



# Linking servicescape to customer satisfaction: exploring the role of competitive strategy

Patti Miles

*Maine Business School, University of Maine, Orono, Maine, USA*

Grant Miles

*College of Business, University of North Texas, Denton, Texas, USA, and*

Alan Cannon

*College of Business, University of Texas at Arlington, Arlington, Texas, USA*

## Abstract

**Purpose** – The purpose of this paper is to explore the relationship between firm service characteristics and customer satisfaction as moderated by firm competitive strategy. Specifically, this research utilizes Porter's depiction of generic competitive strategy to explain the strength of the relationship between a service's particular servicescape choices and customer satisfaction.

**Design/methodology/approach** – The empirical data for this research were obtained from 1,287 customers of ten service organizations representing three industry segments. Multiple regression analysis is utilized to test three hypotheses that propose firm competitive strategy moderates the strength of the relationship between service characteristics and customer satisfaction.

**Findings** – The results support the assertion that firm competitive strategy has an impact on the strength of the relationship between customer satisfaction and servicescape characteristics. Of note, these findings indicate that the payoff for investment in physical surroundings differs depending on firm competitive strategy.

**Practical implications** – The results point to the importance of aligning firm strategy and operational decisions when seeking to maximize customer satisfaction. Decision makers benefit from understanding how strategy matters in service operational choices.

**Originality/value** – The paper makes connections across academic disciplines to highlight the importance of linking firm competitive strategy with service operation choices to enhance customer satisfaction. The model developed here, supported with empirical results, provides insights for both researchers and practitioners regarding the value of investment in service-related activities.

**Keywords** Customer satisfaction, Customer services quality, Service strategy, Competitive strategy, Empirical research, Servicescape

**Paper type** Research paper



Historically, the literature on management of services has been built on a foundation derived from the literature in the operations management field, with contributions from several other important disciplines such as services marketing (Rust *et al.*, 2000; Zeithaml *et al.*, 1993) and human resources (Oliva and Stemann, 2001; Rust, 2004). While efforts have been made to extend the literature on service operations beyond these roots (Bowen and Lawler, 1992; Ordanini and Parasuraman, 2011), what has largely prevailed are perspectives with a “service twist” that modify and/or extend seminal operations management typologies and taxonomies (Larsson and Finkelstein, 1999). These extensions typically echo the interplay between desired efficiency, flexibility, and the

contingencies of the marketplace broadly highlighted by Hayes and Wheelwright (1979) in their work on the Product/Process Matrix. Similar adaptations of manufacturing ideas have brought to the forefront such considerations as customer interaction (Chase, 1978; Chase, 1988; Mills *et al.*, 1983), the productivity consequences of variation in service outputs (Schmenner, 1986, 2004), and the payoff accompanying specialization among and repetition by service delivery personnel (Collier and Meyer, 1998; Alexandrov *et al.*, 2007).

Schmenner's Service Process Matrix (SPM), initially created in 1986 and updated in 2004, provides one example of manufacturing based research applied to services. Building on the work of Hayes and Wheelwright's (1979) Product/Process Matrix, the SPM offers a four cell descriptive typology based on two axes, labor intensity and degree of customer interaction, and suggests that a firm faces fundamental tradeoffs associated with various combinations of throughput time and variation. Others have also sought to differentiate services from manufacturing through segmenting services into broad categories based on factors such as the amount of customer interaction (Chase, 1978, 1988; Mills *et al.*, 1983), the payoff accompanying specialization among and repetition by service delivery personnel (Collier and Meyer, 1998), and the amount and intensity of customer involvement in the service process (Sampson and Froehle, 2006). In the main, however, the service literature continues to "think and act with a manufacturing or product mind-set" reflecting the origins of the goods dominated discipline that shaped the service literature (Ostrom *et al.*, 2010).

While these typologies and others offer broad ways to categorize services, they do not necessarily capture the nuances of service competitive actions, nor is that their primary focus. As such, they do not allow for the insights garnered from both the manufacturing strategy literature (Ward and Durray, 2000) and the broader strategic management field (Hambrick and Fredrickson, 2001) that multiple strategies are typically feasible within any given environment. The strategy literature suggests strategic approaches will tend to be successful only if:

- they meet fundamental requirements set by the competitive environment (Hill, 1993; Ward and Durray, 2000); and
- their particularities (e.g. service characteristics) "align with and support each other" (Hambrick and Fredrickson, 2001, p. 54) in such a manner that creating a competitive advantage is possible.

Within the service literature, however, there is limited attention being paid to service firms' "fundamental approaches to competing", and models that integrate strategy and service characteristics are largely absent (Ostrom *et al.*, 2010). As a result, current service frameworks have difficulty explaining the diverse competitive actions of groups of services within various industries, and do not account for the fact that two firms ostensibly in the same category in most of the frameworks above may in fact compete and perform very differently, utilizing various combinations of competitive mechanisms to create their unique service offerings (Voss *et al.*, 2008).

In this research, we answer a call put forth in a recent service research journal review suggesting that cross-disciplinary work is a priority in service research (Ostrom *et al.*, 2010). In particular, we explore the implications of the alignment between firm competitive strategy and the firm's attainment of various service characteristics (e.g. facility aesthetics, layout accessibility and cleanliness) as those decisions pertain to customer satisfaction. Our results (obtained from a survey of more than 1,200 customers

across three distinct industries) indicate that this approach may provide insight into service operations for both scholarship and practice. As such, this research makes an important interdisciplinary contribution and lends support to the necessity of continued scholarly inquiry to connect service operations management and competitive strategy literatures and research.

### Literature review

Common to both the service operations and strategic management literatures are categorization schemes that create frameworks useful in organizing services or strategies. In the service operations literature, the frameworks generally emerge from the interplay between desired efficiency, throughput, and customer variation and the amount of each that can be reasonably accommodated. In the main, they do not take the firm's strategy into account (Spring and Araujo, 2009). Strategy typologies, on the other hand, focus on firm competitive actions and provide insight as to how a particular firm within a larger industry manifests various combinations of unique and standard characteristics in support of their inimitable competitive position. While broadly useful in understanding competitive strategies, they do not generally explain how various service characteristics may or may not support particular competitive approaches. In the pages that follow, we review the broad lines of current service typologies and meld them with the insights of strategy archetypes. This allows for the development and testing of hypothesis that follow the spirit of the recent call for "focused interdisciplinary research" on the science of service (Ostrom *et al.*, 2010).

#### *Service typologies*

The lure – for both scholarship and practice – of greater integration of service and strategic frameworks can be seen when one looks at the challenges at play in the configuration and execution of firms' service characteristic "bundles" (Van Dierdonck and Brandt, 1988; Spring and Araujo, 2009). For a given service archetype, for example, bringing competitive strategy implications into the mix would enable greater clarity with respect to:

- service characteristics that likely will (or must) be similar across firms; and
- those that might be very attractive for some firms and not for others.

To date, however, there has not emerged a coherent picture of how one might best combine service characteristics to most effectively create a competitive advantage (Spring and Araujo, 2009). Accordingly, we turn to the service typologies literature, exploring in detail the typologies and how particular service characteristic might apply differently within the same industry or quadrant.

Scholarly work focused on service operations is consistent in its assertion that the interplay between:

- (1) the efficiency that is desired;
- (2) the throughput that is necessary; and
- (3) the customization that will be accommodated leads to generic service approaches at the sector (e.g. "hospitality") or industry (e.g. "retail") levels.

The SPM (Schmenner, 1986, 2004) is typical of these efforts. Introduced in 1986 and revised in 2004, this categorization scheme focuses primarily on efficiency, exploring the

nature of the service encounter through the degree of variation (resulting from customization and interaction with customers) and relative throughput time (measured through service transaction time). The latter (often interpreted as level of customization) looked to lessons learned in manufacturing to anticipate that the variation resulting from “interaction with and customization for the consumer” must be accounted for in expectations regarding a service’s productivity. The resulting classification scheme suggests two axes, customization and labor, succinctly depicting four typical service types. While allowing for some variation between firms, the typology suggests an industry generally falls within one quadrant and that industry firms typically compete in a relatively consistent approach.

