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# Sustainable Competitive Advantage in Service Industries: A Conceptual Model and Research Propositions

The purpose of competitive strategy is to achieve a sustainable competitive advantage (SCA) and thereby enhance a business's performance. The authors focus on the distinctive organizational skills and resources underlying SCA in service industries and the moderating effects of the characteristics of services, service industries, and firms within an industry on the skills and resources underlying a business's competitive positional advantages. The proposed conceptual model of SCA in service industries and propositions builds on relevant literature in the fields of marketing, strategic management, and industrial organization economics.

**D**URING the past two decades, marketing scholars have focused on a broad range of issues pertaining to the marketing of services, as evidenced by two recent reviews of extant literature on services marketing (Fisk, Brown, and Bitner 1993; Swartz, Bowen, and Brown 1992). The emergence of services marketing as a distinct body of literature notwithstanding, there seems to be broad consensus that the boundary delineating services from goods is somewhat fluid. Often significant service components are integral to the consumption/use of tangible goods (e.g., automobiles, household appliances), as are significant tangible elements to the consumption/use of services (e.g., car rentals, air travel). As evidenced by Shostack's (1977) characterization of products (goods and services) in terms of the proportion of physical goods and intangible services they contain, there are few pure goods or services. Recognizing the fluid nature of the boundary delineating services from goods, the molecular model (Shostack 1977) views all market entities as exhibiting varying levels of tangible and intangible elements, and services as intangibles-dominant market entities. Along similar lines Berry and Parasuraman (1991) suggest that if the source of a product's<sup>1</sup> core benefit is more tangible than intangible, it should be considered a good, and if it is more intangible than tangible, it should be considered a service. In addition to intangibility, inseparability/simultaneity, heterogeneity, and perishability are generally viewed as the distinguishing characteristics of services.

We focus on organizational skills and resources underlying the competitive advantages of service businesses, and the moderating effects of the characteristics of services, service industries, and firms within an industry on the skills

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<sup>1</sup>Unless stated otherwise, the term "product" is used in the article to encompass both goods and services.

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and resources underlying a business's competitive positional advantages. Though an extensive body of literature focusing on a broad range of issues pertaining to competitive advantage has been published to date, this article is based on the premise that a closer examination of the sources of competitive advantage in the context of service industries can provide unique managerial insights into strategic problems and opportunities that may not be readily apparent from an examination of the sustainable competitive advantage (SCA) related issues at a more aggregate level. As Shostack (1977, p. 75) notes, "the greater the weight of intangible elements in a market entity, the greater will be the divergence from product marketing in priorities and approach." Recent reviews of literature on services marketing and management also allude to the dearth of strategic emphasis in extant literature (Fisk, Brown, and Bitner 1993; Swartz, Bowen, and Brown 1992). Against this backdrop, we provide insights into the sources of SCA in service industries by reviewing and integrating research on SCA-related issues explored in the fields of marketing, strategic management and industrial organization economics and exploring the implications of the distinctive characteristics of service industries and firms for achieving SCA. The paper is organized as follows: First, an overview of the concept of SCA is presented. Second, a contingency model of SCA in service industries is proposed. Third, the moderating effects of the characteristics of services, service industries, and firms within an industry on potential sources of SCA are explored and the propositions presented. We conclude with a discussion on managerial implications and future research directions.

## The Concept of Sustainable Competitive Advantage: An Overview

In most industries, some firms are more profitable than others, regardless of whether the average profitability of the industry is high or low. The superior performers conceivably possess something special and hard to imitate that allows

them to outperform their rivals. These unique skills and assets (resources) are referred to as *sources of competitive advantage* in strategy literature.<sup>2</sup> *Competitive advantage* can result either from implementing a value-creating strategy not simultaneously being implemented by any current or potential competitors (Barney, McWilliams, and Turk 1989; Barney 1991) or through superior execution of the same strategy as competitors. *Sustainability* is achieved when the advantage resists erosion by competitor behavior (Porter 1985, p.20). In other words, the skills and resources underlying a business's competitive advantage must resist duplication by other firms (Barney 1991). Case in point:

ServiceMaster is a company that manages support services for hospitals, schools, and industrial companies. It supervises the employees of customers' organizations engaged in housekeeping, food service, and equipment maintenance. The company has been successful in using its unique resources and skills (specifically, system economies and specialized management skills) to raise the quality of its customers' maintenance services and at the same time lowering their costs. Using its data base (a firm-specific resource), which covers more than a decade of maintenance history on several million pieces of equipment at thousands of locations, ServiceMaster can determine objectively how its customers' facilities should be maintained, when equipment purchases and maintenance will pay off, and when parts should be replaced. The effectiveness of ServiceMaster's systems are reportedly such that its customers often invest jointly in new equipment and share the resulting productivity gains (see Quinn, Doorley, and Paquette 1990).

### Conditions for Sustainable Competitive Advantage

A number of studies have explored the conditions under which a business's competitive advantage is sustainable (cf. Barney 1991; Coyne 1985). Barney lists four essential requirements for a resource/skill to be a source of SCA:

- It must be *valuable*;
- It must be *rare* among a firm's current and potential competitors
- It must be *imperfectly imitable*; and
- There must not be any *strategically equivalent substitutes* for this resource/skill.

Firm resources and skills are considered valuable when they aid a firm in formulating and implementing strategies that improve its efficiency and/or effectiveness. However, if certain resources/skills are possessed by a large number of present or potential competitors, they cannot be a source of SCA. Valuable and rare organizational resources/skills can be sources of SCA only if firms that do not possess these resources cannot obtain them (as a direct consequence of a capability gap [Coyne 1985], the critical resources being imperfectly imitable [Lippman and Rumelt 1982; Coyne 1985; Barney 1986a; 1986b]). The final requirement for a resource/skill to be a source of SCA is that the resource/skill be nonsubstitutable. Substitutability can take two forms. If a competitor cannot duplicate a firm's resources/skills exactly, but can substitute *similar* resources that enable it to

<sup>2</sup>For a discussion on the distinctive competencies/competitive capabilities underlying the superior performance of two superior performers in the banking sector—Wachovia Corporation and Bank One—see Stalk, Evans and Shulman (1992, pp. 68–69).

formulate and implement identical strategies and use very *different* resources/skills as strategic substitutes (see Barney 1991), then a resource/skill cannot be a source of SCA.

Coyne (1985) points out that, not only must a firm have a skill or resource that its competitors do not have (i.e., there must be a capability gap), but also the capability gap must make a difference to the customer. In other words, for a business to enjoy a SCA in a product-market segment, the difference(s) between the firm and its competitors must be reflected in one or more product/delivery attributes that are *key buying criteria*. Furthermore, in order for a competitive advantage to be sustainable, both the key buying criteria and the underlying capability gap must be enduring. Additionally, in the face of changes in key buying criteria, the sustainability of a business's competitive advantage would depend on its ability to *adapt* to these changes and/or influence key buying criteria (see Boulding et al. 1993; Hamel and Prahalad 1991; Treacy and Wiersema 1993).

## A Conceptual Model of Sustainable Competitive Advantage

A conceptual model of SCA in service industries, which builds on the works by Barney (1991), Coyne (1985, 1989), Day and Wensley (1988), Dierickx and Cool (1989), Lippman and Rumelt (1982), and Reed and Defillipi (1990), among others, is presented in Figure 1. Here a firm's distinctive organizational skills and resources are viewed as the source of a business's competitive advantages in the marketplace.<sup>3</sup> The characteristics of services, service industries and firms within an industry are shown as moderating the skills and resources underlying a business's competitive positional advantages. The sustainability of a business's competitive advantages is viewed as contingent on barriers to imitation of its unique skills and resources. The model further suggests that sustainable competitive advantages are a key to sustained, superior long-term performance. Reinvestments in both present and new skills and resources are viewed as critical to strengthening (or preventing erosion of) competitive advantages. A detailed discussion of the constructs central to the model and the proposed links follows.

