

SERVICESCAPE AND CUSTOMER SATISFACTION:
THE ROLE OF STRATEGY

by

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ABSTRACT

SERVICESCAPE AND CUSTOMER SATISFACTION: THE ROLE OF STRATEGY

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The purpose of this research is to determine if the corporate strategy theory base may be useful in advancing the understanding of service characteristics; specifically, the relationship between particular service industries, competitive strategy and a firm's choice of servicescape dimensions.

The design and methodology of this research combines two distinct literature streams with respect to service operations: competitive strategy and operations strategy. First, the operations strategy literature and its evolution into service operations are reviewed to provide a historical foundation for the research and to identify possible research gaps. Next, the strategy literature is reviewed as a possible remedy to these gaps. Combining these views suggests that, in contrast to traditional views that argue for a common positive influence from increased service for all firms, the relative influence of service characteristics is dependent on the competitive approach taken by a firm.

The hypotheses generated from this alternative view are tested on a sample of eleven firms drawn from three service industries utilizing perceptions of service characteristics and

satisfaction collected from over 1200 customers. The results are generally supportive of the hypotheses, indicating that the impact from higher levels of service characteristics is different depending on the competitive approach taken by a firm.

This research adds to the body of knowledge through its integration of two distinct literature streams. The theory and associated empirical findings suggest the importance of considering a firm's strategy – how it chooses to compete -- rather than just a simple characterization of the service industry when trying to determine the value of different levels of service characteristic. Academics interested in advancing the growing body of service industry research will gain insight through the strategy synthesis, while practitioners are given tentative guidance about how to focus servicescape dimensions on their particular competitive situations.

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CHAPTER 1

INTRODUCTION

1.1 Introduction

Historically, research into the management of service operations has been grounded by manufacturing management theory. While efforts have been made to move beyond these foundations (Bowen & Lawler III, 1992), what typically results is merely a manufacturing model that has been given a service “twist” (Larsson & Finkelstein, 1999). As an example, the Service Process Matrix (SPM) offered by Schmenner (1986) simply builds on the Product Process Matrix (Hayes & Wheelwright, 1979) by considering the interplay of a process dimension (labor intensity vs. capital intensity) and a “product” or output dimension (the degree of customer interaction and customization). Similarly, other research into service operations focuses on exploring how services differ from manufacturing with regard to customer interaction (Chase, 1978, 1988), the degree of product variation and labor required (Schmenner, 1986), and the nature of the service output (Collier & Meyer, 1998; Mills, Chase, & Margulies, 1983).

Lacking in these broad extensions of manufacturing theory is a means of capturing the nuances of competing for service firms. That is, while the frameworks listed above might categorize two service firms similarly, these firms might differ substantially in the competencies and capabilities they either do or should combine (Roth and Jackson 1995) in the pursuit of competitive advantage. In acknowledging this shortcoming, service researchers have suggested revisions to current frameworks (c.f., Schmenner, 1986). However, even these revisions fail to provide for competitive variety within a given service “type” (Schmenner, 2004).

Frameworks focused on categorizing firms by industry or sector challenge both researchers trying to understand services and practitioners trying to develop their firms’

capabilities or competencies (Roth and Jackson 1995). As several researchers in strategy and organization theory have noted, firms within an industry are likely to differ on a number of operational dimensions, suggesting that different configurations of services can be equally profitable given consistency between strategy, the characteristics of the service, and customers' expectations (Miles et al. 1978). This view is beginning to make inroads within the service operations literature, with the recognition that a firm's strategy may be as important to that firm's success as the industry or industry segment in which that firm operates (Metters & Vargas, 2000). Given this, an alternative approach to using industry-based classification as a means of understanding service success is to explore the interplay of competitive strategy (Miles and Snow 1978; Porter 1980, 1985) and particular service characteristics (e.g., service quality) as regards their combined effect on important outcomes such as customer satisfaction.

To investigate the value of such an approach, this research examines the strategy and service characteristics of a number of different service firms. More specifically, this study categorizes strategically eleven service firms from three different industries. This categorization is then combined with customer perceptions regarding a particular service characteristic – servicescape, the manmade physical surroundings that affect customer perceptions of service (Bitner 1992) – in an exploration of the joint influence of strategy and service characteristics on customer satisfaction.

Research into service operations has suggested that service characteristics determine customer satisfaction, but this research has also tended to ignore the influence of competitive strategy; in essence, it is typically implied that the relationship between a particular service characteristic and customer satisfaction is common across all firms within an industry or industry segment (Bitner, 1990; Chase, 1985, 1988; K. Wakefield & J. Blodgett, 1996; Wakefield & Blodgett, 1999). In contrast, this study suggests that strategy influences the relationship between particular service characteristics and customer satisfaction. In so doing, this research contributes to the service operations literature in two ways. First, as it is grounded primarily by the competitive strategy literature, it provides an opportunity for researchers to link to and build

on work already established in the strategic management field. Second, in tentatively depicting combinations of service characteristics that may be well suited for particular competitive strategies, it provides guidance to practitioners trying to complete or reconfigure their firms' competitive repertoires.

This dissertation is organized in the following manner. First, in Chapter Two the literature review provides an overview of the manufacturing literature, with its dominant focus on efficiency that served as a foundation for much early service operations research. Utilizing this discussion as a background, the focus then shifts specifically to the management of service operations. Next, several competitive strategy typologies are introduced, compared, summarized, and linked to services. Utilizing two specific typologies, further inquiry is made into the broad linkages between competitive strategy, service characteristics, service expectations, and customer satisfaction. Finally, this literature review turns to a specific service characteristic in articulating several hypotheses regarding servicescape, competitive strategy, and their combined influence on customer satisfaction.

In Chapter Three the methodology by which the hypotheses were tested is discussed. In this chapter, firms chosen for study are identified and measures used to operationalize the constructs of interest are discussed. In addition, this chapter discusses the methods by which data were gathered and analyzed in the testing of this research's hypotheses. Chapter Four reports the actual results, which suggest that firms in the same service sector differed substantially with regard to: a) the layout of service setting; b) the accessibility of facilities; c) the overall cleanliness; and d) customers' expected quality of the service. Despite these differences, the firms studied appeared to enjoy similar levels of customer satisfaction, a finding consistent with the central thrust of this research. Overall conclusions from this research effort are discussed in Chapter Five, which also explores potential limitations to this research and suggests directions for further study.

CHAPTER 2

LITERATURE REVIEW

2.1 Evolution of Operations Management

Historically, manufacturing decisions were typically focused on maximizing production efficiency. Ultimately, the manufacturing policies and procedures that bound the company to particular facilities, equipment, and personnel for years to come were made on loose assumptions of corporate strategy by the engineers in the manufacturing shop. Little consideration was given to the linkage between corporate strategic plans and manufacturing processes. The notion of connecting corporate strategy with manufacturing capabilities was first explored by Skinner (1969) in his research suggesting that manufacturing decisions should be linked to corporate decisions in order to create a fit across the organization.

Since then, the efforts of academics and practitioners have resulted in a number of complementary developments. Scholarly work has been focused on developing a linkage between strategy, manufacturing strategies, and manufacturing processes. This stream of research has led to a consensus regarding manufacturing as potentially a strategic weapon given conformance between strategy and particular characteristics of manufacturing processes (Chase & Hayes, 1991; Hayes & Wheelwright, 1984). The work of Skinner (1969) regarding what he termed the “Focused Factory” is characteristic of these approaches. In this research, Skinner (1969) argued that firms should not seek only efficiency from their manufacturing function, but rather the alignment of functional-level capabilities as dictated by competitive and corporate strategies. This primary assertion – firm success depends on a match between corporate strategy, manufacturing strategy and process choices – was supported in a

subsequent series of case studies (Skinner, 1974) on firms in electronics, plastics, textile, and steel industries.

The alignment question also figures prominently in the manufacturing strategy literature that has emerged in response to Skinner's (1969; 1974) work. Much of the manufacturing strategy literature emphasizes the interplay between inputs – typically process choice as manifested in capital vs. labor intensity (Hayes and Wheelwright 1979) – and the amount of output variety demanded by the environment or the firm's competitive strategy (Kotha and Orne 1989). This stream of research ultimately argues that the cumulative pattern of output-informed decisions regarding process choice (Hayes and Wheelwright 1979a, 1979b; Kotha and Orne 1989) leads to competitive capabilities (Teece & Pisano, 1994, 1997) that, if reflective of the firm's fundamental approach to competing, help secure a sustainable competitive advantage (Fine & Hax, 1985).

In all, a review of the manufacturing management and manufacturing strategy literature reveals two consistent themes. The first theme emphasizes the importance of linking manufacturing processes and infrastructure in conformance with overall strategy (Adam & Swamidass, 1989; Adam Jr & Swamidass, 1989; Hayes & Wheelwright, 1984; Hill & Hoskisson, 1987; A. V. Roth & Jackson, 1995; Wheelwright & Hayes, 1985). A second theme focuses on the outcomes or content of the strategic process. Content literature generally focuses on building capabilities that might lead to a sustainable competitive advantage (Barney 1991). Such capabilities follow from a firm's competitive priorities, generally seen as the emphasis placed on cost, quality, dependability, or flexibility (Wheelwright, 1984). Essentially, in a given industry firms will vary in how they approach these priorities, resulting in competitive postures that are unique relative to one another (Adam Jr & Swamidass, 1989; Hayes & Wheelwright, 1984; Hill & Hoskisson, 1987; A. V. Roth & Jackson, 1995; Wheelwright, 1984; Wheelwright & Hayes, 1985). Crafting such a unique combination of capabilities has been shown to lead to a competitive advantage for organizations, yet guidance on how to create and nurture these linkages has been slow to evolve.

2.1.1 Corporate Strategy and Manufacturing

The strategy literature has also suggested that in order for firms to develop a lasting competitive advantage they must ensure that decisions across organizational levels (corporate, business, and functional) are consistent (Mintzberg, 1979). A firm's corporate strategy is typically defined as that firm's dominant orientation, i.e., the specific areas of overall interest to that firm over a long time horizon. At this level the firm defines the business or businesses in which it plans to compete, along with how the firm will acquire those resources that are necessary.

A firm's business strategy (or the business strategy of a unit within a multi-business firm) refers to: 1) the scope or boundaries of that firm or unit; and 2) the competitive position that firm or unit will seek as a means of effecting or maintaining its competitive advantage (Fine & Hax, 1985). The scope or boundaries of each business specifies the product, market, and service segments in which the firm will compete, while the competitive positioning element of business strategy is intended to focus effort along a consistent path. For example, if a firm is to compete on low cost it may attempt to generate high volume as a means of spurring efficiency; conversely, a firm that competes on product innovation may emphasize research and development to ensure a steady stream of novel products (Porter, 1980).

Functional strategies (e.g., operations strategy) are seen as subordinate to the business strategy and, ideally, result in consistent patterns of decisions and tradeoffs (vis-à-vis competitive priorities). In the manufacturing function, such decisions are often characterized as either structural or tactical. Structural decisions are those related to capacity, facilities, technology, and vertical integration. Tactical decisions encompass day-to-day decisions such as workforce skill, quality, production planning, organizational structure, and supporting relationships (Wheelwright, 1984). Consistency across these decisions should lead to manufacturing capabilities that are necessary for the pursuit of a particular competitive strategy.

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business, and functional) are consistent (Mintzberg, 1979). A firm's corporate strategy is typically defined as that firm's dominant orientation, i.e., the specific areas of overall interest to that firm over a long time horizon. At this level the firm defines the business or businesses in which it plans to compete, along with how the firm will acquire those resources that are necessary.

2.1.2 Corporate Strategy and Operations Management Strategy

As the previous sections suggest, operations strategy is generally viewed as the collective pattern of decisions made across the operations function. An extensive literature argues that effective operations strategy "is not necessarily the one that promises maximum efficiency, or engineering perfection, [but] rather one that fits the needs of the business and strives for consistency between its capabilities and policies in the business's competitive advantage" (Wheelwright, 1984). Intriguingly, however, empirical research has been slow to justify this assertion (Anderson, Fornell, & Rust, 1997). For example, the value of consistency between corporate and operations strategy with regard to overall performance was explored by Adam and Swamidass (1989). They found gaps in the operations strategy literature with regard to a number of relationships, particularly those between strategy content and process variables and firm performance. Subsequent research, such as that of Smith and Reece (1999), suggested that the fit between operations choices and the choice of competitive strategy are essential elements in predicting firm profitability. Perhaps the most comprehensive empirical investigation of the linkage between operations strategy and process choice was that of the World Class Manufacturing Project (Flynn, Schroeder, & Flynn, 1999). In this large study of manufacturing plants, researchers found that linking competitive priorities across strategic levels creates a synergistic effect that increases a firm's competitive performance. Similarly, several years later a study of services was conducted utilizing a similar framework in a service setting (Meyer & Collier, 2001). Their study of the customer service departments of 220 national hospitals suggested that a strong relationship exists between strategic planning and performance. Specifically, they found positive relationships between customer satisfaction and

process management as well as the link between operational performance (improved internal capabilities) and overall firm performance.

2.2 Evolution of Services Operations Literature

The most prevalent stream of research with regards to service operations centers on profit margin, largely attained through increased efficiency. In pursuit of efficiency, the earliest service classifications applied Taylor's "Scientific Management" principles (Taylor, 1972 [c1947]) to insurance companies, mail order firms, and banks (Leffingwell, 1917) with the idea that establishing specific patterns and routines would increase efficiency and, by extension, profitability. However, as noted by this research, the difficulty encountered in predicting customer behavior makes scientific management principles significantly less effective than in manufacturing settings such as machine shops or steam engine plants (Chase & Apte, 2007). It was not until the early years of the fast food industry that scientific management was effectively applied to services. Much as was the case in manufacturing, standardization and simplification facilitated the substitution of capital for labor in the production of a uniform output (e.g., a McDonald's hamburger), focusing management primarily on monitoring and controlling the process (Norris & Bockelmann, 2000).

2.2.1 Service Efficiency

Another effort that emphasized efficiency in service operations was the Production Line Approach (Levitt, 1972). This model suggested that limiting the discretion of personnel through well-defined tasks, standardization, and division of labor, allowed jobs to become both specialized and simplified. Ultimately such an approach would limit the span of control and decrease the necessary worker skill and training, facilitating greater volume, increased productivity, and increased profits. Others have expanded this thinking to include the application of rational management principles such as process mapping to identify problems before they arise and ultimately yield higher production (G. L. Shostack, 1977). With regard to service quality, research suggests that the physical setting, the flow of work through the system, and the content of service jobs leads to service personnel actually designing quality into their service

delivery process (Bowen & Lawler III, 1992; Cook et al., 2002). Others describe a decision variable matrix that enables planners to incorporate customer interaction, the delivery system, and the service to create the optimal service system design (Chase & Garvin, 1989).

Service efficiency has also been explored empirically. For example, early service research found that standardizing service processes leads to increased volume (Sasser, Olson, & Wyckoff, 1978), while other research has suggested that efficiency is higher when service design is broadened to incorporate service providers, service technology, physical facilities and other equipment (Chase & Hayes, 1991).

2.2.2 Service Typologies

Over the last two decades several attempts have been made to categorize services. While differences between the typologies exist, the service literature has been consistent in its recognition that generic service types may differ substantially with regard to efficiency, throughput, and tolerable variation. Several typologies have emerged to conceptualize and catalogue these differences and are discussed briefly below.

The Service Process Matrix (SPM) framework categorizes effects on service efficiency along two dimensions: production process and level of customization. This matrix asserts that correctly executed services optimize throughput, increase efficiency, and lead to increased productivity and long-term profitability (Schmenner, 1986). Utilizing an operations perspective, (Schmenner, 2004) suggests “the degree of interaction with and customization for the consumer” can be translated to variation in the provision of service. Low variation would suggest customers demand little customization of the service product. Conversely, high variation would suggest customers demand a large number of variations of and customizations to their service product. The amount of customer interaction and necessary customization are common sources of variation in services and have been found to decrease service productivity (Goldstein, Johnston, Duffy, & Rao, 2002).

Schmenner (2004) also argues that, as in manufacturing, services' throughput time is an important dimension. Throughput time is defined as the time that elapses between: a) the

moment when the service and any related facilities or goods are available for use in the service; and b) the moment when that service encounter is complete and the customer exits. More specifically, the throughput time in a general merchandise environment is defined as when the customer places the first item into her/his cart to when she/he leaves the service. In electronics retailing, throughput time is defined as that time between when a customer first begins to seek information through item retrieval to her/his checkout. In the prepared foods industry, throughput time is defined as the time a customer is in the store, also known as door-to-door time (Roger, 2004; Schmenner, 2004).

This classification scheme creates four quadrants: 1) the service factory, 2) service shop, 3) mass service, and 4) professional service. The service factory has low variation and low (faster) service transaction time, while the service shop has a high level of variation with low relative throughput time. The mass service has low variation and high (longer) relative throughput time while the professional service has both high levels of variation and high relative throughput time (Schmenner, 1986, 2004). This matrix is graphically depicted in figure 2.1.

An important element of the framework presented in figure 2.1 is customer contact, defined as the physical presence of the customer in the system (Chase, 1978). Like relative throughput time this construct is concerned with the movement of the customer through the service system. This construct, however, considers the actual interaction between the employee and customer. Specifically, customer contact is computed as the percentage of time a customer interacts with employees in the system relative to his/her total time in the system. For example, Starbucks may have a low throughput time but high customer contact. In such a case, the customer moves through the system swiftly but, while in the system, she/he requires a substantial amount of interaction with service personnel. Conversely, a customer at Chili's would tend to have a sizeable throughput time but experience a relatively low customer-contact service. Here, the customer would move through the system slowly but while in the system would not require constant attention. Previous research based on customer contact has categorized general merchandise and consumer electronics retailers as mixed services,

suggesting a moderate level of customer contact, while prepared foods is classified as a pure service, suggesting a high level of customer contact.

Noting that the SPM model did not account for potential operational efficiency of the service, the model was refined through the introduction of the service factory model (Chase & Tansik, 1983). This model blends the best of manufacturing practices with the logic of just-in-time (Chase, 1988) while also suggesting that it is necessary to consider the amount of time the customer remains in the system while the service is performed. Service systems that are considered high in customer contact may benefit from the sealing off of the technical core (Thompson, 1967) to minimize variations with regard to transactions processing and the like. Conversely, Chase suggests, low-contact systems are more able to exactly match supply and demand and may emphasize resource-focused scheduling. Firms that effectively separate high- and low-contact services will be more efficient and, therefore, more profitable (Chase, 1978). This model has been operationalized (Kellogg & Chase, 1995) and empirically tested several times over the years (Froehle, Roth, Chase, & Voss, 2000), with results suggesting that service firms increase efficiency through creating patterns of work design and flow, decision-making processes, and control systems that reduce customers' disruption to the system.

		Degree interaction with customers	
		Low	High
Labor intensity and transaction time	Low	<p><i>Service Factory</i></p> <ul style="list-style-type: none"> ▪ <i>Airlines</i> ▪ <i>Trucking</i> ▪ <i>Hotels</i> ▪ <i>Resorts</i> 	<p><i>Service Shop</i></p> <ul style="list-style-type: none"> ▪ <i>Hospitals</i> ▪ <i>Auto Repair</i> ▪ <i>Other Repair service</i>
	High	<p><i>Mass Service</i></p> <ul style="list-style-type: none"> ▪ <i>Retailing</i> ▪ <i>Wholesaling</i> ▪ <i>Schools</i> ▪ <i>Commercial banking</i> 	<p><i>Professional Service</i></p> <ul style="list-style-type: none"> ▪ <i>Physicians</i> ▪ <i>Lawyers</i> ▪ <i>Accountants</i> ▪ <i>Architects</i>

Figure 2.1 Service Process Matrix

2.2.3 Beyond Efficiency

Suggesting that a strict focus on efficiency is inappropriate if the myriad challenges in service operations are to be understood, other researchers have tried different ways to conceptualize differences across service firms. Several typologies have been created to categorize services in terms of quality, dependability and flexibility (Bitner, 1992a; Levitt, 1972; K. Wakefield & J. Blodgett, 1996; Wemmerlov, 1990), and each of these has advanced the service operations body of knowledge to some degree while also leaving important questions unanswered.

Quality in services has been examined from a variety of perspectives ranging from the physical attributes of the service setting (servicescape) to intangible facets such as empathy or understanding. Services present unique challenges to researchers studying quality because services often are difficult to describe, standardize and/or control. Given these complexities, service quality does not lend itself naturally to measurement (Prahalad & Hamel, 1994) and often is highly sensitive to a particular customer's assessment (Hays & Hill 2001); the same facet that enhances quality in one customer's eyes detracts from quality in another's. Closely linked to service quality is service dependability, comprising both servicescape and quality features such as reliability, responsiveness, assurance, layout, aesthetics, provider discretion, employee skill, and training (Chase, 1978; Levitt, 1972; G. Lynn Shostack, 1984).

Flexibility in services ranges from: 1) a firm's ability to quickly identify a service need and generate new products to fill this gap; to 2) the general ability of services to fulfill non-standard requests. Volume flexibility is the service's ability to accelerate and decelerate output quickly. Strategic decisions in services should reflect the broad impacts of flexibility (Froehle et al., 2000), which is often depicted as largely shaped by technology (e.g., facilities (location, capacity, and layout), process design, and worker skills) (Mills & Moberg, 1982). In contrast to manufacturing technology, service technology is not simply the software used to deliver the service. Rather, service technology is broadly defined to include the physical surroundings of the waiting room, the equipment used to serve the customer, and even ancillary service settings

such as pre-service “holding areas” (e.g., the waiting area in a restaurant) (Kellogg & Chase, 1995; Mills & Moberg, 1982).

The lean service model typology attempts to model service quality and flexibility by modifying several manufacturing constructs such as pull production and value-chain orientation (Youngdahl, Kellogg, Nie, & Bowen, 2003). Service quality, this model suggests, depends on the deployment of these capabilities along with a customer focus and the empowerment of employees to respond to customers’ expectations. This framework strongly emphasizes the minimization of set-up times as a means of facilitating smoother flow and increasing customer focus, pointing to employees as levers in the maximization of customer value (Johnston, 1999).

2.2.4 Service Concept

The evolution of the service concept can be traced to early literature suggesting that organizations should incorporate the desired service outcome into early strategic planning decision-making (Heskett, 1987). The service concept has been defined as the elements of the service package or “customer benefit package” that provide the intended benefit or value to the customer (Collier & Meyer, 1998; Sasser et al., 1978). Marketing literature has advanced this line of thought by suggesting that firms consider the combination of service product, process, place, physical evidence, people, productivity and quality, price, and promotion in service design (C. H. Lovelock & Wright, 1999). Still others suggest that the service concept is a detailed description of: a) those customer needs that will be satisfied; and b) what is to be done to satisfy those needs (Clark & Fujimoto, 1991). Notably, Heskett (1987) proposed a framework to first identify and understand a target market, then develop a service concept that would meet the needs of the targeted segment, and finally formulate a strategy that supports the meeting of those needs (Heskett, 1987) .

The service concept approach to conceptualizing services has grown in prominence in the literature. However, decision processes reflecting this perspective have proved to be complex and span across multiple levels in an organization. Services are different from tangible products or simple profit centers and, with regard to their planning, require the consideration of

both the needs of the customer and linkages with other strategies. Services result from the combination of capabilities that, meet the needs of the customer while reflecting the firm's strategic imperatives (Goldstein et al., 2002).

One model suggests that incorporating the desired service concept into the strategic planning phase enables managers to set the service level based on market needs and relative service offerings (Sasser et al. 1978). This perspective assumes, however, that the service delivery system is a profit center, or a specific piece of a larger value-adding system. In attempting to advance this thinking, some have suggested using the service concept to integrate the firm's competitive strategy with those service processes necessary to effect the service concept (Goldstein et al., 2002).