Schmenner’s early assertions played out promisingly in such work as that of Goldstein *et al.* (2002), which reported a negative relationship between such variation and overall service productivity. Schmenner (2004), in an examination of several services over 20 years, argues convincingly that the Theory of Swift, Even Flow can be used to explain why some services survive longer and prosper more than their competition. In a related study, researchers found that the same theoretical foundation provides a means of linking enterprise resource planning (ERP) and operational efficiency in services (Bendoly and Schoenherr, 2005).

Other service characterizations reinforce the central role of efficiency within the service literature. For example, the customer contact model (Chase, 1978), and the decision-making efficiency model (Charnes *et al.*, 1978) both propose various ways to seal off the service core (Thompson, 1967) to enhance efficiency. These models are helpful in directing general thinking about the organization and operation of service firms, but do not provide a level of analysis sufficient to examine the competitive actions of firms. As such, these models do not allow for differences in approaches by firms within the same industry or industry subgroup.

A variety of other typologies and service categorization approaches have begun to make inroads into the literature. Researchers note deliberate design choices are necessary to engage customers (Pullman and Gross, 2004) and should be considered when attempting to create appropriate service bundles (Roth and Menor, 2003). The bundles, research suggests, generate the largest value when they are aligned with customer perception and experience. In a similar vein, scholars and firms must recognize the importance of the customer experience and the role the firm plays in producing the experience (Voss *et al.*, 2008). A common theme across each of these approaches is a movement beyond the efficiency tradeoffs of different service choices and an acknowledgement of the notion that firms investing in delivering the experience will generate value through increased customer satisfaction. This is true even though it may be difficult to quantify and empirically evaluate (for customers, firms and researchers) because in many cases the success of the experience is based in the subconscious (Voss *et al.*, 2008).

Voss *et al.* (2008) noted that service firms often differ in how they view their offerings. Some service firms view themselves as selling the experience, where the focus is selling services, while others see themselves as service destinations where the focus is selling goods. In both cases the researchers found that firms that were able to align internal firm capabilities with the desired outcome (service experience or destination) generally enjoyed increased firm performance. They did find, however, that in some cases firms that had an internal alignment did not experience the same rewards as other similarly

designed firms (Voss *et al.*, 2008). This suggests that services/firm alignment requires further investigation.

The marketing service strategy literature also offers several alternatives for competing in services. The general tenor of this research is that firms can leverage and manage customer perceptions of value through providing customers with convenience during the services that accompany various stages of the purchase process. In fact, one study found some association between enhanced customer services such as these and shareholder value (Wiles, 2007). In a related study, researchers examined how offering value to lost customers can actually bring customers back to the firm (Tukman *et al.*, 2007). Like the service strategy literature rooted in operations, each of these assertions seems to have a common theme of creating value through service offerings. What the value equations do not offer, however, is a clear picture of the conditions under which various factors directly affect or moderate the relationship between service characteristics and customer satisfaction (Bolton *et al.*, 2007).

Thus, while the service literature has made significant inroads in explaining how different service bundles can help firms compete and enhance the customer experience, there is still a general tendency towards asserting that “more” service is better for all firms in an industry or industry segment. The organizational theory and strategic management literature, in contrast, has long asserted that what can be of value for one firm in an industry may not be of value for another. In fact, there is at least some evidence that differences in approaches and offerings by firms in an industry are necessary if the firms and industry are going to see higher levels of profits, growth, and innovation (Miles *et al.*, 1993). With this in mind, we turn to the strategy literature for help in understanding why there might be differences in the returns to particular service offerings.

#### *Strategic management*

One of the essential questions in the strategic management field focuses on “Why firms differ” (Nelson, 1991; Carroll, 1993). From this emerge derivative questions regarding how a firm’s strategy should inform actions taken at the functional (e.g. operations) level (Wheelwright, 1984). Increasingly this field points to the need for “fit” (Venkatraman, 1989) in decision-making and action both within a given functional area as well as across functional areas so as to ensure coherence and consistency in the implementation of the organization’s strategy. As Wheelwright asserts, effective operations do not only promise efficiency, they create consistency between business capabilities and competitive strategy (1984). This perspective is tested in the empirical research of Smith and Reece (1999) where, in a study of 30 independent bank branches, it was found that strategic fit leads to increased performance. Further, and more directly related to the assertions here, it has been found that the fit of strategy with operational elements was of far greater importance to performance than the actual choice of strategy (James and Hatten, 1995).

This line of thinking has led to a number of characterizations of “generic” strategies that broadly describe how there can be multiple profitable approaches to engaging the environment and differing internal requirements for accomplishing such engagement. The logic of each of these characterizations is that multiple approaches are possible in any given industry or industry segment so long as an appropriate fit is achieved. Indeed, some argue that finding such fit is the *sine qua non* of strategy (Rumelt *et al.*, 1991; Hambrick and Fredrickson, 2001). Two of the most prominent and lasting of these characterizations are those of Miles and Snow (1978) and Porter (1980, 1985).

The Miles and Snow (1978) typology of strategic postures, with roots in organization theory, depicts profit making as sensitive to the combination of strategy, structure, and process. Three strategic types are depicted. Prospectors prefer to develop new product and/or market opportunities and therefore focus on a structure and process combination that allows for flexibility and responsiveness at the expense of efficiency. Defenders, in contrast, prefer stable segments of established markets and focus on the ongoing refinement of structure and processes that allow them to develop and exploit operating efficiency. Finally, analyzers position themselves in multiple markets of varying maturity, using exceptional administrative skill to develop structure and process combinations that allow them to be “quick followers” in emerging markets and efficient when it is necessary in more stable segments.

An alternative strategy framework, with roots in the economics area, is Porter's (1980, 1985) “generic competitive strategies”. Porter's framework integrates the firm's choice of competitive approach (cost leadership or differentiation) with the choice of product/market the firm plans to address (broad or narrow) to describe generic strategies that should, if implemented properly, lead to profits that exceed industry averages. Porter's work asserts that although the foundation of competitive advantage differs across these approaches, so long as firms' efforts are coherent, i.e. they accommodate the realities of the environment while also developing and leveraging appropriate competitive capabilities – competitive advantage is possible. Effective implementation of any of these strategies, Porter argues, requires consistent commitment across a variety of areas, from marketing to human resources to operations.

Neither the Miles and Snow (1978) nor the Porter (1980, 1985) framework depicts management as having unlimited discretion in the implementation of firms' strategies; the strategic management literature has been consistent in recognizing the environment's prominent influence over what actions may nor may not be advisable. As such, each conceptualization emphasizes the degree to which success is contingent on the firm's striking and maintaining a match between its capabilities and the opportunities afforded by its environment (Mintzberg and Lampel, 1999). That said, both focus primary attention on internal alignment and making sure that organizational choices consistently support the strategic approach being pursued.

This emphasis on internal alignment is reflected in a number of studies within operations management that have examined the role of strategy. For example, research reflecting Porter's work commonly depicts the appropriateness of particular operations-related choices (e.g. the structuring of manufacturing processes) as contingent on the strategy being pursued (Adam and Swamidass, 1989; Roth and Nigh, 1992; Vickery and Droge, 1993; Kotha and Vadlamani, 1995; Goldstein *et al.*, 2002; Boyer and Frohlich, 2006; Swink *et al.*, 2007; Swink and Song, 2007). Of particular interest here is the research of Smith and Reece (1999) and Goldstein *et al.* (2002). Smith and Reece conduct an empirical study that suggests businesses that link operations and business strategies will outperform organizations that do not create “fit”, generally noting that the operational elements alignment with the strategy are of greater importance than the particular choice of strategy. Goldstein *et al.* (2002) applied Porter's model to services, suggesting that services too will benefit from considering the corporate service strategy early in the service design process. They note, for example, that the service concept (level of service) should differ depending on the strategy being pursued by the service (Goldstein *et al.*, 2002).