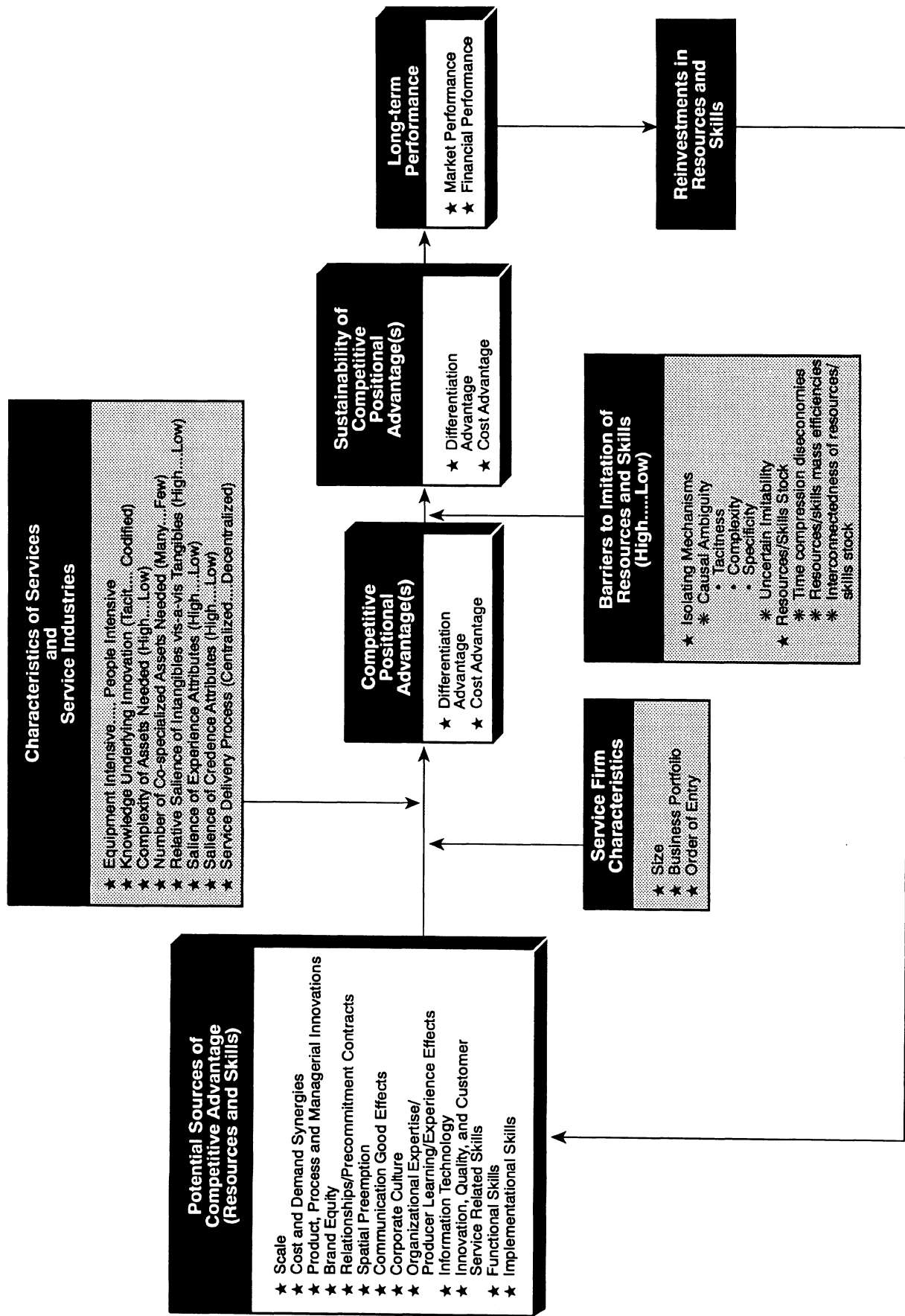
### Sources of Competitive Advantage

Researchers generally distinguish between two broad sources of competitive advantage—unique resources (assets) and distinctive skills (capabilities). Day and Wensley (1988) characterize superior skills as the distinctive capabilities of a firm's personnel that set them apart from the personnel of competing firms and superior resources as more tangible requirements for advantage that enable a firm to exercise its capabilities.<sup>4</sup> These two broad sets of sources enable a business to perform the various primary and secondary value activities that compose its value chain either at a lower cost or in a way that leads to differentiation. They fa-

<sup>3</sup>The skills and resources underlying a business's positional advantages listed in Figure 1 and discussed in this article are intended to be illustrative rather than exhaustive. The principal focus here is on skills and resources that could impact differentially on competitive advantage across service industries.

<sup>4</sup>Finer distinctions of resources and skills are provided by Williams (1992), and Lado, Boyd, and Wright (1992).

**FIGURE 1**  
**A Contingency Model of Sustainable Competitive Advantage in Service Industries**



Facilitate the attainment of competitive positional advantages in the form of (1) superior customer value through a differentiated good/service, and/or (2) lower relative cost through cost leadership.<sup>5</sup> Firm-specific skills and resources are also referred to as the “drivers” of cost and/or differentiation advantages (Porter 1985). A wide variety of drivers has received attention in the literature, including *resource-based drivers* such as economies of scale and scope, brand equity, and reputation, and *skills-based drivers* such as the skills underlying the innovativeness and superior quality of a business’s offerings. Superior skills and resources do not, however, automatically give a business a competitive advantage. They only provide the business an opportunity to *leverage* its skills and resources to achieve competitive cost and/or differentiation advantages. This entails first identifying those skills and resources a company has that have the greatest potential to endow the firm with enduring competitive advantages. Also, as Aaker (1989) notes, multiple bases of competitive advantage may be needed for a business to compete successfully. A more detailed discussion on the skills and resources underlying a business’s competitive advantage listed in Figure 1 is presented in a later section, along with the propositions.

### Competitive Positional Advantages

Competitive positional advantages can be broadly construed as cost leadership and differentiation advantages. Cost leadership entails performing most activities at a lower cost than competitors while offering a parity product. Differentiation entails customers perceiving a consistent difference in important attributes between the firm’s offerings and its competitors’ offerings. The advantages, disadvantages, risks, and implementational requirements of cost leadership and differentiation as generic strategy alternatives have been well documented (Porter 1980, 1985). Shostack’s (1987) analysis of the process of service provision in terms of complexity (the number of steps involved in providing the service) and divergence (the executional latitude at each step) and the positioning alternatives that emerge from this analysis—reduced divergence (a standardized, cost-efficient service), increased divergence (greater customization for specific segments), reduced complexity (a stripped down generic service), and increased complexity (addition of services tending toward a multi-service position)—provide additional insights into differentiation possibilities in service industries. Each of these positioning alternatives can result in differences in customer’s perception of value. For example, a strategy of reduced divergence could lead to some customers perceiving the shift as one that lowers customization and limits their options and hence rejecting a highly standardized service even if it costs less (see Shostack 1987).

<sup>5</sup>Though the value chain (a set of interdependent primary and secondary value activities that are connected by linkages) is not explicitly shown in Figure 1, it should be recognized that a business’s unique resources and skills lead to competitive positional advantages by enabling it to perform the various value activities either at a lower cost or in a way that leads to differentiation. See Porter (1985) and Stalk, Evans and Shulman (1992) for additional insights into value chains.

### Moderating Effects of the Characteristics of Services, Service Industries, and Firms

In the proposed conceptual model (Figure 1), the following characteristics of services, service industries, and firms within an industry moderate the effects of skills and resources underlying a business’s positional advantage.

- A. Characteristics of Services and Service Industries
  - Equipment intensive.....People intensive
  - Complexity of assets needed (High.....Low)
  - Number of co-specialized assets needed (Many.....Few)
  - Relative salience of intangibles vis-a-vis tangibles (High.....Low)
  - Salience of experience attributes (High.....Low)
  - Salience of credence attributes (High.....Low)
  - Service delivery process (Centralized.....Decentralized)
- B. Service Firm Characteristics
  - Size
  - Business portfolio composition
  - Order of entry into market

Though other characteristics merit consideration as moderating factors in the context of specific service industries, the principal focus here is on characteristics that transcend industry boundaries. Such an orientation can be conducive to managerial learning by facilitating identification of and learning from the experience of organizations facing parallel situations in other service industries (see Lovelock 1983).

### Barriers to Imitation

Central to the concept of SCA is the notion of durability or non-imitability. A key difference between *entry barriers* and *barriers to imitation* is that though the former are prone to free-riding (because they are the private collective asset of the industry), the latter are endogenous and idiosyncratic (i.e., firm-specific) (Mahoney and Pandian 1992). Overlapping conceptualizations of barriers to imitation have been proposed by Lippman and Rumelt (1982), Coyne (1985), Rumelt (1984, 1987), and Reed and Defillipi (1990). A map of the broad playing field of barriers to imitation is provided by Rumelt’s (1984) treatise on *isolating mechanisms*.<sup>6</sup> Dierickx and Cool’s (1989) discussion on *resource/skills stock* provides additional insights into the operation of barriers to imitation.