2.2.5 Other Management Literature

As the review of the service literature suggests, services compete in many different ways, for a variety of different reasons. Much like manufacturing, the service literature has developed from an internal focus on increased efficiency and throughput capacity (Levitt, 1972; Schmenner, 1986; G. Lynn Shostack, 1984) to the notion of a holistic service concept (Goldstein et al., 2002). While these contributions have broadened the service operations knowledge base, lacking in the service literature are finer-grained approaches to account for differences in competitive approaches among ostensibly similar firms (i.e., those within the same broad service category). Some restaurants, for example, focus on price, made feasible by their efficiency, while others focus on offering unique service product and still others focus on innovation or a combination of several differentiating elements. Yet existing service frameworks offer little in the way of description, explanation, or prescription of particular functional strategies that enable desired competitive or corporate strategies (Mills and Moberg 1982).

This lack of attention to firms' strategies results in a knowledge gap illustrated by the consideration of two retailers, Wal-Mart and Target. The classification schemes reviewed to this point would imply that these firms face largely identical challenges across a variety of areas, from technology to flexibility to quality. It would also be inferred from these frameworks that Wal-

Mart and Target share similar paths to success. Yet even a casual observer would note that these firms engage their customers and confront their environments in very different manners, strongly hinting that they face different operational challenges and perceive different paths to success. In all, the example of these two firms, ostensibly competing in the same industry and service sector, illustrates the shortcomings of existing frameworks: Both research and practice await guidance on the fit of certain service characteristics in certain organizational contexts.

This research suggests that service organizations must configure their service content to be congruent with their over-arching approaches to competing. Research into the interactive effects of strategy and service concept suggests that linking the business level strategy to particular service characteristics can create competitive advantages and increase performance (Goldstein et al., 2002). More germane to this research is the relationship between business-level strategy (defined as the basis upon which an organization competes) and the particular emphasis on various service characteristics or dimensions.

Most current service operations research neglects to consider a firm's competitive strategy. For example, the framework for strategic services management suggests services differ by service type (unique, selective, restrictive, and generic) but offer no rationale as to how a service chooses between the various competitive weapons available in order to best support a specific strategic orientation (Kellogg & Nie, 1995). Likewise, a considerable amount of research suggests service quality is a great differentiator and one of the most powerful weapons that service organizations possess. However, service quality is a nebulous concept both in terms of definition and assessment and does not stand alone in predicting service organization success (Berry, Parasuraman, & Zeithaml, 1988). Notably, all of the literature described above falls short of considering the explicit linkage between service characteristics and competitive strategies.

Interestingly, the business strategy literature also falls short of explicitly considering the unique concerns of services as related to competitive strategies. Actually research has suggested some question exists as to the predictive capability of strategy typologies in the service sector (C. C. Miller, Glick, Wang, & Huber, 1991). Given this controversy, this research

attempts to link strategy and services operations literature to assess how certain service dimensions or characteristics may be more or less useful when used in conjunction with particular competitive strategies. This line of argument rests on two strategic management streams reviewed in the following sections.

2.3 Evolution of the Strategy Literature

Strategy has become central to the study of business policy (K. R. Andrews, 1971; S. B. Andrews, 1995; Rumelt, Schendel, & Teece, 1994) and is increasingly important in diverse fields such as organizational theory and manufacturing (Child, 1972; Child & Mansfield, 1972; Hayes & Wheelwright, 1984; Wheelwright, 1984). Strategy is generally viewed as a pattern of decisions that guide the organization in its relationships with its environment. It encompasses both structure and process decisions that fundamentally constrain and/or enable the organization's performance (Adam & Swamidass, 1989; Adam Jr & Swamidass, 1989). As noted earlier, strategic planning is often depicted at three levels: corporate, business and functional. Functional strategies (e.g., operations strategy) generally set an overall direction or thrust for a particular functional area. Researchers typically argue that functional-level strategies represent attempts to translate competitive strategies into a set of processes that are necessary for the enactment of the chosen competitive strategy (Wheelwright, 1984). For example, (in the simplest terms) manufacturing firms that compete on price may make functional choices such as scale-efficient technologies to enable them to achieve lower costs. For services choosing to compete on price, however, the functional strategy choices are not as clear. This research examines several functional level decisions services can make to enable them to pursue their chosen strategy (Hambrick, 1980).

2.3.1 Competitive Strategy

Several typologies are available for conceptualizing how organizations compete. These typologies suggest that firms develop competitive business strategies to differentiate themselves from other firms, deliberately choosing a set of activities that deliver a particular mix of customer experience and value that is different from competitors. In turn, the competitive

strategy focuses services to place emphasis on particular functional elements, all in the pursuit of the business strategy. For example, a firm competing on low cost might attempt to generate high throughput at a sacrifice of customer service. Conversely, if the service chose to compete as a differentiator, it might provide superior customer service at the expense of throughput (T. M. Smith & J. S. Reece, 1999). From another perspective, a firm emphasizing product innovation might consider functional processes that enable it to continually offer services with new features, at the expense of the benefits of specialization and experience. Alternatively, a firm emphasizing stability-grounded efficiency might place emphasis on service characteristics such as reliability, at a sacrifice of the ability to offer new or innovative services (Goldstein et al., 2002). Regardless of the chosen strategy, this and other research argues, the functional strategy must reflect the business strategy if the firm is to be successful.

The two strategic typologies explored in this research are the Miles and Snow theory of Strategy, Structure and Process (Miles, Snow, Meyer, & Coleman, 1978) and Porter's Generic Strategies (Porter, 1980). Both have received widespread attention over the years and would appear useful in understanding the behavior of service firms (Doty, Glick, & Huber, 1993; Miles et al., 1978). Both typologies suggest a firm's choice of competitive strategy should inform its choices with regard to functional strategy, the sum of competitive priorities in areas such as value, technological flexibility, service quality, and outcome dependability (Miles et al., 1978; Porter, 1979b; Roberts & Grabowski, 1996). Those competitive priorities are then effected in the execution of particular function-level processes.

2.3.2 The Miles and Snow Strategic Typology

The Miles and Snow strategic typology (Miles et al., 1978) proposes that organizations exhibit relatively enduring patterns of strategic behavior that actively co-align the organization with its environment. Scholars attribute the typology's longevity in the literature to its innate parsimony, industry-independent nature, and correspondence with the actual strategic postures of firms across multiple industries (DeSarbo, Benedetto, Song, & Sinha, 2005). This typology

argues that organizations must continually deal with challenges in three areas: entrepreneurial, engineering, and administrative.

The entrepreneurial problem initially helps define the organization's specific good or service and the target market toward which these outputs will be focused. Later the entrepreneurial problem informs management's acceptance and commitment of resources to particular product-market domains and the projection of the organization's image. The engineering problem is the operationalization of the entrepreneurial problem. Specifically, in confronting the engineering problem managers select appropriate technology for producing products and services and create information linkages to ensure proper operation of the chosen technology. The administrative problem is focused on reducing the uncertainty faced by an organization by implementing processes that ensure continued growth and stability (Hambrick, 1980, 1983b; Miles et al., 1978).

Organizations employ different strategies to solve their entrepreneurial, engineering and administrative problems, and in this framework these patterns coalesce into three strategic types: Defenders, Analyzers, and Prospectors. Each of these types has the potential to succeed given consistency between strategy, technology, structure, and processes. A fourth type in this framework, the Reactor, is expected to be a strategic failure largely as a result of inconsistencies between strategy, technology, structure and process. (Dvir, Segev, & Shenhar, 1993). Each type is discussed below.

Defender organizations engage in little or no new product/market development and have narrow product-market domains. Top management consists of experts with a narrow focus who do not search outside their domain for opportunities; rather, strategists tend to pursue control of relatively stable niches within their industries, competing primarily on the basis of price, quality, delivery, or service. The narrow focus of the Defender leads it to make few adjustments to technology and operational methods. Defenders devote primary attention to improving the efficiency of existing operations.

The Defender's entrepreneurial problem is how to seal off a portion of the market in order to create a stable domain. In this domain, the Defender produces a limited set of products and strives to exploit standard economic gains such as competitive pricing or high quality products. Likewise, Defenders tend to ignore market trends on the periphery of their domain, choosing to grow through market penetration and limited product development. In time, a Defender strives to carefully create and maintain a small secure niche in a limited domain that is difficult for competitors to penetrate.

The Defender creates and maintains this small secure niche through its engineering and administrative actions. The engineering problem for the Defender involves the pursuit of efficiency across all functional levels. Defenders engage in long-range forecasting and planning and rely on a single core technology. Their long-range forecasting enables them to compete in stable markets by accurately calculating demand and production rates, as well as maximizing efficiency of goods distribution (Miles & Snow, 1984; Miles et al., 1978). The Defender's use of a single core technology enables it to pursue efficiency through large volume, standard tasks and simple routines (Woodward, 1958). Defenders attempt to create a stable internal production environment and seek to minimize external disruptions in the pursuit of economies of scale.

The administrative problem for the Defender is how to achieve strict control of the organization in order to ensure efficient operations. To decrease interdependence, Defenders typically adopt rigid, mechanistic structures that are coordinated through formalization, centralization, specialization, and vertical integration. The Defender utilizes extensive division of labor, centralized control, and formal communication to create and maintain a stable production environment (Hambrick, 1983b; Miles et al., 1978).

The primary risk the Defender faces is its dependence on a stable environment; for a Defender, tomorrow *must* be similar to today (Hambrick, 1980). This dependence on stability leads to innovation being primarily focused on improvements in production efficiencies and greater economies of scale. Such a focus leaves little attention devoted to developing new

products or markets, making it difficult for the Defender to adjust to or even recognize a new market opportunity or challenge (Miles et al., 1978).

In stark contrast to the Defender is the second strategic type, the Prospector. The Prospector's prime capability is finding and exploiting new products and market opportunities (Miles et al., 1978). The Prospector's priority is to maintain a reputation as an innovator. For the Prospector, a reputation as an innovator can be perhaps more important than high-profitability; indeed, some research suggests the higher failure rate for Prospectors makes it difficult for them to attain the profitability enjoyed by Defenders (Miles, Snow et al. 1978). This inherent inefficiency stems from the Prospector's adaptive cycle.

The entrepreneurial problem for the Prospector is how to continually locate and exploit new product and market opportunities, unlike the Defender and its focus on sealing off markets to create stability. The Prospector invests heavily in employing creative people who can locate new areas of opportunity, continually survey the environment, and perceive trends and events that are likely to influence their market current domain (McDaniel & Kolari, 1987). Limiting the Prospector's efficiency is its approach to the engineering problem. To serve its changing domains, the Prospector requires flexible technological processes and continually works to avoid long-term commitments to particular technologies.

The administrative problem for the Prospector is how to coordinate diverse activities (Hambrick, 1980, 1982, 1983b; Miles et al., 1978). The Prospector's dominant coalition is controlled by marketing experts who employ broad planning methods (Hambrick & Mason, 1984). They are organically organized to coordinate resources among numerous decentralized units (Child, 1972; Child & Mansfield, 1972) that have few hierarchical levels or formal processes and well-developed lateral and vertical communication channels (Walker Jr & Ruekert, 1987).

The primary risk a Prospector faces is low profitability and overextension of resources. Prospectors' need for technological flexibility enables rapid adaption to changing domains, but this limits efficiency through the necessity of multiple technologies (Dvir et al., 1993). While the

Prospector is effective and able to respond to the demands of future change, it cannot maximize profitability because of its inefficiency (Hambrick, 1983b).

A third strategic type, the Analyzer, represents a combination of various facets of the Defender and Prospector. Analyzers attempt to minimize risk through combining the strengths of both the Defender and Prospector, creating a tenuous balance in their adaptation. They attempt to locate and exploit new products and market opportunities in dynamic markets, while simultaneously maintaining a core of traditional products and services in stable markets. The Analyzer is able to seek efficiency through formal structures in stable markets while reacting quickly to promising marketing shifts in dynamic markets. The strategy is difficult to pursue and requires the Analyzer to carefully employ balanced adaptation (Dvir et al., 1993).

The final category is the Reactor, a strategic type that is perpetually instable as a result of an inability to respond appropriately to changes in the environment. The Reactor lacks a clearly articulated strategy and is characterized by lack of a consistency in its structure and processes. Likewise, Reactors exhibit low levels of environmental scanning and long-range forecasting and planning.

2.3.2.1 Empirical Summary of the Miles and Snow Strategic Typology

This typology has been extensively applied in the literature and has generally been supported. For example, Snow and Hrebina (1980) surveyed 220 top managers across four industries and found a general relationship between organizational strategy and distinctive competencies. Their findings are consistent with the strategic choice perspective that notes the relationship between competitive strategy and particular combinations of process choices (Child, 1972; Hambrick, 1983a; Hambrick & Schecter, 1983; Smith, Grimm, Gannon, & Chen, 1991; Snow & Hambrick, 1980). For example, Hambrick's (1983) research finds Prospectors spend more resources on product research and development and marketing as well as motivating, informing, and educating their workforce than other strategic types.

Subsequent empirical studies have re-examined the typology with respect to strategic capabilities, marketing capabilities, and information technology capabilities as well as

management capabilities (DeSarbo et al., 2005). Much like other empirical research, they found Prospectors to embrace innovation, and seek uniqueness through product and process differentiation and perform well in innovative industries. In mature non-innovative industries, the Analyzer outperforms the Defender and Prospector. This is achieved through selective introduction of products, reliable delivery, creative credit policies, and other tactics used to remove the business from straight price competition (Martin, Feldman, Hatch, & Sitkin, 1983). Their finding suggests the Defender must pursue intense price competition through exploitation of efficiency; all in an effort to offer the product at the lower price.

In a comprehensive study of two organizational configurational approaches (Miles and Snow 1978 and Mintzberg 1980) researchers found the Miles and Snow typology is consistent with fit and equifinality and predicts 24 percent of the variance in organizational effectiveness. The findings of this study suggest fit among strategic, structural and contextual (functional) factors is a relatively powerful predictor of effectiveness.

2.3.3 Porter's Generic Competitive Strategies

The second typology used in this research is the Porter Model of Competitive Strategies (1980) or "Generic Strategies." In this framework Porter suggests that pursuit of one of three generic strategic approaches – Cost Leadership, Differentiation, and Focus (figure 2.2) – should lead to above-average profits in an industry. While he acknowledges some firms can pursue more than one strategy successfully, he suggests this is rarely possible. Effective implementation of any particular strategy requires total commitment as well as supporting organizational relationships. This strategic typology (unlike that of Miles and Snow) has been used extensively in the operations management and service operations management literature to predict the choice of operational processes (Adam & Swamidass, 1989; Adam Jr & Swamidass, 1989; Boyer & Frohlich, 2006; Goldstein et al., 2002; Kotha & Vadlamani, 1995; K. Roth & Nigh, 1992; Swink, Narasimhan, & Wang, 2007; Swink & Song, 2007; Vickery & Droge, 1993).

Generally, the three strategies provide three methods for firms to contend with forces that shape industries' expected profitability. The Cost Leadership strategy emphasizes low cost relative to competitors, taking into consideration quality and service through generating high productivity and low variation. The Differentiation strategy requires that a firm creates something that is recognized as being unique, and this perceived uniqueness enables the firm to charge higher prices (G. G. Dess & Davis, 1984; Porter, 1980).

		Competitive Advantage	
		Efficiency	Uniqueness
Competitive Scope	Broad	Cost Leadership <ul style="list-style-type: none"> ▪ <i>Large Scale Facilities</i> ▪ <i>Maximize Economies</i> ▪ <i>Efficient Technology</i> ▪ <i>Efficient Production</i> ▪ <i>Standardized Service</i> 	Differentiator <ul style="list-style-type: none"> ▪ <i>Brand Recognition</i> ▪ <i>Pleasing environment</i> ▪ <i>Make to Order</i> ▪ <i>High Service Quality</i> ▪ <i>High Service Consistency</i>
	Narrow	Focus Cost Leadership	Focus Differentiator

Figure 2.2 Porter's Generic Competitive Strategies

The third strategy is Focus. In this strategy the firm focuses on a particular group of customers, geographic market, or product line segments. Porter (1980) posits firms oriented toward specific strategies should outperform firms that have not clearly chosen a strategy. Given that strategy literature has long suggested a linkage between business-level strategy and process choice, it is not unreasonable to posit similar relationships in service strategy. Porter's typology suggests firms can choose one of the three strategies with which to compete, each requiring different emphasis on particular service characteristics (Porter, 1980, 1985).

The Cost Leadership strategy seeks to gain competitive advantage by being the lowest cost producer in the industry. This often involves process standardization to effect scale efficiencies and tight controls on overhead, research and development and service and advertising. Externally, this strategy requires the avoidance of marginal customer accounts and the minimization of service, sales force training, and advertising. Low costs relative to competitors becomes the theme of the entire strategy, informing even decisions regarding quality and service (Porter, 1979a).

To obtain and maintain the Cost Leadership position in an industry, a firm must have a high relative market share, favorable access to raw materials, and products that are designed for ease of production. Organizationally Cost Leadership is attained through standard procedures, formal centralized coordination, and a vertical reporting structure (G. G. Dess & Davis, 1984). The risks of the Cost Leadership strategy rest on several premises underpinning it. First, it is predicated on a market that can consume all that is produced. Secondly, it depends on there being little to no risk of obsolescence. Finally, Cost Leadership depends on a market that is stable and largely accommodating to the Cost Leader's undifferentiated products.

The Differentiation strategy attempts to create a service that is perceived industry-wide as unique. This can be accomplished through design or brand image, innovative technology, customer service, atmosphere, or other attractive features. The ideal strategy for the Differentiator is for the firm to be perceived as unique along several dimensions, rather than only costs (as in the case of the Cost Leader). Structurally, Differentiators are organic and have low levels of formalization and specialization. Their tendency to prefer horizontal structures enables them to provide considerable output flexibility and to reward innovation, but this also precludes their being as efficient as Cost Leaders (Porter, 1980).

The primary thrust of the Differentiation strategy is in the creation of customer loyalty and subsequent price inelasticity which may lead to a larger sales margin. This strategy is often associated with costly activities such as product research and training, unique product design, and substantial marketing expenses. An essential component of the Differentiation strategy is the customer's willingness to pay for product uniqueness (Goldstein et al., 2002; Porter, 1980; K. Roth & Nigh, 1992). Risks to the Differentiator include market homogenization – i.e., differentiable bases diminishing over time – and costs of uniqueness that cannot be recovered through premium pricing.

Porter's final generic strategy is Focus. This strategy emphasizes the targeting of a specific market segment – e.g., a particular region or a unique pattern of usage or consumption. The Focus strategy rests on the firm being able to serve its targeted segment either more

efficiently or more effectively than industry-wide competitors (G. G. Dess & Davis, 1984; Porter, 1980).

2.3.3.1 Empirical Summary of Porter's Generic Strategies

Empirical research based on Porter's typology is abundant in the strategy and operations management literature. Early studies of the typology revealed findings consistent with the contention that commitment to at least one of the three generic strategies will result in higher performance (Woo & Cooper, 1981). Other empirical research has suggested that Cost Leaders have higher than average returns on total assets and (similar to the Defender) a large market share is not necessary to achieve Cost Leader benefits (G. G. Dess & Davis, 1984). In a study of business clusters, researchers found clusters of business units that show distinctive competencies in the area of differentiation, cost leadership, and focus dramatically outperformed all other organizations (D. Miller & Friesen, 1986b). Likewise, later studies found that business strategy both directly and indirectly affects business performance (Vickery & Droge, 1993) and that organizations with strategies that are aligned with organizational environment and structure outperform other organizations (D. Miller, 1988).

Of particular interest to this study is the research of Smith and Reece (1999) and Goldstein (2002). The former conducted an empirical study suggesting that businesses that link operations and business strategies will outperform organizations that do not. Additionally they found the alignment of operational elements with strategy to be of greater importance than the choice of strategy itself (T. Smith & J. Reece, 1999). Goldstein et al. (2002) applied Porter's typology to services and found that services also benefit from considering the corporate service strategy and the intended service concept (level of service) early in the service design process.

2.3.4 Combining the Miles and Snow and Porter Strategic Typologies

Miles and Snow typology and Porter's generic strategies have both received widespread attention over the last thirty years. While rooted in different academic literature, both are configurational schemes that ultimately depict certain "ideal" organizational types (Doty et al., 1993). The Miles and Snow typology is a theory of strategy, structure and process (Miles et

al., 1978), and Porter's framework is an economics-grounded approach that suggests ways in which organizations contend with their environments (Porter, 1980). The two were selected for this research because while both have gained widespread popularity, neither has been utilized to empirically study service firms. A detailed representation of their particular characteristics is located in table 2.1.

The overlap between these frameworks suggests several approaches that firms can use in their efforts to outperform industry competitors. Both theories depict organizations that must be committed to a particular strategy and configured appropriately in order to outperform competitors. Each theory outlines the required skills, organizational requirements and resources necessary to enact the particular strategy. Neither, however, offers guidance with regard to service dimensions that service firms could use in pursuing particular competitive strategies. Further, the service literature offers several service dimensions but fails to connect these with issues resulting from the pursuit of particular competitive strategies.

The Cost Leader and Defender are similar in several aspects. For example, they both seek to be efficient, the Cost Leader through standardization and a large market share and the Defender through the sealing off of a secure niche within a market. Operationally, both pursue efficiency through tight product and process control, cost-efficient technology, standardization, and rewarding efficiency innovations. The Cost Leader creates quantifiable goals and strives for low cost distribution, while the Defender focuses on single-core, cost-efficient technology and continuous improvement. Administratively, the Cost Leader and Defender are structurally mechanistic, utilize formal communication channels and centralized decision-making.

Table 2.1 Miles and Snow and Porter Strategic Typologies Comparisons

	Cost Leadership	Defender	Differentiator	Prospector
Strategy	How to be lowest cost producer the industry	Seal off market to maintain stable domain	Create a unique product without large market	How to locate, exploit, new products and markets
How to enact	High relative market share	Secure market niche	Loyal customers	Industry change
Process for strategy	Standardization, range of similar products, and minimize service	Cautious methodical growth Develop similar products	Creates Loyalty thru Brand recognition	Monitor environment, market development, product development
Risk	Changing market, Assumption that market can absorb all production		Over extension of resources; imitation Low profitability	
Operations	Attain Efficiency, standardization, and tight overhead LC Dist	Attain efficiency Ver Int, Cost efficient technology, Single Core technology	Creative Product Eng Output Flexibility Innovative Technology	Avoid technology, create Multiple flexibilities
	Control-product and process	Continuous improvement	Product Research	Low Routine
Goals	Quantitative	Quantitative	Unique Product Design	Simple Product design
Administrative, organizational structure	Configured for efficiency & function. Highly structured	Configured for efficiency & function. Highly structured	Configured for effective flexible information share Organic/.informal	Facilitate coordination btw business functions Organic/informal
Control, coordination, and communication	Centralized control, detailed/formal, simple	Centralized control, long loop vertical, Simple communication	Decentralized Complex cooperation from channels	Decentralized control, informal
Dominate coalition	Engineers-low cost	Engineers	Skilled & creative labor	Marketing and R & D
Labor Supervision Labor planning	Intense labor supervision, long range planning	Formal and Detailed, Intensive long range	Complex Shorter range	Complex Shorter range
Incentive system	Rewards efficiency	Rewards Efficiency	Rewards innovation	Rewards innovation
Service considerations	High volume, value, low cost, lean and remote or self-service	High Value Excellent customer service Lean & remote self service	Unique Elaborate & personal	Innovative, changing and elaborate, personal
Facility aesthetics	Low	Low	Higher emphasis	Higher emphasis
Layout accessibility	Lower (less important)	Lower (less important)	Higher Emphasis	Higher emphasis
Perceived quality	Lower importance	Higher importance	Higher Emphasis	Higher emphasis
Cleanliness	Less emphasis	Less emphasis	Higher Emphasis	Higher Emphasis

The dominant coalition of both is generally engineering-based, and incentives are created to increase throughput and generate volume (Miles et al., 1978).

The Prospector and Differentiator have less in common. Strategically, they differ as the Prospector seeks innovation, while the Differentiator seeks uniqueness. The Prospector enacts its strategy through product- and market-development, while the Differentiator exploits uniqueness to create brand- and customer-loyalty. Operationally, the two share a commitment to flexible technology, variation in output, unique products, and reward for innovation. Administratively, the Prospector and Differentiator are structurally organic and utilize informal communication channels and decentralized decision-making. The dominant coalition of both strategic types is generally marketing and research and development based.