The difference in level of analysis between broad service categorizations and a strategic management approach, then, comes into play as one looks at specific service characteristics of firms. Taking a service categorization approach, one would expect that successful firms in the same industry or industry subgroup would demonstrate similar service characteristics. From a strategic management approach, however, this would be true only if the firms in question had chosen to pursue similar strategies. Accordingly, we turn next to the introduction of a category of service characteristics and examine in more detail how these might be utilized by firms taking different strategic approaches.

### *Servicescape*

Evidence has emerged over a number of years to suggest that the surroundings within a service act as a form of non-verbal communication and influence a person's beliefs about the overall service and service provider (Broadbent *et al.*, 1980; Rapoport, 1982). 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 have all been found to affect customer trust, beliefs about the product quality, and customer attribution of agent behavior (McGuire, 1985; Bitner, 1990; Bitner *et al.*, 1990). Formalized into the concept of servicescape, most notably by Bitner and colleagues (Bitner, 1990, 1992; Bitner *et al.*, 1994), the idea is that customers use their surroundings to categorize services and that servicescape may serve as a surrogate for service quality (Bitner, 1992).

Servicescape is defined as a combination of several dimensions that influence a customer's holistic perceptions of the service. Important dimensions introduced by Bitner (1990) and later adopted by others (Ward *et al.*, 1992; Wakefield and Blodgett, 1996) include facility aesthetics (color, music, and lighting), layout accessibility (spatial layout, and the ability of furnishing to facilitate customer enjoyment) and cleanliness (broadly, the cleanliness of all aspects of the service facility).

A number of empirical studies have demonstrated the importance of servicescape characteristics on customer satisfaction and perceptions of service quality. For example, studies have suggested "fine dining" would require one particular set of ambient conditions while "fast food" may require another (Bitner, 1992). In a study of leisure activities (professional baseball and football and a casino), facility aesthetics and cleanliness have been shown to positively impact the customer's perception of quality (Wakefield and Blodgett, 1996, 1999). Bitner (1992) found that spatial layout and functionality are particularly salient in complex self-serve settings, and that layout in discount stores facilitates the fulfillment of functional needs. Similarly, interesting and mood-altering layouts have been found to amplify customers' pleasure-fulfillment in the service setting (Wakefield and Blodgett, 1996), and a recent study found music to positively moderate customer perception of service attitude, an antecedent to service evaluation (Morin *et al.*, 2007). Servicescape has also been found effective in web-based settings.

In summary, the servicescape literature suggests several relevant ideas. First, services involve various interactions between customer and employee, leading to distinct needs in regards to physical surrounding considerations. Second, the literature suggests servicescape itself can elicit particular emotional responses in customers, leading them to categorize the service in a particular way. Third, consideration of the servicescape dimensions may be important in the design, planning and execution of services within any given industry, and should be considered a priori

(Ostrom *et al.*, 2010). These ideas are central to this research because they all suggest a relationship exists between how a firm's strategy has shaped the customer's preconceived images of an appropriate servicescape for the service he or she is obtaining and that customer's satisfaction with the service he or she ultimately receives. These central ideas provide a starting point for the consideration of how service firms may best align and integrate service offerings (Ostrom *et al.*, 2010) and integrate design thinking into service practices, processes and systems.

### *Hypotheses*

While the literature on servicescape makes a strong general argument for improved servicescape characteristics leading to improved customer satisfaction, it is not clear whether this relationship should be expected to be constant across all service operations or even across all firms within a particular type of service. As noted above, evidence from the strategic management literature suggests that firms in the same industry or industry subgroup can differ in their competitive actions so long as there is a fit between the organizational actions, operations, and processes (Porter, 1980; Miles and Snow, 1978). In anticipating a strategy-contingent relationship between servicescape and customer satisfaction, it is therefore necessary to take into account the congruence between servicescape and other elements of the firm's service concept (Goldstein *et al.*, 2002). As customer satisfaction is typically viewed as dependent on how well expectations are met (Heskett, 1987; Edvardsson and Olsson, 1996), the marginal benefit of improved servicescape should be higher for firms who promote and emphasize servicescape as part of their competitive approach than for those firms who do not place such an emphasis.

With this line of logic in mind, we chose to follow the lead of Ward and Durray (2000) and focus on the competitive approach (cost leadership and differentiation) aspects of the Porter (1980, 1985) framework to depict strategic considerations. Doing so aligns our work both with "the dominant paradigm of competitive strategy" research (Campbell-Hunt, 2000, p. 127) and with the framework that has enjoyed the most attention by researchers pursuing operations strategy questions. As Swink and Hegarty note; "[a]lthough many other business strategy typologies have been developed, Porter's model has arguably had the greatest influence on manufacturing strategy models" (Swink and Hegarty, 1998, p. 375).

Cost leaders (Porter, 1980, 1985) emphasize efficiency in their operations, appealing to customers who seek value (lowest price, largest quantity of product) and therefore eschewing investment in its processes or products (e.g. service outputs) beyond conformation to standard customer expectations (Hill, 1988). That is, service firms pursuing cost leadership should tend to emphasize servicescape only insofar as that emphasis ensures a reasonable degree of parity with industry standards (Murray, 1988). Firms pursuing the differentiation strategy (Porter, 1980, 1985), on the other hand, tend to emphasize product-oriented innovation when investing, focusing on fostering and maintaining uniqueness to coax premium prices out of customers (Miller and Friesen, 1986). While such uniqueness may sometimes come in the form of quality or features of the product or service being offered, it can also take the form of ancillary elements (e.g. a firm's reputation regarding its social responsibility) that are valued by the customer. Thus, the differentiating service firm is likely to be more concerned with the overall service experience – in which servicescape plays a prominent role – than will be a cost leader.



Given these arguments, and consistent with the idea that customer expectations:

- are shaped by firms' intended strategies; and
- can enhance customer satisfaction to the degree that expectations are met, we offer three hypotheses.

Our first hypothesis considers the role of facility aesthetics in the realization of a service firm's strategy. Facility aesthetics are described as the ambient conditions (e.g. color, music, and lighting) that affect individuals' perceptions and responses to the environment (Parasuraman *et al.*, 1988; Baker and Collier, 2005). The interior and exterior conditions of the service include architectural design, décor, 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 (Wakefield and Blodgett, 1996).

Given that the differentiation strategy's success is typically premised on commanding premium prices, service firms pursuing the differentiation strategy would look to create and/or maintain an aura of uniqueness. One way to achieve this is through carefully configured physical settings in which architecture and décor are critical considerations. For service firms pursuing the cost leadership strategy, on the other hand, the role of ambience and other aspects of facility aesthetics with respect to customer satisfaction should be much less prominent. We therefore hypothesize that a firm's facility aesthetics will affect customer satisfaction differently depending on which strategy that firm is pursuing:

- H1.* The relationship between facility aesthetics and customer satisfaction will be stronger for firms pursuing a differentiation strategy than it will be for firms pursuing a cost leadership strategy.

Our second hypothesis deals with strategy and layout accessibility. 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 signs and symbols intended to communicate and enhance a certain image or mood or to direct customers to desired destinations (Wakefield and Blodgett, 1996). 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).

Such implicit components of a service as those mentioned above may serve as market differentiators and enable particular services within an industry to distinguish themselves from competitors. Firms pursuing a differentiator strategy generally appeal to loyal customers who seek a unique service. Facility layout and overall accessibility can be the physical manifestation of such a strategy. Thus, we hypothesize:

- H2.* The relationship between layout accessibility and customer satisfaction will be stronger for firms pursuing a differentiation strategy than for firms pursuing a cost leadership strategy.

In our third hypothesis, we explore the interplay of strategy and the servicescape dimension of cleanliness. Cleanliness encompasses 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 (Wakefield and Blodgett, 1996).

