Forming Successful Business-to-Business Services in Goods-Dominant Firms

Wayne A. Neu and Stephen W. Brown

Journal of Service Research 2005 8: 3
DOI: 10.1177/1094670505276619

Forming Successful Business-to-Business Services in Goods-Dominant Firms

Wayne A. Neu
Metropolitan State College of Denver

Stephen W. Brown
Arizona State University

Extant literature is almost unanimous in suggesting that managers in goods-dominant firms should integrate services into their core market offers. Furthermore, in actual practice, numerous firms are striving with mixed results to become "solutions providers" by adding services to their portfolio of tangible goods. The literature does not, however, describe what factors to consider when adding services and how the factors should be designed to enhance organizational performance. The purpose of this study was to isolate and characterize factors that enable the formation of successful business-to-business (B2B) services in goods-dominant firms. Using a multicase research design, this study highlights four substantive cases of Fortune *500 firms in which B2B service development was a process of aligning strategy with a highly complex market. The study then illustrates how firms that demonstrate a record of successful B2B service development adapt several factors of organization to align with the newly formed strategy.*

Keywords: *business-to-business services; new service development; product manufacturing*

All organizations stake out a domain in terms of the goods or services provided and markets served (Thompson 1967). In a diversified firm, the corporate domain can be defined by the various business units that are chartered with the responsibility for providing one or more products in an associated market space (Galunic and Eisenhardt 1996). A business unit's charter is the product-market domain in which the business unit participates and for which it has been assigned responsibility within the firm. Once established, business unit charters should not be considered as rigid but instead should be open to change. Charter change is then a strategic process by which corporate managers create new business units or adjust the market charter of existing business units to align the organization with changing market conditions and opportunities.

We are indebted to the 37 business professionals who provided the primary source of data for this study. We greatly appreciate their willingness to patiently answer our questions, openly share their experiences, and critically review draft versions of case reports. We gratefully acknowledge the research guidance provided by Mike Hutt, Beth Walker, and Ajith Kumar; the helpful comments provided of the editor and anonymous reviewers; and the support provided by the Center for Services Leadership at Arizona State University. Correspondence concerning this article should be addressed to Wayne A. Neu at the Metropolitan State College of Denver, P.O. Box 173362, Denver, CO 80217-3362; phone: 303-556-4543; e-mail: wneu@mscd.edu.

Journal of Service Research, Volume 8, No. 1, August 2005 3-17
DOI: 10.1177/1094670505276619

FIGURE 1
The Tangible Goods-Services Continuum

SOURCE: Adapted from Oliva and Kallenberg (2003).

An organization's ability to successfully change charters may be a key to delivering superior customer value and sustaining competitive advantage in the rapidly changing environments in which most firms now find themselves competing (Day 1997; Galunic and Eisenhardt 1996).

Perhaps nowhere is the charter change process more prevalent than in goods-dominant firms that have shifted their position on the tangible goods-service continuum (Figure 1) (Oliva and Kallenberg 2003). At one end of the continuum is a position at which tangible goods dominate the firm's market offers, and services are "add-ons"; at the other end is a position at which services dominate and tangible goods become "add-ons." A significant shift along the continuum has occurred at firms such as IBM, which has become the world's largest information technology services company, and at General Electric, which now relies on services for much of its corporate profits. In addition, Pitney Bowes, a firm that has manufactured precision mailroom equipment for three quarters of a century, now generates about 40% of corporate revenue from services.

Extant literature is almost unanimous in suggesting that managers in goods-dominant firms should either create new business units or adjust the market charters of existing business units to provide services (Oliva and Kallenberg 2003). The literature does not, however, explore what factors to consider and how they should be designed to enhance performance. The purpose of this study was to isolate and characterize factors that enable successful business-to-business (B2B) service development in goods-dominant firms.

Our discussion is divided into four parts. First, we provide a synthesis of contingency theory and the resource advantage theory of competition—two conceptual perspectives that are particularly relevant to our study—and highlight their implications for service development in goods-dominant firms. Then, we explain our research methodology, which is followed by a discussion of results. We conclude by discussing managerial implications and limitations of the study.

CONCEPTUAL FOUNDATION

Contingency Theory

Based on conclusions drawn from large-scale empirical studies (e.g., Burns and Stalker 1961; Lawrence and Lorsch 1967; Mintzberg 1979), contingency theory maintains that organizational performance depends on the proper alignment among three sets of variables: environment, strategy, and factors of organization design. In essence, strategy must align with factors of organization design, and both sets of internal factors must be designed to "fit" conditions in the external environment. Although a major emphasis has been to identify organizational designs that promote effectiveness in different types of environments, the organization-environment fit has also been used to explore the appropriate design, effectiveness, and influence of parts of organizations—divisions, business units, functional departments, and work teams (e.g., see Homburg, Workman, and Krohmer 1999; Ruekert, Walker, and Roering 1985).

Resource-Advantage Theory of Competition

Competition consists of a dynamic process in which firms constantly struggle to develop a comparative advantage in resources that can yield superior relative customer value and, thereby, establish a marketplace position of competitive advantage (Day and Wensley 1988; Hunt and Morgan 1995, 1996). A comparative advantage exists when a firm possesses scarce resources that are difficult to imitate and accumulate and for which there are no equivalent strategic substitutes (Barney 1991; Peteraf 1993). However, simply having an advantage in resources does not create a competitive advantage. Instead, resources must be combined with other resources to form the core capabilities that create superior relative value and enable the firm to establish positions of competitive advantage (Prahalad and Hamel 1990).

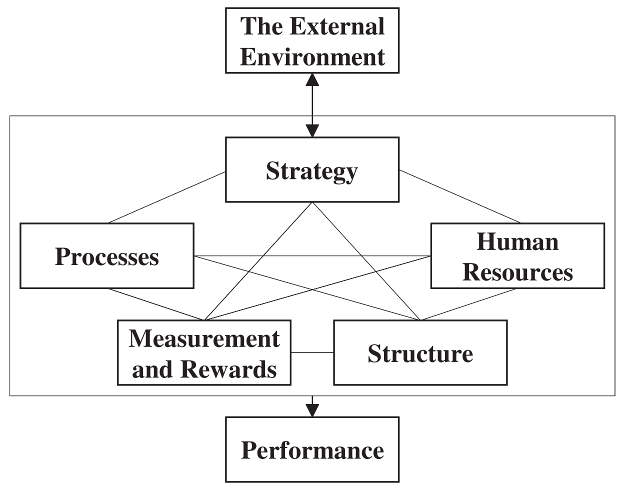
Although existing capabilities can enable a firm to form new strategies, the same capabilities can create rigidities and inhibit the formation of others (Leonard-Barton 1992). If a new strategy encounters environmental conditions that differ from those in which a firm's resources and capabilities were developed, the resources and capabilities must be realigned, and future business performance depends on effectively managing that evolution (Leonard-Barton 1992).