2.3.5 Linking Corporate Strategy and Service Operations

Reviewing the literature on competitive strategy leads to the conclusion that this work should have value for research into the operations of service firms. For example, the competitive strategy of a Defender or Cost Leader generally suggests the organization seeks profit through being more efficient than competitors. For a service organization, this might translate into a high-volume service delivered via a standardized approach that is, ultimately, more efficient than that chosen by competitors (G. L. Shostack, 1977). Conversely, a service organization that is a Prospector or Differentiator will attempt to ground its profitability in unique and inimitable (at least in the short run) service offerings. These two competitive approaches necessitate vastly different service characteristics and service bundles.

In a similar vein, recent literature has suggested the importance of matching what the customer expects with what is delivered in the service. These expectations are indirectly addressed in an emerging literature focused on their affect on customers' perceptions of the service (Goldstein et al., 2002). Researchers pursuing this line of inquiry argue that the customer has a preconceived image of the service concept and evaluates the service received based on this preconception. Therefore, it is suggested, services should incorporate the service concept at the strategic level and subsequently link it to actual service processes. What this literature fails to address is where

customer expectations originate or, alternatively, how pursuit of a particular competitive strategy might translate into the targeting of certain customer expectations. Put another way, missing in the service literature is a means of informing operational choices – particularly those regarding service characteristics – with customer expectations as result from a firm's pursuit of a certain competitive strategy. For parsimony's sake this research focuses on only one service aspect, servicescape, which is reviewed in the next section.

2.4 Servicescape

Servicescape describes the manmade physical surroundings (as opposed to the natural or social environment) that affect customer perceptions of service and may lead to (or away from) customer satisfaction (Bitner, 1992a). It is largely described as the effect of atmospherics, décor, facility design, and layout on a customer's perception of quality, that customer's current and future buying behaviors, and his or her perceptions of the firm. The dimensions of servicescape generally described in the literature are ambient conditions, spatial layout and functionality, and signs/symbols and artifacts. Research suggests it has particular relevance in the service industry due to the intangible and relatively short-term nature of services (Bitner, 1992a; Bitner, Booms, & Tetreault, 1990; Parasuraman, Zeithaml, & Berry, 1988; G. L. Shostack, 1977; G. Lynn Shostack, 1984; V. A. Zeithaml, Berry, & Parasuraman, 1993). Unlike manufactured goods, services are generally produced and consumed simultaneously, most often while the customer is present in the service delivery system. Customer perceptions about servicescape have been shown to stimulate emotional responses about firm image and purpose, and these perceptions have also been shown as significant influences on the accomplishment of organizational goals and marketing objectives (Bitner et al., 1990). As a result, servicescape is an important consideration for service firms.

2.4.1 Servicescape and Customer Interaction

In one attempt to explain the relative importance of servicescape, authors suggest Servicescape Typology can be used to address a firm's servicescape concerns (Bitner, 1992b). This theory suggests that physical surroundings, in general, are more important in services because the customer resides in the facility. However, the specific strategic concerns of the service and the

nature of service consumption independently shape the relative importance of particular servicescape dimensions. To ensure these considerations are incorporated in the design and planning phase of the service, several researchers suggest categorizing services by two dimensions (Christopher H. Lovelock, 1983; Schmenner, 1986, 2004). Specifically, this typology suggests services can be categorized by: 1) who will perform the service; and 2) how complex the service is.

The first dimension captures the degree to which the customer is responsible for the performance of the service. At one extreme (self service), the service is performed solely by the customer. At the other extreme (remote service), the service is actually performed in a remote location by service personnel. Intermediate to these extremes is the situation in which the service involves joint inputs by both the customer and the service personnel (interpersonal service). Each point along this continuum suggests a different level of customer and employee involvement which are critical factors in the design of the physical surroundings of the service (Bitner, 1992a). For example, interpersonal services require that special consideration be given to the nature and quality of the customer-employee interaction. Similarly, in a self-service setting, the creative use of physical design to support particular positioning strategies and enhance specific marketing objectives could lead to increased customer satisfaction and attraction. Each of the settings described in this framework requires careful consideration as to how the servicescape influences the customer's experience (Crosby, Evans, & Cowles, 1990).

The second dimension captures the complexity of the servicescape. Some services require simple servicescapes with few elements and spaces. Such services are considered lean. Lean services typically provide service using a simple structure and design. Evidence of this can be seen at self-service locations where there is limited or no interaction between the customer and service provider. An example of a lean service is a package drop-off kiosk or an automated teller machine. Other service settings, considered elaborate, are intricate, with many elements and complex spaces. These services often have sophisticated equipment and require complex interaction between customer, the service environment, and the employee. An example of an elaborate service setting may be a hospital with various floors, rooms, and sophisticated equipment (Bitner, 1990).

This framework is useful for several reasons (Bitner, 1992a). First, it builds on a steadily growing body of environmental psychology literature that suggests humans are influenced by their surroundings. Second, it helps highlight the relative complexity of the environmental decisions that confront services. Third, it begins to address the specific behaviors that may be elicited from a particular set of physical surroundings or interactions. Using this typology, researchers propose that a number of relationships should be considered (Bitner, 1992a). For example, they suggest self-service firms will be most interested in predicting and understanding customer behavior in the physical service setting, with objectives generally centered on customer attraction, satisfaction, and retention. Conversely, firms that are able to separate core service functions from the customer (e.g., a check processing center) are considered remote. Remote locations are relatively more concerned with employee behaviors such as productivity, teamwork, and innovation (Dobni, 2004). Falling somewhat in-between are interpersonal services requiring consideration of customer and employee behavior, as well as the effects of physical setting on the interactions between and among customers and employees (Bitner, 1992a; Bitner, Booms, & Mohr, 1994; Fisk, Brown, & Bitner, 1993).

Perceptions of servicescape have been shown to elicit certain emotions, beliefs and assumptions in customers. Said differently, the service surrounding acts as a form of nonverbal communication and influences a person's beliefs about the overall service and service provider (Broadbent, Bunt, & Jencks, 1980; Rapoport, 1982). In a study of environmental factors such as the apparel worn by lawyers, the type of office furniture in a travel agent office, and the size of an office, all were all found to affect customer trust and beliefs about the product quality (Bitner, 1990; Bitner et al., 1990; McGuire, 1985).

Furthermore, perceptions of servicescape may help people "categorize" services. Categorization is the process by which people organize information. For example, people have particular configurations of environmental cues that suggest "fast food" rather than "fine dining" (James C. Ward, Mary Jo Bitner, & John Barnes, 1992). This line of thought is of particular interest to this study because services are relatively intangible (compared to manufactured goods), are high in credence attributes (Parasuraman, Zeithaml, & Berry, 1994; G. L. Shostack, 1977; V. Zeithaml,

1981) and generally afford fewer opportunities for intrinsic cues for customers to form beliefs about service quality. Understanding the particular physical configuration model customers use to make particular categorizations is increasingly important in the competitive business environment. For example a firm wishing to sell fast food would want customers to observe the fast food servicescape from the environment rather than a fine dining servicescape.

Empirical research suggests customers may use their beliefs about the servicescape as surrogate indicators of service quality (Bitner, 1992b). Even before purchase, customers commonly assess firm capabilities and quality through aligning the physical cues with their preconceived notion of how the physical environment of the service should appear (Berry et al., 1988; G. L. Shostack, 1977). In services, the customer is influenced by the physical environment, much in the same way employees (and their satisfaction, motivation and productivity) are influenced by their surroundings (S. G. Cohen & Bailey, 1997; Sundstrom & Sundstrom, 1986). In fact, the servicescape literature suggests that the service environment is often treated by customers as a proxy for service quality in their satisfaction calculations (Bitner, 1990, 1992a; Bitner et al., 1990; K. Wakefield & J. Blodgett, 1996; J. C. Ward, Mary Jo Bitner, & J. Barnes, 1992). In the following paragraphs a more detailed discussion of the dimensions of servicescape is undertaken.

2.4.2 Dimensions of Servicescape

The bulk of the manufacturing/service literature suggests that quality is a core element of a firm's strategy. As suggested above, service quality results from a complex mix of environmental features that influence both emotional and behavioral responses. Servicescape is defined as a combination of several dimensions that influence customers' holistic perceptions of the service. The original dimensions proposed by Bitner (1992) were: 1) ambient conditions; 2) spatial layout and functionality; 3) signs, symbols and artifacts; and 4) perceived quality. Several years later they were condensed and relabeled as: 1) facility aesthetics; 2) facility layout; and 3) perceived quality (Bitner, 1990; K. Wakefield & J. Blodgett, 1996; J. C. Ward et al., 1992).

Facility aesthetics are described as the ambient conditions (color, music, and lighting), seating comfort, and overall cleanliness that affect an individual's perception and response to the

environment (Baker & Collier, 2005; Parasuraman et al., 1988). The interior and exterior conditions of the service includes architectural design, décor and special design, overall attractiveness, temperature, lighting, noise, and background music. Facility aesthetics such as wall color, wall covering, seats, and overall facility attractiveness have been incorporated in the consideration of ambient conditions which, at present, are seen as capturing the overall appearance of the facility's design (K. Wakefield & J. Blodgett, 1996). The customer's perception of seating comfort is an important component of ambient conditions. It is especially relevant in services where customers sit for long periods of time. For example, the padding and available seat space for a particular chair may affect a customer's impression of the service. Also, a customer may be psychologically uncomfortable if seated too close to other patrons.

Closely related to facility aesthetics is cleanliness. This construct is a consideration in all aspects of the service environment, including floors, walls, restrooms, and other service areas. Customers often associate cleanliness with the quality of the overall servicescape. Since customers spend a considerable number of hours observing and evaluating (either consciously or subconsciously) the overall ambient conditions of the entire facility, this is an important construct in the study of services (K. Wakefield & J. Blodgett, 1996).

Facility layout and functionality are generally referred to as the way in which equipment and furnishings are arranged and the ability of those items to facilitate customers' enjoyment. They are often perceived through (signage and symbols) décor intended to communicate and enhance a certain image or mood or to direct customers to desired destinations (K. Wakefield & J. Blodgett, 1996). Facilities are explicit communicators used as labels and directions to communicate behavioral guidelines. Implicit communicators, such as quality of the raw materials and equipment, office and desk size, tidiness, the presence of certificates and photographs, and personal objects are all symbolic representations of status and professional image (Pfeffer, 1981; Wener, 1985). Both have been shown to affect the customer's impression of the quality of the service. In a study of leisure activities, electronic equipment displays were shown to have a significant positive impact on perception of quality in football and casino activities (K. L. Wakefield & J. G. Blodgett, 1996).

The perceived quality satisfaction and behavior intentions refers to the amount of time the customer spends in the service, and how likely that customer is to further patronize the establishment (K. Wakefield & J. Blodgett, 1996). The servicescape is commonly referred to as the interior layout and design of a service, and has been labeled as a method for services to create a particular customer environment. These dimensions are particularly relevant in service industries because, unlike in manufacturing, the customer resides in the service (Chase, 1988). Empirical research suggests these characteristics shape customer satisfaction in the retail and food industries among others (Bitner, 1992a).

2.4.2.1 Summary of the Empirical Servicescape Literature

Empirical studies have been conducted to confirm the effect of ambient conditions, facility aesthetics, and cleanliness on customer perceptions of service quality. Specifically, studies of restaurants and supermarkets have found that music tempo and familiarity of décor affects how long one shops, which ultimately reflects customer satisfaction (E. Locke, 2001). Likewise, studies have suggested “fine dining” would require one particular set of ambient conditions while fast food may require another (Bitner, 1992a). Other studies have shown lighting, temperature, noise, color, and smell can all influence employee behavior and performance (W. M. Cohen, 1992; Latham & Locke, 1979; E. A. Locke & Sirota, 1976). In a study of leisure activities of customers at professional baseball games, football games and in casinos, facility aesthetics and cleanliness have been shown to positively impact customers’ perceptions of quality (K. Wakefield & J. Blodgett, 1996; Wakefield & Blodgett, 1999).

Spatial layout and functionality of the physical surrounding are particularly important to services. Spatial layout in services generally refers to the way in which machinery, equipment and furnishings are arranged and the size and shape of those items. Functionality refers to the product accessibility, flow of pathways, and appeal of service displays. An effective layout provides ease of entry/exit and accessibility to ancillary services. Bitner (1992) finds that spatial layout and functionality are particularly salient in complex self-serve settings. Layout in discount stores has

been found to facilitate the fulfillment of functional needs, while interesting and mood-altering layouts may provide hedonic value (K. Wakefield & J. Blodgett, 1996).

Empirical research regarding spatial layout and functionality has consistently shown these to be positively associated with customer satisfaction. For example, layout accessibility and seating comfort were both found to have positive effects on perceived quality across leisure settings (K. Wakefield & J. Blodgett, 1996). Likewise, spatial layout and functionality have been linked to ease and satisfaction expected (Bitner, 1990, 1992a). Some research suggests that if the customer is required to complete complex tasks with time pressures, he or she is less likely to enjoy the service and is therefore less likely to further patronize that firm. This suggests some level of comfort perceived by customer may shape further service purchases (Bitner, 1992a; Wener, 1985). Conversely, researchers have also found that customers seeking value prefer functionality over comfort in facility layouts (K. Wakefield & J. Blodgett, 1996).

2.4.3 Perceived Quality, Satisfaction and Behavioral Intentions

The original servicescape framework suggested that positive responses to the servicescape will result in increased attraction to the service and increased length of stay in the service (Bitner, 1990). The nature of services is such that the length of time one stays in the service is crucial for both business survival and growth (Baker & Collier, 2005). Empirical research supports this proposition, with overall satisfaction with servicescape positively associated with the length of time customers desired to stay in the service setting (Wakefield & Blodgett, 1999). This finding supports the assertion that overall perception of servicescape is among those factors that keep a customer in the service. It can be inferred, then, that service operators providing a good primary service may be missing opportunities for additional profit if they are not providing an appropriate servicescape.

2.4.4 Strategic Servicescape Considerations

In summary, the servicescape literature suggests several relevant ideas. First, the servicescape typology suggests that different services involve different interactions between customer and employee, thus leading to distinct needs regarding physical surroundings considerations (e.g., complex versus lean). Second, servicescape, in and of itself, can elicit particular

emotional responses in customers, leading them to categorize the service in a particular way. Third, consideration of the three servicescape dimensions is important in the design, planning, and execution of services. These ideas are central to this research because they all suggest a relationship exists between a customer's preconceived images of an appropriate servicescape for the service being obtained and a customer's satisfaction with the service he or she ultimately received. However, existing literature offers little guidance on how a service provider might tap this relationship when choosing from myriad servicescape possibilities while also being sensitive to the intended competitive position. The literature is rich with prescriptions regarding various service dimensions for increased productivity or throughput, but it is lacking in the integration of these prescriptions with respect to competitive strategies

2.5 Linking Services, Competitive Strategy and Servicescape

While the discussion of servicescape argues for the broad importance of the physical aspects of the service experience, inferences drawn from the operations strategy literature suggest that the importance of different service dimensions is contingent on a firm's competitive strategy. That is, rather than arguing for the importance of all servicescape dimensions in all companies of a common industry type (e.g., servicescape for hotels), a more detailed analysis likely would point to differing importance of servicescape dimensions based on competitive strategies .

Thus, specific implications of generic strategies are depicted vis-à-vis particular servicescape characteristics. This is not a new idea, as several researchers have suggested that perceived service quality depends on the type of service, the complexity of the service task, and the customer's preconceived expectation of service. In line with this reasoning, this research asserts that particular service characteristics may be more or less important for certain strategies, and it is the interplay of these contingencies that leads to customer satisfaction (Chase & Zhang, 1998; Parasuraman et al., 1994).

2.5.1 Defenders, Cost Leaders and Servicescape

Given the description of a Defender service organization it is reasonable to assert that such a firm would attempt to deliver a large volume of standardized services conducted with standardized

processes. Defender services would tend to compete primarily on the basis of low price, acceptable quality, and quick delivery (Hambrick, 1983b). Some of these services may be characterized by the servicescape literature as lean and/or remote, requiring little employee-customer interaction (Bitner, 1992a) with less emphasis placed on facility aesthetics and perceived quality. Conversely, the layout accessibility would be functional (rather than being designed for the fulfillment of purely hedonic considerations) and efficient to increase throughput. Likewise less emphasis may be placed on cleanliness and perceived quality.

Similarly, the Cost Leader may seek low-cost customers and attempt to standardize the service setting and the services rendered. Cost Leaders are likely to reduce the personal element in service delivery, trim down network costs, and seal off portions of the service to enhance efficiency (Goldstein et al., 2002; Porter, 1980; Thompson, 1967). Much like the Defender strategy, Cost Leadership involves aggressive pricing to effect and exploit economies of scale, often leading to large-scale facilities taking the form of “remote/lean” services (D. Miller & Friesen, 1986a).

Taken together, it is reasonable to infer that the strategic orientation of the Defender and Cost Leader is such that they will invest considerable resources to maintain their position in a mature market. They often achieve this by offering baseline service quality and servicescape but also by offering the lowest-priced services (as opposed to rivals’ high service quality and superior servicescape) (Walker Jr & Ruekert, 1987). Defenders and Cost Leaders would tend to be lean, promoting efficiency through utilitarian ambient conditions, throughput-enhancing layouts, and standardizing technology. Lean services would tend to be quick, designed for a broad customer base, generally with physical surroundings to match.

2.5.2 Prospectors, Differentiators and Servicescape

As the earlier description of a Prospector suggests, one might infer that firms pursuing this competitive strategy would be primarily concerned with developing and exploiting new service opportunities. Given their emphasis on development, Prospectors would tend to offer a rapidly changing array of service choices in unique physical settings. Given the Prospector’s reliance on people for innovation, it would be reasonable to anticipate a Prospector service firm emphasizing

knowledgeable employees, attentive service delivery, and a pleasing overall service experience. Consistent with these would be an emphasis on supporting facility aesthetics such as color, décor, and architecture. The Prospector's elaborate and interpersonal service design would rely heavily on the judgment of highly trained individuals performing in meticulously designed servicescape settings.

For a Differentiator, it would be reasonable to anticipate a primary focus on extracting premium prices for its outputs. In service settings, the Differentiator services would look to create and/or maintain an aura of uniqueness, often through a carefully configured elaborate physical setting. To enhance perceived quality, the Differentiator would tend to emphasize facility aesthetics, cleanliness, and employee skill level. Specifically, the differentiator would tend to emphasize architecture and décor. The differentiator service firm would also tend to rely on the judgment of highly trained individuals, typically associated with an elaborate and interpersonal service settings (Goldstein et al., 2002).

2.6. Hypotheses Development

As the preceding synthesis demonstrates, a service organization's competitive strategy has implications for the characteristics of the service products it offers (Miles et al., 1978; Thompson, 1967; Van De Ven, Delbecq, & Koenig, 1976). It is expected that, in general, the servicescape characteristics a firm chooses will reflect the competitive strategy that firm is pursuing. That is, firms pursuing different strategies should emphasize servicescape characteristics in different but predictable ways. For example, rather than arguing for the importance of servicescape in all companies of a common industry type (e.g., servicescape for hotels), a more detailed analysis would delineate the importance of a particular service characteristic depending on the competitive strategy of the service organization.

This research combines two approaches to conceptualizing competitive strategy: Miles and Snow (1984) and Porter (1980; 1985). The overarching research question pursued is:

Is the relationship between customer satisfaction and servicescape contingent on the firm's competitive strategy?

In anticipating a strategy-contingent relationship between servicescape and customer satisfaction, it is necessary to take into account servicescape's congruence with other elements of the firm's service concept (Goldstein et al., 2002). That is, if it can be safely assumed that firms' service concepts tend to be reflective of their strategy, customers would tend to have stronger expectations regarding servicescape for Prospector/Differentiator firms than they would for Defender/Cost Leader firms. As customer satisfaction is typically viewed as dependent on how well expectations are met (Edvardsson & Olsson, 1996; Heskett, 1987), the marginal benefit of improved servicescape should be higher for Prospector/Differentiator firms than it will be for Defender/Cost Leader firms. This line of logic is at play in the development of four hypotheses.

Firms pursuing the Prospector/Differentiator strategy emerge in dynamic environments and seek to find and exploit new product and market opportunities. They tend to make capital investments in product innovation and uniqueness. Given this, customers of the Prospector/Differentiator strategy service firm would recognize that uniqueness comes with a high price but also a higher level of service quality. Firms pursuing the Prospector/Differentiator strategy, then, should emphasize facility aesthetics and perceived service quality to a greater extent than those pursuing the Defender/Cost Leader strategy.

H₁. The relationship between facility aesthetics and customer satisfaction will be stronger for firms pursuing a Prospector/Differentiator strategy than it will be for firms pursuing a Defender/Cost Leadership strategy.

H₂: The relationship between perceived quality and customer satisfaction will be stronger for firms pursuing a Prospector/Differentiator strategy than it will be for firms pursuing a Defender/Cost Leadership strategy.

Given the dynamic environment in which the Prospector/Differentiator competes and the heightened customer expectations that follow from this strategy, the Prospector/Differentiator is forced to continually monitor all aspects of the physical environment, including overall cleanliness.

Likewise the overall level of service – including quality, employee knowledge level, overall delivery performance, and the overall feeling the customer has about the service – will have a greater impact on customer satisfaction for firms pursuing this strategy than for firms pursuing the Defender/Cost Leadership strategy.

H₃: The relationship between cleanliness and customer satisfaction will be stronger for firms pursuing a Prospector/ Differentiator strategy than it will be for firms pursuing a Defender/Cost Leadership strategy.

Firms pursuing the Defender/Cost Leader strategy deliberately enact and maintain a stable environment, striving to control a specific market slice in order to create stability. They tend to make large capital investments in efficiency that can be fully recovered over extended periods of time. Because the Defender/Cost Leader emphasizes efficiency in its operations, it will tend to appeal to customers who seek value (lowest price, largest quantity of product). Firms pursuing the Defender/Cost Leader strategy, then, should emphasize layout accessibility to a greater extent than firms pursuing the Prospector/Differentiator strategy, with accompanying consequences for customer satisfaction.

H₄: The relationship between layout accessibility and customer satisfaction will be stronger for firms pursuing a Defender/Cost Leadership strategy than it will be for firms pursuing a Prospector/Differentiator strategy.

The method by which these hypotheses were tested is discussed in the next chapter.

CHAPTER 3

METHOD

In line with the increasing frequency of calls for empirical research incorporating theory from the behavioral sciences (Chase & Apte, 2007), this study integrates service management concepts with strategic management theory in an attempt to advance the knowledge base in service operations. The study utilizes a cross-sectional survey to assess the relationship between the service firm's competitive strategy, perceptions of that firm's customers with regard to servicescape, and overall customer satisfaction.

This chapter details the methods that will be used to test the hypotheses put forth in the previous chapter. In an effort to demonstrate the potential for the external validity (generalizability) of this research, section 3.1 discusses the firm level sample selection process. Section 3.2 then discusses the development and/or choice of those measures used in this research. Finally, section 3.3 details the statistical approaches used in testing the hypotheses. Sample selection was driven by the nature of the four hypotheses to be tested in this study. Since the model involves both identification of company strategy as well as customer perceptions of servicescape and satisfaction, two sampling frames were required. These include the identification of companies and customers of those companies. The selection of the sample for each is discussed below in turn.

3.1 Industry and Company Selection

A number of considerations figured in the selection of industries and firms for this study. First, to control for industry effects (Harrigan, 1983; Miles et al., 1978), the sample was limited to a small number of distinct industries rather than a random sample across industries. Second, to control for differing patterns of customer-firm interactions in order clarify the role of

competitive strategy, the industries chosen all tended toward the “low customer contact” portion of existing service frameworks (Schmenner, 1986, 2004). The interplay of these considerations led to the following industries being chosen for study: General Merchandise (NAICS: 452990); Radio, Television and Consumer Electronics (NAICS: 443112); and Prepared Foods (NAICS: 722110). Although this was, by and large, a convenience sample as regards industries, such samples is common in research into service firms (cf., Pritchard et al., 1999).