*Isolating mechanisms*. These are essentially asymmetries in the skills and assets of competing firms that increase the costs associated with strategic imitation. Engaging in the maintenance of these isolating mechanisms protects the competitive advantages derived from past and/or present managerial actions. Fisher (1989) notes that understanding the relative durability of each isolating mechanism and marketing mix element has important implications for differentiation strategies pursued by service firms. Barriers to imitation are even greater when *causal ambiguity* exists over the factors responsible for a business’s superior performance. Three critical characteristics of a firm individually

<sup>6</sup>An examination of the writings of Rumelt (1984) and Coyne (1985) on barriers to imitation reveals considerable overlap if not synonymy of thought. Implicit in the business system, position, and organizational or managerial quality gaps outlined by Coyne are the various isolating mechanisms identified by Rumelt.

or in combination contribute to causal ambiguity (Reed and Defillipi 1990): (1) *Tacitness* is defined as the implicit and non-codifiable accumulation of skills that result from learning by doing (Polanyi 1962); (2) *Complexity* results from the interrelationships between various skills and assets (Barney 1926b; Nelson and Winter 1982); and (3) *Specificity* entails the transaction-specific skills and assets that are utilized in the production processes and provision of services for particular customers (Williamson 1985). Any of these can produce ambiguity regarding the firm's actions and outcomes and in turn create barriers to imitation (Reed and Defillipi 1990).

Ambiguity over factors responsible for superior performance acts as a powerful barrier to imitation as well as a deterrent to *resource mobility* (Dierickx and Cool 1989). Resources that cannot be traded either because (1) their property rights are not well defined or (2) they are idiosyncratic to the firm and have no value outside it constitute *immobile resources* (Dierickx and Cool 1989). Furthermore, the complexity of firms often makes identification of their key success factors impossible. Also, treating key success factors separately may often be an inaccurate representation, because the interaction among the factors can be the cause of a business's success. Therefore, potential imitators may find it hard to develop an unambiguous list of factors responsible for a business's success.

*Uncertain imitability* results when the creation of new products is inherently uncertain and causal ambiguity about the process of asset stock accumulation (the building of stocks of resources and skills) impedes imitation and/or mobility of a firm's unique resources. Its relevance increases when complex products and administrative structures are involved (Lippman and Rumelt 1982). The lack of a clear-cut causal explanation between the actions and performance of some large firms is supportive of the notion of uncertain imitability. Though economic theory suggests that the presence of excess profits in any industry can make markets *contestable* (Baumol, Panzar, and Willig 1982) and bring down industry profits to normal levels, the theory of uncertain imitability (Lippman and Rumelt 1982) suggests high profits may signal the presence of successful firms with difficult-to-imitate capabilities that impede entry attempts.

*Resources/skills stock.* The imitability of a business's resource/skill stock are related to the characteristics of the *process* by which they are accumulated. Dierickx and Cool (1989) identify three major characteristics: (1) *time compression diseconomies*, (2) *resource/skill mass efficiencies*, and (3) *interconnectedness of resources/skills stock*. Time compression diseconomies refers to the accumulation of certain advantages to firms owning a resource/skill for a long period of time (e.g., firm reputation for quality). A firm may have built a reputation for quality by following a consistent set of production, quality control, and other policies over time. Such sources of competitive advantage can be neither acquired nor imitated by competitors within a short period of time.

The presence of large amounts of existing stock of resources/skills facilitates further resource/skill accumulation. For example, firms that already have an existing stock of research and development may often be in a better position to make further breakthroughs and add to their existing stock of knowledge than firms who have low initial levels of

know-how. The implication here is that when asset mass efficiencies are critical, building stocks of resources/skills by firms that have initial low levels of stock can be difficult. Difficulties in "catching up" can be even greater when the asset accumulation process exhibits discontinuities; i.e., a critical mass is required (Dierickx and Cool 1989).

Interconnectedness of resources/skills acts as a barrier to imitation when some firms lack complementary resources/skills that are critical to competing in a product market. For instance, a new entrant to a market with a product (of comparable quality to that of incumbents) encountering difficulties in distributing the product because of no established dealer network would be at a competitive disadvantage.

### **Performance Outcomes**

Competitive advantage can be expected to lead to superior marketplace performance (e.g., market share, customer satisfaction) and financial performance (e.g., return on investment, shareholder wealth creation). Accounting ratios and market measures constitute two broad indicators of a business's financial performance. However, they have been criticized for their (1) inadequate handling of intangibles and (2) improper valuation of sources of competitive advantage (i.e., allocating historic and current costs to satisfy tax requirements [Day and Wensley 1988]). Financial performance measures characterized by a future orientation (e.g., shareholder value creation potential) though not entirely free of shortcomings, are generally viewed as more appropriate for evaluating the desirability of planned investments in defensible positional advantages. However, a detailed discussion of the merits and shortcomings of these measures is beyond our scope here.<sup>7</sup>

### **Reinvestments in Resources and Skills**

Because the barriers to imitation of a firm's skills and resources are prone to decay in the absence of adequate "maintenance" expenditure (Dierickx and Cool 1989), the maintenance of an SCA requires the constant monitoring of and reinvesting in the present sources of advantage, as well as investing in other potential sources of advantage.<sup>8</sup> For example, a business with a reputation for superior quality could experience an erosion in quality as a source of SCA if it fails to continue investing in processes that contributed to the business's reputation for quality. As Porter (1985, p.20) notes, a firm must offer "a moving target to its competitors, by reinvesting in order to continually improve its position."

<sup>7</sup>See: McGuire and Schneeweis (1983) and Lubatkin and Shrieves (1986). Additionally, in the case of several resources and skills, their benefits may be in the long term and in some cases the benefits (such as fast information flow, understanding of market trends, fast procedures, and more effective customer service) may be difficult to quantify. In these cases, the use of standard hurdle rates may be inappropriate, and non-traditional criteria may be required (Shank and Govindarajan 1992).

<sup>8</sup>As evidenced by the links leading into and from the box labeled "Reinvestments in Resources and Skills" (Figure 1), there is an implicit time dimension in the proposed conceptual framework.

## Sources of Sustainable Competitive Advantage In Service Industries: Propositions

This section provides an overview of the skills and resources underlying a business's competitive positional advantages and a number of propositions delineating the moderating effects of the characteristics of services, service industries, and firms within industries on these sources. However, we present no formal discussion in reference to certain potential sources of competitive advantage listed in Figure 1 (superior skills in various functional areas and those relating to innovation, quality, customer service, and implementation) because their importance as determinants of superior performance are widely recognized, transcend goods and service industry boundaries, and have been extensively discussed in business literature.

### Scale Effects

Given the decentralization of the service production process to a local level in many service industries, the potential for achieving a competitive cost advantage by exploiting economies of scale has traditionally been viewed as modest. Nevertheless, opportunities for exploiting scale economies are significantly greater in equipment-based service industries than in people-based service industries. Service firms can also achieve economies of scale by centralizing service production facilities while decentralizing customer-contact facilities (Upah 1980) or centralizing certain critical (and/or equipment-intensive) activities and localizing less critical (and/or people-intensive) activities, as exemplified by clinical laboratories performing some tests in dispersed local units and others involving expensive equipment and/or skilled personnel in regional centers (see Porter 1990). Operating economies can also be realized through reconfigurations such as replacing stand-alone with multi-unit motion picture theaters sharing a centralized projection room, ticket selling booth, and refreshment stand (see Thomas 1978). Also, as Quinn and Gagnon (1986) note, in a number of service industries, the application of new technologies has allowed firms to realize significant scale economies.

$P_1$ : The greater the equipment intensity of a service industry, the greater the importance of economies of scale as a source of competitive cost advantage.

The inseparability of production and consumption of services and the resultant inability to efficiently mass produce services at a central location often necessitates service businesses to make the service available at multiple sites. This in turn necessitates examining the implications of size on cost and differentiation advantages at the operating unit and firm level. Heskett (1987) notes that for service firms operating under a common identity over a wide area, scale economies often are more important at the firm than operating unit level. A manifestation of the relative size (of firms competing in an industry) at the company level is the number of dispersed local units (either company owned or franchised) operating under a common corporate identity. All else equal, economies of scale associated with selection and training of employees, purchased goods and services, investments in specialized technology and R&D to systematize the service delivery process, and shared marketing (e.g., na-

tional or large-scale local advertising and sales promotion), billing and logistics-related activities enable a multi-unit service firm to achieve a cost advantage vis-a-vis single-unit and multi-unit service firms with fewer units.