Implications for B2B Service Development in Goods-Dominant Firms

We view B2B service development in goods-dominant firms as a strategic process by which managers create new business units, or adjust the responsibilities of existing business units, to provide business-to-business services. Contingency theory suggests that goods-dominant firms that successfully develop B2B services will align strategy with conditions of the service business unit's external environment and adapt several factors of organization to align with the newly formed strategy (Galbraith 1973; Mintzberg 1979). In addition, the resource-advantage theory of competition suggests that successful service development depends on the degree to which existing organizational resources provide sources of competitive advantage in the new product market domain (Day and Wensley 1988; Hunt and Morgan 1995, 1996). Although existing resources can enable a firm to develop high-performing B2B services, core rigidities (Leonard-Barton 1992) may appear if the formation of services extends resources beyond the environment in which they were developed. Therefore, success should depend on the degree to which managers can access existing resources and capabilities that can effectively cope with special conditions of the service business unit's external environment.

Against this backdrop, we first investigated the nature of the external environment. Then, our attention focused on understanding the proper fit among conditions of the external environment, strategy, and factors of organization design. As shown in Figure 2, the organizational factors fall under the headings of human resources, structure, measurement and rewards, and processes.

FIGURE 2
Aligning Strategy and Factors of Organization With the External Environment



METHOD

Exploratory research was conducted in preparation for the main study. Sixteen depth interviews were conducted with managers and executives representing three different goods-dominant firms. Each individual had been directly involved in forming business units to provide B2B services. Interviews lasted from 45 to 90 minutes and were loosely structured around three primary topics: (a) the new service business unit's level of performance, (b) factors that enabled the unit's level of performance, and (c) factors that inhibited the unit's performance. In addition, two interviews were conducted with the president of a consulting firm that specializes in new service development in goods-dominant firms. All interviews were tape-recorded, transcribed, and content analyzed through a process of open coding (Strauss and Corbin 1998). The qualitative findings were then integrated with contributions from several streams of research and theoretical insights to provide a preliminary understanding of the research topic. In addition, the exploratory research findings provided focus for the main study and guided the development of our case study protocol.

For the main study, we employed a multicase research design (Eisenhardt 1989; Miles and Huberman 1994; Perry 1998; Yin 1994). The study was well suited for case research because service development in goods-dominant firms is a contemporary phenomenon for which scant academic research has been published (Parkhe 1993). In addition, our objective was to isolate and characterize factors that enable successful service development and factors that could not be manipulated to observe their influence on performance (Yin 1994).

Four *Fortune* 500 goods-dominant, information technology (IT) firms provided the context for the study. Only information technology firms were selected to control for interindustry variability (Wilson and Vlosky 1997) and because of the high level of B2B service development within that industry.

Multiple case studies were completed to provide the "replication" logic analogous to conducting multiple experiments (Yin 1994). Three cases of successful service development were selected by first securing the participation of three goods-dominant IT firms known to have high-performing B2B service programs. A senior-level manager from each firm then assisted in identifying a specific highly successful B2B service. These three service programs will be referred to as Alpha, Beta, and Gamma, and the firms at which the programs were developed will be referred to as A Corp., B Corp., and C Inc., respectively.

Alpha consists of 14 service elements designed to help business customers maximize and sustain the value of an information technology system. Alpha was launched as a significant revision of a program originally launched in the late 1980s. The program was described as a "wonderful business" that is consistently viewed as one of the premier support programs offered by A Corp. The program is the most profitable unit of business in its division and maintains a 97% customer renewal rate.

Beta is a service program designed to support business customers' mission-critical information technology systems. The program consists of 35 elements designed to avoid problems before they occur and fix them fast when they do. Beta is considered one of the "crown jewels" of B Corp. The program is highly profitable and maintains a 99% customer retention rate.

Gamma provides business customers with information technology resources in a utility-type manner. Twenty months after its introduction, Gamma was described by a director as "hugely successful." The total value of all Gamma contracts reached 190% of management's initial objective.

After completing the three extensive case studies of successful service development, the fourth case was selected by enrolling a firm—referred to as D Corp.—known to have failed in an attempt to develop a new division and charter it with responsibility for providing B2B services. The new division—referred to as Delta—was terminated 1 year after its inception. In essence, Delta became a direct competitor of other divisions within the firm, and the intrafirm competition created a great deal of internal turmoil that negatively affected the firm's image in the market.

Each case study began by identifying a key contact person who was very familiar with the development of the focal service program, or division in the case of Delta. The key contact person served as an informant and assisted in identifying other company personnel to participate in the study. Case study questions from our interview guide were then assigned to those who were most familiar with the topic. The contact person also identified and secured relevant company documentation that provided a second source of evidence.

Our interview guide consisted of two types of questions. Unstructured questions allowed interviewees to tell the story of their experiences, and structured questions (or probes) ensured that our initial perceptions were addressed if they did not arise during the unstructured part of the interview (Perry 1998). As such, the set of questions was designed to collect data on factors that were isolated during the exploratory research stage and to provide flexibility to capture new insights. Questions were e-mailed to each interviewee prior to a scheduled interview to inform the individual of topics to be covered. Interviews typically lasted 60 minutes and ranged from 45 minutes to 3.5 hours. Shortly after each interview, we recorded key insights, impressions, and topics to cover in future interviews.

In total, 75 interviews were conducted with 25 managers and senior executives (several managers were interviewed several times). All interviews were tape-recorded and transcribed, resulting in approximately 1,300 pages of interview data. When appropriate, relevant company documentation was also transcribed. All data were coded in QSR NUD*IST® following procedures outlined by Strauss and Corbin (1998).

Individual case reports were reviewed by case participants to strengthen construct validity (Eisenhardt 1989; Yin 1994). We first wrote a draft summary of a section of the report and then inserted follow-up questions to clarify and extend content. The summary was then sent to an interviewee, and he or she reviewed its content. The interviewee's perceptions of the content were discussed during a follow-up interview, and changes were made when needed. In effect, several different interviewees participated in validating sections of the case report throughout data collection and analysis. Each complete case report was also reviewed by at least one informant from the firm to validate key findings and evidence. Inaccuracies were discussed with informants, and changes were made accordingly.

After all individual case reports were written, a cross-case analysis was conducted to synthesize findings from all cases. Analysis was conducted primarily through a pattern-matching logic (Yin 1994). The results of this analysis are presented in the following section and organized under the headings that appear in Figure 2.

RESULTS: FACTORS THAT ENABLE THE FORMATION OF SUCCESSFUL B2B SERVICES

Our results support the general proposition that successful B2B service development in goods-dominant firms involves establishing the proper alignment among three sets of variables: environment, strategy, and factors of organization (see Figure 2). In essence, managers at the firms participating in this study formed a strategy to fit conditions in the external environment and adapted several factors of organization—human resources, structure, measurement and rewards, and processes—to support that strategy.

The importance of aligning of all three sets of factors is highlighted by comparing the three successful cases—Alpha, Beta, and Gamma—to Delta, a case that was considered a "failure." Delta does not appear to differ from Alpha, Beta, and Gamma on variables of environment, strategy, human resources, or processes. Significant differences were exposed, however, on attributes of structure and measurement and rewards. These differences appear to explain why Delta failed and was terminated 1 year after its inception.