The industries chosen for this study had previously been placed in similar, though not identical, positions in both the service process matrix (by Schmenner (2004) as a result of his update to the original Service Process Matrix) and the customer-contact model (Chase, 1988; Schmenner, 2004). Further, within each industry there were major companies that appeared to be pursuing different strategies. Within consumer electronics retailing, for example, Best-Buy and Circuit City operate out of “big-box” locations while Radio Shack operates out of much smaller stores in more numerous locations. The companies selected for the prepared foods industry offer a variety of different products in different settings and the general merchandise companies differ in the range of products offered and the location of their stores (e.g., Wal-Mart stores are always stand-alones while Sears are generally located as anchors at shopping malls). Ultimately, for general merchandise, the companies selected were Wal-Mart, Target, Kohl's, and Sears. Consumer electronics retailers were represented by three stores: Best-Buy, Circuit City, and Radio Shack. Finally, the prepared foods industry was represented by four industry leaders: Starbucks, McDonalds, and Wendy's.

3.1.1 Perceptions of Servicescape and Customer Satisfaction

Collecting information on customer perceptions of servicescape and customer satisfaction necessitated identifying the sampling frame as individuals who had experience with the stores identified above. A field study approach was considered because of its advantage that subjects would be in a position to observe and experience the servicescape directly and offer an immediate response (K. Wakefield & J. Blodgett, 1996; Wakefield & Blodgett, 1999). This method, however, might compromise a study's internal validity as a result of the tendency

of respondents to over-examine the focal experience and under-examine their cumulative experience with that firm (Hackman, 1985). In addition, it was not clear that all of the selected companies would be willing to participate in having their customers solicited for surveys.

As an alternative, it was decided to collect data from customers who had several recent experiences with the service firm in question. Consistent with the suggestions of Trochim (2001), the sample for this study built on four groups that included as wide a range as possible in age, income and education level. The first group consisted of fifty undergraduate business students at a large southwestern university. These fifty students were then used to obtain a criterion-based snowball sample (Goodman, 1961; Huck, 2004) by asking them to provide the names of other people they knew who might be willing to complete such a survey. Those selected were then contacted and asked to complete the survey. The second group consisted of adults with children involved in a community sports association that includes individuals of several income ranges. The third group was a call center for a major bank that employed young professionals. The fourth group was an upper-middle-class neighborhood association with more than 500 homes.

In each group, the subjects who agreed to participate were asked which of the sample stores they had frequented in the past four weeks. Participants were then randomly assigned a store from among those with which they were familiar.

3.2. Measure Development, Selection and Assessment

3.2.1 Strategy Measures

Historically, studies in the area of strategic management have relied on two key approaches: self typing and secondary data. The former approach requires key company executives to identify the strategic orientation of their organization based on information provided to them in survey instruments. While this approach has been used by many researchers in the past, it has several drawbacks. First, this approach produces a very personal and subjective picture of an organization's strategic behavior through the perspective of one person. Second, this approach suffers from survey technique shortfalls such as key respondent

bias, and interpretation effects. Finally, as Snow and Hambrick (1980) have observed, the most significant drawback to the self-typing approach is that the responses often reflect intended rather than realized strategies of the firms. While examination of intended strategies may in itself provide an excellent source of research ideas, this study focuses on realized strategy. As a result of these limitations, two approaches to measuring strategy were used in this study: Q-sort and archival classification. This dual approach was chosen because it provides an empirical subjective assessment and an objective assessment based on financial outcomes (Hambrick, 1980; E.J. Zajac & Shortell, 1989). Each approach is discussed in the following paragraphs.

3.2.1.1 Q-Sort Classification

The Q-sort methodology was devised originally by Stephenson (1953) and has been found effective at describing subjective opinions and comparing relative strengths of alternatives according to the beliefs and understandings of individuals (Montgomery & Delnero, 2001; Rosenzweig & Roth, 2007). In the Q-sort method, a judge or evaluator is given a set of randomly arranged statements that are to be used to describe a particular conceptual framework (e.g., a firm's competitive strategy) (Beard & Dess, 1981; Edward J. Zajac, Kraatz, & Bresser, 2000; E.J. Zajac & Shortell, 1989). The judges are then asked to arrange the statements in the best order to characterize the firm being evaluated. That is, the cards are put in order of representativeness (or significance) for the firm they are evaluating, beginning with those most characteristic and continuing to those least characteristic (Stephenson, 1953).

In this study the Q-sort method was employed as follows. First, the Q-sort items (index cards) were created with established descriptions of the competitive strategy types and edited into specific statements (Beard & Dess, 1981). The statements were reviewed for theoretical validity by several academicians who are familiar with the underlying theory of the competitive strategies utilized in this research. This resulted in a total of eighteen items (cards) created to describe the competitive strategies of interest in this research: Differentiator/Cost leader (items 1-10) and Prospector/Defender (items 11-19) The participants were asked to rank the items in the Q-sort list shown in Table 3.1

Table 3.1 Q-Sort Statements

Group 1: Porter (Differentiator and Cost Leader)

Rank 1- 10 (-1 = applies MOST; and 10 = applies LEAST)

- P1 Emphasis placed by corporate on firm reputation
- P2 Emphasis placed by corporate on monitoring efficiency
- P3 Emphasis placed by corporate on overall operational efficiency
- P4 Emphasis placed by corporate on competitive pricing
- P5 Emphasis placed by corporate on new service development
- P6 Emphasis placed by corporate on brand identification
- P7 Emphasis placed by corporate on innovation in marketing and advertising
- P8 Emphasis placed by corporate on control of channels of distribution
- P9 Emphasis placed by corporate on customer service
- P10 Emphasis placed by corporate on employee longevity

Group 2: Miles and Snow (Prospector and Defender)

Rank 1-8 (-1 = applies MOST; and 8 = applies LEAST)

- MS1 Attempts to locate and maintain a secure market niche in stable service market
- MS2 Maintains a more limited range of products and services than its competitors
- MS3 Protects market segment through providing consistently high quality service
- MS4 Does not try to be on the forefront of development in the industry, rather attempts to do the best job possible in its market segment
- MS5 Attempts to offer and update and refine a wide variety of products and services
- MS7 Attempts to be on the "forefront" of industry innovation
- MS8 Attempts to be first in with new products and services, even at a cost
- MS7 Responds rapidly to early signs of new product and service opportunities

Next, a group of individuals familiar with the theoretical underpinnings of firm competitive strategy and the eleven firms in the study was assembled (Chatman & Jehn, 1994) and presented with two sets of index cards. One set of index cards consisted of the firms in the industry with which the raters were familiar. The second set of seventeen cards contained the statements related to each competitive strategy. Each individual was asked to rank-order the strategy statements for each firm in the industry with which they were familiar (Bourgeois & Brodwin, 1984). They were advised to begin the Q-sort for each firm by creating three piles of cards: a group of cards that was most characteristic, a group of cards that was least characteristic, and a group that was "in the middle" or somewhat characteristic (Block, 1961). Once the three groups were created, the rater was then asked to rank order the cards in each group. When the rater was finished with the sorting of each group, the results were recorded.

The strategy characteristic items were then shuffled and the rater asked to go through the process again with the next firm in the same industry with which s/he was familiar.

Data resulting from the Q-sort effort were tabulated in the following manner. First, the data were scaled using an interval response scale (1-8 and 1-10). For example, if a respondent placed the card which stated "This Company has attempted to locate and maintain a secure niche in a relatively stable product or service market" (identifier code D1) in the first position in the Q-Sort Rank Table, this characteristic received a value of "1". This procedure was repeated until all the characteristics were scaled.

The scaled data approach allowed the ranking of each respondent to be translated into a score on each strategic type for each firm. This was accomplished by averaging the rankings given by a respondent on the characteristics associated with each of the strategic types. For example, if for a given firm the characteristics of a Defender were ranked by a respondent as 1, 2, 4 and 5, then the average for this respondent on the given firm's similarity to a Defender would be a score of 3. Following this procedure, an average score was computed for each of the strategic types for each firm on which a respondent completed the Q-Sort. Then, an average across respondents on each strategic type (Prospector, Defender, Differentiator, and Cost Leader) was computed for each firm.

3.2.1.2 Archival Strategy Classification

Given the complexity of assessing firm strategy discussed above, this research also used archival classification as a measure of strategy (G. Dess, Newport, & Rasheed, 1993). This method allows the researcher to empirically examine the financial implications of strategy typologies and assess the firm's conformance to a particular strategy. As explained in previous chapters, the characteristics of the strategies studied in this research are exemplified by managerial actions towards innovation, product uniqueness, and operational efficiency or product variety. This particular approach to strategy classification vis-à-vis either the Miles and Snow (1978) or Porter (1980) frameworks has been supported over the years in a substantial

literature base (Beard & Dess, 1981; Richard A. Bettis, 1991; G. Dess, Newport, & Rasheed, 1983; Helms, Haynes, & Cappel, 1992; Lawless, Bergh, & Wilsted, 1989).

The Miles and Snow typology has been the subject of extensive theoretical and empirical examination over the last few decades. It is operationalized along two sub-constructs: a) prospecting or market orientation; and b) defending or efficiency orientation (Snow & Hambrick, 1980). Researchers conclude that this typology can be characterized through the interpretation of several measures derived from secondary sources (Hambrick, 1980; E.J. Zajac & Shortell, 1989). The utilization of secondary data, while not without fault, provides a reasonably consistent measure of these strategy descriptions and has become the dominant approach in the literature (Hambrick, MacMillan, & Day, 1982). In the following sections, measures from secondary sources are discussed.

Measures of Prospector-type behavior assess the innovative initiatives of the firm. Generally, these assessments tap into the critical areas of market-related expenditures, research and development expenditures, and the number of product segments. Prospectors typically have higher market-related expenditures than defenders. This emphasis is necessary because of their market focus (Edward J. Zajac et al., 2000). The amount of money, relative to total sales, a firm spends on advertising and selling may suggest how much emphasis a firm places on Prospector-type behaviors. Likewise, Prospectors are theoretically expected to have high levels of product-related research expenditures because they introduce new products and change their offering at a rate that is higher than the industry average. Hence, it would be defensible to argue that research expenditures as reported by these firms are predominantly product-related and consequently can be used to measure Prospector behavior. Ratios of research and development expenditure to sales and research and development expenditures per employee were derived to control for the effects of size. While these measures have been used in current research, service firms may utilize several business functions for research and development, suggesting this measure may be less accurate for services than for manufacturing firms (Edward J. Zajac et al., 2000; E.J. Zajac & Shortell, 1989).

In keeping with Miles and Snow's (1978) observation that Prospectors would offer a wider variety of products, a measure of product offerings was utilized. Within the context of the industries, there is a fairly standardized classification of product offerings. A numerical count of the total number of product classes that a firm offers was used to represent the diversity of products offered. Such an approach has been previously used by (Cool & Schendel, 1988).

Historically, these measures have provided a reasonable assessment of Prospector behavior. However, relying solely on measures derived for manufacturing firms may not capture the nuances of the service industry; thus, additional research was done to yield additional measures. In the deregulated airlines industry, a measure of Prospector behavior is the ratio of on-board extras and different combinations of seating arrangements to total passenger revenue (K. Ramaswamy, Thomas, & Litschert, 1994). Similarly, retail stores are able to distinguish their services by offering different combinations of retail space, renovation, and expansion. Therefore, a ratio of total capital expenditures on expansion, renovation, and service per sales dollar was used.

Defender behavior was measured by indicators that relate to the efficiency of an organization's operations. As Miles and Snow (Miles et al., 1978) observe, these types of organizations are internally focused and rely on efficiency in operations as a means of achieving competitive advantage. Research suggests operations costs (direct materials and labor) are indicative of the relative levels of efficiency a firm achieves. The specific measures utilized here were the ratio of operations costs to sales and employees. Likewise, the defender may attempt to reduce costs by increasing both inventory and fixed asset turnover, as well as increasing sales per square foot of retail space. These ratios were calculated as: a) the ratio of costs of goods sold to inventory; b) sales to fixed assets; and c) total square feet of retail space to total sales (K. Ramaswamy & Litschert, 1983).

Generally, Defenders invest a hefty proportion of capital in production assets (Miles et al., 1978). This is largely due to the sizeable investments that are necessary to operate at an acceptable level of efficiency. Two sets of ratios, total assets to total sales and total assets to

employees, can be utilized to assess a firm's relative asset efficiency (Hambrick, 1984). Similarly, specific investments in property, plant, and equipment may be used to derive ratios between: a) property, plant and equipment and total sales; and b) property plant and equipment to employees (Hambrick, 1980; Miles et al., 1978; K. Ramaswamy et al., 1994).

To summarize, the archival measures identified in the proceeding paragraphs were used to predict firm competitive strategy in the following manner. When compared to the industry average, Prospectors would tend to have higher advertising, research and development and expansion costs while Defenders would tend to exhibit efficiency in terms of productivity, operational efficiency, and asset efficiency. The firms were placed in the appropriate strategic category based on the direction of the majority of the calculated measures. The measures are summarized in table 3.2 Archival measures of the Miles and Snow Strategic Typology.

Table 3.2 Archival measures of the Miles and Snow Strategic Typology

	Prospector	Defender
Marketing / Total Sales	Higher than industry	Lower than industry
Research & Development / Total sales	Higher than industry	Lower than industry
Diversity of product offers	Larger than industry	Lower than industry
Operations costs/ Total Sales	Lower than industry	Higher than industry
Number of employees / Total Sales	Lower than industry	Higher than industry
Increasing inventory & fixed asset turnover	Lower than industry	Higher than industry
Property Plant and Equipment / Total Sales	Lower than industry	Higher than industry
Property Plant and Equipment/Total Sales	Lower than industry	Higher than industry

The Porter typology was operationalized in terms of Differentiation and Cost leadership and approximated through use of secondary data (Helms et al., 1992) Specifically, research suggests that Cost Leadership can be detected in firm actions directed towards operational efficiency, while Differentiation can be detected in actions directed towards unique delivery systems, high product quality, and high levels of customer service (G. Dess et al., 1983; Helms et al., 1992; Lawless et al., 1989).

The Differentiator is generally able to command a higher price for products which results in a larger gross profit margin. The basis for this variable can be traced to Porter's (1980) claim that a firm that pursues this strategy should be able to command a higher price by successfully distinguishing its product. Thus, it is expected that a retailer that successfully competes primarily on the basis of differentiation will have a higher gross profit margin on sales because its competitive advantage is based upon the ability to attract customers through offering a unique product or service. This can be calculated as total sales less cost of goods sold divided by total sales (Helms et al., 1992).

Similarly, high transaction costs are thought to be associated with the differentiation strategy because firms which compete principally on the basis of differentiation will incur greater direct sales costs. As a result of higher transaction costs and a higher level of customer service, it is anticipated that differentiator firms will have lower sales dollars per employee. This can be calculated as the ratio of total sales to total employees (R. A. Bettis & Hall, 1982; Ireland, Hitt, Bettis, & DePorrás, 1987).

The efficiency of the differentiator is expected to be low because such firms are expected to offer a wider range of customer services such as extended payment terms and hub-stocking programs. This can be measured in the ratio of accounts receivable to total sales (R. A. Bettis & Hall, 1982; Lawless et al., 1989). Likewise, capital intensity, measured as the ratio of property, plant, and equipment expenditures to total sales, is also expected to be lower for the Differentiator.

The measure of gross profit margin for the Cost Leader is expected to be lower than for the Differentiator as a result of offering low priced products. That is, it is expected that a retailer which competes primarily as a Cost Leader will have a lower gross profit margin on sales because it competes based upon the ability to attract customers through offering the lowest priced product (Helms et al., 1992; Jarillo, 1988; T. M. Smith & J. S. Reece, 1999)

The productivity variable is anticipated to be higher for Cost Leaders, which are thought to focus on achieving low direct costs and a high volume of output, resulting in high levels of productivity,

or sales revenue per employee. This can be calculated as the ratio of total sales to total employees (Helms et al., 1992).

Measures of efficiency and capital intensity are intended to capture the utilization of the firm's assets and its commitment to new technology. Cost Leaders are expected to focus on timely receipt of payment for sales (R. A. Bettis & Hall, 1982). Likewise, capital intensity, measured as the ratio of property, plant, and equipment expenditures to total sales, is expected to be higher for the cost leader (Lawless et al., 1989).

In sum, the archival measures identified in the preceding paragraphs were employed to predict firm competitive strategy in the following manner. When compared to the industry average, Differentiators may have higher gross product margin, while having lower productivity, asset efficiency, and capital investments. Cost Leaders would be expected to have lower gross profit margin with greater productivity, greater asset efficiency and increased capital intensity. These measures are summarized in Table 3.3 Summary of the Porter's Typology archival measures.

Table 3.3 Summary of Porter's Typology (1980) archival measures

	Differentiator	Cost Leader
Total Sales- Cost of Goods Sold /Total Sales	Higher than industry	Lower than industry
Total Sales / Number of employees	Higher than industry	Lower than industry
Plant and Equipment / Total Sales	Larger than industry	Lower than industry

3.2.2 Measures of Servicescape

As noted earlier, the study measured subjects' perceptions of servicescape based on recalled service encounters. Measures of servicescape were based on those originally developed by Bitner (Bitner, 1990) and later refined by Wakefield and Blodgett (K. L. Wakefield & J. G. Blodgett, 1996). Aspects of servicescape included facility aesthetics, layout accessibility, cleanliness, and perceived quality. In keeping with past practice in servicescape research (K. Wakefield & J. Blodgett, 1996; K. L. Wakefield & J. G. Blodgett, 1996), scale items were

measured on a standard seven-point Likert scale that ranged from “strongly agree” (1) to “strongly disagree” (7). Items were tailored for the various research setting (i.e. foodservice as opposed to general merchandise). A sample version of the servicescape measure is presented in Appendix A.

3.2.3 Measures of Customer Satisfaction

The customer satisfaction survey items chosen for use in this study were taken from several of the most widely used customer satisfaction instruments (Patterson & Spreng, 1997; K. Wakefield & J. Blodgett, 1996).

3.2.4 Control Variables

In order to be able to assess the nature of the sample and control, if necessary, for characteristics of the subjects, several demographic variables were included in the sample. These included the subject’s gender, age, education, and income level. In addition, subjects were asked to indicate the number of times in the past four weeks that they had visited the store on which they were providing information.

3.2.5 Assessments of Measures

Before the data were used in actual tests of the hypotheses, the measurement efforts that led to these data were assessed with regard to their reliability and validity. Quantitative assessments of reliability and validity are discussed in detail in Chapter 4. Prior to these assessments, however, qualitative assessment of a number of the measures was undertaken. Predominantly, this assessment focused on the translation validity of the scales contained in the survey instrument.

Translation validity focuses on whether a given operationalization is a good reflection of the construct and is composed of face and content validity (Trochim 2001; Huck 2004). Face validity of a measure represents the degree to which that measure “makes sense” as a measure of its focal construct, while content validity represents the degree to which the operationalization conforms to the theoretical domain of its focal construct. To assess translation validity, the strategy and servicescape instruments were prepared and administered to a group of strategy

and service operations professionals who were familiar with the theoretical underpinnings of the instruments. Based on their feedback, wording adjustments, and other minor modifications were made to the instrument. Upon completion the final instruments were generated.

3.3 Data Analysis

The hypotheses in this research were tested with moderated regression, reflecting the suggestion of Venkatraman (1989) regarding fit in organizational settings. The hypotheses depicted strategy as a moderator of the servicescape-customer satisfaction relationship. This perspective treats the impact of a predictor variable (x) on a criterion variable (y) as dependent on a third variable, termed the moderator (z). The fit between the predictor and the moderator is the primary determinant of the criterion variable (y) (Venkatraman, 1989).

This technique is particularly appropriate for this research because the underlying theory specifies that the impact of the predictor (X: Servicescape) varies across the different levels of the moderator (Z: Strategy). This technique can be utilized whether the moderator is categorical strategy type 1 or 2) or continuous. If the relationship between two variables, x and y, is a function of z the following mathematical representation is appropriate:

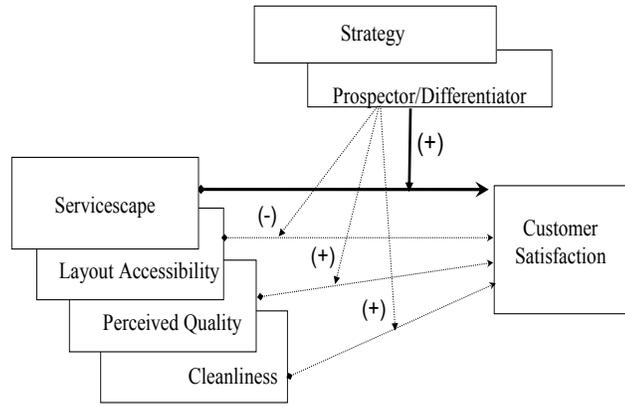
$$y_i = \beta_0 + \beta_j x_{ij} + \beta_2 z_k + \beta_3 x_{ij} z_k + e$$

In this representation, y_i is the i^{th} respondent's customer satisfaction, x_{ij} is the i^{th} respondent's perceptions with regard to servicescape dimension j, and z_k is the strategy of the firm being evaluated by the i^{th} respondent.

Support for a given hypothesis, all of which are depicted graphically in Figure Q.Q, was determined through affirmative answers to several questions. First, is the appropriate estimated slope coefficient significantly different from zero? Second, does the estimated slope coefficient exhibit the appropriate sign (i.e., negative or positive)? Third, when the interaction (strategy) term is entered, are the new slope coefficients significantly different from zero? Fourth, is the estimated slope coefficient for the interaction term significantly different from zero? Finally, is the amount of variance explained by the moderated regression significantly different from that in the regression model without moderation?

In answering these questions, a number of methodological issues were addressed before a conclusion of statistical significance was reached. For example, it was important to evaluate conformance to the assumptions that underlie the linear regression model (linearity, independence, normally distributed error terms and equal variance) and the absence of outliers.

Research Model: 1



Research Model: 2

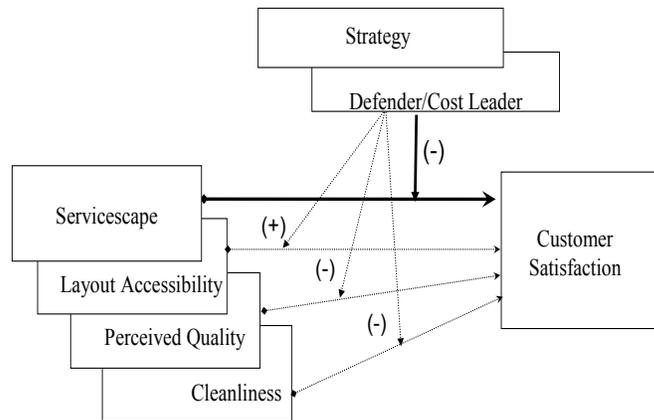


Figure 3.1 Research Model

CHAPTER 4

RESULTS

This chapter discusses the steps taken to gather and analyze data for tests of the hypotheses articulated in chapter 2. The data-gathering effort involved two approaches to categorize target firms strategically in addition to the administration of a survey questionnaire to customers of those firms. Actual tests of the hypotheses were done using moderated multiple regression analysis.

This chapter is organized as follows. Section 4.1 presents information on the strategic categorization of the target firms. Section 4.2 details the collection of data regarding customers' servicescape and satisfaction perceptions. This section also discusses efforts undertaken to evaluate these data with regard to reliability and validity. Section 4.3 reports the results of the statistical tests of this research's hypotheses.

4.1 Strategic Categorization of Target Firms

The first attempt to categorize target firms strategically was based on the use of archival measures since this technique has been widely used within the strategy literature (Bettman & Weitz, 1983; Hambrick, 1980; Lawless et al., 1989; D. Miller, 1988; Snow & Hambrick, 1980; Snow & Hrebiniak, 1980). For those firms that were not clearly categorized with archival data, a Q-sort approach was used as a supplement. Each of these approaches is described more detail in the following sub-sections.

4.1.1 Categorization with Archival Measures

Financial data for the period 2002 to 2006 (the most recent five years available) were obtained for each firm using the Hoover's and Compustat databases. From these five years'

worth of data was computed a five-year average on each of the measures outlined in chapter 3. These data were cross-checked several times to insure accuracy across the sample.

