firms that continue to pursue QD should not expect to sustain higher profitability. At this stage, quality takes a back seat to price and low cost leaders are the beneficiaries.

Service differentiation (SD) and marketing differentiation (MD) appear to be viable strategies only in the growth stage. Conventional wisdom does not suggest that either SD or MD should generate competitive advantage in an embryonic industry. Our findings of lower than average financial performance for these two strategies in the introduction stage appear to support this consensus. Also, we found as conventional wisdom suggests that implementation of both SD and MD yields higher than average financial performance in the growth stage. However, some strategists have proposed that pursuing SD or MD can achieve outstanding performance in mature industries. Our findings of lower than average performance do not support this contingency position. In addition, neither SD nor MD is associated with enhanced performance

in the decline stage of the ILC. The effectiveness of MD and SD being limited to the growth stage seems to suggest that these strategies are not sustainable beyond the growth stage.

Low cost leadership (LC) provided competitive advantage in three ILC stages – growth, maturity, and decline. It did not yield above average performance in the introduction stage. On the other hand, strong pursuit of LC was the only strategic approach associated with enhanced performance in the decline stage. The major implication for CEOs is that the acquisition or development of low cost process technology and the development of distinctive competencies in operational efficiency beginning in the growth stage may well position a firm to obtain outstanding financial results if its industry subsequently matures then declines. Thus many firms currently operating in growth industries that are driving down their operating costs by developing cost efficiency competencies may be vindicated if their industries mature or decline. In any case, LC provides competitive advantage in the growth stage as well as the maturity and decline stages of the ILC.

Although the results have practical implications, there are limitations. First, we obtained a diverse sample of small manufacturing firms representing six broad industry classifications, but the results are not generalizable to other industries. Second, we studied small manufacturing firms in which CEOs typically have a great deal of discretion in determining their firms' competitive strategies. CEOs of large firms, however, are often limited in the amount of discretion they have in determining their firms' competitive strategic orientation. Thus, the study's results may not be reflective of the performances of large manufacturing firms in each stage of the ILC. Finally, we used subjective measures of financial performance rather than objective measures as mentioned in the text. However, small firms, which are largely privately held, rarely provide financial statements to outsiders. And even these firms provide the data, the statements are often unaudited leading to concerns regarding their accuracy. Despite the limitations, however, the findings and their implications are significant.

## **MANAGERIAL IMPLICATIONS**

The stage of your industry's life cycle is a key factor in selecting a competitive strategy that will enable your company to enhance its financial performance. The formulation of competitive strategy involves matching your firm's distinctive competencies and other resources with environmental contingencies, opportunities and threats. Environmental contingencies are determined in part by your industry's life cycle stage. Thus the appropriateness and selection of a strategy depends upon the stage of the ILC in which your firm is competing.

You can use the procedures below to determine the stage of your industry's life cycle, your firm's competitive strategy, and the appropriateness of the competitive strategy for the ILC stage.

- Determining the stage of the industry's life cycle (see Table 5).
  1. For each variable in Column 1 of Table 5, select the response in Column 2 that best describes the condition of the variable for your industry. Column 3 shows the ILC stage for your industry indicated by each of your responses.
  2. Review the stage(s) indicated by your responses. If only one stage is indicated, then select that ILC stage as the one applicable to your industry. On the other hand, if more than one ILC stage is indicated by your responses, select as the applicable stage the one indicated by the variable dealing with the performance of industry sales

during the past five years as the rate of growth in industry sales is generally recognized as the major determinant of an industry's life cycle stage.

- Determining your firm's current competitive strategy (see Table 6).
  1. Using the descriptive strategic methods shown in Column 2 of Table 6, identify the strategic methods your firm has strongly emphasized during the past three years in the market in which it generates the majority of its sales.
  2. Analyze the strategic methods strongly pursued by your firm to determine whether they form a grouping identical or very similar to one or more of the groupings shown in Column 2 of Table 6. If your analysis reveals only one identical or very similar grouping, your firm is pursuing the generic competitive strategy in Column 1 corresponding to the grouping. If your analysis reveals two or more groupings, a combination strategy is indicated. The appropriate combination strategy is determined by matching each grouping in Column 2 with its generic competitive strategy in Column 1 and also reviewing Column 2 to identify the generic strategies that are simultaneously pursued. On the other hand, if your analysis does not uncover a grouping or groupings identical or very similar to the ones shown in Column 2, our competitive strategy framework does not indicate the competitive strategy your firm may be pursuing or whether it is effective in your industry's life cycle stage.
  
- Determining whether your firm's competitive strategy is appropriate (see Table 7). Table 7 displays the competitive strategies that yield higher levels of financial performance in each of the four ILC stages. If you are able to determine your firm's competitive strategy and your industry's life cycle stage using the procedures outlined above, then you can use Table 7 to determine whether the competitive strategy is appropriate. If your competitive strategy is inappropriate, you may want to consider developing or acquiring the competencies and other resources required to implement the appropriate strategy, or entering an industry segment or another industry whose environmental requirements are aligned with your firm's competencies and other valuable resources. Discontinuing the business may be considered if the aforementioned options are not feasible.