A key underlying theme that emerged across the four case studies is that B2B service development involved aligning strategy with a highly complex market (see "The External Environment" section). Insights regarding market complexity are central to our findings because performance appears to be contingent on the degree to which managers design strategy and several factors of organization to fit such market conditions.

The External Environment

The environment of a business organization, like that of any other organic entity, is the pattern of all external factors that influence its life and development (Andrews 1996). A focus of this study was to characterize the external environment in terms of three underlying dimensions: simple-complex, stable-dynamic, and tame-hostile (Dess and Beard 1984).

The simple-complex dimension refers to the heterogeneity and range of factors that affect an organization's activities. A key conclusion drawn from each case study is that managers were faced with a *market* that had become highly complex, and the complexity consists of two components. First, the market was composed of businesses whose information technology had evolved into a complex system—a diverse collection of highly integrated resources. Interviewees characterized these systems as "chaotic," "disparate," "highly complex," "like spaghetti," a "hodge-podge of technology," and an "amalgamation of purchases over several years." Second, the market consisted of business customers who differed significantly on several attributes. They had developed unique information technology systems; they were in separate, possibly unrelated, industries; they were of varying sizes and dispersed across geographic regions; and they differed significantly in how they wanted to satisfy their underlying needs.

The stable-dynamic dimension pertains to the degree and nature of change in factors that are relevant to an organization's activities. We found that although interviewees consistently characterized the technological environment as highly dynamic, the key issue was not technological change per se. Instead, the challenge for managers in this study stems from business customers who respond differently to change; they adopt new technology at different rates and deploy new technology in different ways. These differences in how customers respond to change further increase the diversity among target customers. In other words, the highly dynamic technological environment contributes to market complexity.

The tame-hostile dimension pertains to the availability of resources that allow an organization to survive and grow. A general conclusion reached in this study is that higher levels of market complexity lead to higher levels of hostility—an environment in which there is a shortage of needed human resources. That is, complex business systems place high demands on a firm's human resources because people have to develop, support, and manage the diverse collection of highly integrated resources. As firms increasingly develop and rely on these complex systems, they find it difficult to accumulate and retain the pool of human resources needed to effectively cope with their systems.

Market conditions were highly relevant to each firm's activities because growing complexity exposed a significant gap between the needs of the market and offerings available to the market. The basic issue was that the firms in this study offered B2B service programs designed for relatively simple markets, but the same programs were misaligned with the needs of a highly complex market. For example, A Corp. introduced a "one size fits all" service program in the late 1980s. In early 1999, the program was threatened by a potential mass customer defection that, as a marketing manager explained, "made it pretty apparent that we needed to do something." The need to do something was exposed by unsolicited feedback from existing customers that the service program did not allow sufficient flexibility to accommodate their individual needs. Until

1995, B Corp. offered a service program to support relatively simple IT systems, but many of their business customers had evolved highly complex, mission-critical systems (systems essential to achieving a business mission). Changing market conditions brought about new market needs, but B Corp. had not adapted its strategy to align with those needs.

Our findings indicate that given a complex market, successful B2B service development depends on managers' ability to form a strategy that fits such conditions. Key factors of strategy that emerged from our fieldwork involve the firm's orientation toward its market(s), value proposition, and existing organizational resources.

The Strategy-Environment Fit

Adopting a market and a customer-centered orientation. Both a market orientation and a customer-centered orientation appear to support the alignment of strategy with a complex market. A market orientation provides a philosophy that directs an organization's activities toward understanding the complex needs of the market and designing a strategy to satisfy those needs (Kohli and Jaworski 1990). A market orientation was reflected in each case by the high degree of information processing that occurred during strategy formulation (Kohli and Jaworski 1990) (see "Processes of Strategy Formation" subsection). Furthermore, several interviewees emphasized their focus on aligning strategy with market needs. For example, a senior program manager for Gamma explained that "each of the offerings [in Gamma] was designed in response to specific customer feedback that we had received; what [customers] were saying they wanted through executive briefings with [the senior VP of sales and services], the Advisory Council, or industry data."

A market orientation entails forming a strategy that aligns with the needs and wants of a target market (Kotler 2003). However, a complex market consists of business customers who differ significantly in several ways and whose individual needs and wants differ as well. Therefore, a customer-centered orientation (Pine, Peppers, and Rogers 1995) is needed to direct organizational activities toward close collaboration with individual customers to understand *each one's* business needs and then tailor service programs to satisfy those needs. A senior program manager for Gamma highlighted their customer-centered orientation by explaining the following:

> With [Gamma], I'm not going in to sell something I'm going in to solve a business problem. That's the whole message behind this. We go in and we ask business-related questions and then we'll come around on the tail end of it saying, "Here's what I think we can do under this umbrella type of an offering."

Forming a value proposition that fits both components of a complex market. Managers in this study shifted their firm's position along the goods-services continuum by forming a value proposition based on three key features. First, our fieldwork indicates that simplification is at the core of a value proposition that aligns with a complex market. Firms in this study simplify a customer's experience by providing a complex service, one that integrates a diverse collection of resources needed to develop, support, or manage a complex business system. For example, a marketing manager from Beta explained that "our job is really to simplify," and the firm does so by providing an "end-to-end" service program that consists of 35 distinct elements—20 service elements designed to avoid problems before they occur, 7 elements designed to fix problems fast when they do occur, and 8 optional service elements.

Second, the value proposition emphasizes customer-unique value, which is created when a service program is tailored to satisfy the unique needs and wants of an individual customer. Service programs in this study include optional predefined service elements that customers can add to a base package. Optional service elements are designed to accommodate expected differences among customers in a complex market. In addition, service programs are tailored by modifying individual service elements to fit the needs and wants of an individual customer and by increasing beyond a base level the amount of a specific element purchased. Modifying service elements and adjusting the amount purchased enable the firm to accommodate unexpected differences that arise between business customers in a complex market.

Third, customer value is created by enabling customers to concentrate on developing the resources and capabilities needed to effectively compete in a chosen line of business (Quinn 1992). Several individuals across the cases emphasized the degree to which their service programs enabled customers to concentrate. As the senior program manager for Gamma explained,

> [With Gamma] [w]e're allowing them direct access to our expertise and our infrastructure, whether it is our capabilities off site, or our expertise on site. So that was a compelling [part of the] value proposition. And what they've been able to do is shift their resources internally; refocus on their core business needs with the people who used to maintain their IT infrastructure.

Accessing existing organizational resources that fit the demands of a complex market. A key success factor for the firms in this study was the ability of managers to access existing organizational resources that could yield superior relative customer value and, thereby, establish a marketplace position of competitive advantage. One theme that emerged across the four case studies was managers' ability to integrate a full complement of resources needed to develop, support, or manage a complex business system. Having access to a full complement of internal resources appears to enhance managers' ability to coordinate the entire service, understand and control the cost of providing the service, and provide a price that is more attractive to customers. Managers also emphasized their firms' ability to provide the service program consistently across their globally dispersed target market. Each firm in our study has a service infrastructure that spans well over 100 countries. The global infrastructure plays an instrumental role in understanding "local" needs and wants and then tailoring and delivering a service program to accommodate those needs and wants.