In an attempt to follow the lead of earlier studies in which firms were categorized strategically with archival measures (c.f., (Beard & Dess, 1981; G. Dess et al., 1983; Hambrick, 1983a; K. Ramaswamy et al., 1994), firms' values on the indicators were compared to industry averages. To that end, a comprehensive list of public firms that were involved in the three industries – General Merchandise (NAICS: 452990); Radio, Television and Consumer Electronics (NAICS: 443112); and Prepared Foods (NAICS: 722110) – was developed through a compilation of multiple sources. In order to ensure as complete a listing as possible, sources such as the *Encyclopedia of American Industry* and the United States Census Bureau were consulted. In all, these resources returned a list of eight electronics firms, fifteen general merchandise firms, and twenty-nine prepared foods firms in the specified industries. Industry averages were calculated by: 1) computing the five-year average for each archival measure (for all firms in a given industry); and 2) computing an industry average from these five-year firm averages.

For the Miles and Snow measures, firm values above the industry average on Total Revenue to Total Assets and Inventory Turnover were considered indicative of the Defender Strategy, while firms pursuing a Prospector Strategy would be expected to be above the industry average on the same measures. Conversely, it was anticipated that Defenders would be below industry averages (and Prospectors would be above industry averages) with regard to Administrative Expenses to Revenue and Operating Expenses to Revenue ratios. The Porter measures were computed in a similar fashion, with scores below (above) the industry average on Gross Profit Margin and above (below) the industry average on Productivity, Efficiency and Accounts Receivable Turnover seen as indicative of Cost Leaders (Differentiators) (Hambrick, 1980). In accordance with previous work, firms exhibiting a majority of the measures in one strategic typing category were categorized as of that type. If these measures resulted in a split categorization (e.g., two pointing to one strategy and two to another strategy), the firm was left

untyped at that stage. The results of this stage of the categorization process are shown in Table 4.1 Archival Measures for Strategic Typing.

Five of the firms received clear typing from this process. Specifically, in the Electronics industry, Best Buy typed consistently as a Defender/Cost Leader while Radio Shack typed consistently as a Prospector/Differentiator. In General Merchandise, Sears showed a consistent pattern as a Prospector/Differentiator, while Target and Wal-Mart showed clear typing as a Defender/Cost Leader.

However, as Table 4.1 shows, not all firms were clearly typed by these data. Specifically, in the Electronics Industry, Circuit City received a clear Porter typing as a Cost Leader but had split indicators on the Miles and Snow measures. In the General Merchandise industry, Kohl's received mixed indicators for both the Miles and Snow and Porter measures. The Prepared Food industry had the least conclusive results since none of the firms was clearly typed. McDonald's had three of four Miles and Snow measures that suggested a Defender strategy, but three of the four Porter measures suggested a Differentiation strategy. Similarly, Wendy's had three of four Miles and Snow measures suggesting a Defender strategy, but Wendy's Porter measures suggested that both Differentiator and Cost Leader strategies were in play. Finally, Starbuck's did not receive a clear typing from either set of generic strategy data.

In all, the archival approach left five of the ten firms untyped. Although disappointing, such an outcome was not unexpected. Previous research has suggested that archival measures do not always provide conclusive results, especially in service industries (E.J. Zajac & Shortell, 1989). It was for this reason that a second strategy-typing effort – a Q-sort based on responses from strategy experts – was undertaken. This approach and the results of it are discussed in the next section.

Table 4.1 Archival Measures for Strategy Typing

Miles and Snow Archival Strategy Typing	Symbol	Cost Leader = CL	Differentiator = DIF		Best Buy	Circuit City	Radio Shack	Sears	Target	Wal-Mart	Kohl's	McDonald's	Starbuck's	Wendy's
Total Revenue/Total Assets	TR	High	Low		D	D	P	P	P	D	P	P	D	P
Admin Expense/ Revenue	AE	Low	High		D	D	P	D	D	D	D	D	D	D
Total Operating Expenses/ Rev	TOE	Low	High		D	P	D	P	D	P	D	D	P	D
Inventory Turnover	IT	High	Low		D	P	P	P	D	D	P	D	P	D
Porter's Archival Strategy Typing	Symbol	Cost Leader = CL	Differentiator = DIF		Best Buy	Circuit City	Radio Shack	Sears	Target	Wal-Mart	Kohl's	McDonald's	Starbuck's	Wendy's
Gross Profit Margin	GPM	Low	High		CL	CL	DIF	DIF	CL	DIF	CL	DIF	CL	DIF
Productivity	P	High	Low		CL	CL	DIF	DIF	CL	CL	DIF	DIF	CL	CL
Efficiency	EFF	High	Low		CL	CL	DIF	DIF	CL	CL	CL	CL	DIF	CL
Accounts Receivable Turnover	ART	High	Low		CL	DIF	DIF	DIF	DIF	CL	DIF	DIF	DIF	DIF

4.1.2 Q-Sort

The Q-sort panel consisted of respondents who were familiar with both strategy typologies and who had studied one of the three industries of interest in this research. Specifically, all respondents had calculated archival strategy measures for both the firm and industry, compared one firm to others in the industry, and interviewed a manager from at least one of the firms. In all, there were five Q-sort respondents for Electronics, six respondents for General Merchandise, and seven respondents for Prepared Foods. In accordance with the guidelines outlined in Chapter 3, the Q-Sort respondents were assembled and, for each of the firms with which they were familiar, asked to sort two sets of index cards.

The first set consisted of eight index cards, each containing a statement that represented a component of a Miles and Snow competitive strategy on one side and an identifier code on the opposite side. Four of the cards contained statements representative of a Defender strategy and four contained statements representative of a Prospector strategy. Similarly, the second set of cards consisted of ten index cards, each containing a statement that represented a component of a Porter competitive strategy on one side and an identifier code on the opposite side. Five of the cards contained statements representative of a Differentiator strategy while the other five cards were representative of a Cost Leader strategy. The statements utilized in this Q-Sort are shown in Table 3.1 Q-Sort Statements (Chapter 2 Section 3.2.1.1).

The participants were then given a Q-Sort Response Sheet (Table 4.2) with the name of the industry and a column for each firm being assessed. Participants were asked to reflect upon the first firm on the response sheet. Having done that, they were instructed to: 1) read each statement on each card in the green card stack; and 2) place each card into one of three piles. The first pile was for cards with statements that the participant was certain applied to the firm being assessed. The second pile was for cards with statements that the participant was certain did not apply to the firm in question. The last set was for cards with statements about which the respondent was ambivalent (Block, 1961).

Then, the respondents were asked to sort through each pile and rank order the cards from those that described the firm best to those that described the firm least. Once the cards were ranked, the respondents were asked to copy the identifier code on each card to the respondent sheet, beginning with the statements that best described the firm and continuing through those that least described the firm. This process was done separately for both the Miles and Snow and Porter framework.

Table 4.2 Q-Sort Response Sheet

Directions: Using the cards you have just ordered (from applies most to the firm to applies least to the firm) transpose the identifier code identifier to the proper column below. The first set of boxes are for the green index cards (statements about Miles and Snow Typology), and the second set of boxes are for the blue index cards (Statements about Porter's Typology). For example, if you placed card MS1 first in reference to Target, the place MS1 in the first box; continue this process until all cards have been recorded on the response sheet.

	Kohls	Sears	Target	Wal-Mart
1				
2				
3				
4				
5				
6				
7				
8				
Porter's Generic Strategies				
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				

For the firms that had not received clear typing using the archival measures, the results were tabulated in the following manner. First, the data were scaled using an interval response scale (1-8 and 1-10). For example, if a respondent placed the card which stated "This Company has attempted to locate and maintain a secure niche in a relatively stable product or service market" (identifier code D1) in the first position in the Q-Sort Rank Table, this characteristic

received a value of “1”. This procedure was repeated until all the characteristics were scaled. market” (identifier code D1) in the first position in the Q-Sort Rank Table, this characteristic received a value of “1”. This procedure was repeated until all the characteristics were scaled.

The scaled data approach allowed the ranking of each respondent to be translated into a score on each strategic type for each firm. This was accomplished by averaging the rankings given by a respondent on the characteristics associated with each of the strategic types. For example, if for a given firm the characteristics of a Defender were ranked by a respondent as 1, 2, 4, and 5 then the average for this respondent on the given firm’s similarity to a Defender would be a score of 3. Following this procedure, an average score was computed for each of the strategic types for each firm on which a respondent completed the Q-Sort. Then, an average across respondents on each strategic type (Prospector, Defender, Differentiator, and Cost Leader) was computed for each firm.

The Q-Sort scores on each strategic type for each of the firms not clearly typed using the archival approach is shown in Table 4.3 Numeric Q-Sort Typing of Selected Firms. Also shown in the table are the sample industry average scores for each of the strategic types. To type the firms using the Q-Sort scores, a multi-step process was followed. First, the firm’s score on the Prospector items and its scores on the Defender items were compared. Since a lower score reflected the respondent’s belief that the given characteristics were more reflective of the firm’s strategy, the strategic type (Prospector or Defender) having the lowest score was taken as the first indicator of the Q-Sort typing for the Miles and Snow strategies. Similarly, the score on the Differentiator items and the score on the Cost Leader items were compared and the strategic type having the lowest score was taken as the first indicator of the Q-Sort typing for the Porter strategies.

Table 4.3: Numeric Q-Sort Typing of selected firms

		Miles & Snow		Porter	
		Prospect	Defend	Differ	Low Cost
General Merchandise					
	Kohl's	4.75	4.25	6.50	4.00
	Industry Sample	4.74	4.26	5.83	5.11
	Industry Sample	0.20	0.21	0.78	1.11
	(-) $\bar{\sigma}$	4.54	4.05	5.05	4.00
Prepared Foods					
	McDonald's	4.21	4.79	6.40	4.29
	Starbuck's	4.41	4.64	5.76	5.11
	Wendy's	5.82	3.18	6.36	4.21
	Industry Sample	4.81	4.20	6.17	4.54
	Industry Sample	0.88	0.89	0.36	0.50
	(-) $\bar{\sigma}$	3.94	3.31	5.82	4.04
Electronics					
	Circuit City	6.05	2.95	6.90	3.40
	Industry Sample	5.40	3.60	6.55	3.92
	Industry Sample	0.63	0.63	0.30	0.45
	(-) $\bar{\sigma}$	4.77	2.97	6.25	3.47

The second step in the process was to see whether there was agreement between the typing on the Miles and Snow strategies and the typing on the Porter strategies for each of the firms. Kohl's, Wendy's and Circuit City showed agreement between the types (each was typed as a Defender within Miles and Snow and a Cost Leader within Porter). McDonald's and Starbuck's, however, did not show agreement since each was typed as a Prospector within Miles and Snow and a Cost Leader within Porter.

The third step in the process involved further examination of the scores for those firms that received consistent typing. The number of Q-Sort respondents precluded the use of statistical tests to compare the scores on each of the strategic types, but several rules of thumb were used to guide the additional analysis. Given the nature of the scaling approach used here, the lowest possible score a firm could receive was 2.5 on one of the Miles and Snow types and 3.0 on one of the Porter types. This would occur if the characteristics associated with a type were sorted among the most like the firm's competitive approach by all respondents (e.g., if the

four cards containing Defender characteristics were all among the first four listings for each respondent). Conversely, the highest score a firm could receive was 6.5 on the Miles and Snow types and 8 on the Porter types. Given these boundaries, the differences between scores for a firm on the Miles and Snow types and on the Porter types were examined.

Given that most firms do not exhibit characteristics of a “pure” strategic type (Doty et al., 1993) and that respondents are unlikely to show perfect agreement, scores approaching the extremes were not expected. Clear strategic typing, however, should be reflected in significant differences between the scores on the strategies within each of the two strategic typing approaches. This was the case for most of the scores for the three firms showing agreement between the typings. Circuit City scores on both the Defender (2.95) and Cost Leader (3.4) measures approached the possible extremes. For Wendy’s, there was more than a two point difference between both the Defender and Prospector scores and between the Cost Leader and Differentiator scores. Kohl’s had a greater than two point difference between the Cost Leader and Differentiator scores, but had a much smaller difference between the Defender and Prospector scores (see Table 4.3 Numeric Q-Sort Typing of Selected Firms).

As a final check, firms’ scores on all of the strategic types were compared to the averages computed from the Q-Sort responses for their respective industries. In each case, the firms are below the industry sample averages on the Defender and Cost Leader measures and above the industry sample averages on the Prospector and Differentiator measures (in most cases at least one standard deviation below or above the sample average). Taken together, these differences support typing each of these firms as having a Defender strategy within the Miles and Snow typology and Cost Leader strategy within Porter.

Since McDonald’s and Starbuck’s received mixed typing on the Q-Sort, attention turned to particular items within the Q-Sort measures. First, attention was turned to the classification of each firm on the item that asked about the emphasis placed on competitive pricing by the firm, since this item can be most clearly tied to the Cost Leader Strategy from Porter. In the case of McDonald’s, this item was ranked as the first or second most characteristic statement by a

majority of the Q-Sort respondents. For Starbuck's, this statement was ranked as the least characteristic (10) statement by a majority of the respondents. As a result, McDonald's was tentatively labeled as Defender/Cost Leader and Starbuck's was labeled as a Prospector/Differentiator.

For verification, however, all of the information from both the archival and Q-Sort methods (except for the tentative typing) regarding McDonald's and Starbuck's was presented to an academic specialist in strategic management who is intimately familiar with both the Miles and Snow and Porter typologies. He was asked to use the results, as well as independent research on the firms in question, to determine whether they were better classified as Defender/Cost Leaders or Prospector/Differentiators. This independent verification concurred with the classification of McDonald's as Defender/Cost Leader and Starbuck's as a Prospector/Differentiator. The final strategy typing is located below in Table 4.4 Final Strategic Typing.

Table 4.4 Final Strategic Typing

	Best Buy	Circuit City	Radio Shack	Sears	Target	Wal-Mart	Kohl's	McDonald's	Starbuck's	Wendy's
Archival Miles and Snow Strategic Typing	D	N/A	P	P	D	D	N/A	N/A	N/A	N/A
Archival Porter Strategic Typing	CL	CL	DIF	DIF	CL	CL	N/A	N/A	N/A	N/A
Q-Sort Miles and Snow Strategic Typing	N/A	D	N/A	N/A	N/A	N/A	D	D	P	D
Q-Sort Porter Strategic Typing	N/A	CL	N/A	N/A	N/A	N/A	CL	CL	DIF	CL
Typing by Strategy Professional	N/A	N/A	N/A	N/A	N/A	N/A	N/A	D/CL	P/DIF	N/A
Final Typing by Strategy Professional	D/CL	D/CL	P/DIF	P/DIF	D/CL	D/CL	D/CL	D/CL	P/DIF	D/CL

4.1.3 Summary and Validity of Strategy Measures

Establishing the validity of the final measures of strategy would be difficult because traditional validation approaches (e.g., factor analyses to detect convergent, discriminant and/or criterion-related validity) would not be applicable. Utilizing approaches that have been previously established in the literature provides some degree of confidence in the measures but additional assurance of the appropriateness of the results was sought. Accordingly, the academic expert who verified the final typings of McDonald's and Starbuck's, as well as a second academic specializing in strategy and familiar with both the Porter and Miles and Snow typologies, were asked to evaluate the process used here and the final typings of all the firms. They independently concurred that the approach was appropriate and that the final typings were reasonable representations of the competitive approaches of the firms. While not definitive, this independent verification provides at least some degree of both face and content validity for the measures. The final results of the strategy typing are shown above in Table 4.4: Final Strategic typing.

4.2 Development of Servicescape Assessment

The data for the customer-focused element of this research were collected as outlined in chapter 3. The sections that follow describe the sample and the development of measures generated by the survey. Specifically, the first section provides demographic and other information on the sample, the second section describes evaluation of the servicescape measures, and the third section details the evaluation of the measure of customer satisfaction, the outcome variable in this research.

4.2.1 Demographics

The collection procedure resulted in 1467 useable responses, of which 50.4% were women and 49.6% were men. In addition to indicating their gender, respondents were asked to provide information about their education, age, and household income utilizing a Likert scale (1-7). Finally, the respondents were asked to indicate the number of times they had visited the store in question during the previous four weeks. The results from these demographic questions are shown in Table 4.5 Customer Survey Demographics (the complete survey instrument is in appendix B). As can be seen, the majority of respondents were between 22 and 35 years old, with 30% of the respondents falling between 22 and 28 and 24% between 29 and 35. Most had at least some college education (30% of the respondents had 2 years of college while 26% had four years of college) and just over 50% of the respondents had household incomes of less than \$42,000 per year (26% of the respondents reported income of less than \$30,000 per year and 26% reported an income of between \$31,000 and \$42,000 per year). Finally, all participants of the study had visited the firm at least once in the last four weeks, with 40% having visited the firm two or three times and 29% having visited four or more times.

Table 4.5 Customer Survey Demographics

Scale	Visits in 4 weeks		Annual Household Income			Age			Education		
	Freq	%		Freq	%	Age	Freq	%		Freq	%
1	425	30.6	< 30k	369	26.6	< 21	221	15.9	High School	143	10.3
2	306	22.0	31k-42k	285	20.5	22-28	420	30.3	2 years College	417	30.0
3	251	18.1	43k-54k	171	12.3	29-35	337	24.3	4 years College	361	26.0
4	158	11.4	55k-69k	151	10.9	36-41	129	9.3	BS or BA	329	23.7
5	98	7.1	70k-82k	157	11.3	42-47	90	6.5	Masters Degree	105	7.6
6	59	4.3	83k-98k	92	6.6	48-54	100	7.2	Medical Degree	16	1.2
7	91	6.6	>99k	159	11.5	> 55	91	6.6	PhD	15	1.1
Total	1388	100		1384	99.7		1388	100		1386	99.9
Visits	Mean	2.95	Income	Mean	3.27	Age	Mean	3.08	Edu	Mean	2.99
	SD	1.82		SD	2.03		SD	1.71		SD	1.22

Of the 1467 responses, approximately 31% focused on the electronics industry, 33% focused on the general merchandise industry, and the remaining 35% focused on the prepared foods industry. Response distribution broken down by industry and firm is located below Table 4.6 Industry and Firm Survey Demographics.

Table 4.6 Industry and Firm Survey Demographics

Electronics			General Merchandise			Prepared Foods		
	Freq	%		Freq	%		Freq	%
RadioShack	79	5.4	Kohl's	105	7.2	McDonald's	187	12.7
Best Buy	290	19.8	Sears	66	4.5	Starbuck's	192	13.1
Circuit City	94	6.4	Target	182	12.4	Wendy's	133	9.1
			Wal-Mart	138	9.4			
Total	463	31.6	Total	491	33.5	Total	512	34.9

4.2.2 Reliability of the Servicescape Measures

Before the servicescape measures were evaluated with regard to validity, the reliability of these measures was assessed. Reliable measures are expected to deliver consistent results across time and context and are relatively free from random error. Therefore, the reliability of the servicescape measures was assessed from two perspectives: temporal stability and internal consistency.

The temporal stability of the servicescape measures was assessed via a test-retest procedure consisting of the following steps. First, a subset of the original participants was queried regarding willingness to participate in a follow-up study. Next, thirty participants who had indicated a willingness to participate in future studies were contacted four weeks after their completion of the initial survey. Of these, twenty-two provided complete questionnaires. Data from these questionnaires were then correlated with data from the first round of the survey. Results of this analysis are presented in Table 4.7 Test-Retest Correlation (Independent).

Table 4.7 Test-Retest Correlation (Independent)

Pair	Factor Test 1	Factor Test 2	Pearson Correlation	Significance (2-tailed)
1	FA_T	FA_T2	.636**	0.001
2	FL_T	FL_T2	.652**	0.001
3	CL_T	CL_T2	.780**	0.001
4	PQ_T	PQ_T2	.739**	0.001
Pair (Dep)	Factor Test 1	Factor Test 2	Pearson Correlation	Significance (2-tailed)
5	SAT_T	SAT_T2	.928**	0.001

Although all four servicescape factors exhibited significant first-round/second-round correlations, the risk involved in multiple comparisons needed to be taken into consideration. That is, as several factors were being considered, it was anticipated that at least some significant correlations might be spurious rather than indicative of true temporal stability. Even with the Type I error rate controlled for via a family test of correlation, however, all four factor pairs were found to be significantly correlated. In addition, a paired sample t-test indicated no

significant differences between first-round and second-round measures. Based on these analyses, it was concluded that the measures exhibited sufficient temporal stability.

For the second evaluation of reliability, the assessment of internal consistency, Cronbach's alpha (1951) was used. This technique evaluates the degree to which items tapping the same construct are correlated with one another both individually and as a whole. Threshold values for alpha vary substantially across disciplines and context, but scores above 0.70 are generally considered acceptable. As can be seen in Table 4.8, each measurement scale exhibited a Cronbach's Alpha well above 0.70. Further, analysis showed that the deletion of any items would not significantly increase the reliability of any of the scales.

Table 4.8 Independent Variable Composition

Scale: Layout Accessibility
Alpha (all items): .928

Item	Correlation with total	Alpha if Deleted
LA 1	0.713	0.922
LA 2	0.796	0.915
LA 3	0.688	0.926
LA 4	0.797	0.914
LA 5	0.803	0.914
LA 6	0.805	0.914
LA 7	0.806	0.913

Scale: Perceived Quality
Alpha (all items): .927

Item	Correlation with total	Alpha if Deleted
PQ 1	0.851	0.906
PQ 2	0.857	0.904
PQ 3	0.840	0.906
PQ 4	0.812	0.911
PQ 5	0.754	0.930

Scale: Facility Aesthetics
Alpha (all items): 0.949

Item	Correlation with total	Alpha if Deleted
FA 1	0.874	0.934
FA 2	0.889	0.929
FA 3	0.860	0.938
FA 4	0.884	0.931

Table 4.8 Continued

Composition Scale: Cleanliness
 Alpha (all items: 0.944

Item	Correlation with total	Alpha if Deleted
CL 1	0.814	0.944
CL 2	0.908	0.913
CL 3	0.878	0.922
CL 4	0.867	0.925

4.2.3 Validity of the Servicescape Measures

Having established that the servicescape measures demonstrated reasonable temporal stability and internal consistency, attention was turned to evaluations of the validity of these measures. As a preliminary step, the servicescape measures were assessed for normality and multicollinearity (important prerequisite issues in factor analysis). These preliminary steps taken – neither normality nor multicollinearity appeared to be an issues with regard to these measures – the servicescape data were subjected to a factor analysis in an attempt to demonstrate adequate convergent and discriminant validity.

For the assessment of validity, exploratory factor analysis was undertaken. The factors were extracted using the principle components method and were subjected to a varimax (orthogonal) rotation. As shown in Figure 4.2 Rotated Component Matrix, four distinct factors with eigenvalues greater than one resulted from the analysis of the twenty items. These factors collectively accounted for 74.37% of the total variance. For interpretation purposes, an item was said to load on a particular factor if: 1) its loading exceeded 0.60 on that factor; and 2) none of its loadings on other factors exceeded 0.40. Ultimately only three items failed to load properly on their respective factors, and each case involved an item having a second factor loading in excess of 0.40. Each of these items (LA6, LA7, PQ5) was further examined, however, and was found to have a significantly higher loading on its intended factor. Accordingly, they were retained as indicators of the factor upon which: 1) they were expected to load; and 2) they showed the highest loading.

	1	2	3	4
LA 1	0.73	0.13	0.36	0.10
LA 2	0.78	0.18	0.32	0.14
LA 3	0.73	0.13	0.16	0.14
LA 4	0.69	0.34	0.20	0.31
LA 5	0.70	0.29	0.16	0.32
LA 6	0.69	0.19	0.08	0.44
LA 7	0.65	0.23	0.08	0.46
PQ 1	0.26	0.81	0.19	0.18
PQ 2	0.27	0.79	0.24	0.23
PQ 3	0.26	0.77	0.21	0.21
PQ 4	0.20	0.63	0.29	0.43
PQ 5	0.10	0.71	0.24	0.26
FA 1	0.24	0.19	0.85	0.21
FA 2	0.22	0.23	0.84	0.24
FA 3	0.23	0.26	0.82	0.15
FA 4	0.23	0.31	0.81	0.20
CL 1	0.19	0.35	0.21	0.71
CL 2	0.30	0.32	0.24	0.75
CL 3	0.38	0.22	0.24	0.74
CL 4	0.36	0.26	0.24	0.71

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

Figure 4.1 Rotated Component Matrix

4.2.4 Reliability of the Customer Satisfaction Measures

As was the case with the servicescape measures, measures tapping customer satisfaction were evaluated along two dimensions of reliability -- temporal stability and internal consistency. The test-retest procedure was conducted with data provided by the same participants who participated in the test-retest of the servicescape items. Results of the correlation analysis of the data drawn from twenty-two completed questionnaires are presented in Table 4.8: Test-Retest Correlation (Dependent). The customer satisfaction measures correlated strongly across administrations, and in the follow-up paired-sample t-test no

significant differences were observed. Based on these analyses, it was concluded that the customer satisfaction measures exhibited temporal stability.