Firms that are able to align their competitive strategies with the environmental requirements of their industry's life cycle stage can realize above-average financial performance.

**TABLE 5**  
**DETERMINING INDUSTRY LIFE CYCLES**

Variable	Response	ILC Stage Indicated
During the past five years, industry sales:	Increased slowly Increased rapidly Stabilized Declined	Introduction or Maturity Growth Maturity Decline
Customers' willingness & ability to purchase the industry's products has:	Just begun Grown rapidly Peaked Declined	Introduction Growth Maturity Decline
Most of the industry's products are:	Brand new	Introduction

	Improving in design & quality Uniform & well established Becoming obsolete	Growth Maturity Decline
For the vast majority of prospective customers, information about the industry products is:	Just being disseminated Increasingly available Widely available No longer necessary	Introduction Growth or Maturity Maturity or Decline Decline
Over the past five years, plant capacity of firms in the industry has generally:	Exceeded demand Not kept up with demand About equaled demand Increasingly exceeded demand	Introduction, Maturity, or Decline Growth Maturity Decline
Prices for most of the industry's products are:	Very high High Low Very low	Introduction or Growth Introduction or Growth Maturity Decline
During the past three years, the number of different types of outlets through which firms in the industry distribute their products has:	Increased slowly Increased rapidly Stabilized Declined	Introduction or Maturity Growth Maturity Decline

**TABLE 6**  
**DETERMINING FIRM'S COMPETITIVE STRATEGY**

<b>Competitive Strategy</b>	<b>Strategic Methods Strongly Pursued</b>
Innovation Differentiation (ID)	R& D of new products Marketing of new products Selling high-priced products Obtaining patents/copyrights Innovative marketing techniques
Marketing Differentiation (MD)	Building brand/company identification Advertising or promotional programs Securing reliable distribution channels Improvement of existing products Producing broad range of products
Quality Differentiation (QD)	Strict quality control Benchmarking best manufacturing processes in the industry Benchmarking best manufacturing processes anywhere Immediate resolution of customer problems Product improvements based on gaps in meeting customer expectations
Service Differentiation (SD)	New customer services Improvement of existing customer services
Low Cost Leadership (LC)	Efficiency & productivity improvements New manufacturing processes Improvement of existing manufacturing processes Reducing costs throughout the firm Reducing manufacturing costs primarily
Innovation Differentiation + Marketing Differentiation (IDMD)	Simultaneous pursuit of innovation differentiation and marketing differentiation strategic actions.
Innovation Differentiation +	Simultaneous pursuit of innovation differentiation and quality

Quality Differentiation (IDQD)	differentiation strategic actions.
Innovation Differentiation + Service Differentiation (IDSD)	Simultaneous pursuit of innovation differentiation and service differentiation strategic actions.
Marketing Differentiation + Quality Differentiation (MDQD)	Simultaneous pursuit of marketing differentiation and quality differentiation strategic actions.
Marketing Differentiation + Service Differentiation (MDSD)	Simultaneous pursuit of marketing differentiation and service differentiation strategic actions.
Quality Differentiation + Service Differentiation (QSDS)	Simultaneous pursuit of quality differentiation and service differentiation strategic actions.
Low Cost Leadership + Innovation Differentiation (LCID)	Simultaneous pursuit of low cost leadership and innovation differentiation strategic actions.
Low Cost Leadership + Marketing Differentiation (LCMD)	Simultaneous pursuit of low cost leadership and marketing differentiation strategic actions.
Low Cost Leadership + Quality Differentiation (LCQD)	Simultaneous pursuit of low cost leadership and quality differentiation strategic actions.
Low Cost Leadership + Service Differentiation (LCSD)	Simultaneous pursuit of low cost leadership and service differentiation strategic actions.

**TABLE 7**  
**COMPETITIVE STRATEGIES EFFECTIVE IN EACH ILC STAGE**

<b>ILC Stage</b>	<b>Key Performance Measure</b>	<b>Effective Competitive Strategy</b>
Introduction	Sales Growth	Innovation Differentiation (ID) Quality Differentiation (QD) Innovation Differentiation + Quality Differentiation (IDQD) Innovation Differentiation + Marketing Differentiation (IDMD)
Growth	Overall Financial Performance (Composite Measure: Sales growth, ROA, ROS, ROI, amount (\$) of profit, growth in profit)	All generic and combination competitive strategies
Maturity	Overall Financial Performance (Composite Measure: Sales growth, ROA, ROS, ROI, amount (\$) of profit, growth in profit)	Low Cost (LC) Quality Differentiation (QD) Low Cost + Quality Differentiation (LCQD) Low Cost + Marketing Differentiation (LCMD) Low Cost + Service Differentiation (LCSD)
Decline	Profitability (Composite measure: ROA, ROS, ROI, amount (\$) of profit, growth in profit)	Low Cost (LC)

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