Our findings also indicate that an ability to use technology to deliver service is a key resource underlying a firm's ability to compete in a complex market. Technology appears to enable a firm to deal with the diverse collection of issues that arise from a single customer's complex system and accommodate the differences that exist among customers. For example, B Corp. developed a remote customer support tool that resides at the customer's site to continuously observe a customer's IT infrastructure. Engineers retrieve and analyze data at a central location and then use the results to provide proactive and reactive customer support. The tool monitors a diverse range of hardware and software across the globally dispersed collection of business customers.

Furthermore, a company's ability to use technology to support service providers also appears to play a key role in coping with a complex market. During fieldwork, we found technology being used to provide frontline service employees access to a diverse collection of resources. The diverse collection of resources was needed to cope with the broad range of factors that frontline employees encounter when providing support.

Finally, our findings indicate that frontline service employees are the key organizational resource underlying a goods-dominant firm's ability to develop high-performing B2B services. A key success factor then appears to be managers' ability to access a pool of existing human resources that can perform the roles needed to cope with a highly complex market.

Human Resources

Interviewees from each firm highlighted their human resource advantage and characterized their service employees as "the best in the business," "ahead of our competitors," and "second to no one." At the same time, one interviewee explained that other "companies had an increasingly difficult time hiring or requiring their own human resources to be effective in this ever-increasingly more complex environment." During fieldwork, we focused on understanding how goods-dominant firms develop human resource strategies to "be effective in this ever-increasingly more complex environment." As summarized below, we found that managers first adapted the roles performed by frontline employees and then invested heavily in strategies to develop and retain employees who possessed the characteristics needed to perform those roles.

Adapting frontline roles to cope with the complex market. Key findings that emerged during fieldwork include four key roles performed by frontline employees.

- *Serve as a trusted adviser.* A trusted adviser develops an in-depth understanding of an individual customer's business; he or she collaborates with and provides unbiased recommendations to a customer on how to achieve desired outcomes from a complex system. A trusted adviser participates in both the formulation and the implementation of a solution to a customer's problem, not just the implementation of the customer's solution to his or her problem.
- *Develop a learning relationship with individual customers*. Pine, Peppers, and Rogers (1995) define a learning relationship as an ongoing connection that becomes smarter as a vendor's personnel and one of its customers interact with each other and collaborate to meet the customers' business needs over time. A vendor's personnel become smarter as they learn about the customers' complex business problems and gain an intimate understanding of their business needs. At the same time, customers become smarter as they learn about a goods-dominant firm's real capabilities, current process methodologies, and whether they have been successful in the past. Customers also learn about a goods-dominant firm's future plans and strategies, whether they can support the customers' future business needs, and whether the firm's representatives can be trusted to provide unbiased advice on how to solve the customers' current and future business problems.
- *Lead a collaborative support performance*. Service providers must collaborate with other employees to effectively address the broad range of issues that arise when supporting a complex business system. A key point made by a manager from Alpha is that "everyone can't be an expert on everything, but if you get along with your peers and can network and have those people bail you out when you need them, you will be successful." Because no one is an expert on everything, "there is a lot of interaction between

the various engineers. They will have to team with each other to resolve problems because of the complexity of the systems."

- *Deliver a complex service*. Frontline employees must also be able and willing to assume responsibility for the broad range of issues that will arise when delivering service in a complex market.

Hiring for behavioral competencies, technical expertise, and attitude. Firms in this study recruit individuals for frontline roles who possess a strong foundation of behavioral competencies and technical expertise as well as the appropriate customer-focused attitude. Strong behavioral competencies are required to perform several of the frontline roles previously explained. In particular, service providers must be highly collaborative in nature because their roles include a high degree of collaboration. Individuals must also possess refined listening and communication skills to develop learning relationships with customers. Furthermore, individuals must be highly motivated and able to learn quickly. The ability and motivation to learn continuously are especially important because service employees require an extensive amount of training to develop the needed behavioral competencies and technical expertise.

Organizations also recruit individuals who possess a solid foundation of technical expertise. Even though the organizations in this study invest very heavily in training and developing their frontline employees, it is not feasible to commit all of the time and financial resources needed to develop the full range of expertise. Prospective employees must therefore possess a foundation of expertise on which to build. Such a broad base of expertise is needed to deal with the broad range of issues that arise when delivering service in a highly complex market.

Possessing the right mix of behavioral competencies and technical expertise is not sufficient to ensure that frontline employees can effectively provide support in a highly complex market. A high degree of complexity means that a diverse collection of unexpected issues will arise while providing customer support, and service providers must be willing to face those issues when they do arise. Therefore, the right individuals also possess a "whatever-it-takes" attitude with an earnest willingness to address unexpected issues when they do arise.

Developing technical expertise. Each of the organizations participating in this study invests very heavily in developing frontline employees' technical expertise, and training and development are provided by three primary means. First, extensive initial, formal classroom training ensures that individuals have the base of technical expertise needed for their initial encounters with the broad range of issues that arise when providing customer support. Second, extensive ongoing, formal classroom training increases the breadth of expertise. Third, service employees learn from each other through formal and informal collaborative training and development. Collaborative training and development can include the following:

- on-the-job training that occurs when frontline employees observe others during customer support;
- formal and informal mentoring, during which individuals are "coached" by managers and their peers;
- collaborative customer support in which individuals learn from their peers during the normal routine of jointly supporting a customer; and
- internal seminars that involve service employees developing and delivering formal classroom training for other employees.

Retaining the competencies needed to cope with market complexity. Employee retention is directly linked to the ability to effectively carry out several frontline roles and, in turn, is a key factor enabling firms in this study to form high-performing B2B services. Long-term employees are more likely to earn the role of a trusted adviser and develop two-way learning relationships with customers. In addition, long-term employees accumulate the broad base of technical expertise needed to compete in the highly complex market. Having such a broad base of technical expertise, long-term employees are then able to assume responsibility for the broad range of issues that will arise when providing support. Finally, long-term employees get to know others in a network from which new employees can be recruited. The personal ties that develop within the network enhance the organization's ability to select the "right" employees for a new position.

Structure

The structural form of the firms participating in this study evolved like most multibusiness corporations (Collis and Montgomery 1998). Each firm consisted of multiple divisions that were assigned discrete responsibilities for providing one or more products (e.g., tangible goods or services) and were granted a high degree of autonomy for operating decisions in their product market domains. The autonomous discrete structural form did not, however, support the formation of a strategy intended to satisfy the needs of a highly complex market. This structure-strategy misalignment surfaced when managers designed a product that integrates a diverse collection of organizational resources, and various autonomous divisions possessed the resources needed to develop and deliver the product. A general manager of Beta emphasized B Corp.'s structure-strategy misalignment by stating the following:

> You talk about things that make it really hard to do the right thing for a customer. It was a very bad organizational situation to be in, in terms of how the business was organized, for what we were trying to do.