Table 4.9 Test-Retest Correlation (Dependent)

Pair (Dependent)	Factor Test 1	Factor Test 2	Pearson Correlation	Significance (2-tailed)
5	SAT_T	SAT_T2	.928**	0.001

Analysis of the customer satisfaction measures with regard to internal consistency resulted in a Cronbach's alpha of 0.950, again highly supportive of these measures with regard to their reliability.

Table 4.10 Dependent Variable Composition

Scale: Customer Satisfaction
Alpha (all items): .950

Item	Correlation with total	Alpha if Deleted
SAT 1	0.818	0.948
SAT 2	0.879	0.945
SAT 3	0.810	0.948
SAT 4	0.779	0.949
SAT 5	0.755	0.950
SAT 6	0.819	0.948
SAT 7	0.711	0.954
SAT 8	0.827	0.948
SAT 9	0.860	0.946
SAT10	0.809	0.948

4.2.5 Validity of the Customer Satisfaction Measures

As was the case with the servicescape measures, the ten customer satisfaction indicators were subjected to an exploratory factor analysis in an attempt to assess their validity. Because these items were intended to tap only one construct, evidence of unidimensionality would be supportive of their validity (Gerbing and Anderson 1988; Segars 1997). The principal components extraction resulted in only one factor with an eigenvalue in excess of one, and this factor accounted for 70.8% of the variance explained. These results would be highly supportive of the dimensionality of the customer satisfaction measures as a whole.

As shown in Table 4.9, only one item (SAT 9) failed to load strongly on this factor. As this item's loading was very close to the predetermined threshold, it was decided to retain this item for further analyses.

Item	Factor Loading
SAT 1	0.715
SAT 2	0.681
SAT 3	0.711
SAT 4	0.754
SAT 5	0.696
SAT 6	0.733
SAT 7	0.648
SAT 8	0.803
SAT 9	0.569
SAT 10	0.769

Figure 4.2 Factor Pattern of Dependent Variable

4.3 Creation of Variables for Analysis

For the purpose of testing the hypotheses introduced in Chapter 2, composite variables were formed to represent the constructs at play in this research. These composites – four for servicescape and one for customer satisfaction – were created from the indicators evaluated in the previous sections.

While several methods of forming composite measures exist, for this study the summated scales approach was chosen. A summated scale method provides two specific benefits: minimization of measurement error and increased data clarity (J. Hair, Anderson, Tatham, & Black, 1995). The summated scale overcomes measurement error by using multiple indicators to reduce the reliance on any single response. By using the average response to a set of related variables, the measurement error that might occur in a single question should be reduced. A second benefit of the summated scales approach is its ability to represent multiple aspects of a concept in a single measure. When several facets of a concept are captured in each measure, redundancy can occur. The summation method enables the researcher to

exploit the richness associated with several item measures without the redundancy encountered with other factor analysis methods (J. F. Hair, Anderson, Tatham, & Black, 1998).

4.4 Test of Hypotheses

The hypotheses introduced in this research depicted a service firm's competitive strategy as moderating the relationship between servicescape characteristics and customer satisfaction. The testing of these hypotheses involved moderated linear regression analysis to test for differences in sets of regression parameters across strategic types. As discussed in chapter 3, the Chow (1960) test provides a means of evaluating whether the set of regression parameters is equal across groups. This is in contrast to standard moderated regression, which returns an F-test for the significance of the difference between the slope coefficients of groups. This research illustrates circumstances in which groups may seem identical with respect to their slope coefficients, yet when slopes and intercepts are considered jointly, the groups' differences become significant. Utilizing both methods – standard moderated regression and the Chow test – has the potential to increase the richness of results (D. Miller, 1988).

4.4.1 Data Preparation and Examination of Assumptions

Prior to hypothesis testing several methodological issues were addressed. For example, the assumptions that underlie the linear regression model (linearity, independence, normally distributed error terms and equal variance) and the absence of outliers were examined. These analyses did not reveal any cause for concern in these areas, especially given regression analysis' robustness to moderate violations of the assumptions underpinning it (Neter, Wasserman, & Kutner, 1985).

A second concern prior to testing the hypotheses was determining the influence, if any, of the demographic and control variables. These included age, gender, income, and education level of the respondents as well as the number of visits they had made in the past four weeks to the store for which they were providing information. This testing was conducted in the following manner. First, a correlation analysis was performed to examine the strength of the relationship between the control variables and the dependent variable customer satisfaction. The correlation

coefficients suggested several significant relationships ($p > .01$). The significant relationships of interest here are between the dependent variable customer satisfaction and gender (0.079**), age (0.086**), income (0.117**), and number of visits in the past four weeks (0.336**).

Given this pattern of results, a follow-up analysis was pursued to evaluate the degree to which the control variables played an important role in predicting customer satisfaction. A regression model was formed in which the dependent variable was customer satisfaction and the four independent variables were age, gender, income, and number of visits in four weeks. This analysis revealed that, taken together, the control variables accounted for only a modest portion of variation in customer satisfaction. It was therefore concluded that incorporating these variables in the hypothesis-testing models was unnecessary.

A final concern regarded the possibility of industry effects. As the literature review suggested, the industries chosen for study in this research differed on several dimensions, including total revenue, the time spent by the average customer during the service, and the nature of the service product itself. These differences were thought to be important enough to justify conducting the analyses – i.e., testing the hypotheses – on an industry-by-industry basis.

4.4.2 Facility Aesthetics and Customer Satisfaction

The first hypothesis examined the moderating role of strategy with regard to the relationship between the servicescape dimension of *facility aesthetics* and the outcome variable of *customer satisfaction*. Specifically, it was predicted that the relationship between facility aesthetics and customer satisfaction would be stronger for a Prospector/Differentiator than it would be for a Defender/Cost Leader. Both the moderated regression analysis and the Chow test supported this hypothesis. As was expected, facility aesthetics was both positively and significantly related to customer satisfaction. Of specific interest however, was the finding, via moderated regression analysis, that the strength of the relationship was significantly different for Prospectors/Differentiators in two industries (prepared foods and electronics). The Chow test further demonstrated that the overall regression function (i.e., the combination of the slope and intercept) was significantly different across strategic types in all three industries. Overall

inferences drawn from this analysis are presented in Figures 4.3 through 4.5 and summarized in Table 4.11.

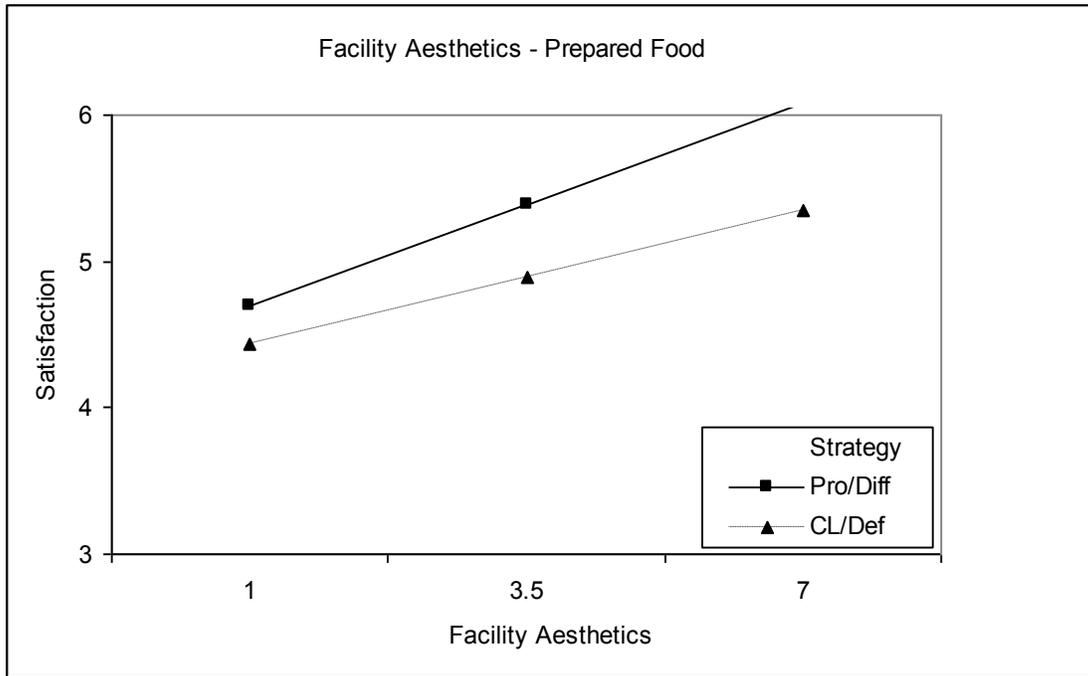


Figure 4.3 Facility Aesthetics and Satisfaction: Prepared Food

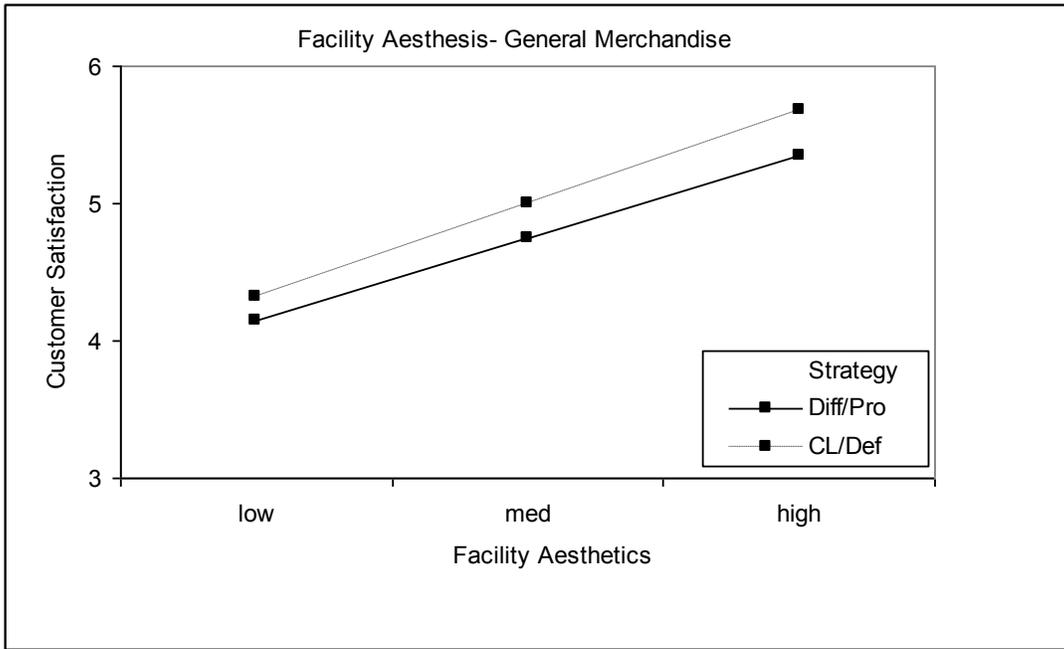


Figure 4.4 Facility Aesthetics and Satisfaction: General Merchandise

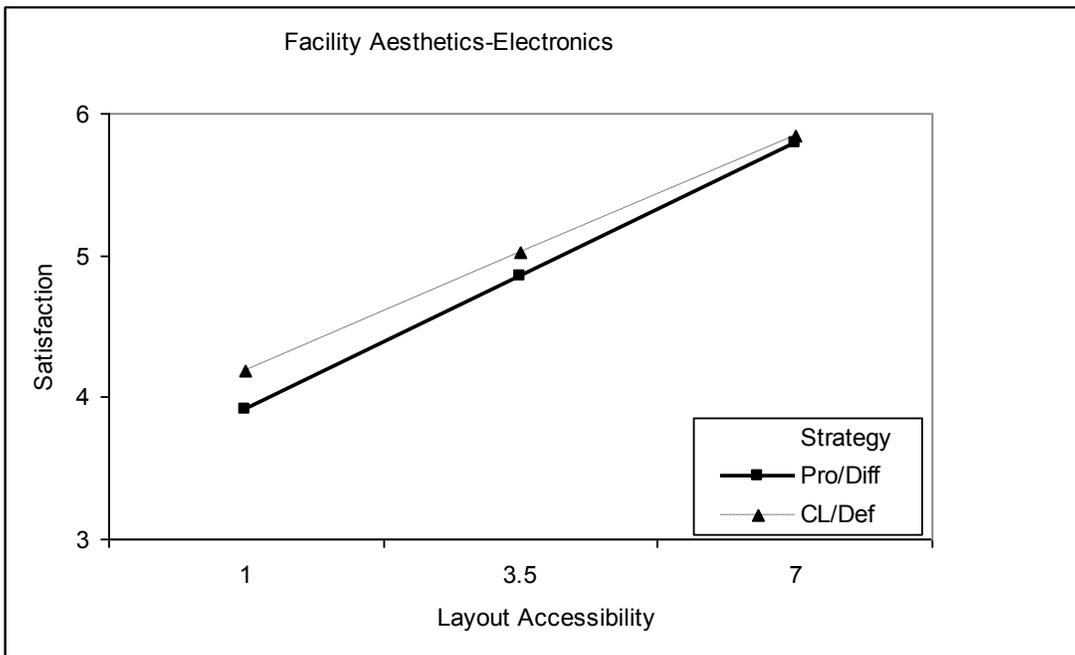


Figure 4.5 Facility Aesthetics and Satisfaction: Electronics

Table 4.11 Summary of Results: Facility Aesthetics Regressions

Dependent Variable:	Customer Satisfaction		
Independent Variable:	Facility Aesthetics		
	Prepared Foods	General Merchandise	Electronics
Intercept (β_0):	3.01	2.57	2.96
Facility Aesthetics (β_1):	0.37	0.52	0.44
Upper [†] Interval Limit	0.45	0.58	0.53
Lower Interval Limit	0.29	0.46	0.35
t for test of $H_0: \beta_1 = 0$	8.69***	17.62***	9.55***
Strategy (β_2):	-0.49	0.04	-2.08
Upper Interval Limit	0.34	0.79	-1.26
Lower Interval Limit	-1.31	-0.71	-2.91
t for test of $H_0: \beta_2 = 0$	-1.56	0.10	-4.97***
Aesthetics-Strategy Interaction (β_3):	0.19	-0.06	0.36
Upper Interval Limit	0.34	0.11	0.55
Lower Interval Limit	0.05	-0.23	0.18
t for test of $H_0: \beta_3 = 0$	2.95***	-0.73	3.95***
Adj. R ²	0.42	0.43	0.35
Chow Test (F)	-6.99***	2.26**	2.45**
* p < 0.10			
** p < 0.05			
*** p < 0.01			
† 95% confidence			

4.4.3 Perceived Quality and Customer Satisfaction

The second hypothesis examined the moderating role of strategy with regard to the relationship between the servicescape dimension of *perceived quality* and the outcome variable of *customer satisfaction*. As before, the prediction was that the relationship would be stronger for the Prospector/Differentiator than it would be for the Defender/Cost Leader. As expected, the regression analysis suggested that perceived quality is both positively and significantly related to customer satisfaction, regardless of strategy. In evaluating the role of strategy, the moderated regression pointed to a significant difference in the slope of the relationship, but this was the case for only one of the industries (prepared foods). The Chow test, however, indicated differences with regard to the combination of slope and intercept across both prepared foods and electronics. No differences were found in either test in the general merchandise industry. Taken together, these results – presented graphically in Figures 4.6 through 4.8 and summarized in Table 4.12 – provided only partial support for hypothesis 2.

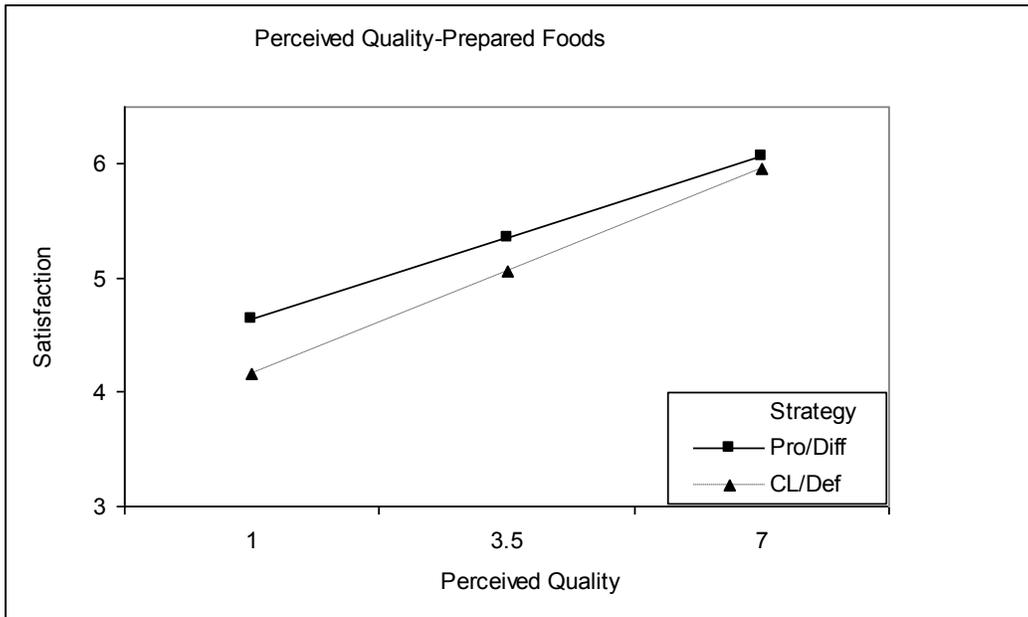


Figure 4.6 Perceived Quality and Satisfaction: Prepared Foods

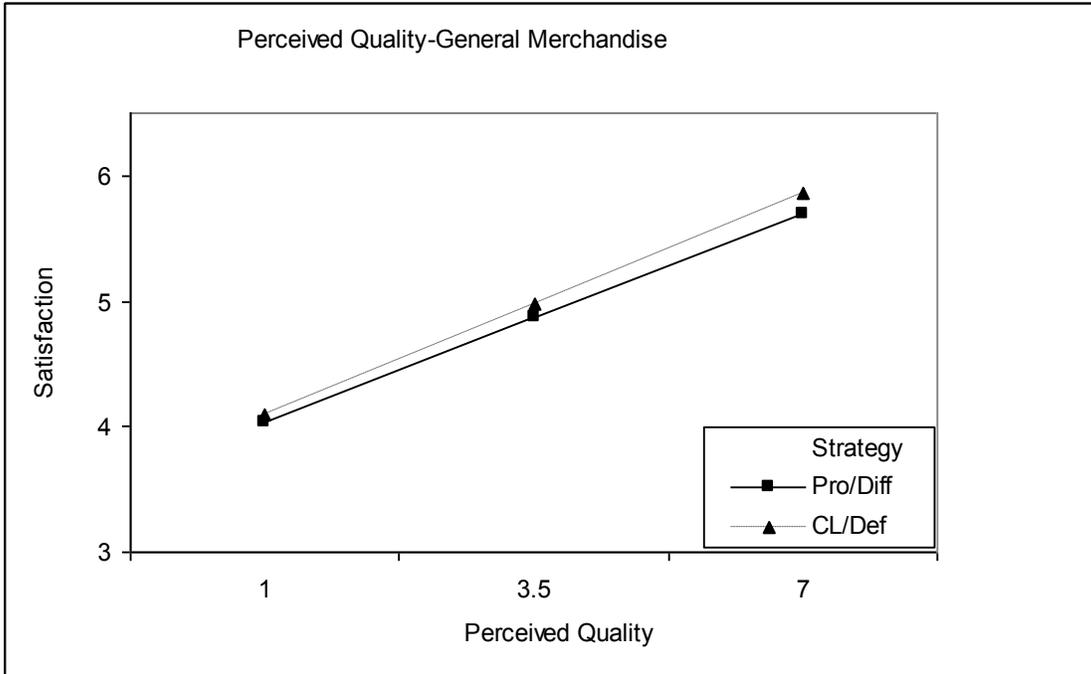


Figure 4.7 Perceived Quality and Satisfaction: General Merchandise

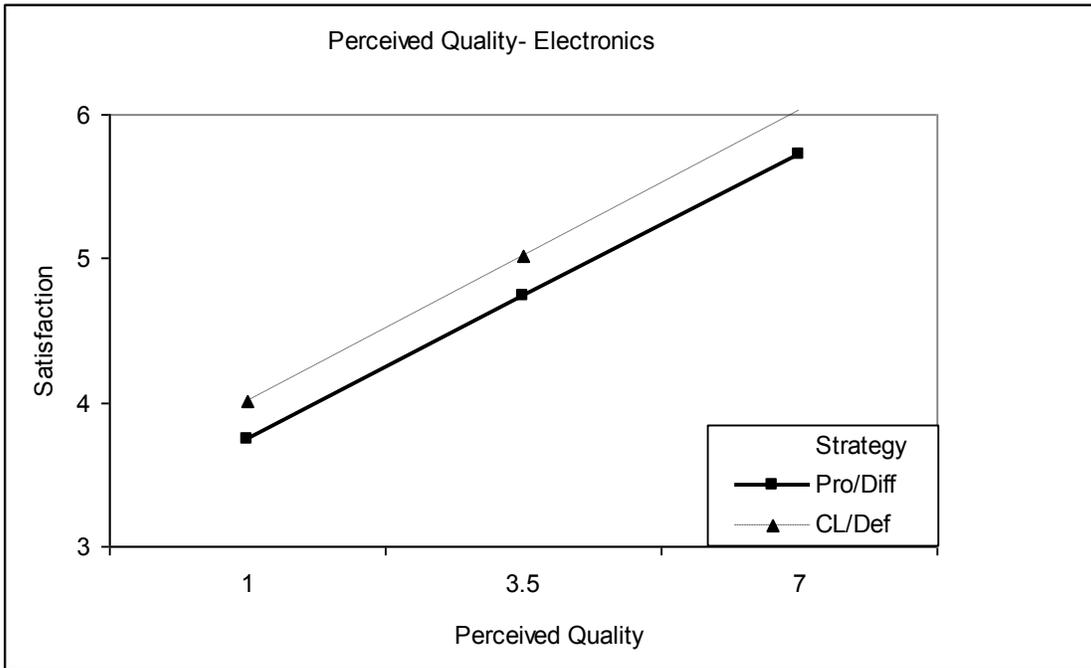


Figure 4.8 Perceived Quality and Satisfaction: Electronics

Table 4.12 Summary of Results: Perceived Quality Regressions

Dependent Variable:	Customer Satisfaction		
Independent Variable:	Perceived Quality		
	Prepared Foods	General Merchandise	Electronics
Intercept (β_0):	1.53	1.12	0.60
Perceived Quality (β_1):	0.76	0.82	0.90
Upper [†] Interval Limit	0.83	0.88	0.96
Lower Interval Limit	0.70	0.78	0.83
t for test of $H_0: \beta_1 = 0$	22.82***	31.24***	25.57***
Strategy (β_2):	1.03	0.09	-0.22
Upper [†] Interval Limit	1.58	0.74	0.45
Lower Interval Limit	0.48	-0.54	-0.89
t for test of $H_0: \beta_2 = 0$	3.66***	0.29	-0.63
Quality-Strategy Interaction (β_3):	-0.16	-0.05	-0.01
Upper [†] Interval Limit	-0.05	0.12	0.13
Lower Interval Limit	-0.27	-0.24	0.16
t for test of $H_0: \beta_3 = 0$	-2.84***	-0.62	-0.20
Adj. R ²	0.68	0.70	0.67
Chow Test (F)	-3.12***	1.40	3.00***
* p < 0.10			
** p < 0.05			
*** p < 0.01			
† 95% confidence			

4.4.4 Cleanliness and Customer Satisfaction

The third hypothesis involved the relationship between the servicescape dimension of *cleanliness* and the outcome variable of *customer satisfaction*, as moderated by strategy. As expected the regression analysis suggested that cleanliness is both positively and significantly related to customer satisfaction, independent of strategy. Specific to this hypothesis, the moderated regression results indicated that the strength of the relationship is greater for the Prospector/Differentiator than for the Defender/Cost Leader in the prepared foods industry. The Chow test further indicated that the slope-intercept combination is significantly different in both the prepared foods and general merchandise industries. In sum the results, depicted graphically in Figures 4.9 through 4.11 and summarized in Table 4.13, provided only partial support for hypothesis 3.