Pursuit of the differentiation strategy is only feasible insofar as customers remain willing to pay premium prices for the differentiated product or service (Murray, 1988). Given constantly evolving customer expectations (Hill, 1993), firms pursuing the differentiation strategy must continually monitor all aspects of the physical environment, including overall cleanliness. Conversely, pursuit of the cost leadership strategy is predicated on the firm's maintaining merely a reasonable degree of parity with overall industry standards in areas such as cleanliness (Porter, 1980, 1985). As customers' perceptions regarding the overall quality of the service are often shaped strongly by cleanliness (Wakefield and Blodgett, 1996), cleanliness likely is more a pressing concern for the differentiator than it is for the cost leader. This line of thought leads to our final hypothesis:

- H3.* The relationship between cleanliness and customer satisfaction will be stronger for firms pursuing a differentiator strategy than it will be for firms pursuing a cost leadership strategy.

## Methodology

The choice of sample selection and methodology was driven by the nature of the three hypotheses to be tested in this study. Since the model involves both identification of company strategy and customer perceptions of servicescape and satisfaction, two sampling frames are required. These include the identification of companies and customers of those companies. The selection of the sample for each is discussed below in turn.

### *Sample selection*

*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 (Miles and Snow, 1978; Harrigan, 1983; James and Halten, 1995) the sample was limited to a small number of distinct industries rather than a random sample across industries. Second, in order to demonstrate the necessity of considering competitive strategy when evaluating service firms, the industries chosen all fell within two quadrants in the SPM. Third, to generate reliability of the measures, similar customer contact time was necessary (Chase and Tansik, 1983; Voss *et al.*, 2008). 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). To further control the sample, we narrowed the focus within the industry groups to firms that appeared to be broadly sharing a common target market. Thus, we limited the sample to discount and department stores within the general merchandise industry, "fast food" and "quick sit down" establishments within prepared foods, and general electronics retailers in consumer electronics. Within each industry subgroup, major companies pursuing different strategies were then chosen for study. This led to the selection of four firms from the general merchandise industry (GM1-GM4), three firms from the prepared foods industry (PF1-PF3), and three firms from consumer electronics retailing industry (CE1-CE3).

*Customer sample.* Collecting information on customer perceptions of servicescape necessitated identifying the sampling frame as individuals who had experience with the stores identified above. Although our research appeared to be an ideal candidate for a field study, since our subjects would be in a position to observe and experience the servicescape directly and then offer an immediate response (Wakefield and Blodgett, 1996, 1999; Morin *et al.*, 2007), we ultimately chose another direction for two reasons. First, a field study in a research effort such as ours might easily be compromised *vis-à-vis* internal validity, since respondents might tend to over-examine the focal experience and under-examine their cumulative experience with that service setting (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 to a field study, we attempted to identify, outside of the actual service setting, a broad sample of the customer population of our targeted service firms. An effort was made to include a diverse sample of customers to ensure that multiple perspectives were captured. As well, criteria for selection to participate in this study included being familiar with the service and having been to the service at least one time in the previous four weeks.

Our “purposive” sample (Trochim, 2001) for this study tapped four groups – characterized by substantial diversity in age, income and other demographic features – from a large metropolitan area in the USA. The first group consisted of 50 undergraduate business students at a large metropolitan university. These students were then used to obtain a criterion-based snowball sample (Goodman, 1961; Trochim, 2001; Huck, 2004) by having them suggest others who might be willing to participate in the study. Those suggested were then contacted and asked to complete the survey. The second group consisted of adults with children involved in a community sports association characterized by participants across a variety of 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 representing more than 500 homeowners. In each group, the subjects who agreed to participate were asked which of the sample firms they had enough experience with to offer an opinion. They were then randomly assigned a firm from among those with which they were familiar.

#### *Variables*

*Company strategy.* Using objective data (e.g. financial information) to identify service firms’ strategies has proven problematic in past studies (Zajac *et al.*, 2000; Zajac and Shortell, 1989; Ostrom *et al.*, 2010). This is largely because, compared with goods dominate companies, service enterprises have lower fixed capital investments, generate larger profit margins and can also have a more frequent revenue stream (Ostrom *Alexandrov et al.*, 2007). These differences make traditional archival computations (using public COMPUSTAT data) unreliable. Additionally, the model design necessitated the use of fewer firms than would normally be used in traditional statistics models. These considerations led us to pursue a qualitative measurement approach to the evaluation of firm strategy. To insure as accurate a typing as possible, two approaches were utilized and the results combined.

Following past practice in strategic management research (Doty *et al.*, 1993), the first approach utilized a panel of three academic experts who were familiar both with Porter’s generic strategies and with the firms under study here. The panel utilized their

individual knowledge as well as company specific information supplied to them on each firm (e.g. annual reports, industry information, etc.) and clear conceptual definitions of Porter's generic strategies. Once the academic experts indicated that they were sufficiently familiar with the firms and strategies they were considered reliable judges (Perreault and Leigh, 1989). Next, they were asked to utilize their knowledge of the firms and strategic types to independently classify each of the firms in the study as either cost leader or differentiator. To insure reliability the experts rated the companies two times. In the first rating there was unanimous agreement by the judges on the typing for all but one firm. The panelists discussed their perspectives and then, two weeks later, conducted a second typing. The subsequent typing returned a 100 percent inter-rater reliability in that all raters placed all companies in the same categories. This was judged sufficiently reliable for firm typing (Perreault and Leigh, 1989).

As an external validity check, a second approach was executed that relied on self-typing done by store managers of the firms in the sample (James and Hatten, 1995; McDaniel and Kolari, 1987). While managers from three of the stores cited company policy and declined to participate, between two and four managers from each of the other seven stores agreed to perform a self-typing. Each of these managers was given a short description of both the cost leader and the differentiator and asked to indicate which description better characterized their firm. Independent assessment by managers of the same firm agreed in six of the seven firms from which managers participated, and the seventh had a majority agreement.

The results of the categorizations by the academic experts and the self-typing done by the managers are shown in Table I. As can be seen, the inter-rater consistency between the academic experts and the store managers was consistent, with agreement on the typing of all seven firms for which both measures were available. Accordingly, accepting the academics categorization for the other three firms was both intuitively reasonable and supported in the literature (Shortell and Zajac and Shortell, 1989; Perreault and Leigh, 1989).

*Measures of servicescape.* As noted earlier, the study measured respondents' perceptions of servicescape based on recalled service encounters. Measures of servicescape were based on those originally developed by Bitner (1990) and later refined by Wakefield and Blodgett (1996). Aspects of servicescape included facility aesthetics (FA1-FA4),

	Academic typing	Self typing
<i>General merchandise</i>		
GM1	Cost leader	Cost leader
GM2	Differentiator	n/a
GM3	Differentiator	Differentiator
GM4	Cost leader	Cost leader
<i>Prepared foods</i>		
PF1	Cost leader	n/a
PF2	Differentiator	Differentiator
PF3	Cost leader	n/a
<i>Consumer electronics</i>		
CE1	Differentiator	Differentiator
CE2	Cost leader	Cost leader
CE3	Differentiator	Differentiator

**Table I.**  
Strategic typing

layout accessibility (LA1-LA7) and cleanliness (CL1-CL6). In keeping with past practice in servicescape research (Wakefield and Blodgett, 1996, 1999), individual items were measured on a seven-point Likert scale that ranged from “1 – strongly disagree” to “7 – strongly agree”. To ensure consistency with previous research, measurement scales (a version of which is presented in the Appendix) were adopted without modifications.

Customer satisfaction measures. The ten customer satisfaction survey items (SAT1-SAT10) chosen for use in this study were taken from several of the most widely used customer satisfaction instruments (Wakefield and Blodgett, 1996; Patterson and Spreng, 1997). As with the servicescape measures, these scale items (also presented in the Appendix) were not modified.

Demographic measures. To allow for the assessment of the sample and control, if necessary, for biases resulting from the characteristics of the respondents, several demographic variables were included in the measurement effort. These included the subjects' gender, age, education, and income. In addition, subjects were asked to indicate the number of times in the previous four weeks that they had patronized the firm on which they were providing information.