Our findings indicate that forming an appropriate organizational structure—within the existing corporate structure—that aligns with strategy contributes greatly to successful B2B service development. Key structural factors that emerged during our field work deal with the integration of business unit responsibilities, intra- and interfirm collaboration, and decentralized decision-making authority.

Integrating business unit responsibilities. In our three cases of successful B2B service development, managers integrated the responsibilities of multiple value chain activities across multiple business units to provide a complex product. The key points are that the complex product is a single market offer designed to achieve customers' desired business outcomes, but achieving those outcomes required the integrated efforts of multiple business units in the firm.

The study focused, for example, on the formation of Beta, which consists of 35 distinct service features designed to prevent problems before they occur and fix them fast when they do. Beta was designed with an intense focus on providing a target segment of business customers with the experience they desire from their mission-critical IT systems. However, B Corp.'s tangible goods had to be redesigned, and software had to be developed to avoid problems before they occur and help service personnel fix them fast when they do. In effect, several value chain activities across multiple divisions were jointly responsible for providing the desired customer experience.

Managers at D Corp., on the other hand, did not integrate the responsibilities of multiple business units. Instead, a senior vice president created a new services division that was chartered with discrete responsibilities for business-to-business services. The new division was described by a senior manager as one that could "definitely" satisfy the needs and wants of its target market independently from other business units in the firm.

Intrafirm collaboration. Each successful case of B2B service development was an intrafirm collaborative effort aimed at aligning strategy and factors of organization with changing market conditions. Intrafirm collaboration involved linkages that developed laterally among individuals across functional groups, business units, and geographic locations. The key element of intrafirm lateral collaboration is what Hakansson and Snehota (1995) refer to as resource flows, or the degree to which resources of various business units are accessed, acquired, or shared to support the service development process. Resources can be accessed as needed, acquired and subsequently controlled by the acquiring group, or shared on an ongoing basis with other business units in the firm.

The human resource needs of Beta, Gamma, and Delta were initially met through internal resource flows (Alpha involved the revision of an existing program that was provided by functional groups that were already staffed). Interestingly, we found that the human resource needs of Beta and Gamma—two successful cases—were largely met by changing the responsibilities of personnel but not their positions in the organizational structure. For example, during the formation of Gamma, 4 high-level managers from four different divisions were chartered with the responsibility for aligning strategy with eight top-level customer needs and wants. In addition, 31 individuals from across the services, sales and marketing, and finance divisions were chartered with the responsibility for tactics, and 14 individuals from field offices across each key geographic region were assigned to coordinate business opportunities. Although the responsibilities of all 49 individuals thus changed, they continued to be controlled or governed within the original hierarchical structure. Gamma was viewed as a business unit in the firm, but it did not have a discrete organizational structure comprising its "own" human resources. Two years after Gamma's introduction, the unit was still staffed with a network of individuals from multiple divisions in the firm.

Another key factor in the three successful cases was the extent to which human resources were shared by, or accessed from, various business units in the firm. Sharing or accessing human resources provided a network of personnel that could be leveraged as managers interacted with and learned about their highly complex market. A senior program manager for Gamma explained that "very, very large virtual teams" were formed to support the formulation and implementing of marketing programs. Well over 100 individuals were shared by, or accessed from, several different value chain activities across multiple business units within the firm.

Delta, on the other hand, was structurally designed as an autonomous division with discrete responsibilities. Personnel from within the firm were "hired" by managers of Delta and then controlled within the newly formed division. After Delta's staffing needs were met, very few human resources were shared by, or accessed from, other divisions in the firm. In general, the newly formed services division was structured as a discrete business unit to satisfy the service needs and wants of its target market independently of other business units in the firm.

A senior manager explained that Delta was formed under the mind-set that "you've got to really create separation and distinctiveness," whereas just the opposite occurred during the formation of Beta when high-level managers created a partnership between the firm's hardware and services business organizations. A manager from Beta explained that "one of the first things we did was move away from a silo mentality, with organizations that are autonomous and separate in terms of their accountability." Similar to Beta, the formation of Gamma was described as a cross-company initiative, and as a program manager explained, "This whole program was different because it was the first time all those groups came together to deliver something."

Interfirm collaboration. Interfirm collaboration includes linkages between individuals from the goods-dominant firm and a diverse collection of existing customers. For each firm participating in this study, extensive collaboration with a diverse collection of customers aided in developing a shared understanding of market conditions and the complex needs and wants of business customers. Close collaboration with customers also clarified the degree to which a newly formulated strategy aligned with underlying market needs and wants.

Several interviewees emphasized the considerable extent of collaboration with customers as a key factor contributing to successful service development. As an example, a marketing manager from Alpha stated, "I think the thing that I'm most proud of about this particular program is the fact that our customers helped us design it. That really makes a difference." The director of global services marketing at A Corp. went on to explain that "there have probably been 200 different individuals from 50 different customers that have been involved in this one way or another."

Decentralization. Decentralization deals with the diffusion of decision-making authority (Mintzberg 1996). Decision making is centralized when authority over decisions is concentrated at a single individual in the organization and is decentralized to the extent to which authority is diffused among many individuals. During the formation of Alpha, Beta, and Gamma, decision-making authority was vertically decentralized in that senior-level managers granted a high degree of decision-making authority to managers at lower levels of the firm. Decentralization is appropriate because a broader range of factors must be considered when aligning strategy with a complex market (Mintzberg 1996). Lower level managers are "closer to" and better able to comprehend the diversity of relevant factors and then facilitate the exchange of information needed when decisions are based on a diverse set of factors.

During the formation of Delta, however, decision-making authority was vertically centralized. Basically, the second most senior executive in the firm, in agreement with the CEO, made the decision to form the new services division. Other corporate executives and divisional managers within the firm did not share in the decision to develop the services division, nor did they participate in decision making throughout the formulation and implementation of strategy. Instead, decision-making authority was concentrated with the senior vice president, who was also chartered with the responsibility for forming the division. With decision-making authority concentrated at the second ranking individual in the firm, the new division was viewed as a threat to other managers in the firm. The senior manager explained that others were threatened by the potential "that we could get real big, real fast and all of sudden the focus and the resources of the company would shift to us."

Measurement and Rewards

The management financial incentive system establishes and applies the criteria on which business unit managers' financial bonuses are based (Collis and Montgomery 1998; Gupta and Govindarajan 1986; Hill, Hitt, and Hoskisson 1992). The appropriateness of incentive criteria depends on the desired level of collaboration among business units. When responsibilities are highly discrete and there is little need for cross-business unit collaboration, managers' financial bonuses should emphasize individual business unit outcomes (Hill, Hitt, and Hoskisson 1992). A financial bonus system based on individual business unit performance does not, however, align with the strategy and structural elements explained in previous sections. This misalignment stems mainly from a strategy designed to provide a complex service product that integrates the responsibilities of multiple business units within the firm. The integration of responsibilities increases the need for intrafirm collaboration, which then prompts the need to adapt the financial incentive system.