In many service industries, multi-unit firms are better equipped to achieve a competitive differentiation advantage over single-unit firms through *systematization* and *standardization* of the process of delivering services (Porter 1990). For example, a multi-unit firm that replicates its services at many locations by creating standardized facilities, procedures to guide the behavior of employees, and automating individual service delivery tasks (Levitt 1976) can achieve a differentiation advantage vis-a-vis single-unit service firms.

$P_2$ : The larger the number of local units of a service firm operating under a common corporate identity within an industry (either company owned or franchised), the greater the potential to exploit scale economies to achieve competitive cost advantage and institute systematization, standardization, and other differentiation features to achieve a differentiation advantage.

When a service product is a multi-attribute benefit bundle characterized by the delivery of certain attributes of the total service from dispersed site locations (e.g., purchase of travelers' checks) and other attributes from a central location (e.g., arranging for replacement of lost travelers' checks), firm size relative to competitors (e.g., market share/customer base) can be a major determinant of the economic viability of investing in certain differentiation features that might endow the firm with a competitive differentiation advantage. Case in point:

An important attribute or key buying criterion in the context of purchasing travelers' checks is the assurance that they will be replaced promptly should they be lost or stolen. A state-of-the-art satellite communication system that allows customers who have lost their travelers' checks to communicate with the firm from any part of the world, an office that is staffed 24 hours a day, 365 days a year by a team of well-trained employees, a supporting information system that allows the staff handling the phone lines to verify the veracity of customers' claims regarding lost travelers' checks on the basis of their responses to a few questions, and a distribution system that is the most intensive and extensive (a worldwide network of branch offices and agents) could conceivably be some of the basic building blocks (firm-specific resources and skills) that allows only one firm in the industry to guarantee that if lost or stolen, its travelers' checks will be replaced within eight hours or less. For a firm with a sizeable share of the market, making substantial investments in satellite communication systems, earth stations, and a state-of-the-art information system to achieve such a differentiation advantage may be an economically viable proposition; for competitors with smaller shares of the market, however, this may not be the case.

### Cost and Demand Synergies

Economies of scope are realized when a firm is able to market entirely new services with little added costs through networks or systems previously established for current services. Communications and information-handling technologies often facilitate distribution of a broader set of services to a more diffused customer base, as well as lower the mar-

ginal costs on *old* services, as equipment development and software investments are allocated over a broader line of services (Quinn and Gagnon 1986). Therefore, relative to single business firms, multi-business firms have the opportunity to (1) reduce costs by sharing activities between businesses; (2) increase revenues by cross-selling to customers of different businesses in the firm's portfolio; and (3) share knowledge and skills. For instance, a multibusiness firm such as ServiceMaster—whose subsidiaries include Terminix (termite and pest control service), ChemLawn and True Green (lawn care service), and American Home Shield (appliance insurance service)—has an opportunity to exploit demand synergies by cross-selling of services, and cost synergies by centralizing the accounts processing for various services. More importantly, competitive cost and differentiation advantages associated with synergy are less likely to be imitated, because these are often achieved under a unique set of circumstances as well as on the basis of unique firm specific resources and skill base. Case in point:

In 1990, when AT&T launched its AT&T Universal Visa and MasterCard credit cards, it had access to the credit histories of 70 million AT&T long-distance customers (a firm-specific resource). By qualifying these potential customers in advance, the firm was in a position to respond quickly to inquiries from households that were good credit risks and lower its vulnerability to bad credit risks (Blattberg and Deighton 1991). An additional incentive it could offer to its credit card customers (a 10% discount on long-distance calls made over the AT&T network by using its cards), also attributable to a firm-specific resource, could be matched only by some of its larger competitors by entering into alliances with competing long distance carriers such as MCI and U.S. Sprint.

P<sub>3</sub>: The greater the cost (demand) interrelationships between a particular service business in a firm's portfolio and other businesses in its portfolio, the greater the cost (demand) synergies as a source of competitive cost and/or differentiation advantage.

### Product, Process, and Managerial Innovations

Product, process, and managerial innovations can be used to gain a competitive advantage, to the extent that the technology underlying such innovations remain proprietary. Technology held proprietary through patents, copyrights, or secrecy can deter new entrants, as well as achieve a competitive advantage by exploiting economies of scale and scope and/or through differentiation. Teece (1988, p.48) characterizes *regime of appropriability* as those aspects of the commercial environment, excluding firm and market structure, that govern an innovator's ability to capture the rents associated with the innovation. Relative to goods industries, in service industries, technology suffers from a weak regime of appropriability, which implies that patents can be "in-

<sup>9</sup>It is not clear, however, whether it was Merrill Lynch's patent application, the time it took for competitors to develop the technology needed to offer a similar service, the uncertainty created by the legal opposition to the service raised by banks and state governments, or a combination of these factors that gave Merrill Lynch a five-year head start and market exclusivity (see *Wall Street Journal* 1989, 1993; Kerin, Varadarajan, and Peterson 1992).

vented around." For example, though Merrill Lynch obtained a patent for its Cash Management Account (CMA), which integrated four basic investor services into a single account, and holds a dominant share of the market, practically all its major competitors offers a similar service.<sup>9</sup> Trade secrets, an alternative to patents, can offer protection from imitation, provided the secret is kept in the form of *tacit knowledge*. Whereas *codified knowledge* is transferable and more prone to be copied, tacit knowledge, being difficult to articulate, is difficult to transfer or copy (Teece 1981, 1988). A number of service firms have successfully used information technology to capture tacit organizational knowledge and retain property rights over the resulting innovations. For example, American Express developed an expert system called Authorizer's Assistant to facilitate credit authorization judgments. As a result, a decision that traditionally created a bottleneck (involving the scanning of 13 data bases or necessitating a judgment call) can now be made in a few seconds.

The presence of *cospecialized* assets or the lack thereof also impacts on the imitability of innovations. When commercializing an innovation requires other specialized assets in marketing and/or production, and these assets are specific to the particular innovation, the imitability of the innovation will be impeded to the degree of complexity and number of cospecialized assets needed to put the innovation to work. Even if competing firms were to find it easy to copy the innovation, they might face difficulties in putting together the organizational apparatus needed to bring the innovation to market. A complex set of cospecialized assets may therefore protect the innovation and allow it to continue to yield value (see Teece 1987). For example, it took more than two years for competitors to respond to American Hospital Supply Corporation's ASAP system, because they needed to computerize their inventory systems first (Vitale 1988). Though entering certain service businesses could require a firm to possess complex and/or multiple cospecialized assets, entering into other service businesses may not be inhibited by such requirements.

P<sub>4</sub>: The greater the complexity of assets needed to market a service, the greater the importance of innovation as a source of competitive advantage.

P<sub>5</sub>: The greater the number of cospecialized assets needed to market a service, the greater the importance of innovation as a source of competitive advantage.

### Brand Equity<sup>10</sup>

Aaker (1991, p. 15) defines brand equity as "a set of brand assets and liabilities linked to a brand, its name and symbol, that add or subtract from the value provided by a product to a firm and/or that firm's customers." He distinguishes between five categories of assets that give rise to a brand's equity: (1) brand loyalty, (2) name awareness, (3) perceived quality, (4) brand associations, and (5) proprietary brand assets such as patents and symbols. In the context of marketing of services, Berry and Parasuraman (1991) note that brand equity also could reside in the name of the firm itself. Here, the absence of a tangible physical product on which a

<sup>10</sup>The discussion presented in this section builds on literature on brand equity in the marketing discipline and on reputation in the management and economics disciplines.



brand name can be affixed often necessitates assigning greater prominence to the corporate brand name on the various physical products and facilities used to deliver the service (e.g., displaying an airline's logo and name on airplanes, ground transportation vehicles, baggage handling equipment, ticketing counter, departure and arrival gates, etc.). Strong brand names or symbols impact positively on brand equity, both directly and indirectly, through perceived quality. Brand equity (1) helps differentiate the product from competitors' offerings (Park, Jaworski, and MacInnes 1986); (2) serves as a proxy for quality and creates positive images in consumers' minds (Oster 1990; Kamakura and Russell 1991); (3) prevents market share erosion during price and promotional wars (Kamakura and Russell 1991; Johnson 1991); and (4) prevents market share erosion by giving a firm time to respond to competitive threats (Aaker 1991).