### Analysis

Of the 1,467 questionnaires received, a total of 1,287 (87.7 percent) provided complete responses to the relevant items. This subset of the overall response was reasonably well distributed across the three service sectors, with 463 responses from consumer electronics retailing, 490 from general merchandise retailing, and 334 in prepared foods. Demographic data were analyzed to determine if they had any significant association with the variables of interest, and no significant results were found. Table II provides a statistical overview of the variables used in this research.

Prior to testing our hypotheses, we evaluated our predictor measures with regard to reliability and validity. With regard to reliability, we used Carroll (1993) coefficient  $\alpha$  to estimate the internal consistency of the three-predictor scales in use. Each scale exhibited sufficient internal consistency, with standardized alphas ranging from a low of 0.91 in the case of cleanliness to a high of 0.94 in the case of facility aesthetics. To evaluate the validity of these scales, we subjected the 17 items comprising them to an exploratory factor analysis (EFA) with varimax (orthogonal) rotation. We followed common practice in retaining those factors with eigenvalues in excess of 1 and ultimately retained three factors that accounted for approximately 73 percent of the variance observed. We further followed common practice in declaring item  $i$  to have loaded on factor  $j$  given:

- a substantial (greater than 0.65) loading of  $i$  on factor  $j$ ; and
- non-substantial loadings of item  $i$  on other factors.

Given these parameters, our results, depicted in Table III, were encouraging with regard to our predictor items' convergent and discriminant validity. Items in each set of measures tended to load strongly together and tended to not load substantially on other factors.

We were further encouraged by the analyses we conducted with regard to our response variable, customer satisfaction. The ten customer satisfaction items exhibited substantial internal consistency (with a standardized Cronbach's  $\alpha$  of 0.95), and an EFA we performed on those items resulted in only one factor whose eigenvalue was in excess of 1. Given these results, we were comfortable in creating factor-based scores



Item	FA1	FA2	FA3	FA4	LA1	LA2	LA3	LA4	LA5	LA6	LA7
Mean	4.800	4.770	4.791	4.799	5.148	5.306	5.088	5.174	5.193	5.211	5.227
SD	1.340	1.377	1.381	1.372	1.362	1.233	1.401	1.317	1.307	1.318	1.287
Correlation w/											
FA2	0.861										
FA3	0.746	0.756									
FA4	0.756	0.776	0.846								
LA1	0.493	0.497	0.458	0.466							
LA2	0.496	0.506	0.518	0.511	0.749						
LA3	0.391	0.369	0.366	0.388	0.529	0.631					
LA4	0.428	0.476	0.439	0.466	0.581	0.66	0.585				
LA5	0.376	0.413	0.417	0.444	0.546	0.662	0.547	0.751			
LA6	0.364	0.388	0.346	0.365	0.538	0.561	0.521	0.646	0.664		
LA7	0.369	0.398	0.375	0.390	0.501	0.573	0.533	0.641	0.665	0.837	
CL1	0.413	0.436	0.430	0.469	0.333	0.418	0.442	0.516	0.488	0.479	0.527
CL2	0.445	0.494	0.448	0.504	0.414	0.506	0.429	0.606	0.559	0.540	0.588
CL3	0.478	0.510	0.417	0.448	0.509	0.560	0.454	0.579	0.547	0.577	0.581
CL4	0.451	0.487	0.385	0.431	0.512	0.528	0.398	0.559	0.531	0.563	0.530
CL5	0.483	0.521	0.490	0.537	0.415	0.446	0.341	0.562	0.512	0.475	0.503
CL6	0.380	0.420	0.436	0.469	0.304	0.332	0.297	0.451	0.414	0.364	0.414
SAT1	0.430	0.474	0.443	0.472	0.425	0.475	0.366	0.559	0.486	0.425	0.475
SAT2	0.401	0.450	0.404	0.452	0.352	0.421	0.359	0.503	0.436	0.383	0.426
SAT3	0.400	0.462	0.398	0.439	0.422	0.446	0.326	0.547	0.472	0.426	0.448
SAT4	0.404	0.466	0.401	0.440	0.409	0.460	0.393	0.558	0.513	0.477	0.493
SAT5	0.423	0.479	0.456	0.473	0.429	0.479	0.387	0.503	0.483	0.441	0.446
SAT6	0.400	0.456	0.452	0.473	0.451	0.469	0.394	0.516	0.486	0.429	0.457
SAT7	0.414	0.441	0.420	0.442	0.486	0.507	0.400	0.455	0.450	0.439	0.422
SAT8	0.438	0.486	0.445	0.492	0.463	0.509	0.395	0.535	0.544	0.478	0.494

(continued)

**Table II.**  
Item means, standard  
deviations and  
correlations



**Table III.**  
Exploratory factor  
analysis: predictor  
variables

Item	Label	F1	F2	F3
This facility is painted in attractive colors	FA1	0.24289	0.23149	<i>0.84247</i>
The interior wall and floor color schemes are attractive	FA2	0.24976	0.29004	<i>0.83123</i>
The facility architecture gives it an attractive character	FA3	0.21680	0.22852	<i>0.85172</i>
This facility is decorated in an attractive fashion	FA4	0.22820	0.29190	<i>0.83779</i>
The facility layout makes it easy to get to the kind of food service you want	LA1	<i>0.71699</i>	0.10204	0.38300
The facility layout makes it easy to find what you are looking for	LA2	<i>0.77122</i>	0.16627	0.37858
The facility layout makes it easy to get to the restrooms	LA3	<i>0.71969</i>	0.15645	0.22318
Overall this facility's layout makes it easy to get where you want to go	LA4	<i>0.72144</i>	0.39623	0.22662
Products are easy to find at this store	LA5	<i>0.73867</i>	0.35181	0.17275
There is plenty of room in the aisles of this store	LA6	<i>0.74305</i>	0.39477	0.07563
The aisles are arranged to provide space for browsing	LA7	<i>0.71566</i>	0.43539	0.08978
This facility maintains clean restrooms	CL1	0.28651	<i>0.75445</i>	0.19479
This facility maintains clean service areas	CL2	0.38455	<i>0.76115</i>	0.21064
The facility maintains clean walkways and exits	CL3	0.46989	<i>0.66726</i>	0.21137
Overall this facility is kept clean	CL4	0.43271	<i>0.66403</i>	0.19344
I enjoy spending time in this facility	CL5	0.22154	<i>0.76014</i>	0.33452
I like to stay in this facility as long as possible	CL6	0.08695	<i>0.69017</i>	0.30759

**Notes:** Varimax rotation; loadings in excess of 0.65 on a given factor are in italics

representing, for a given respondent, his or her average score across a particular scale's items. These averages were then used in the actual tests of our hypotheses.

Given the nature of the hypotheses, a moderated multiple regression analysis was utilized to test the relationships of interest. The data were first examined to check their suitability for conducting multiple regression (e.g. multicollinearity, normality, etc.). No problems were identified. For each of the hypotheses, a four step process was used for the regression. In the first model an industry dummy variable was included to control for any industry effects. The second and third models introduced the servicescape variable of interest and the strategy variable (coded 0 for cost leaders and 1 for differentiators), respectively. The fourth model introduced the interaction term of servicescape variable X strategy. Results for the fourth model for each of the regressions are shown in Table IV.

As can be seen in the table, results for the interaction term were significant in all three of the regressions. In the case of layout accessibility, facility aesthetics, and cleanliness the overall regression was significant as were the  $\beta$ 's for the interaction term. Looking further, it can be seen that while the servicescape variables had a positive influence in general on customer satisfaction, this influence was stronger in each case for firms pursuing a differentiation strategy than for firms pursuing a cost leadership strategy. These results are in line with the logic of the hypotheses that the relationship between servicescape and customer satisfaction will be stronger for differentiators than for cost leaders. As such, *H1*, *H2*, and *H3* are all supported. Implications of these results are discussed in the next section.