Adapting the management financial incentive system. We found that the financial bonus systems for managers at A Corp., B Corp., and C Inc. had been adapted to include the performance of the firm or an interdependent group of business units. Thus, the incentive systems at these three cases of successful service development encouraged the intrafirm collaboration described in the previous section. As an example, under the financial bonus system at B Corp., 45% of a manager's "at-risk" compensation is based on the financial performance of the business unit to which the individual is assigned, 45% is based on the financial performance of the firm, and the remaining 10% is based on customers' assessments of their total experience with the firm.

Financial bonuses of managers at D Corp., however, were based on criteria that reflected an individual business unit's performance, only. D Corp.'s incentive system encouraged intrafirm competition (Hill, Hitt, and Hoskisson 1992), which was highlighted by a senior vice president as a key factor leading to Delta's failure. As he explained, "[D Corp.] was looking unfavorable in the marketplace because we had two businesses that were competing but not competing nicely. The product guys fought very hard to keep the business, even though it was not in the company's best interest."

Processes of Strategy Formation

Processing information while formulating strategy. A key implication of aligning strategy with a complex market is that organizational members will experience higher levels of uncertainty than when faced with a simple market. Uncertainty increases because a broader range of factors must be considered in decision making (Lawrence and Lorsch 1967). Prior research suggests that effectively addressing the uncertainty of a complex market requires higher levels of information processing (Duncan 1972; Galbraith 1973; Pennings 1975). Consistent with these prior studies, we found that managers relied heavily on four interrelated information processes while formulating strategy (Kohli and Jaworski 1990; Moorman 1995; Sinkula 1994; Slater and Narver 1995a, 1995b): (a) acquiring external and internal information, (b) inter- and intrafirm sharing of information, (c) conceptual utilization of information, and (d) instrumental utilization of information.

Acquiring information involved the collection of primary and secondary data from multiple internal and external sources. For example, the formulation of Alpha included the collection of information during a focus group of existing customers. A marketing manager explained that their customers "told us, 'You've got problems.' So we said, 'Okay, tell us what they are.' And we didn't give them any guidance whatsoever and we ended up with 40 pages of stuff." Other information was gathered through existing industry reports, existing company research, and a self-completed survey sent to 1,800 individuals who are or were employed by the firm's existing customers.

Sharing information in each case studied consisted of extensive inter- and intrafirm transmission of information. Sharing of information occurred internally among relevant individuals from multiple value chain activities across the relevant business units. Sharing information internally is essential when forming a complex product that is the joint responsibility of a collection of individuals from various business units across the firm. A great deal of information was also openly shared with existing customers and industry analysts. For example, a marketing manager from Alpha conducted multiple Web-based interactive meetings with groups of customers in North America, Europe, and Southeast Asia. Each customer group was composed of a mix of approximately 60 current customers from a given geographic region. In addition, multiple meetings were conducted with the division's largest customers to "verify that the 20% of our customers that give us 80% of our business agree with the general population of [customers]."

Conceptual utilization involves a process of making sense of the multiple sources of internal and external information. A key factor linked to success in each case was the development of a conceptual understanding that was shared by all relevant individuals, including a diverse collection of employees from within a firm, customers, and industry analysts. A director from B Corp. explained that collecting, making sense of, and sharing information "got everybody in multiple organizations to really come together to understand what the problem and the issue was. That was really powerful. . . . Its greatest value was probably its use as a rallying tool, as a means for getting a common understanding of the problem."

Instrumental utilization consists of the direct utilization of knowledge learned from information. Although information clarifies the gap between market needs and offers available to the market, directly using the knowledge gained to formulate a strategy and close the gap was a key factor in each case study. In addition, information shared with, and gathered from, industry analysts and customers played a key role in confirming that the newly formulated strategy aligned with market needs. As a manager from Gamma highlighted,

> We chose this time to do it right. Get the information, do the analysis, and not skimp on what we need to get done. We wanted to make sure that what we developed was something that would wow the industry. And that's what we were trying to do with this program.

Staging an improvisational performance while implementing strategy. Even with the high degree of information processing that occurred during strategy formulation, managers did not fully formulate a strategy and then directly execute it in a "lock-step" manner. Instead, our findings indicate that strategy implementation was an improvisational performance defined by four key characteristics.

First, improvisation always materializes around an object on which to improvise (Berlinger 1994). In the context of jazz, the object is called a tune, which is a loosely structured arrangement consisting of a melody or theme (referred to by musicians as the head) and a harmonic progression (referred to as chord changes) (Berlinger 1994).

The structure contained in the melody is implicitly maintained throughout the playing of a tune (Hatch 1997). As such, the melody provides a focal point and the basis for a semistructured, rule-bound activity.

In the context of this study, the object of improvisation is a semideveloped set of marketing programs that stem from the processing of information. Initiating strategy implementation with semideveloped marketing programs appears to be appropriate given the uncertainty of a complex market. As one interviewee explained, "There are always going to be unanticipated things" that arise after the organization starts delivering a new program so "you don't dare to fully spec [the program] out and offer it right away." Instead, "You're delivering it and you're learning something and you reconstruct it." Furthermore, a manager responsible for launching Beta stated that "you don't need to have the whole product ready to test it with a customer. . . . We could test certain features, a set of features, or we could test the whole service." Rather than waiting until the whole program is ready, an improvisational performance provides an opportunity to deliver the semideveloped program and develop it further during the performance.

Second, improvisation is always a process of introducing changes to the original model while maintaining continuity in the performance (Preston 1987). In jazz, improvisation occurs when performers rework "pre-composed material and designs in relation to unanticipated ideas conceived, shaped, and transformed under the special conditions of performance" (Berlinger 1994, p. 241). Improvisation occurred during strategy implementation when managers "reworked" their marketing programs in response to unanticipated events and conditions that arose in the highly complex market. Improvisation also occurred when individuals adapted and further developed factors of organization to enhance the firm's ability to execute the newly formulated program.

Third, improvisation is a cognitive process in which performers compose changes or make decisions in an intuitive way (Preston 1987). A jazz musician's ability to compose changes intuitively depends on having absorbed a broad base of musical knowledge (Berlinger 1994). The base of knowledge provides the pool of alternative actions from which to draw while performing. The larger the pool, the more likely a musician can intuitively select and incorporate an appropriate action in real time (Crossan and Sorrenti 1997).

Decision making during implementation of the service programs in this study depended on the pool of knowledge gained from the experience of delivering a program to customers. Individuals relied heavily on knowledge that accumulated while they interacted with and learned about their complex market. A marketing manager from Beta explained that the "really intense use of what we were learning" was a key factor contributing to the success of the program. During strategy implementation, "[we were] learning what was important to customers and then repackaging, versus saying, here's the customer need, I'm going to build a product now, I'm going to stock shelves and sell this. It's the process of how do you learn the services business."

Finally, improvisation concerns the time interval between the composition and execution of a change and, at the limit, composition and execution converge in time (Moorman and Miner 1998). In other words, the improvisational performance involves changing or further developing the program and adapting factors of organization in real time while the program is being delivered to customers. Introducing changes in real time was highlighted by Beta's launch manager, who explained, "At that point [during the pretest], the feedback is given to us and we apply the changes." Furthermore, changes made during the pretest were "very real time."