Shostack (1977) suggests that since services are characterized by a greater degree of intangibility, "'tangibilizing'" (managing the evidence) must be attempted in order to make the product more salient to customers. The need to tangibilize is inversely related to the level of intangibility of a service. Brand names and symbols used by firms to add tangible aspects to the product help reduce the search costs of consumers (Landes and Posner 1987), such as Prudential Insurance's use of the Rock of Gibraltar to present a message of strength and stability, and Travelers Insurance's use of an umbrella to convey a message of protection (Aaker 1991).

P<sub>6</sub>: The greater the intangibility of a service, the greater the importance of brand equity as a source of competitive differentiation advantage.

Nelson (1970) and Darby and Karni (1973) suggest that customers take a chance when they purchase an experience good. Unlike search goods, consumers cannot infer through simple inspection whether a product is of high or low quality with experience goods. A major challenge faced by a new entrant in an experience goods market is the need to convince consumers to take a chance on a new product when they are aware of the quality of the incumbent's product because of prior use (Schmalensee 1982). In general, the likely presence of variability in service quality, not only makes it difficult and riskier for consumers to evaluate the quality of a service, but also makes the consumers' purchase choices more complex (Murray 1991; Nayyar and Templeton 1991). Though on one hand, consumers may seek more information to make better choices, since information search is generally expensive (Stigler 1961), buyers seeking to economize on evaluation costs might be inclined to choose the product with the best brand reputation because it has the lowest evaluation costs (Rumelt 1987). When buyers cannot easily evaluate the capabilities of the service provider and the quality and value of the service provided (as would be the case with credence goods) brand reputation serves as an important proxy for quality and other key buying criteria that cannot be easily evaluated.

Also, as pointed out by Levitt (1986), when buyers select a particular brand, they are engaging in an act of risk reduction. Though risk can be viewed as a function of the perception of variability in quality, in service industries, firms having strong brand names and symbols are better positioned to mitigate customers' perceptions over variability in

quality and therefore differentiate themselves from competition. Moreover, the additional marketing efforts that must be expended in order to overcome consumers' risk perceptions can often lead to a cost asymmetry between a firm owning brands with strong equity vis-a-vis its competitors.

P<sub>7</sub>: The greater the experience and credence attributes of a service, the greater the importance of brand equity as a source of competitive cost and differentiation advantage.

Information asymmetries also can be exploited by firms to diversify into new services and provide multiple services to its customers. In reference to service industries, Nayyar (1990) argues that each sampling by experience contributes to the information bank that consumers maintain. In reference to new service introductions he notes:

When the producer of a brand introduces another brand, buyers may draw upon their information bank to form associative evaluations of the likely properties of the new brand. This "carry-over" of evaluative information tends to reduce information acquisition costs for buyers. Hence it can be expected that customers who have favorable impressions of current service providers will tend to favor such providers when making purchase decisions about other services that these providers may offer (Nayyar 1990, pp. 515-516).

Furthermore, when appropriate, service providers who have created favorable impressions can attempt to capitalize on ongoing relationships by allocating more effort to convincing their existing customers (rather than new customers) to try their new services. In summary, a firm with a well-established brand reputation diversifying into new services that its existing customers may buy from can be expected to enjoy a competitive advantage, because of the lower information acquisition costs to consumers.

P<sub>8</sub>: The greater the experience and credence attributes of a new service being marketed by a firm, the greater the importance of brand equity as a source of competitive advantage.

### **Relationships/Precommitment Contracts<sup>11</sup>**

In general, firms can enhance their performance by cultivating new customers and/or retaining their existing customers and selling more to them. Cultivating new customers is generally more expensive than retaining existing customers, particularly in mature markets. Riechheld and Sasser (1990) found a 5% reduction in customer defections to be associated with profit increases ranging from 25 to 85% in the industries they studied. Findings such as these suggest that service firms doing business with their customers from a long-term relationship perspective (rather than a single transaction perspective) either through an implicit or explicit precommitment have a greater potential of achieving cost advantages. Precommitment contracts, by removing a portion of the market from the competitive arena and thereby introducing an asymmetry between incumbents and potential entrants, act as entry deterrents (Oster 1990).

<sup>11</sup>Though the focus of this section is limited to relationships with customers, relationship marketing is more broadly construed in business literature to include relationships with suppliers, channel members, and other organizations as well (i.e., cooperating and partnering with other firms including competitors). For example, see Ohmae (1989).

Developing relationships with and retaining customers are central to the concept of *memberships*, which constitute non-contractual approaches to precommitment. Service businesses have successfully employed various methods to “lock in” customers. Non-contractual switching costs created by airlines through their frequent flyer programs and hotel chains through their honored frequent guest programs are cases in point. The more formalized such relationships are, the greater are the benefits that accrue to the service provider. In return for exclusive privileges for members, valuable information collected about customers can be used to gain scope advantages (by cross-selling other services to customers), as well as to build non-contractual switching costs. For example, American Express reportedly has over 450 items of information on each customer that are used by its direct marketing division to sell consumer products to them (Newport 1989). Studies focusing on service industries have found that developing relationships with customers (through implicit contracts) has a positive impact on firm performance (Nayyar 1992; Crosby, Evans, and Cowles 1990; Crosby and Stephens 1987). Trust provides an alternative means to developing non-contractual precommitments with customers. Trust (i.e., a willingness to rely on an exchange partner in whom one has confidence) has also been shown to be positively associated with commitment to a relationship (Moorman, Zaltman, and Deshpande 1992).

Precommitment contracts can not only deter entry but also prevent customers from exiting existing contracts. For example, in hospital management contracts, incumbent firms have a significant edge in contract renewals because of the substantial costs to hospitals of changing firms (Porter 1985). The switching costs become higher as (1) the customer gets accustomed to the procedures provided by the system, resulting in a *procedural specificity* (Malone, Yates, and Benjamin 1987); (2) the extent to which this procedural specificity is increased by an *electronic integration* effect (dependency of the customer on a vendor, created by the use of interorganizational or transaction-based systems [Malone, Yates, and Benjamin 1987; Glazer 1991]); and (3) the customers modify their own internal procedures as a result of using the system (Barrett and Konsynski 1982; Runge 1988). Studies in the insurance industry have found that agents who were electronically linked with a particular insurance carrier showed a significant increase in the number of policies written with that carrier compared to agents who were not electronically linked to the carrier (Venkatraman and Zaheer 1990; O’Callaghan, Kaufmann, and Konsynski 1992). As noted previously, buying services with greater experience and credence qualities involves greater consumer risk taking. Relationships, by nurturing strong social and personal ties with consumers (Czepiel 1990), allow a firm to offer a greater assurance to customers and lower the perceived risk (see Crosby and Stephens 1987; Crosby, Evans and Cowles 1990).

$P_9$ : The greater the experience and credence attributes of a service, the greater the importance of relationships as a source of competitive differentiation advantage.

### **Spatial Preemption**

Because demand for many customer services is based on convenience, preemptive identification of ideal service loca-

tions is critical to achieving better facility utilization (Allen 1988). However, though the delivery of certain services could require a firm to invest in multiple service delivery facilities at locations that are convenient to the served market (e.g., facilities for cash withdrawal and deposit), certain other services can be offered from a single centralized location (e.g., credit cards). Clearly, preemption of strategic locations is an important source of competitive cost and differentiation advantage only in the context of the former, as highlighted in reference to the banking industry.

The *simultaneity/inseparability* characteristic of services implies that unlike goods, services are typically produced and consumed at the same time. Therefore, a consumer engaging in a financial transaction such as cash withdrawal must interface with a service deliverer, namely the bank teller. An alternative technological solution to serving this customer need is to install automated teller machines (ATMs). With ATMs in place, serving a customer need such as financial transactions processing does not have to be limited to the regular banking hours of 9:00 A.M. to 3:00 P.M. In effect, the simultaneity characteristic of services is no longer a constraint on the service provider. The service can be made available for 24 hours a day, 365 days a year. Also, to use the service, the consumer does not have to be physically present on the bank premises. The transactions can be processed through ATMs placed at strategic locations off the bank premises.