## Discussion

A common theme in the service operations literature is that, at least within the same broad industry subsector/sector, the return from an increased amount of any given service characteristic should be the same for all firms. Casual observation, however,

	$\beta$	<i>t</i> -value	Sig.
<i>Layout accessibility</i>			
Industry	-0.02	-0.93	0.351
Layout accessibility	0.557	17.09	0.000
Strategy	-0.22	-2.09	0.037
Strategy X layout	0.382	3.56	0.000
<i>F</i> = 264.159			
Adjusted <i>R</i> <sup>2</sup> = 0.450			
<i>Facility aesthetics</i>			
Industry	0.003	0.135	0.892
Facility aesthesis	0.492	13.89	0.000
Strategy	-0.13	-1.44	0.151
Strategy X facility aesthesis	0.249	2.527	0.012
<i>F</i> = 165.684			
Adjusted <i>R</i> <sup>2</sup> = 0.339			
<i>Cleanliness</i>			
Industry	0.022	1.003	0.316
Cleanliness	0.62	21.05	0.000
Strategy	-0.28	-2.93	0.003
Strategy X cleanliness	0.372	3.691	0.000
<i>F</i> = 340.528			
Adjusted <i>R</i> <sup>2</sup> = 0.514			

**Table IV.**  
Regression results

**Note:** Significant at:  $p < 0.001$

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 traditional approaches that emphasize efficiency/variation tradeoffs and have moved to more detailed examination of the service experience and its influence on customer outcomes. Further, several recent reviews have emphasized the need to go even further and provide clearer advice for organizations on how they might prioritize investment in service offerings within the context of the broader firm strategy (Goldstein *et al.*, 2002; Ostrom *et al.*, 2010; Spring and Araujo, 2009).

The literature in the field of strategic management has long accepted that organizations compete in particular ways in the pursuit of sustainable competitive advantage (Andrews, 1971; Ansoff, 1965; Miles and Snow, 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. Combining this view with the calls for broader approaches within service research, this study thus set out to determine if knowing a firm's competitive strategy would enhance an understanding of:

- those areas in which a firm might want to develop a particular service characteristic; and
- the level of emphasis that should be placed on this characteristic.

In line with predictions, our results suggest that the strength of the relationship between customer satisfaction and particular service characteristics depends in part on what strategy the firm is pursuing. Broadly speaking, increased levels of layout accessibility,

facility aesthetics, and cleanliness were associated with greater increases in customer satisfaction for firms pursuing a differentiator strategy than for those firms pursuing a cost leader strategy. Such a finding points to the risks – for both scholarship and practice alike – of focusing strictly on the characteristics of the service sector in which firms compete when determining the appropriate services and levels of service that should be offered. While the characteristics of a given service sector may shape broad challenges that must be achieved by any viable firm (e.g. performance levels on particular criteria that are “order-qualifying”) (Hill, 1993), the results obtained here suggest that gains from additional servicescape performance are likely to accrue disproportionately to those firms pursuing particular competitive strategies. 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.

Caution should be taken, of course, in generalizing these findings to industries and firms beyond those examined in this study. If the firms we targeted represent strategic extremes, then the differing payoffs we observed might not be obtained across a broader spectrum of industries and firms. That said, it would seem that the firms examined here might actually provide a somewhat conservative test of the hypothesized relationships. Clearly, customer expectations of, and response to, servicescape and other service factors would be likely to vary if one were to compare a high-end differentiator to a low-end cost leader (e.g. a luxury car dealer to a used car lot). Our sample, however, was purposely focused on firms that competed in similar sub-segments within their broader industries in an effort to help control general service expectation levels. Thus, while our measures indicated variation in firm strategy, the range of strategic options was restricted because the firms were all in common subsectors of broader industries. The fact that strategy could still be shown to be a moderator under such conditions lends additional strength to the findings and should encourage further research into the service/strategy relationship.

Additional research is needed to examine industry/subsectors beyond those included here. While the research did cover three different industry subsectors, all were in the retail area where a tangible good was delivered to the customer (either food or products) and it is possible that this influenced the outcomes. Services can vary significantly in how central the service offerings are to the core experience of the customer/firm interaction (Voss *et al.*, 2008), and future work should examine a variety of these sectors to see if the strategy/service interaction holds.

In addition, service characteristics beyond those included here need to be examined. One approach would be to do initial research to determine the most important service characteristics within a given industry – the order qualifier service components – and then examine how relationships with these characteristics may differ depending on strategy. Future research may also want to expand the examination to include characteristics associated with service quality (Parasuraman *et al.*, 1988; Parasuraman *et al.*, 1994; Zeithaml, 1981) to provide a richer and more generalizable understanding of the relationship between strategy and service characteristics, and to incorporate issues that are more process-oriented (e.g. the structuring of the actual service delivery process) in such strategy-contingent work.

## Conclusion

As noted in our introduction, lessons learned from manufacturing, marketing, and retail have strongly influenced the practice of and research into service operations management.



As a result, these concepts have grounded much of current pedagogy regarding service operations. In this research, we set out to see whether lessons learned in another discipline, strategy, might similarly enrich our understanding of the challenges service firms face in attempting to satisfy their customers. Our results suggest that this effort to broaden the field's understanding regarding the competitive context of service operations was worthwhile; teaching, practice and research should all benefit from a more comprehensive understanding of the significant contingencies that must be considered in service operations settings.

While many scholars would reject the proposition that "context is everything", most would also agree that incorporating "substantive context" greatly enriches a field's understanding of a given phenomenon (Johns, 2001). In this vein, the results presented here suggest that considering the influence of strategy raises the possibility of finer-grained, more context-specific answers to important service operations questions. We hope, therefore, that our work here serves as an initial step in that direction.

### References

- Adam, E.E. Jr and Swamidass, P.M. (1989), "Assessing operations management from a strategic perspective", *Journal of Management*, Vol. 15 No. 2, p. 181.
- Alexandrov, A., Babkus, E. and Yavas, U. (2007), "Moderating role of employment status", *The Journal of Services Research*, Vol. 9 No. 4, pp. 356-71.
- Andrews, K.R. (1971), *The Concept of Corporate Strategy*, Irwin, Homewood, IL.
- Ansoff, H.I. (1965), *Corporate Strategy: An Analytic Approach to Business Policy for Growth and Expansion*, McGraw-Hill, New York, NY.
- Baker, T. and Collier, D.A. (2005), "The economic payout model for service guarantees", *Decision Sciences*, Vol. 36, pp. 197-220.
- Bendoly, E. and Schoenherr, T. (2005), "ERP systems and implementation-process benefits: implications for B2B e-procurement", *The Journal of Operations, Production and Management*, Vol. 25 No. 4, pp. 304-19.
- Bitner, M.J. (1990), "Evaluating service encounters: the effects of physical surroundings and employee responses", *Journal of Marketing*, Vol. 54 No. 2, pp. 69-82.
- Bitner, M.J. (1992), "Servicescapes: the impact of physical surroundings on customers and employees", *Journal of Marketing*, Vol. 56, April, pp. 57-71.
- Bitner, M.J., Booms, B.H. and Mohr, L.A. (1994), "Critical service encounters: the employee's viewpoint", *Journal of Marketing*, Vol. 58 No. 4, p. 95.
- Bitner, M.J., Booms, B.H. and Tetreault, M.S. (1990), "The service encounter: diagnosing favorable and unfavorable incidents", *Journal of Marketing*, Vol. 54 No. 1, pp. 71-84.
- Bolton, R.N., Grewal, D. and Levy, M. (2007), "Six strategies for competing through service: an agenda for future research", *Journal of Retailing*, Vol. 83 No. 1, pp. 1-4.
- Bowen, D.E. and Lawler III, E.E. (1992), "The empowerment of service workers: what, why, how, and when", in Ott, J.S. (Ed.), *Classic Readings in Organizational Behavior*, 1996 ed., Vol. 26, Wadsworth, Belmont, CA, pp. 291-303.
- Boyer, K.K. and Frohlich, M.T. (2006), "Analysis of effects of operational execution on repeat purchasing for heterogeneous customer segments", *Production and Operations Management*, Vol. 15 No. 2, pp. 229-42.
- Broadbent, G., Bunt, R. and Jencks, C. (1980), *Signs, Symbols and Architecture*, Wiley, New York, NY.