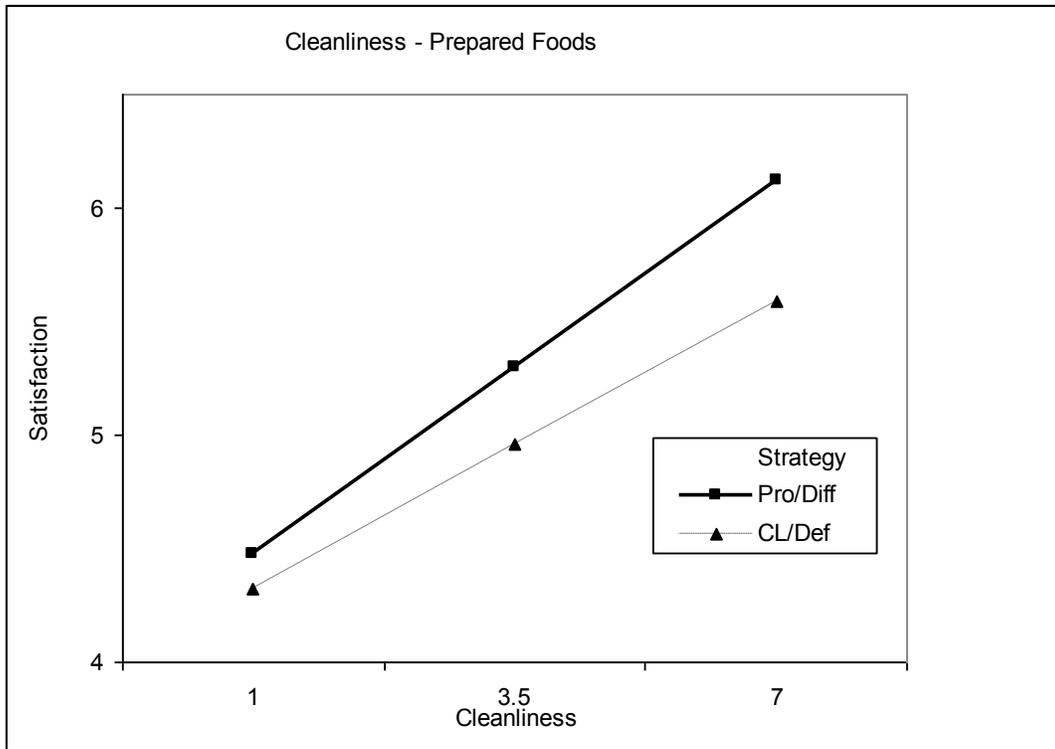


Figure 4.9 Cleanliness and Satisfaction: Prepared Foods

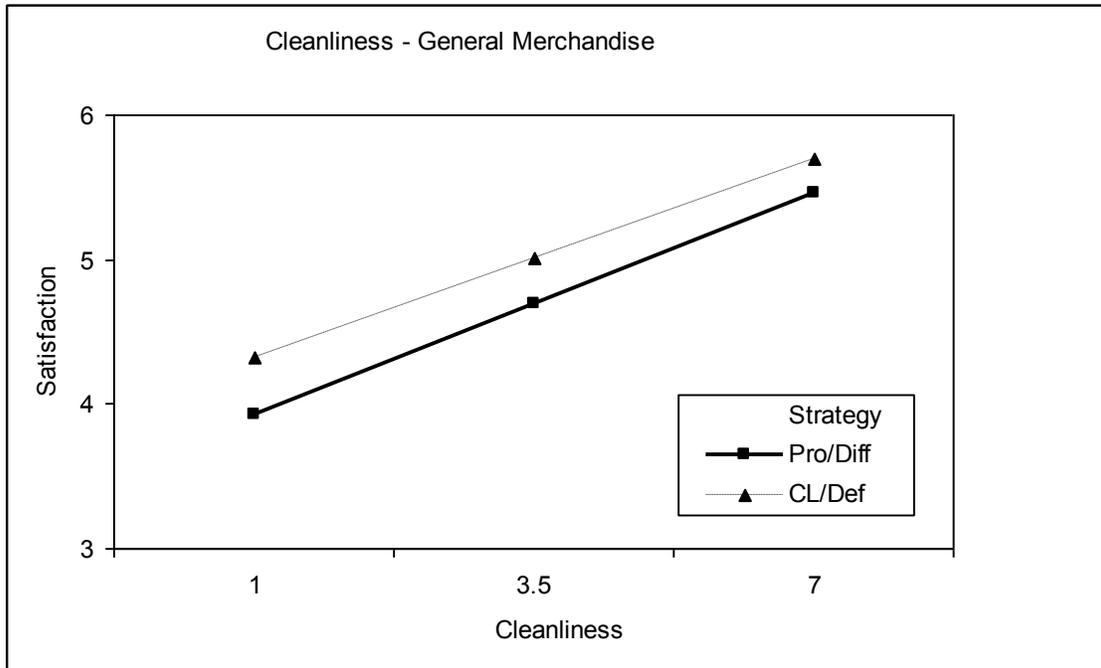


Figure 4.10 Cleanliness and Satisfaction: General Merchandise

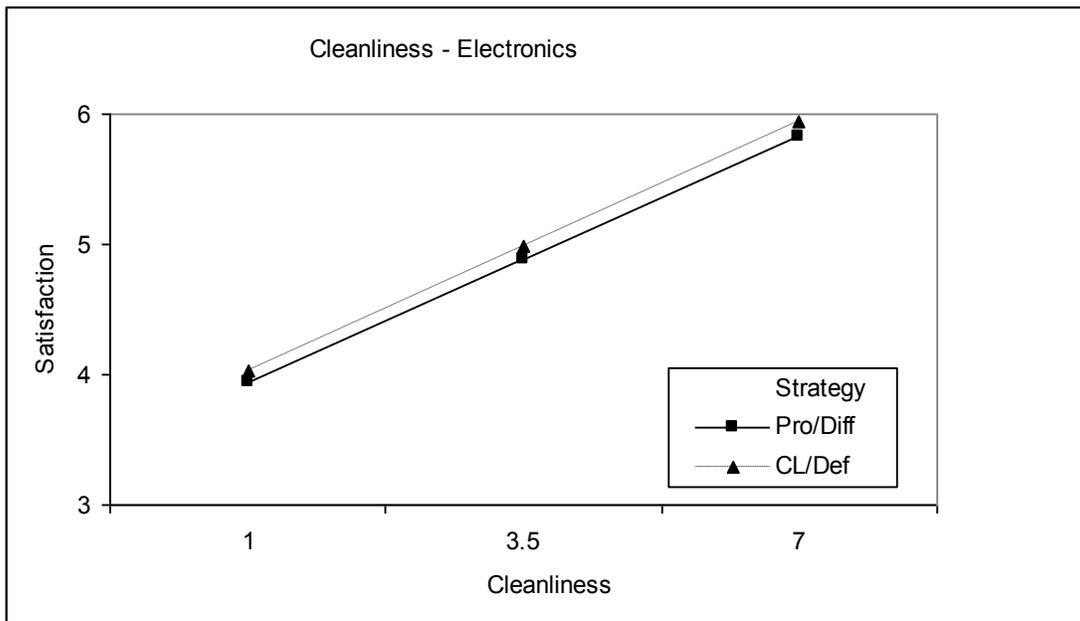


Figure 4.11 Cleanliness and Satisfaction: Electronics

Table 4.13 Summary of Results: Cleanliness Regressions

Dependent Variable:	Customer Satisfaction		
Independent Variable:	Cleanliness		
	Prepared Foods	General Merchandise	Electronics
Intercept (β_0):	2.10	1.42	0.75
Cleanliness (β_1):	0.55	0.68	0.83
Upper [†] Interval Limit	0.62	0.75	0.90
Lower Interval Limit	0.47	0.61	0.74
t for test of $H_0: \beta_1 = 0$	14.68***	18.79***	20.31***
Strategy (β_2):	-0.53	-0.73	-0.04
Upper [†] Interval Limit	0.33	0.52	0.69
Lower Interval Limit	-1.40	-1.98	-0.77
t for test of $H_0: \beta_2 = 0$	-1.21	1.15	-0.111
Cleanliness -Strategy Interaction (β_3):	0.17	0.08	-0.01
Upper [†] Interval Limit	0.32	0.32	0.14
Lower Interval Limit	0.02	-0.16	-0.17
t for test of $H_0: \beta_3 = 0$	-2.84***	0.63	-0.17
Adj. R ²	0.53	0.46	0.58
Chow Test (F)	-5.60***	3.11***	.95

* p < 0.10
 ** p < 0.05
 *** p < 0.01

† 95% confidence

4.4.5 Facility Layout and Customer Satisfaction

The fourth hypothesis examined the relationship between the servicescape dimension *facility layout* and the outcome variable *customer satisfaction*, as moderated by strategy. In this case, the relationship was expected to be stronger for the Defender/Cost Leader strategy than for the Prospector/Differentiator. As expected the regression analysis suggested that facility layout is both positively and significantly related to customer satisfaction, yet the strength of this relationship was not significantly larger for the Defenders/Cost leaders in any industry. When the slope and intercept were considered jointly in the Chow test, the relationship was marginally significant ($p < 0.053$) in general merchandise and in the direction expected (i.e., Defender/Cost Leader exhibited a stronger relationship between facility layout and customer satisfaction). When the slope and intercept were considered together in the prepared foods industry, however, the relationship, while significant, was in the opposite direction of what was predicted (i.e., Prospectors/Differentiators exhibited a stronger relationship). No significant results were found in the electronics industry. In sum, hypothesis 4 was not supported. Results of these analyses are presented graphically in Figures 4.12 through 4.14 and summarized in Table 4.14.

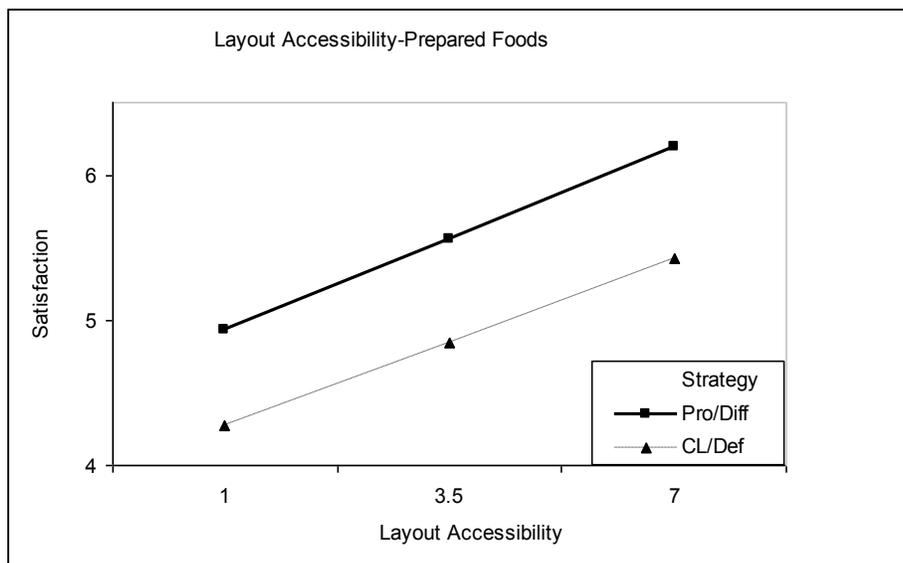


Figure 4.12 Layout Accessibility and Satisfaction: Prepared Foods

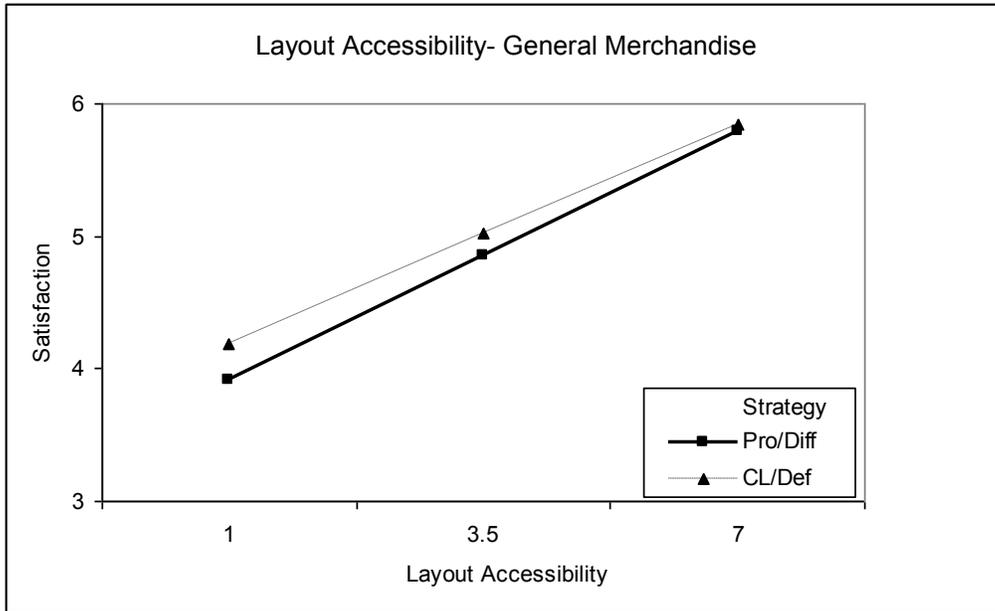


Figure 4.13 Layout Accessibility and Satisfaction: General Merchandise

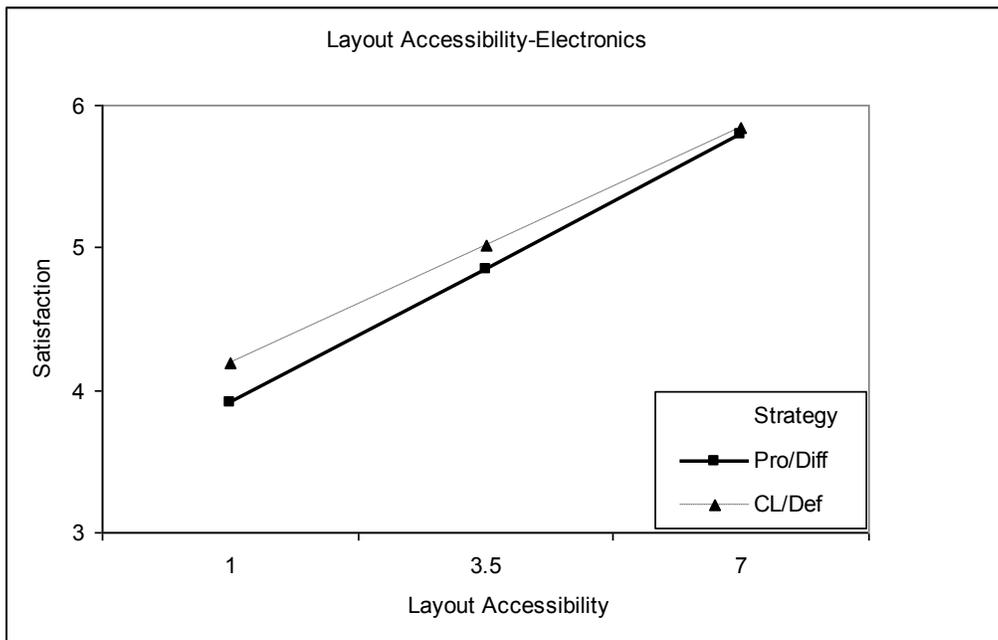


Figure 4.14 Layout Accessibility and Satisfaction: Electronics

Table 4.14 Summary of Results: Layout Accessibility Regressions

Dependent Variable: Independent Variable: Prepared	Customer Satisfaction		
	Layout Accessibility General Foods	Merchandise	Electronics
Intercept (β_0):	1.48	1.85	1.42
Layout Accessibility (β_1):	0.61	0.61	0.71
Upper [†] Interval Limit	0.71	0.68	0.80
Lower Interval Limit	0.52	0.54	0.62
t for test of $H_0: \beta_1 = 0$	12.76***	16.23***	16.14***
Strategy (β_2):	0.39	-0.53	-0.65
Upper [†] Interval Limit	1.28	0.60	-1.43
Lower Interval Limit	-0.50	-1.65	0.12
t for test of $H_0: \beta_2 = 0$	0.86	-0.92	-1.65*
Accessibility-Strategy Interaction (β_3):	0.06	0.06	0.10
Upper [†] Interval Limit	0.21	0.30	0.26
Lower Interval Limit	-0.10	-0.17	-0.07
t for test of $H_0: \beta_3 = 0$	0.74	0.54	1.14
Adj. R ²	0.50	0.40	0.50
Chow Test (F)	-9.78***	1.94**	1.49

* p < 0.10
 ** p < 0.05
 *** p < 0.01

† 95% confidence

4.5 Final Hypotheses Summary

Table 4.15 summarizes the results of the tests of all four hypotheses, of which none received full support. Hypotheses regarding facility aesthetics, perceived quality and cleanliness received partial support, but the hypothesis involving layout accessibility received virtually no support. Implications of these findings are addressed in this dissertation's concluding chapter.

Table 4.15 Summary of Hypotheses results

Hypothesis 1: Supported (Facility Aesthetics)				
Industry	Regression	P	Chow Test	P
Prepared Foods	Supported	0.00*	Supported	.02*
General Merchandise	Not Supported	0.47	Partial Support	.03*
Electronics	Supported	0.01*	Partial Support	.00*
Hypothesis 2: Supported (Perceived Quality)				
Industry	Regression	P	Chow Test	P
Prepared Foods	Supported	0.00*	Supported	0.00*
General Merchandise	Not Supported	0.53	Not Supported	0.16
Electronics	Not Supported	0.84	Partial Support	0.00*
Hypothesis 3: Supported (Cleanliness)				
Industry	Regression	P	Chow Test	P
Prepared Foods	Supported	0.00*	Supported	0.00*
General Merchandise	Not Supported	0.53	Partial Support	0.02*
Electronics	Not Supported	0.87	Not Supported	0.34
Hypothesis 4: Not Supported (Layout Accessibility)				
Industry	Regression	P	Chow Test	P
Prepared Foods	Not Supported	0.45	Partial Support	0.00*
General Merchandise	Not Supported	0.60	Partial Support	0.05*
Electronics	Not Supported	0.25	Not Supported	0.14

CHAPTER 5

DISCUSSION AND CONCLUSIONS

Common wisdom in the service operations literature is that, at least within the same industry, the return from an increased amount of any given service characteristic should be the same for all firms. This is typified in the work of Schmenner (1986, 2004), who first classified service industries into quadrants based on such characteristics as throughput and amount of customer interaction and then suggested that the relevance of particular service characteristics would be common in any given quadrant. Casual observation, however, suggests that firms within the same industry/quadrant often differ with regard to the emphasis they place on various service characteristics. Recognizing this, researchers have begun to question the grounding of service operations research in manufacturing management literature – with its emphasis on efficiency, cost variation, and resource utilization – and have instead encouraged an approach that incorporates firms' strategies (Goldstein et al., 2002).

Literature in the field of strategic management suggests that organizations compete in particular ways in the pursuit of sustainable competitive advantage (K. R. Andrews, 1971; Ansoff, 1965; Miles et al., 1978; Mintzberg, 1994; Porter, 1980; Rumelt, 1979). In his seminal work on strategy, Mintzberg (1994) suggested that each firm within an industry tends to form a pattern of activities that reflects the core focus of the firm and what it is best equipped to do. That is, firms within an industry will emphasize different activities depending on their competitive approach. This logic is central to the field of strategy research and is exemplified by almost all researchers in the field (Porter, 1980). Building on this notion, this study thus set out to determine if knowing a firm's competitive strategy would enhance an understanding of: a) those areas in which a firm might want to develop a particular service characteristic; and b) the level of emphasis that should be placed on this characteristic. Although the notion that firm strategy

may influence service operations has been examined at a broad level, little if any previous research has utilized as fine-grained an approach as that taken here.

This study empirically examined the relationship between customer satisfaction and various dimensions of servicescape, depicting this relationship as moderated by competitive strategy. Customer satisfaction was chosen as the outcome variable to assess the relative value of a particular servicescape characteristic given a specific strategy. In exploring these issues, the study used a combination of objective and subjective strategy data and customer surveys to examine relationships and patterns across three industries. Empirical analyses were used to explore relationships that were hypothesized to exist, and results provided support for three of four hypotheses introduced. In this chapter, the theoretical and practical significance of each hypothesis is discussed in detail. Building on the findings of this study, several directions for future research in the field are also suggested.

5.1 Discussions and Results

This research utilized the competitive strategy literature to illuminate differences across firms within similar service sectors. In particular, this research explored: a) how various aspects of servicescape might differ depending on a firm's strategy; and b) whether these variations could be associated with differential increases in customer satisfaction. The sections that follow review the findings relative to each of the developed hypotheses.

5.1.1 Overall Findings

As expected, increased levels of facility aesthetics, perceived quality, cleanliness and facility layout were consistently associated with increased customer satisfaction across all industries. This is consistent with previous research on servicescape characteristics (Bitner, 1992a; K. L. Wakefield & J. G. Blodgett, 1996). The strength of this relationship, however, frequently was contingent on a given firm's competitive strategy, providing at least partial support for three of the four hypotheses. Broadly speaking, increased levels of facility aesthetics, cleanliness, and accessibility were associated with greater increase in customer satisfaction for firms pursuing a Prospector/Differentiator strategy than for those firms pursuing

a Defender/Cost Leader strategy. The fourth hypothesis, which examined the moderating effect of strategy on the relationship between layout accessibility and customer satisfaction, was not supported. Each of these findings is discussed in greater detail below.

5.1.1.1 Facility Aesthetics and Customer Satisfaction

Hypothesis 1 predicted that the relationship between facility aesthetics and customer satisfaction would be stronger for a firm competing as a Prospector/Differentiator than for one competing as a Defender/Cost Leader. Support for this hypothesis was found in all three industries considered in this study. Further, including the moderation term increased the variance explained from 3% to 8% depending on the industry. This suggests that when customers are paying more (as is generally the case with customers of a firm following a Prospector/Differentiator strategy), they generally expect additional levels of non-quantifiable effects such as décor, wall color, music, sights and aromas within the store. While the results also suggest that increased facility aesthetics can increase customer satisfaction for Defender/Cost leader firms, customer satisfaction likely will not increase at the same rate.

5.1.1.2 Perceived Quality and Customer Satisfaction

Hypothesis 2 predicted that increased levels of perceived quality will lead to greater gains in customer satisfaction for firms competing with the Prospector/Differentiator strategy than for firms competing with a Defender/Cost Leader strategy. Support for this hypothesis was found in two of the industries (prepared foods and electronics) but not in the third (general merchandise). While not as strong as the support for hypothesis 1, this still suggests that strategy influences the relationship between perceived quality and customer satisfaction.

Hypothesis 2 was built on the notion that customers of Prospector/Differentiator firms would be more appreciative of quality services and products. The results suggest that this may be more the case in some industries than in others. In the prepared food industry, for example, where the support for the hypothesis was the strongest, both service and product quality play an integral part in the service experience. In general merchandise, on the other hand, customers mostly serve themselves and may purchase similar brands of a variety of products regardless of

the store at which they are shopping. Thus, perceived quality may play a less significant role in customer satisfaction.