The first firm that recognized the potential of this alternative technological solution had an array of opportunities to achieve a SCA. First, it had the opportunity to acquire or lease prime real estate at strategic locations (off-bank premises) for placing its ATMs at prices below those that would prevail later in the evolution of the market. (As the market for a resource such as strategic locations for placing ATMs became competitive, the price of this resource would have been bid up until it was equal to the net present value of future above-normal benefits that can be derived from this resource [see Barney 1986b]). This would have led to a cost asymmetry between the first firm to make a significant investment in spatial preemption of locations for placement of ATMs and later entrants. Second, under conditions of manufacturing capacity constraints in the supplier industry, by contracting with supplier firms for their entire output of ATMs, the firm could have delayed the availability of ATMs to other competing firms. Because of the response time lag inherent in the supplier industry (i.e., the amount of time that would have elapsed before ATM manufacturers would have been in a position to deliver ATMs to the competitors of the pioneering bank), this source of competitive advantage would have endured for some period of time, though not indefinitely. In other words, even the firm’s competitors who also recognized the potential of ATMs as an effective solution to the simultaneity characteristic of services would not have been in a position to immediately neutralize the differentiation advantage enjoyed by the pioneering firm attributable to a unique firm resource (ATMs). In summary, by making preemptive investments in key resources, a perceptive firm could have achieved an *absolute cost advantage* (through preemptive contracts for acquiring or leasing strategic locations for placing ATMs), as well as a *differentiation advantage* (through preemptive contracts to acquire the entire output of ATM manufacturers and spatial preemption of strategic locations). Understandably, the value of supplier industry response lag time as a source of competitive advantage would have diminished over time as manufacturers of ATMs stepped up their out-

put. Hence, firms need to constantly explore new bases of competitive advantage.

P<sub>10</sub>: The more decentralized the service delivery process, the greater the importance of spatial preemption as a source of competitive cost and/or differentiation advantage.

### **Communication Good Effects**

The value of certain products (e.g., telephone network services, micro computer services) increases as the number of users or adopters increase. These products, called communication goods (Connor and Rumelt 1991), serve as a means of standardization, because a large user base brings a large number of complementary goods into being. Case in point:

The importance of communication good effects as a source of competitive differentiation advantage is highlighted by the evolution of the video cassette recorder (VCR) business. In the early years, when Sony's Betamax and Matsushita's VHS-format VCRs were coexisting, as well as competing to become the industry standard, video rental service businesses stocked an equal number of pre-recorded tapes in both formats. As the percentage of households owning VHS format VCRs increased relative to the percentage owning Betamax-format VCRs, video rental service businesses modified their inventory mix. In most instances, they stocked multiple copies of video software prerecorded in the VHS format, but only one copy in the Betamax format. Over time, with (1) video software marketers (i.e., movie studios) increasingly offering their ware exclusively in the VHS format, (2) video rental service firms carrying only VHS-format tapes, and (3) most retail outlets stocking only VHS-format blank tapes, the VHS format emerged as the industry standard.

When communication goods are also experience products (such as computer software, disk operating systems), there is a market for both standardization and reputation bonding. Therefore, a particular brand becomes the industry standard and a powerful means of coordination (Rumelt 1987). Developing or setting industry standards makes a firm's position more sustainable (Porter 1985). In cases of products in which evaluation is difficult, akin to reputation, the industry standard plays the role of an alternative cue that makes itself more salient to the customer. Therefore,

P<sub>11</sub>: The greater the experience and credence attributes of a service, the greater the importance of communication good effects as a source of competitive differentiation advantage.

The importance of spatial preemption and communication good effects as potential sources of competitive advantage is also moderated by the order of entry of firms into an industry. Literature on pioneering or first-mover advantage, a major area of research in economics, strategic management, and marketing, suggests that on average, pioneers have higher market shares than late entrants (c.f. Robinson and Fornell 1985; Robinson 1988).<sup>12</sup> Potential sources of first-mover advantage and disadvantages associated with market pioneering are reviewed by Lieberman and Montgomery (1988) and Kerin, Varadarajan, and Peterson

<sup>12</sup>The validity and generalizability of studies reporting a systematic relationship between order of entry and market share have, however, been questioned in light of their methodological shortcomings, such as operational definition of market pioneer, survivor bias, and sample composition (Kerin, Varadarajan, and Peterson 1992).

(1992). The preceding discussions relating to spatial preemption and communication good effects suggest the following:

P<sub>12</sub>: Potential opportunities for achieving competitive cost and/or differentiation advantage through spatial preemption are greater for the market pioneer than for later entrants.

P<sub>13</sub>: Potential opportunities for achieving competitive differentiation advantage through communication good effects are greater for the market pioneer than for later entrants.

### **Corporate Culture**

An organization's culture is a complex set of beliefs and ways of doing things that influence the organization's perspective of itself and the world around it. A key element of corporate culture is the set of formal rules and structures that governs the way people relate to one another in the workplace. Another is the set of myths and traditions that help define the ideology of the organization (Mintzberg 1983). Most of the literature on organization culture and performance of a firm suggests that culture can have a significant positive economic value for a firm (Barney 1986a; Ouchi 1981; Deal and Kennedy 1982). The strong culture hypothesis suggests that firms that have strong distinctive traits, values and shared belief patterns will outperform organizations that are weak on these dimensions (Dennison 1984). Strong cultures can (1) help attain a shared vision and goal congruence among employees to meet organizational goals (Wilkins and Ouchi 1983); (2) empower employees to be flexible and achieve organizational goals (Pascale 1985); and (3) energize the employees of an organization. A recent study reports that firms with cultures that emphasize key managerial constituencies (customers, stockholders, and employees) and leadership (at all levels) outperformed by a large margin firms that did not have those cultural traits (Kotter and Heskett 1992). Another recent study focusing on culture types as determinants of performance (Deshpande, Farley, and Webster 1993) reports that Japanese companies with corporate cultures stressing competitiveness (markets) and entrepreneurship ("ad hococracies") outperformed those dominated by internal cohesiveness (clans) or rules (hierarchies). Services being primarily delivered by employees, the "people" component of service delivery as perceived by customers plays an important role in service differentiation. Hence, a critical factor that endows a service organization with a competitive edge is its employees, and the way they are influenced by the culture of the organization.

P<sub>14</sub>: The greater the "people" intensity of a service industry, the greater the importance of culture as a source of competitive advantage.

### **Organizational Expertise/Producer Learning/ Experience Effects<sup>13</sup>**

Organizational learning, or the improvement in skills and abilities achieved through learning within the firm

<sup>13</sup>Given that organizational expertise and information technology appear to be equally important sources of competitive advantage across all service industries, no formal propositions are presented in the sections devoted to these sources of competitive advantage.

(Weston, Chung and Hoag 1990), can have at least two beneficial effects. The first is increased efficiency of individual workers or worker groups. Experience curves, an extension of learning curves, are the result of applying the learning curve principle to all value-added costs rather than to just production and labor costs.<sup>14</sup> The presence of experience effects (the average total cost per unit, measured in constant current declining by a constant percentage with every doubling of cumulative experience) have been documented in the context of both equipment-intensive service industries such as telecommunications and electric power utilities and people-intensive service industries such as life insurance (see Abell and Hammond 1980; Boston Consulting Group 1972).

A second aspect of organizational learning is team effort. As members of an organization work together over a period of time, the *Williamson principle* can take effect—that is, an organization may realize economies of information interchange through common training and experience, repeated interpersonal interactions, and the possible development of a compact code (Williamson 1971, 1975). In other words, inside the organization, information flows more efficiently and transaction costs are reduced, and the firm becomes more efficient as experience is gained. Furthermore, firms, by changing task designs to form self-managed cross-functional and cross-trained service groups, could (1) improve the quality of service provided by controlling variance at source (Pasmore 1988), (2) improve the flexibility of the organization by empowering teams to respond to specific consumer requests (Tansik 1990), and (3) blend capabilities to solve complicated problems spanning several functional areas speedily and effectively. Enhanced performance resulting from employing teams has been documented in a number of empirical research studies (c.f. Johnson et al. 1981).

Organizational learning or expertise can be a source of competitive advantage only when the (1) learning is tacit and not observable in use and (2) underlying knowledge is complex (Winter 1987). Competitors free riding on a firm's learning and expertise is more difficult under these conditions, as well as when few people are privy to the information and employee mobility is low. However, the characteristics of various service industries do not appear to moderate the role of organizational expertise as a source of competitive advantage.

### **Information Technology<sup>15</sup>**

Information technology (IT) refers to the collective means of assembling and electronically storing, transmitting, processing, and retrieving words, numbers, images, and sounds (Gerstein 1987, p. 5). IT's importance as a source of SCA stems from its potential to impact the transformation of a service firm's value chain (see Porter 1990). IT can aid

<sup>14</sup>The experience curve doctrine has been criticized for lacking a sound theoretical base. It has been pointed out that it treats a possible effect of achieving a cost advantage (share building) as a cause and what is actually a possible contributing cause of share building (achieving a cost advantage) as an effect (Alberts 1989).