- Campbell-Hunt, C. (2000), "What have we learned about generic competitive strategy? A meta-analysis", *Strategic Management Journal*, Vol. 21 No. 2, pp. 127-54.
- Carroll, G.R. (1993), "A sociological view of why firms differ", *Strategic Management Journal*, Vol. 14, pp. 237-49.
- Charnes, A., Cooper, W.W. and Thodes, E. (1978), "Measuring the efficiency of decision making units", *European Journal of Operations Research*, Vol. 2 No. 6, pp. 429-44.
- Chase, R.B. (1978), "Where does the customer fit in a service operation?", *Harvard Business Review*, Vol. 56 No. 6, pp. 137-42.
- Chase, R.B. (1988), "The service factory", *Academy of Management Executive*, Vol. 2 No. 3, pp. 191-6.
- Chase, R.B. and Tansik, D.A. (1983), "The customer contact model for organization design", *Management Science*, Vol. 29 No. 9, pp. 1037-50.
- Collier, D.A. and Meyer, S.M. (1998), "A service positioning matrix", *International Journal of Operations & Production Management*, Vol. 18 Nos 11/12, pp. 1223-44.
- Doty, D.H., Glick, W.H. and Huber, G.P. (1993), "Fit, equifinality, and organizational effectiveness: a test of two configurational theories", *Academy of Management Journal*, Vol. 36 No. 6, p. 1196.
- Edvardsson, B. and Olsson, J. (1996), "Key concepts for new service development", *Service Industries Journal*, Vol. 16 No. 2, pp. 140-64.
- Goldstein, S.M., Johnston, R., Duffy, J. and Rao, J. (2002), "The service concept: the missing link in service design research?", *Journal of Operations Management*, Vol. 20 No. 1, pp. 121-34.
- Goodman, L.A. (1961), "The annals of mathematical statistics", *Institute of Mathematical Statistics*, Vol. 32 No. 1, p. 22.
- Hackman, J.R. (1985), "Doing research that is useful for theory and practice", in Lawler, E.E. (Ed.), *The Jossey-Bass Management Series*, 1st ed., Jossey-Bass, San Francisco, CA, pp. 23-371.
- Hambrick, D.C. and Fredrickson, J.W. (2001), "Are you sure you have a strategy?", *Academy of Management Executive*, Vol. 15 No. 4, pp. 48-59.
- Harrigan, K.R. (1983), "Research methodologies for contingency approaches to business strategy", *Academy of Management Review*, Vol. 8 No. 3, pp. 398-445.
- Hayes, R.H. and Wheelwright, S.G. (1979), "The dynamics of process-product life cycles", *Harvard Business Review*, Vol. 57 No. 2, pp. 127-36.
- Heskett, J.L. (1987), "Lessons in the service sector", *Harvard Business Review*, Vol. 65 No. 2, pp. 118-29.
- Hill, C.W. (1988), "Differentiation versus low cost or differentiation and low cost: a contingency framework", *Academy of Management Review*, Vol. 13, pp. 401-12.
- Hill, T.J. (1993), *Manufacturing Strategy: The Strategic Management of the Manufacturing Function*, Macmillan, London.
- Huck, S. (2004), *Reading Statistics and Research*, 2nd ed., Vol. 1, Pearson, Boston, MA.
- James, W. and Hatten, K. (1995), "Further evidence on the validity of the self typing paragraph approach: miles and snow strategic archetypes in banking", *Strategic Management Journal*, Vol. 16 No. 2, pp. 161-8.
- James, W.L. and Hatten, K.J. (1995), "Further evidence on the validity of the self typing paragraph approach: miles and snow strategic archetypes in banking", *Strategic Management Journal*, Vol. 16 No. 2, pp. 161-8.
- Johns, G. (2001), "In praise of context", *Journal of Organizational Behavior*, Vol. 22, pp. 31-42.

- Kotha, S. and Vadlamani, B. (1995), "Assessing generic strategies: an empirical investigation of two competing typologies in discrete manufacturing industries", *Strategic Management Journal*, Vol. 16 No. 1, p. 10.
- Larsson, R. and Finkelstein, S. (1999), "Integrating strategic, organizational, and human resource perspectives on mergers and acquisitions: a case survey of synergy realization", *Organization Science*, Vol. 10 No. 1, pp. 1-26.
- McDaniel, S. and Kolari, J. (1987), "Marketing strategy implications of the Miles and Snow strategic typology", *Journal of Marketing*, Vol. 51, October, pp. 19-31.
- McGuire, W. (1985), "Attitudes and attitude change", in Lindzey, G. and Aronson, E. (Eds), *Handbook of Social Psychology*, Random House, New York, NY, pp. 233-346.
- Miles, G., Snow, C.C. and Sharfman, M.P. (1993), "Industry variety and performance", *Strategic Management Journal*, Vol. 14 No. 3, pp. 163-77.
- Miles, R.E. and Snow, C.C. (1978), *Organizational Strategy, Structure and Process*, McGraw-Hill, New York, NY.
- Miller, D. and Friesen, P.H. (1986), "Porter's 1980 generic strategies and performance: an empirical examination with American data", *Organization Studies*, Vol. 5, pp. 37-55.
- Mills, P.K., Chase, R.B. and Margulies, N. (1983), "Motivating the client/employee system as a service production strategy", *Academy of Management Review*, Vol. 8 No. 2, p. 301.
- Mintzberg, H. (1994), "Models of the strategic planning process", *Rise & Fall of Strategic Planning*, The Free Press, New York, NY, pp. 35-90.
- Mintzberg, H. and Lampel, J. (1999), "Reflecting on the strategy process", *Sloan Management Review*, Vol. 38 No. 1, pp. 21-30.
- Morin, S., Dube, L. and Chebat, J.C. (2007), "The role of pleasant music in servicescapes: a test of the dual model of environmental perception", *Journal of Retailing*, Vol. 83 No. 1, pp. 115-30.
- Murray, A. (1988), "A contingency view of Porter's generic strategies", *Academy of Management Review*, Vol. 13, pp. 390-400.
- Nelson, D.B. (1991), "Conditional heteroskedasticity in asset pricing: a new approach", *Econometrica*, Vol. 59, pp. 347-70 (Reprinted in Engle, R.F. (Ed.) (1995), *ARCH: Selected Readings*, Oxford University Press, Oxford, UK, pp. 87-113).
- Oliva, R. and Stemann, J. (2001), "Cutting corners and working overtime: quality erosion in the service industry", *Management Science*, Vol. 47 No. 7, pp. 894-917.
- Ordanini, A. and Parasuraman, A. (2011), "Service innovation viewed through a service-dominant logic lens: a conceptual framework and empirical analysis", *Journal of Service Research*, Vol. 14 No. 1, pp. 3-23.
- Ostrom, A.L., Bitner, M.J., Brown, S., Burkhard, K., Goul, M., Daniels, V., Demirkan, H. and Rabinovich, E. (2010), "Moving forward and making a difference: research priorities for the science of service", *Journal of Service Research*, Vol. 13 No. 1, pp. 4-36.
- Parasuraman, A., Zeithaml, V.A. and Berry, L.L. (1988), "SERVQUAL: a multiple-item scale for measuring consumer perceptions of service quality", *Journal of Retailing*, Vol. 64 No. 1, pp. 5-6.
- Parasuraman, A., Zeithaml, V.A. and Berry, L.L. (1994), "Alternative scales for measuring service quality: a comparative assessment based on psychometric and diagnostic criteria", *Journal of Retailing*, Vol. 70 No. 3, pp. 193-4.
- Patterson, P.G. and Spreng, R.A. (1997), "Modelling the relationship between perceived value, satisfaction and repurchase intentions in a business-to-business, services context: an empirical examination", *International Journal of Service Industry Management*, Vol. 8 No. 5, pp. 414-34.