5.1.1.3 Cleanliness and Customer Satisfaction

Hypothesis 3 predicted that the relationship between cleanliness and customer satisfaction would be stronger for Prospector/Differentiator than for Defender/Cost Leader firms. Clear support for this hypothesis was found in the prepared foods and general merchandise industries. This hypothesis was not supported in the electronics industry.

As with hypothesis 2, this suggests that cleanliness may be more important in some industries than in others. That prepared foods returned the strongest results, with the addition of the moderation term adding 3% to the explained variance, is intuitive. When food is part of the customer experience, cleanliness would be expected to be of importance to all firms and of particular importance to firms where customers are paying more and likely expecting more. It may be of less importance in other industries, playing a secondary rather than a primary role.

5.1.1.4 Facility Layout and Customer Satisfaction

Hypothesis 4 reversed the predictions of the previous three hypotheses, suggesting that increased levels of layout accessibility would lead to greater customer satisfaction for Defender/Cost Leaders than for Prospector/Differentiators. This argument was built around the notion that customers of Defender/Cost Leader firms would be expecting convenience along with lower prices and would want to be able to easily get in, find what they want, and get out. Results for this hypothesis were mixed. For general merchandise, the results were in the expected direction and were marginally significant on the Chow test ($p < 0.053$). These results seem to suggest that for this industry, customers do expect an additional level of ease of access in Defender/Cost Leader firms. For the prepared foods industry, the result on the Chow test was significant, but in the opposite direction from what was hypothesized. That is, the relationship was stronger for Prospector/Differentiator firms than for Defender/Cost Leader firms. Further, inclusion of the moderator terms explained an additional 10% of variance in customer

satisfaction in the prepared foods industry. The electronics industry did not return any significant results.

While these results are somewhat surprising, they still suggest that consideration of strategy is important when looking at the relationship between layout accessibility and customer satisfaction. In two of the three industries, the moderation was either at or very near statistical significance. Whether layout accessibility is more important for Prospector/Differentiator firms than for Defender/Cost Deader firms, however, cannot be determined from the results obtained.

5.1.2 Summary across Servicescape Characteristics

The service characteristics examined in this research were facility aesthetics, perceived quality, cleanliness, and layout accessibility. Looking across these dimensions, the findings suggest that strategy does moderate the relationship between each of the variables and customer satisfaction. While all variables had a positive main effect, supporting the notion that “increased” servicescape leads to increased customer satisfaction, strategy was a significant moderator of the relationship in at least two of the three industries studied. Considered as a whole, these findings thus support the central argument of this research, namely that strategy must be taken into account when considering the influence of servicescape on firm outcomes.

At the same time, these results suggest that strategy’s moderating effects may not be of equal strength across all servicescape dimensions. While strategy was a significant moderator of the facility aesthetics/customer satisfaction relationship in all industries, the moderation was only significant in two of the three industries for perceived quality and for cleanliness. For layout accessibility, the moderator was significant (or nearly so) in two industries, but these industries differed in the direction of the moderation. In one case, Defender/Cost Leader firms exhibited a stronger relationship while, in the other, Prospector/Differentiator firms had the stronger relationship. Thus, whether or not strategy plays a significant role in the layout-customer satisfaction relationship remains unclear.

5.1.3 Summary across Industries

The moderating influence of strategy on servicescape's relationship with customer satisfaction received support in all three of the industries examined in this study. There was variation, however, in how consistent the results were across the different servicescape variables. One explanation for this may be that the connection between servicescape characteristics and strategy varies across the three industries. That is, some of the servicescape variables may be more important in helping to define a Prospector/Differentiator strategy in certain industries. As noted above, cleanliness may be a particularly salient feature in determining whether to pay the higher price associated with a Prospector/Differentiator in the prepared foods industry, but this may not be the case in electronics.

Another explanation may stem from the choice of firms to study within each industry. In an effort to ensure access to enough customers of each firm, attention was focused on large national chains. In doing so, however, variation on the variables of interest may have been restrained. Within the electronics industry, for example, there may not be a meaningful difference in customers' minds in the cleanliness of the firms examined in this study. This interpretation receives at least some support from examination of the means and standard deviations of the servicescape variables, all of which exhibited a fairly limited range for the majority of the responses. It also receives some support from the difficulties encountered in trying to establish the competitive strategy of each firm. In at least some instances, firm strategies may have been so similar that detecting meaningful manifestations of them, as related to the variables of interest, was difficult. If true, the fact that the strategy moderator was frequently significant and explained meaningful variance in the majority of cases is all the more striking.

5.2 Limitations

While the overall results of the study support its depiction of strategy as a moderator of the relationship between servicescape and customer satisfaction, care must be taken so as to not over-read the findings of this research. As with any study, there are limitations that must be

considered, and three specific to this research merit particular attention. These include the strategy typing method used, the servicescape variables examined, and the nature of the sample of firms and customers.

5.2.1 Strategy Typing

By far, the greatest potential limitation of this study was the strategy typing methods used. First, the archival methods did not result in consistent typing; some firms were typed consistently across the methods, while others weren't. Likewise, the Q-Sort method was both difficult to administer and its results were inconsistent once they were obtained.

That archival typing was clear for some firms and contradictory for others was not completely surprising, as previous research suggested that archival strategy typing measures might not always be accurate in service settings (E.J. Zajac & Shortell, 1989). Of particular concern, however, were those instances in which results did not match with a reasonable understanding of what a firm's typing should be (e.g., Starbucks as a Prospector/Differentiator). More importantly, concern grew when the archival measures returned inconsistent results both within and between the strategy types (e.g., indicating both Prospector and Defender characteristics, or indicating that a firm was both a Differentiator and a Cost Leader).

One explanation for this lies in the fact that not all firms report all of the financial measures that might be useful as indicators of strategy. For example, many of the firms in this study did not report research and development expenses. The degree of research and development spending is one of the clearest distinguishers between Prospector and Defender strategies. Further, measures that serve as good indicators in manufacturing operations may not provide clear results for services. For example, larger investments in assets for manufacturing firms are normally interpreted as increased focus on assembly line processes in line with the "Theory of Swift Flow" (Schmenner 1986, 2004). In services, however, the notion that large total assets will be tied to a mass production facility generating low-priced products in great volumes might not hold.

5.2.1.1 Q-Sort

Given the shortcomings of the archival measures, attention was turned to the Q-Sort approach. Initially, it was thought that this measure would provide the clarity that the archival measures could not. However, it quickly became evident that this measure too had several limitations. First, the person completing the Q-Sort had to possess knowledge of the service firm she or he was evaluating, knowledge of the larger industry in which the firm competed, and knowledge of the strategies being utilized in this study. This combination of knowledge bases proved difficult to obtain. When the Q-Sort participants were charged with ranking the strategy characteristics, they found it challenging to separate their personal experiences with the firm from the overall strategic approaches reflected in the Q-Sort statements. Likewise, Q-Sort respondents who had consulted a manager of the service firm as a means of gaining insights before completing the Q-Sort tended to rank characteristics based on the manager's perception of the intended strategy of the firm, which may or may not have reflected the realized strategy. Taken together, these constraints lead to inconsistency in the rankings of characteristics between the Q-Sort respondents.

It should be noted that utilizing strategy experts did not necessarily mitigate these problems. The strategy experts chosen for this study were familiar with both strategic typologies and, generally, familiar with the industries in question; they lacked specific current knowledge of the firms. They were therefore given current annual reports and other published information to help inform their decisions. This was feasible given the limited number of firms being studied, but it would have been less so had this study involved a broader sample of firms.

5.2.2 *Service Characteristics*

Limitations in the servicescape measures stem from two sources. First, while efforts were made to assess service characteristics relevant to all three industries, the results suggest that there may have been differences in the relative importance of the characteristics across the industries. Future research may need to consider first doing more detailed research into the

most important service characteristics within a given industry and then focusing on these when examining the moderating effect of strategy.

Second, restricting the study to the four variables within servicescape limits the generalizability of the results. Including service characterizations such as those assessed by SERVQUAL (Parasuraman et al., 1988; Parasuraman et al., 1994; V. Zeithaml, 1981) or other service quality assessments may provide a richer and more generalizable understanding of the relationship between strategy and service characteristics.

5.2.3 Firm and Industry Sample Limitations

Utilizing only a few firms in each industry led to additional limitations, especially since the firms were all large national chains. In addition to potentially limiting this study's generalizability, the restricted sample may have limited the degree of differences between the firms' strategies and/or the inherent variability in the servicescape variables. While the choice of firms was important in ensuring a large sample of customers, inclusion of a local "fast food dive" or a truly "high-end local electronics store" might have better highlighted differences in strategy. Finally, servicescape norms are somewhat industry-specific and, while these findings support the hypotheses put forth in this dissertation, they might not be easily extended to other services or industries.

5.3 Implications and Future Research

The findings of this study have implications for both the practice and study of service operations management. Generally, from a practical perspective his research suggests specific servicescape characteristics may be more appropriate given particular competitive strategies and industries. From a research perspective this research highlights the growing need to move beyond the economic roots of operations management and into the various aspects of competitive strategy service industries has a long history within the operations management field. Reflecting this, research on services has primarily been driven by concerns rooted in economics and efficiency.

5.3.1 Implications for Practice

From a practical perspective, this research supports previous studies highlighting the importance of servicescape across all strategies regardless of industry. On average, higher levels of servicescape characteristics are associated with higher levels of customer satisfaction. At the same time, however, this work also illustrates the relevance of considering the firm strategy (within its industry) when choosing how to invest in a particular servicescape characteristics. Much like early operations management researchers proposed more than three decades ago, firms need to first determine how they want to compete and then configure the servicescape characteristics to support their approach to competing (Hayes & Wheelwright, 1984; Skinner, 1969; Wheelwright & Hayes, 1985). In sum, this research suggests firms competing as Prospectors/Differentiators will see greater increases in customer satisfaction from investments in servicescape than will firms competing as Defender/Cost Leaders. This is relevant for any manager who is considering where she or he might find the best return on service-related investments.

That said, the results also suggest that the degree to which a Prospector/Differentiator benefits more from additional investments in servicescape may vary with the particular servicescape characteristic and/or the industry in which the firm competes. Thus, managers must consider which particular service characteristics fit best with the firm's strategy and industry. This research would suggest this approach would lead to a higher return on investment.

5.3.2 Implications for Research

The study of service industries has a long history within the operations management field. Reflecting this, research on services has primarily been driven by concerns rooted in economics and efficiency. Thus, while researchers have for many years recognized and made efforts to delineate the differences between manufacturing and services, there have been limited efforts to examine how various service offerings might differ depending on the strategy of the service firm.

The findings of this research provide important empirical effort in support of recent calls to address this gap. For example, support for the notion that strategy moderates the relationship between servicescape characteristics and customer satisfaction suggests the need for more fine-grained refinement of existing service typologies. Instead of relying on broad categorization of different types of services, research needs to focus on better understanding the variety of feasible competitive approaches within a given type. The strategic types examined here provide one such approach, but other characterizations of the competitive focus of service firms should be examined as well.

At a broader level, the findings from this study highlight the value of utilizing other business research streams to inform work within the operations tradition. Several recent calls have been made for developing a richer theoretical base for operations management research. The current study, with its integration of strategic management literature, demonstrates the potential of such an approach.

5.3.3 Conclusion

The current study should be looked at as a beginning rather than an end. While it provides evidence of the influence of firm strategy on the value of investment in servicescape, more work remains to be done to replicate and extend the work begun here. One important area of work involves developing better approaches to characterizing and measuring service strategies. The typologies utilized here were chosen because of their rich history within the strategic management literature. Whether they are the best approach for trying to type service firms is a question open to future research. In the case of the Porter (1980) typology, for example, part of the distinction between a Differentiator and a Cost leader is the need to invest in expensive machinery and equipment to achieve low costs for manufacturing. Firms attempting to compromise in this decision area – i.e., trying to structure processes that reflect both strategies – run the risk of being “stuck in the middle” (Porter 1980). For service firms, this distinction may not carry as much weight, as it may be possible to differentiate while having costs similar to the cost-leader, or to differentiate to at least some degree while pursuing a cost

leadership strategy. While archival measures have the benefit of being objective and are generally available across a wide spectrum of firms, those advantages do no good if they cannot be used to return consistent indicators of a firm's strategy. Thus, development of measurement approaches must go hand-in-hand with any development of service strategy approaches.

Likewise, generating service characteristic measures that are better capable of capturing the potentially slight but relevant differences between service firms in the same industry is necessary. Refining servicescape measures and incorporating the existing SERVQUAL measure could both broaden the application of the research and increase the understanding of how service firms compete differently under different strategies. As well efforts to better understand which service characteristics are most important within which service industries are needed to allow for clearer insights into a broader spectrum of services and industries.

Having set out to examine if firm strategy may provide additional insights to the relationship between servicescape and customer satisfaction, this research has tentatively answered in the affirmative. Further, considering the servicescape-satisfaction relationship in such a manner appears to raise the possibility in the future of finer-grained, more context-specific answers to important service operations questions.

APPENDIX A

REPRESENTATIVE SERVICESCAPE AND CUSTOMER SATISFACTION MEASURES

Facility Aesthetics (items scored on a scale of 1: "Strongly Disagree" to "7:"Strongly Agree")

FA1: This facility is painted in attractive colors

FA2: The interior wall and floor color schemes are attractive

FA3: The facility architecture gives it an attractive character

FA4: This facility is decorated in an attractive fashion

Cleanliness (items scored on a scale of 1: "Strongly Disagree" to "7:"Strongly Agree")

CL1: This facility maintains clean restrooms

CL2: This facility maintains clean food service areas are attractive

CL3: The facility maintains clean walkways and exits

CL4: Overall this facility is kept clean

Perceived Quality (items scored on a scale of 1: "Worse than expected" to "7:"Better Than Expected")

PQ1: The overall service quality is much better than expected

PQ2: The overall qualities of this store's product are

PQ3: The overall qualities of this store's products are

PQ5: I enjoy spending time in this store

PQ6: I like to stay in this story as long as possible

Layout Accessibility (items scored on a scale of 1: "Strongly Disagree" to "7:"Strongly Agree")

LA1: The facility layout makes it easy to get to the kind of food service you want

LA2: The facility layout makes it easy to get to your seat

LA3: The facility layout makes it easy to get to the restrooms.

LA4: Overall this facility's layout makes it easy to get where you want to go

Customer Satisfaction (items scored on a scale of 1: "Strongly Disagree" to "7:"Strongly Agree")

SAT1: I am satisfied with product knowledge sales support

SAT2: I am satisfied with the time for receive customer service

SAT3: I am delighted with the shopping experience

SAT4: This store is my first choice "x" merchandise

SAT5: I have good feelings when shopping at this service

SAT6: I am satisfied with the product quality

SAT7: I am satisfied with the service quality

SAT8: I am satisfied with the service delivery performance

(items scored on a scale of 1: "Worse Than Expected" to "7:"Better Than Expected")

SAT9: The overall feeling I puts me in a _____ mood.

SAT10: The overall feeling I get from this store is:

APPENDIX B

TEST RETEST PAIRED SAMPLE TEST

				95% CONF INT					
	Pair	STD	SE	Lower	Upper	t	DF	DF	Sig
Pair 1	FA_T - A_T2	1.27	2.84	.607	0.01	2.54	2.1 0	21	.048
Pair 2	FL_T - L_T2	1.31	4.51	.961	-0.68	3.312	1.3 7	21	.185
Pair 3	CL_T - L_T2	- 0.18	3.72	.794	-1.83	1.47	-.23	21	.821
Pair 4	PQ_T-PQ_T2	.18	1.84	.393	-0.64	.99	.46	21	.648
Pair 5	SAT_T- SAT_T2	.09	3.34	.711	-1.39	1.57	.13	21	.900

APPENDIX C

ARCHIVAL STRATEGY COMPUTATIONS

	TREV/ TASST	ADM EXP/ TREV	TOPNS EXP/ TREV	Inventory Turnover	Gross Profit Margin	Productivity	Efficiency	Accounts Receivable Turnover
General Merchandise								
Sear's	2.031	0.216	0.95	5.80	0.86	145.3	0.80	57.13
Target	1.525	0.230	0.89	9.10	0.64	155.3	3.24	8.418
Wal-Mart	2.377	0.178	0.93	9.86	0.76	174.4	2.36	136.8
Kohl's	1.532	0.217	0.86	6.00	0.35	126.0	3.90	9.269
Industry Mean	2.098	0.231	0.93	7.41	0.75	152.3	1.92	144.3
STD	0.708	0.070	0.04	2.08	0.08	66.86	0.90	1205.
Electronics								
Best Buy	2.684	0.193	0.93	9.39	0.26	242.9	6.93	67.03
Circuit City	2.814	0.231	0.98	7.03	0.25	246.0	5.23	24.91
Radio Shack	2.124	0.375	0.89	5.36	0.48	113.6	2.76 6	20.16
Industry Mean	2.213	0.300	0.96	7.69	0.34	226.6	5.21 2	35.61
STD	0.81	0.08	0.05	3.35	0.09	94.67	2.85	20.51
Prepared Food								
McDonald's	0.687	0.11	0.73	136.8	0.37	42.94	86.0	23.20
Starbuck's	1.639	0.06	0.84	12.12	0.21	54.33	9.52	34.94
Wendy's	1.082	0.09	0.84	99.12	0.24	60.00	74.7	26.35
Industry Mean	1.378	0.130	0.88	96.12	0.24	43.38	71.6	66.83
STD	0.53	0.07	0.10	54.49	0.08	16.74	41.7	63.27

APPENDIX D

Q-SORT COMPUTATIONS

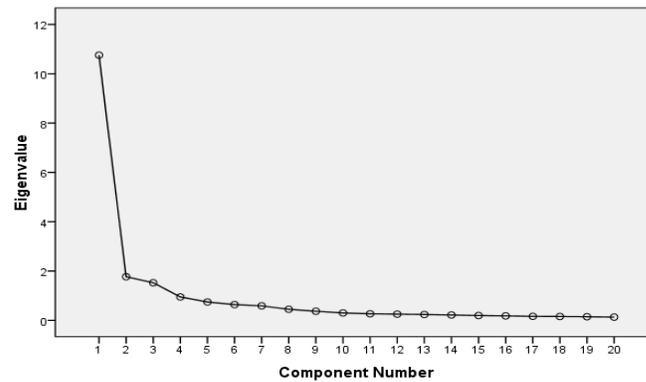
	Miles & Snow		Porter	
	Prospect	Defend	Differ	Low Cost
Kohl's	4.75	4.25	6.50	4.00
Sear's	4.96	4.04	5.53	5.47
Target	4.79	4.21	4.86	6.50
Wal-Mart	4.47	4.54	6.42	4.47
Average	4.74	4.26	5.83	5.11
Standard Deviation	0.20	0.21	0.78	1.11
(-) 1SD	4.54	4.05	5.05	4.00
McDonald's	4.21	4.79	6.4	4.29
Starbuck's	4.41	4.64	5.76	5.11
Wendy's	5.82	3.18	6.36	4.21
Average	4.81	4.20	6.17	4.54
Standard Deviation	0.88	0.89	0.36	0.50
(-) 1SD	3.94	3.31	5.82	4.04
Best Buy	4.80	4.20	6.40	4.15
Circuit City	6.05	2.95	6.90	3.40
Radio Shack	5.35	3.65	6.36	4.20
Average	5.40	3.60	6.55	3.92
Standard Deviation	0.63	0.63	0.30	0.45
(-) 1SD	4.77	2.97	6.25	3.47

APPENDIX E

DESCRIPTIVE STATISTICS FOR FACTOR ANALYSIS

	Mean	Std. Deviation	Analysis N ^a	Missing N
FA 1	4.86	1.337	1464	7
FA 2	4.82	1.369	1464	5
FA 3	4.84	1.379	1464	7
FA 4	4.85	1.384	1464	3
LA 1	5.22	1.341	1464	6
LA 2	5.36	1.205	1464	6
LA 3	5.16	1.373	1464	5
LA 4	5.24	1.305	1464	9
LA 5	5.24	1.309	1464	6
LA 6	5.26	1.308	1464	4
LA 7	5.26	1.272	1464	12
CL 1	5.00	1.328	1464	5
CL 2	5.32	1.168	1464	7
CL 3	5.31	1.221	1464	12
CL 4	5.29	1.315	1464	5
CL 5	4.94	1.461	1464	9
CL 6	4.26	1.730	1464	10
PQ 1	4.81	1.138	1464	2
PQ 2	4.87	1.140	1464	7
PQ 3	4.89	1.158	1464	8

Scree Plot



APPENDIX F

CORRELATION MATRIX FOR FINAL FACTORS

CORRELATIONS FOR FINAL FACTORS						
		FacAsc	Clean	LayAsc	PerQual	Diff and Prospectors
FacAsc	Pearson Correlation	1.000	.533**	.507**	.673**	-.149**
	Sig. (2-tailed)		.000	.000	.000	.001
	N	490	490	490	490	490
Clean	Pearson Correlation	.533**	1.000	.649**	.654**	-.092*
	Sig. (2-tailed)	.000		.000	.000	.043
	N	490	490	490	490	490
LayAsc	Pearson Correlation	.507**	.649**	1.000	.610**	-.155**
	Sig. (2-tailed)	.000	.000		.000	.001
	N	490	490	490	490	490
PerQual	Pearson Correlation	.673**	.654**	.610**	1.000	-.165**
	Sig. (2-tailed)	.000	.000	.000		.000
	N	490	490	490	490	490
Diff & Prospectors	Pearson Correlation	-.149**	-.092*	-.155**	-.165**	1.000
	Sig. (2-tailed)	.001	.043	.001	.000	
	N	490	490	490	490	491
**Correlation is significant at the 0.01 level (2-tailed)						
*Correlation is significant at the 0.05 level (2-tailed)						

APPENDIX G

CORRELATION MATRIX FOR CONTROL VARIABLES

CORRELATIONS FOR CONTROL VARIABLES							
		Gender	Completed Education	Age Bracket	Annual Gross Income	Number of visits in 4 weeks	SatAll
Gender	Pearson Correlation	1.000	-.088**	-.047	.082**	.058*	.079**
	Sig. (2-tailed)		.001	.070	.002	.027	.003
	N	1463	1461	1462	1459	1459	1460
Completed Education	Pearson Correlation	-.088**	1.000	.305**	.244**	.057*	.012
	Sig. (2-tailed)	.001		.000	.000	.029	.658
	N	1461	1464	1463	1460	1460	1461
Age Bracket	Pearson Correlation	-.047	.305**	1.000	.448**	.119**	.086**
	Sig. (2-tailed)	.070	.000		.000	.000	.001
	N	1462	1463	1465	1461	1461	1462
Annual Gross Income	Pearson Correlation	.082**	.244**	.448**	1.000	.105**	.117**
	Sig. (2-tailed)	.002	.000	.000		.000	.000
	N	1459	1460	1461	1462	1458	1459
Number of visits in four weeks	Pearson Correlation	.058*	.057*	.119**	.105**	1.000	.336**
	Sig. (2-tailed)	.027	.029	.000	.000		.000
	N	1459	1460	1461	1458	1462	1459
SatAll	Pearson Correlation	.079**	.012	.086**	.117**	.336**	1.000
	Sig. (2-tailed)	.003	.658	.001	.000	.000	
	N	1460	1461	1462	1459	1459	1463
**Correlation is significant at the 0.01 level (2-tailed)							
*Correlation is significant at the 0.05 level (2-tailed)							

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Patti Lynn Collett holds a Bachelor's of Science Degree in Psychology from Weber University in Ogden Utah, and a Master's of Science Degree in Operations Management from the Georgia Institute of Technology in Atlanta Georgia. She has taught over 100 courses at the college level in Operations Management, Strategic Management, Organizational Behavior and Business Math. She has received several teaching and academic excellence awards and has six national conference research papers.

She has also served as an officer in the United States Army for over 25 years and holds the rank of Lieutenant Colonel. She has commanded troops across the globe, and moved supplies via air, water, train and truck. Most recently she assisted in the strategic planning and statistical analysis for the movement of troops and equipment into Iraq and Afghanistan.

She is currently an Assistant Professor at The University of Maine, and teaches Operations Management and Business Strategy. She and her four children live in Orono, Maine. She enjoys exploring the rugged Maine outdoors with her children and running in the early morning. She can be reached at the following email: patti.collett@maine.edu.