<sup>15</sup>Because several studies published during the last ten years provide excellent insights into the importance of IT as a source of competitive advantage (cf. Benjamin et al. 1984; Cash and Konsynski 1985; Clemons and Row 1987; Glazer 1991; Little 1990; Porter and Millar 1985; and Weill 1992), only a few key issues are highlighted in this section.

in attaining an SCA by (1) providing companies new ways to outperform rivals, through lowering costs and/or enhancing differentiation; (2) building barriers to entry, building switching costs, and sometimes completely changing the basis of competition; and (3) spawning entirely new businesses (Porter and Millar 1985). For example, investments in IT allow a business to achieve a differentiation advantage by securing relationships through improved service quality and enhancing its ability to quickly respond to market shifts. Cases in point: A large medical supply company provides on-line order entry terminals and inventory management software for its customers and successfully achieves a competitive differentiation advantage and creates switching costs, thereby reducing buyer power. As customers' systems are integrated with those of suppliers, it becomes more difficult for customers to order from a competitor. Because changing suppliers would entail testing, implementation, and retraining costs, customers exhibit an inclination to remain loyal to their current suppliers. The more sophisticated the ordering system, the less the buyers' power to switch. The Limited, a major retail chain, reportedly is able to respond four times faster than its competition to shifts in customers' preferences by monitoring customer preferences on a daily basis, and transmitting this information to production plants through satellite communication systems (Achrol 1991). Additional insights into the potential for exploiting IT to achieve a sustainable competitive advantage across a broad spectrum of service industries are provided by the case histories summarized in Table 1.

## **Discussion**

The managerial implications presented in this section are organized around six themes:

1. *A firm's skills and resources constitute potential sources of competitive advantage only if they offer benefits desired by customers.* As Day and Wensley (1988) point out, assessment of opportunities for competitive advantage must revolve around the analysis of customer benefits. In the absence of such analysis, a firm's attempts to leverage its skills and resources into positional advantages are likely to prove ineffective. Case in point:

In the market for electronic components and calculators, Texas Instruments (TI) successfully exploited scale effects and experience effects to lower costs, and market the product at a low price. It attempted to pursue a similar strategy with digital watches. However, customers did not view low price as a key buying criterion in the purchase of watches. Features and appearance were viewed as more important. TI's pursuit of a cost leadership strategy in the marketing of digital watches was ineffective, ultimately leading to its withdrawal from the business.

2. *The attainment of SCA is not an end in itself, but a means to an end, namely superior long-term financial performance.* A corporation is not in business just to achieve an SCA over its competitors, but to create wealth for its shareholders. Actions that contribute to SCA but detract from creating shareholder wealth can be good strategy in the competitive sense, but bad strategy for the corporation (Coyne 1985). Case in point:

Fruhan (1972) illustrates the economics of capacity competition in the context of an airline route served by two carriers, in which the dominant carrier, by

**TABLE 1**  
**Leveraging Information Technology for Achieving Competitive Advantage in Service Industries**

Potential Opportunities for Capitalizing on Information Technology <sup>1</sup>	Case Exemplars
<p><b>A. Spawn New Businesses</b></p> <p>Information technology (IT) has the potential to spawn new businesses in three ways:</p> <p>(a) by making new businesses technologically feasible;</p> <p>(b) by creating derived demand for new products; and</p> <p>(c) creating new businesses within old businesses.</p>	<p>The Internal Revenue Service (IRS), with the objectives of cost saving and improved accuracy, introduced electronic filing of individual tax returns in 1985. Electronic filing coupled with direct deposit has opened the gateway for a variety of new financial service products. As Zuboff (1988) notes, an attempt at automation of an activity has <i>informed</i> the industry (i.e., provided as a by-product large quantities of information that were previously unavailable). American Express and IDS Tax Services launched a new business called AmeriTax to exploit this opportunity by offering to provide a variety of specially tailored services for individual tax payers (Venkatraman 1991).</p>
<p><b>B. Build Switching Costs and Deter Entry</b></p> <p>IT provides opportunities for firms to introduce switching costs on buyers or channel members, and thereby deter exit, as well as make entry more difficult for new entrants.</p>	<p>Some large medical supply companies provide on-line order entry terminals and inventory management software for their customers. As customers' systems are integrated with those of suppliers, it becomes more difficult for customers to order from a competitor. Because changing suppliers would entail testing, implementation and retraining costs, customers exhibit an inclination to remain loyal to their current suppliers. The more sophisticated the ordering system, the less the buyer's power to switch. McKesson, a large drug distributor, by constantly reinvesting in information technology and enhancing its capabilities, and providing newer and additional services, has not only kept itself ahead of competition, but also has become indispensable to its consumers (Magnet 1992).</p>
<p><b>C. Enhance Cost and Differentiation Advantage</b></p> <p>IT provides firms with an opportunity to achieve a cost advantage by lowering the cost of various activities constituting the value chain, and a differentiation advantage through (a) service customization, and/or (b) value enhancement through bundling of information.</p>	<p>USAA, an insurance firm, by employing IT to image documents, has been able to significantly reduce the amount of paper handling and lower the cost of writing policies. At USAA, use of IT to image documents has enabled one employee to do the work previously done by five employees. Furthermore, when consumers call for information, little time is spent in searching for old paper correspondence, since all prior correspondence is available on the computer network. This enables USAA to provide superior service at a lower cost (Magnet 1992; Weizer et al. 1991).</p> <p>Coping with the soaring cost of insurance is a concern shared by insurance companies and its corporate customers alike. Cigna, an insurance carrier, by compiling risk information and sharing this information with its customers, has been in a position to achieve a differentiation advantage. The Cigna Risk Information Service enables its customers to identify their facilities with a disproportionately high frequency of accidents, institute new safety programs at these facilities and thus lower their insurance bill. The system's ability to provide Cigna's customers better information about their far-flung operations than they can get using their own customers is reported to have been instrumental in several large firms shifting all or most of their casualty business to Cigna (Petre 1985).</p> <p>A recent innovation developed by Federal Express Corporation, a hand-held device that allows couriers to generate optically scannable zip code labels indicating the destination to which a package is to be sent, enables the firm to provide superior service at a lower cost. This process innovation manifests in better service quality (faster and reliable service) by speeding up the sorting process at Federal Express' hub locations and cutting down on the number of misrouted packages (Hawkins 1992).</p>

<sup>1</sup> For additional insights into using information technology for competitive advantage, see Porter and Millar (1985).

providing 70% of all the seats available on the route, gains a 80% market share. On the other hand, the smaller carrier with a 30% capacity share is in a position to obtain only a 20% share of the market. Assuming that all other firm controllable market share influencing factors are the same for the two carriers (such as air fare), how does one explain the imbalance between capacity share and market share? Fruhan theorizes that this may be because there is a greater likelihood that the larger carrier is offering a flight at a time closer to the departure time desired by a traveler. In such a hypothetical two-carrier route, if the dominant carrier adopted a retreat strategy (not responding to a minority carrier's capacity additions) it would rapidly find itself losing both market share and profit. On the other hand, if the dominant carrier adopted a matching strategy [responding to the minority carrier's capacity additions by adding capacity to maintain a constant percentage capacity share (i.e., 70% vs. 30%)] it could hold onto its market share position (i.e., 80% vs. 20%). However, this scenario will inevitably lead to a decline in passenger load factor of both carriers and hence, adversely impact their financial performance.

3. *Certain sources of competitive advantage may be more enduring than others.* Two additional potential sources of competitive advantage discussed in the previous section are reputation and corporate culture. The development of reputation being socially complex (Reed and Defillippi 1990) and reputation being a form of a stock (Dierckx and Cool 1989) developed/earned over time, it is imperfectly imitable (Barney 1991), and a relatively more enduring source of competitive advantage. Though frequent calls to emulate a particular organization's culture are made, there is evidence to suggest that imitating culture may be difficult.

A. The culture of a successful firm can be difficult to describe (Lippman and Rumelt 1982) and categorize (Barley 1983; Gregory 1983). Because culture in most situations is tacit (Berger and Luckman 1967), it remains inherently proprietary (Barney 1986a).