- Perreault, W.D. and Leigh, L. (1989), "Reliability of nominal data based on qualitative judgments", *Journal of Marketing Research*, Vol. 26, May, pp. 135-48.
- Pfeffer, J. (1981), *Power in Organizations*, Pitman, Marshfield, MA.
- Porter, M.E. (1980), *Competitive Strategy: Techniques for Analyzing Industries and Competition*, The Free Press, New York, NY.
- Porter, M.E. (1985), *Competitive Advantage: Creating and Sustaining Superior Performance*, The Free Press, New York, NY.
- Pullman, M.E. and Gross, M.A. (2004), "Ability of experience design element to elicit emotions and loyalty behaviors", *Decision Sciences*, Vol. 35 No. 3, pp. 551-70.
- Rapoport, A. (1982), *The Meaning of the Built Environment*, Sage, Beverly Hills, CA.
- Roth, A. and Menor, L. (2003), "Insights into service operations management: a research agenda", *Production and Operations Management*, Vol. 12, pp. 145-64.
- Roth, K. and Nigh, D. (1992), "The effectiveness of headquarters-subsidiary relationships: the role of coordination, control, and conflict", *Journal of Business Research*, Vol. 25, pp. 277-301.
- Rumelt, R.P. (1979), "Evaluation of strategy: theory and models", in Hofer, C.W. (Ed.), *Strategic Management: A New View of Business Policy and Planning*, Little Brown, Boston, MA, pp. 196-212.
- Rumelt, R.P., Schendel, D. and Teece, D.J. (1981), "Strategic management and economics", *Strategic Management Journal*, Vol. 12 No. 2, pp. 5-29.
- Rust, R. (2004), "A call for a wider range of service research", *Journal of Service Research*, Vol. 6 No. 3, p. 211.
- Rust, R., Zeithaml, V. and Lemon, K. (2000), *Driving Customer Equity: How Customer Lifetime Value is Reshaping Corporate Strategy*, The Free Press, New York, NY.
- Sampson, S.E. and Froehle, C.M. (2006), "Foundations and implications of a proposed unified serves theory", *Production and Operations Management*, Vol. 15 No. 2, pp. 329-43.
- Schmenner, R.W. (1986), "How can service businesses survive and prosper?", *Sloan Management Review*, Vol. 27 No. 3, pp. 21-32.
- Schmenner, R.W. (2004), "Service businesses and productivity", *Decision Sciences*, Vol. 35 No. 3, pp. 333-47.
- Smith, T. and Reece, J. (1999), "The relationship of strategy, fit, productivity and business performance in a services setting", *Journal of Operations Management*, Vol. 17 No. 2, pp. 145-61.
- Spring, M. and Araujo, L. (2009), "Service, services and products: rethinking operations strategy", *International Journal of Operations & Management*, Vol. 29 No. 5, pp. 444-67.
- Swink, M. and Hegarty, W.H. (1998), "Core manufacturing capabilities and their links to product differentiation", *International Journal of Operations & Production Management*, Vol. 18 No. 4, pp. 374-96.
- Swink, M. and Song, M. (2007), "Effects of marketing-manufacturing integration on new product development time and competitive advantage", *Journal of Operations Management*, Vol. 25 No. 1, pp. 203-17.
- Swink, M., Narasimhan, R. and Wang, C. (2007), "Managing beyond the factory walls: effects of four types of strategic integration on manufacturing plant performance", *Journal of Operations Management*, Vol. 25 No. 1, pp. 148-64.
- Thompson, J.D. (1967), *Organizations in Action*, McGraw-Hill, New York, NY, p. 20.
- Trochim, W. (2001), *The Research Methods Knowledge Base*, 2nd ed., Atomic Dog, Cincinnati, OH.

- Tukman, M., Lenita, D. and Lemon, K. (2007), "The WOW factor: creating value through win-back offers to reacquire lost customers", *Journal of Retailing*, Vol. 83 No. 1, pp. 47-64.
- Van Dierdonck, R. and Brandt, G. (1988), "The focused factory in service industry", *International Journal of Operations & Production Management*, Vol. 8 No. 3, pp. 31-8.
- Venkatraman, N. (1989), "The concept of fit in strategy research: toward verbal and statistical correspondence", *Academy of Management Review*, Vol. 14 No. 3, pp. 423-44.
- Vickery, S.K. and Droge, C. (1993), "Production competence and business performance?", *Decisions Sciences*, Vol. 24 No. 2, p. 20.
- Voss, C., Roth, A.V. and Chase, R.B. (2008), "Experience, service operations strategy, and services as destinations: foundations and exploratory investigation", *Production and Operations Management*, Vol. 17 No. 3, pp. 247-66.
- Wakefield, K.L. and Blodgett, J. (1996), "The effects of the servicescape on customers' behavioral intentions in leisure service settings", *The Journal of Services Marketing*, Vol. 10 No. 6, pp. 66-76.
- Wakefield, K.L. and Blodgett, J.G. (1999), "Customer response to intangible and tangible service factors", *Psychology & Marketing*, Vol. 16 No. 1, pp. 51-68.
- Ward, J.C., Bitner, M.J. and Barnes, J. (1992), "Measuring the prototypicality and meaning of retail environments", *Journal of Retailing*, Vol. 68 No. 2, p. 194.
- Ward, P.T. and Durray, R. (2000), "Manufacturing strategy in context: environment, competitive strategy and manufacturing strategy", *Journal of Operations Management*, Vol. 18 No. 2, pp. 123-38.
- Wener, R.E. (1985), "The environmental psychology of service encounters", in Czepiel, J.A., Solomon, M.R. and Surprenant, C.F. (Eds), *The Service Encounter*, Institute of Retail Management, Lexington, MA, pp. 103-4.
- Wheelwright, S.C. (1984), "Manufacturing strategy: defining the missing link", *Strategic Management Journal*, Vol. 5 No. 1, pp. 77-91.
- Wiles, M. (2007), "The effect of customer service on retailers' shareholder wealth: the role of availability and reputation cues", *Journal of Retailing*, Vol. 83 No. 1, pp. 19-31.
- Zajac, E.J. and Shortell, S.M. (1989), "Changing generic strategies: likelihood, direction and performance implications", *Strategic Management Journal*, Vol. 10, p. 27.
- Zajac, E.J., Kraatz, M.S. and Bresser, R.K.F. (2000), "Modeling the dynamics of strategic fit: a normative approach to strategic change", *Strategic Management Journal*, Vol. 21 No. 4, pp. 429-53.
- Zeithaml, V.A. (1981), "How consumer evaluation processes differ between goods and services", in Donnelly, D.H. and George, W.R. (Eds), *Marketing of Services*, American Marketing Association, Chicago, IL, pp. 186-90.
- Zeithaml, V.A., Berry, L. and Parasuraman, P. (1993), "The nature and determinants of customer expectations of service", *Journal of the Academy of Marketing Science*, Vol. 21 No. 1, pp. 1-12.

#### Further reading

- Cronbach, L. (1951), "Coefficient alpha and the structure of tests", *Psychometrika*, Vol. 16, pp. 297-334.
- Shortell, S. and Zajac, E. (1990), "Perceptual and archival measures of Miles and Snow's strategic types: a comprehensive assessment of reliability and validity", *Academy of Management Journal*, Vol. 33 No. 4, pp. 817-32.



**Appendix. Servicescape and customer satisfaction items**

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.
- CL5: I enjoy spending time in this facility.
- CL6: I like to stay in this facility 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.
- LA5: Products are easy to find at this store.
- LA6: There is plenty of room in the aisles of this store.
- LA7: The aisles are arranged to provide space for browsing.

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.

**Corresponding author**

Patti Miles can be contacted at: [Patti.Miles@maine.edu](mailto:Patti.Miles@maine.edu)

To purchase reprints of this article please e-mail: [reprints@emeraldinsight.com](mailto:reprints@emeraldinsight.com)  
Or visit our web site for further details: [www.emeraldinsight.com/reprints](http://www.emeraldinsight.com/reprints)

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.