MANAGERIAL IMPLICATIONS

Managers in goods-dominant firms are increasingly confronted with the following question: What position should the organization occupy on the tangible goods-services continuum shown in Figure 1? Complex business systems appear to provide an attractive opportunity for some goods-dominant firms to change their position on the continuum. The opportunity exists because complex business systems place high demands on a firm's human resources—people have to develop, support, and manage the diverse collection of highly integrated resources. As firms increasingly develop and rely on these complex systems, they find it difficult to recruit, develop, and retain the pool of human resources needed to effectively develop, support, or manage their systems.

Our findings indicate that whether managers in goods-dominant firms *should* pursue the market opportunity depends on their ability to adapt several factors of strategy and organization to fit conditions in the highly complex market. Therefore, we believe that the alignment of strategy and organizational factors with market conditions presents both the major challenge and the primary implication for managers.

One of the key strategic factors for success appears to be a goods-dominant firm's orientation toward its market(s). Interestingly, individuals who participated in our study explained that their firms were traditionally product, production, or sales oriented, but adopting both a market and a customer-centered orientation were key factors in forming high-performing B2B services. We believe that when combined, the orientations provide a philosophy that directs organizational activities toward aligning strategy with both components of a complex market. That is, a market orientation directs efforts toward understanding the complex needs and wants of the market and forming a value proposition and marketing programs to align with those needs and wants. A customer-centered orientation then focuses organizational efforts on close collaboration with individual customers and satisfying each one's unique business needs.

Our findings further suggest that whether managers should pursue the market opportunity depends on their ability to leverage existing organizational resources that provide a source of competitive advantage in the new position on the goods-services continuum. Most important for the managers in this study was their ability to access existing human resources that could develop learning relationships with customers, serve as trusted advisers to customers, deliver complex service, and lead and participate in a collaborative support performance. Effectively carrying out these roles appeared to enable each firm to align strategy with a highly complex market. We also found that to perform these roles, individuals need a broad base of technical expertise, appropriate behavioral competencies, and "whatever it takes" attitude. As such, human resource strategies need to be designed to accumulate and retain frontline employees who possess these needed characteristics.

Our findings also suggest that a competitive advantage results when managers can access from within the firm a full complement of resources and capabilities needed to provide a complex service consistently across the target market. Managers in our study touted their firm's ability to deliver an "end-to-end" service program, and none of the four firms acted as a service integrator in a network of service players. We also contend that, given market conditions, technology can and should play an instrumental role in establishing a competitive advantage. In all four of our case studies, interviewees emphasized their firm's ability to use technology to develop, support, or manage customers' complex business systems and provide frontline service employees with access to a diverse collection of resources needed to deliver customer support.

Although having the right resources may be a key factor enabling successful B2B service development in goods-dominant firms, structural factors can inhibit the flow of needed resources, which may present a major challenge. In our three successful cases—Alpha, Beta, and Gamma—we found a structural shift from autonomous business units to a high degree of intrafirm collaboration composed of transferring or sharing resources to support the service formation process. We also noticed a shift from highly discrete to integrated business unit responsibilities. That is, multiple business units became jointly responsible for providing customers with the experience they desire from a complex system. Clearly, the strategy was not just the responsibility of a discrete service business unit. One of the firms even "undid" the separation of their services organization and integrated three discrete business units—services, software, and hardware—into a single division. Interestingly, in one of the cases, managers did create an autonomous discrete services division and it failed. Our findings differ from those of Oliva and Kallenberg (2003, p. 171), who found that "firms that were fully exploiting the market opportunity for IB [installed base] services isolated their service operations and personnel from manufacturing and product placement operations." We contend that the difference is due to the position a goods-dominant firms assumes along the goods-services continuum. That is, managers need to integrate business unit responsibilities and foster intrafirm collaboration to pursue a position that involves aligning strategy with a highly complex market.

The need to adapt structural factors raises the need to adapt measurement and rewards—a key success factor and a major managerial challenge. Consistent with other studies (Gupta and Govindarajan 1986; Hill, Hitt, and Hoskisson 1992), our results indicate that managers' financial incentive systems should be designed to support the integration of responsibilities and the desired intrafirm collaboration. In our three cases of successful service development, managers' financial incentives were based in part on the performance of the firm or a group of interdependent business units. The financial incentive system in the unsuccessful case was based, however, on criteria that reflect the performance of individual business units. We believe that this firm's financial incentive system inhibited the intrafirm collaboration and integration of business unit responsibilities that enabled the other three firms to develop high-performing service programs.

In this study, B2B service formation was a top-down initiative in that senior-level managers made the decision to assume responsibility for the complex task of acquiring, developing, supporting, or managing customers' complex business systems. At the same time, our findings indicate that senior-level managers should allocate a high degree of decision-making authority for strategy formation—the value proposition and marketing strategies—to managers at lower levels of the firm. Vertically decentralized decision making is appropriate because managers at lower levels are closer to and better able to understand the complex service needs and wants of the firm's business customers and better able to understand how to align strategy with those needs and wants. We also assert that senior-level managers need to visibly and actively endorse those decisions and, when needed, facilitate the adaptation of strategy, structure, and measurement and rewards.

Finally, our findings suggest that managers responsible for strategy formation should integrate a high degree of information processing during strategy formulation with an improvisational performance during strategy implementation. The integrated approach to strategy formation appears to be appropriate when faced with the uncertainty of a highly complex market. The acquisition, transmission, conceptual utilization, and instrumental utilization of both internal and external information help to effectively deal with the broad range of factors that must be considered when formulating strategy. Then, an improvisational performance during strategy implementation appears to help managers respond to the many unanticipated events and conditions that arise while interacting with and learning about the market. However, managers need to foster interfirm collaboration to pursue this integrated approach to strategy formation. That is, the acquisition and transmission of information should span a diverse collection of existing customers. An improvisational performance during strategy implementation should also include close collaboration with individual customers. Improvisation is by definition a collaborative performance during which individuals introduce changes to the service program while communicating extensively in real time (Berlinger 1994; Peplowski 1998).

LIMITATIONS AND FUTURE RESEARCH OPPORTUNITIES

As with any research, our study is not without its limitations. All data for the main study were collected from individuals who were directly involved in the service development process and were from within the four participating firms. Involving individuals with extensive firsthand experience with the service development process was deemed essential to gathering in-depth qualitative data on which the findings of this study are based. Future research would benefit from insights from other sources, including customers of the focal business units and industry analysts.

In addition, a preliminary conceptual framework guided a semistructured data collection effort. Even though the framework was developed to bound data collection, new insights did emerge during fieldwork that offer opportunities to further extend the initial framework. Specifically, the sales strategy was highlighted as a key factor that enabled the successful formation of Beta and Gamma. Future research is encouraged to investigate the proper roles played by sales personnel when goods-dominant firms integrate a complex B2B service product into their core market offers. Research is also needed to isolate factors that contribute to the successful performance of those roles.