B. Even if culture can be described, it may be intrinsically wound up with a firm's unique history and heritage, making it nearly impossible to imitate (Barney 1986a; Clark 1970, 1972).

C. The failure of numerous mergers has been attributed to the clash of cultures and the difficulty in changing them. In the face of organizational rigidities, changing the prevailing culture may often be difficult, and attempts to do so have yielded mixed results (Kanter 1989).

Scale economies, in contrast, may be less enduring as a source of competitive advantage, to the extent that it is not imperfectly imitable and strategically equivalent substitutes are available. For example, firms can use nimbleness and flexibility to overcome the benefits of scale enjoyed by larger competitors (c.f. Peters 1992). Furthermore, information technology, by facilitating mass customization (and thus effectively offering to customers the cost benefit of mass production and the differentiation benefit of customization), could limit the value of scale economies per se as a source of competitive advantage (see Boynton and Victor 1991; Zuboff 1988).

4. *Durability of a firm's competitive positional advantages are contingent on its making sustenance and enhancement reinvestments in its present sources of competitive advantage, as well as investments in new skills and resources. Re-*

alistically, competing firms in an industry are likely to continuously strive to bridge the resource and skill gaps that place them at a disadvantage relative to their competitors. Furthermore, in a dynamic market environment characterized by changes in consumer preferences, the resources and skills underlying a particular firm's positional advantages are prone to depreciate over time. Under these conditions, ensuring the durability of a firm's sources of competitive advantage may require both *sustenance* and *enhancement reinvestment* in these sources. Also, given the ever-present possibility that a firm's present sources of competitive advantage might over time erode (become competitively neutral), there is a constant need for businesses to focus on developing new and high-order sources of competitive advantage. The need for making substantial sustenance and enhancement reinvestments over the long term to develop and nurture sources of competitive advantage is exemplified by the case of the SABRE system, owned by AMR Corporation, the parent firm of American Airlines. Though the system became operational in 1976, even as late as 1988, AMR Corporation continued to spend significant amounts (approximately \$ 1.225 billion) toward further enhancing the capabilities of SABRE (Hopper 1990). The importance of making sustenance and enhancement investments is also highlighted by the case of Mead Data Central, a pioneer in document retrieval services that experienced a decline in market share from 95% in the early 1980s to 60% in 1992. West Publishing Company, which entered the market six years later, was able to overcome the pioneering advantages of Mead Data Central by employing a strategy of technology leapfrogging and providing more information, a more user friendly interface, and a lower price. Mead, in contrast, is reported to have stayed with an archaic consumer interface and not provided any new services (Berss 1993).

5. *A critical reassessment of conventional wisdom regarding sources of competitive advantage may be called for in the face of successful new game strategies.* The business world is replete with case histories of firms departing from prevalent industry practices in major ways and succeeding in their pursuit of contrarian strategies. Case in point:

Southwest Airlines, a Dallas-based airline, does many things differently compared to traditional airlines. Though its airfares are significantly lower than those of full service airlines, it does not offer many features that full service airlines do, such as advance boarding passes, in-flight meals, and automatic transfer of luggage to or from other carrier's flights. In order to keep costs low, Southwest generally operates out of secondary airports of the cities it serves rather than major airports. These differences, coupled with a highly productive work force, have enabled Southwest to enjoy a 43% cost advantage over the industry leader, American Airlines (*Business Week* 1992).

New game strategies entail exploring ways to influence the environment, redefine market boundaries, reshape market behavior to fit the company's strengths, and refute or make irrelevant conventional wisdom regarding key success factors (sources of competitive advantage) (Buaron 1981). Consider, for example, the service-process matrix (Schmenner 1986), in which service businesses are classified into the following categories on the basis of the degree of labor intensity and interaction and customization, characterizing a service:

A. Service factory: Low labor intensity—low interaction and customization

- B. Service shop: Low labor intensity—high interaction and customization
- C. Mass service: High labor intensity—low interaction and customization
- D. Professional service: High labor intensity—high interaction and customization

True to the concept of new game strategies, service firms have gained competitive advantages by being innovative and breaking traditional molds. The restaurant business (service shop) was revolutionized by fast-food restaurants (service factory), and the traditional commercial banking industry (mass service) by some banks offering certain segments, financial and investment advice at the individual customer level (professional service). Inevitably, successful new game strategies necessitate a reassessment of presumed relationships between key variables and resource deployment patterns viewed as normatively conducive to superior performance.

6. *The sustainability of a firm's competitive advantages are also impacted by imperfectly competitive markets for skills and resources, luck, and suboptimal decisions made by competitors.* It was pointed out previously that spatial preemption of a strategic resource such as geographic locations for installation of ATMs can be a source of competitive advantage and above-normal profits if the price paid for the resource is lower than the benefits derived from it. However, if the market for the resource were perfectly competitive, the price of the resource would be bid up until it was equal to the net present value of its future above-normal benefits. This point of view implies that the achievement of SCA and, consequently, above-normal profits depends crucially on the presence of imperfections in the market for skills and resources. If the markets are perfect, the prices of resources/skills are bid up and the above-normal profits are competed away. The presence of imperfectly competitive markets for resources and skills can occur under the following conditions: (1) some firms are better informed or have special insights than competitors about the future value of a strategy and (2) firms that achieve competitive advantage are lucky (Barney 1986b). For example, at the end of World War II, two major competitors, Sears and Montgomery Ward, were more or less of the same size. Sears envisioned that the end of the war would stimulate pent-up demand for goods and services and invested heavily in the expansion of its retail and catalogue operations.<sup>16</sup> Montgomery Ward, in contrast, envisioned that the end of the war would be followed by a period of austerity and went on a rampant cost-cutting program. Here, a better informed firm (Sears) was able to gain a competitive advantage in the absence of its principal competitor (Montgomery Ward) pursuing a similar strategy and bidding up the price of critical resources/skills.

Given that luck is beyond the control of managers, the alternative strategy open to them is to become better informed than their competition. Two ways of achieving this are (1) environmental analysis and (2) organizational analysis. Barney (1986b) contends that environmental analysis is less likely to systematically generate exceptional advantages because its methods are readily available in the pub-

lic domain. Organizational analysis, in contrast, which is based on information internal to the firm and not available to competition, is more likely to generate exceptional advantages. Prahalad and Hamel's (1990) examination of the strategies adopted by NEC building on its "core competencies" is an example in this genre. Firms may be better off relying on such organizational analysis rather than depending on publicly available techniques to identify sources of competitive advantage.

In addition to the existence of an imperfectly competitive market for skills and resources, and/or luck, certain other factors in the market environment could also impact on the sustainability of sources of competitive advantage (Amit and Schoemaker 1993). It has been suggested that the emergence of new technologies, economic and political trends, competitive actions, and changes in consumer preferences could lead managers to approach future courses of action with "considerable bias, illusion and suboptimality" (Kahneman, Slovic, and Tversky 1982; Amit and Schoemaker 1993). The presence of uncertainty also makes managers hold diverse expectations about the potential returns from a source of competitive advantage.<sup>17</sup> Schoemaker (1992) outlines a methodology for linking the strategic vision of the firm with its core capabilities in the presence of market uncertainty and an unpredictable future.

## Conclusion

In a recent article providing an assessment of the services marketing and management literature spanning a 15-year period, Swartz, Bowen, and Brown (1992, p. 17) highlight the need for developing contingency theories of services marketing and management:

Several scholars have invested much energy in analyzing the variance *between* the manufacturing and service sectors.... However, it is now time to invest more energy in analyzing the substantial variance *within* the service sector.... The research requirement, then, is to develop and test propositions about what marketing and management practices are effective for certain types of services under certain conditions.

The contingency model of SCA in service industries and propositions presented here partially address the research needs highlighted by these authors. Building on extant literature, the proposed model provides insights into the moderating effects of the characteristics of services, service industries, and firms within an industry on the skills and resources underlying a service business's competitive positional advantage. However, for many of the constructs presented in the model (e.g., brand equity, communication goods effect, and spatial preemption), psychometric scales are not currently available. Development and validation of psychometric scales for these constructs and empirical testing and further refinement of the proposed model constitute promising future research directions.

<sup>16</sup>The question of whether Sears had special insights or was just lucky is very relevant here. However, the problems currently afflicting the firm are not an issue.

<sup>17</sup>For a more detailed exposition of this viewpoint, see recent literature on behavior decision theory (Amit and Schoemaker 1993; Klayman and Schoemaker 1992; Schoemaker 1990; Zajac and Bazerman 1991).

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