Finally, our study does not provide the statistical generalization to a larger population offered by a large-sample quantitative study. However, case study research relies on analytic generalization in that results are generalized to a broader theory rather than a larger population (Yin 1994). Even though concerns about generalization reflect a common misconception about case study research rather than a limitation (Parkhe 1993), we do encourage additional research to investigate if market complexity is a characteristic that consistently distinguishes B2B services from other market offers and if there are other environmental conditions for B2B services that require different strategy-organization configurations. We also believe that investigating the generalization of several factors in the strategy-organization-environment fit provides promising research avenues.

REFERENCES

Andrews, Kenneth R. (1996), “The Concept of Corporate Strategy,” in *The Strategy Process: Concepts, Contexts, Cases*, Henry Mintzberg and James Brian Quinn, eds. Upper Saddle River, NJ: Prentice Hall, 47-55.

Barney, Jay B. (1991), “Firm Resources and Sustained Competitive Advantage,” *Journal of Management*, 17 (March), 99-120.

Berlinger, Paul F. (1994), *Thinking in Jazz: The Infinite Art of Improvisation*. Chicago: University of Chicago Press.

Burns, Tom and G. M. Stalker (1961), *The Management of Innovation*. London: Tavistock.

Collis, David J. and Cynthia A. Montgomery (1998), *Corporate Strategy: A Resource-Based Approach*. Boston: Irwin/McGraw-Hill.

Crossan, Mary and Marc Sorrenti (1997), “Making Sense of Improvisation,” in *Advances in Strategic Management*, James P. Walsh, Anne S. Huff, and Paul Shrivastava eds. Greenwich, CT: JAI, 155-80.

Day, George S. (1997), “Aligning the Organization to the Market,” in *Reflections on the Futures of Marketing: Practice and Education*, Donald R. Lehmann and Katherine E. Jocz, eds. Cambridge, UK: Marketing Science Institute, 67-93.

——— and Robin Wensley (1988), “Assessing Advantage: A Framework for Diagnosing Superiority,” *Journal of Marketing*, 52 (April), 1-20.

Dess, Gregory D. and Donald W. Beard (1984), “Dimensions of Organizational Task Environments,” *Administrative Science Quarterly*, 29 (March), 52-73.

Duncan, Robert (1972), “Characteristics of Organizational Environments and Perceived Environmental Uncertainty,” *Administrative Science Quarterly*, 17 (September), 313-27.

Eisenhardt, Kathleen M. (1989), “Building Theories from Case Study Research,” *Academy of Management Review*, 14 (October), 532-50.

Galbraith, Jay R. (1973), *Designing Complex Organizations*. Reading, MA: Addison Wesley.

Galunic, Charles D. and Kathleen M. Eisenhardt (1996), “The Evolution of Intracorporate Domains: Divisional Charter Losses in High-Technology, Multidivisional Corporations,” *Organization Science*, 7 (May-June), 255-82.

Gupta, Anil K. and Vijay Govindarajan (1986), "Resource Sharing among SBUs: Strategic Antecedents and Administrative Implications," *Academy of Management Journal*, 29 (December), 695-714.

Hakansson, Hakan and Ivan Snehota, eds. (1995), *Developing Relationships in Business Networks*. New York: Routledge Kegan Paul.

Hatch, Mary Jo (1997), "Jazzing Up the Theory of Organizational Improvisation," in *Advances in Strategic Management*, James P. Walsh, Anne S. Huff, and Paul Shrivastava eds. Greenwich, CT: JAI, 181-91.

Hill, Charles W. L., Michael A. Hitt, and Robert E. Hoskisson (1992), "Cooperative versus Competitive Structures in Related and Unrelated Diversified Firms," *Organization Science*, 3 (November), 501-21.

Homburg, Christian, John P. Workman Jr., and Harley Krohmer (1999), "Marketing's Influence within the Firm," *Journal of Marketing*, 63 (April), 1-17.

Hunt, Shelby D. and Robert M. Morgan (1995), "The Comparative Advantage Theory of Competition," *Journal of Marketing*, 59 (April), 1-15.

——— and ——— (1996), "The Resource-Advantage Theory of Competition: Dynamics, Path Dependencies, and Evolutionary Dimensions," *Journal of Marketing*, 60 (October), 107-14.

Kohli, Ajay K. and Bernard J. Jaworski (1990), "Market Orientation: The Construct, Research Propositions, and Managerial Implications," *Journal of Marketing*, 54 (April), 1-18.

Kotler, Philip (2003), *A Framework for Marketing Management*. Upper Saddle River, NJ: Pearson Education.

Lawrence, Paul R. and Jay W. Lorsch (1967), *Organization and Environment: Managing Differentiation and Integration*. Boston: Harvard University Press.

Leonard-Barton, Dorothy (1992), "Core Capabilities and Core Rigidities: A Paradox in Managing New Product Development," *Strategic Management Journal*, 13 (Summer), 111-25.

Miles, Matthew B. and A. Michael Huberman (1994), *Qualitative Data Analysis*. Thousand Oaks, CA: Sage.

Mintzberg, Henry (1979), *The Structuring of Organizations: A Synthesis of the Research*. Englewood Cliffs, NJ: Prentice Hall.

——— (1996), "The Structuring of Organizations," in *The Strategy Process: Concepts, Contexts, Cases*, Henry Mintzberg and James Brian Quinn, eds. Upper Saddle River, NJ: Prentice Hall, 331-49.

Moorman, Christine (1995), "Organizational Market Information Processes: Cultural Antecedents and New Product Outcomes," *Journal of Marketing Research*, 32 (August), 318-35.

——— and Anne S. Miner (1998), "The Convergence of Planning and Execution: Improvisation in New Product Development," *Journal of Marketing*, 62 (July), 1-20.

Oliva, Rogelio and Robert Kallenberg (2003), "Managing the Transition from Products to Services," *International Journal of Service Industry Management*, 14 (2), 160-72.

Parkhe, Arvind (1993), "Messy Research, Methodological Predispositions, and Theory Development in Internal Joint Ventures," *Academy of Management Review*, 18 (April), 227-68.

Pennings, Johannes M. (1975), "The Relevance of the Structural-Contingency Model for Organizational Effectiveness," *Administrative Science Quarterly*, 20 (September), 393-410.

Peplowski, Ken (1998), "The Process of Improvisation," *Organization Science*, 9 (September-October), 560-1.

Perry, Chad (1998), "Processes of a Case Study Methodology for Postgraduate Research in Marketing," *European Journal of Marketing*, 32 (9/10), 785-802.

Peteraf, Margaret A. (1993), "The Cornerstones of Competitive Advantage: A Resource-Based View," *Strategic Management Journal*, 14 (March), 179-91.

Pine, B. Joseph II, Don Peppers, and Martha Rogers (1995), "So You Want to Keep Your Customers Forever," *Harvard Business Review*, 73 (March-April), 103-14.

Prahalad, C. K. and Gary Hamel (1990), "The Core Competence of the Corporation," *Harvard Business Review*, 68 (May-June), 79-91.

Preston, Alistair (1987), "Improvising Order," in *Organization Analysis and Development: A Social Construction of Organizational Behaviour*, Ian L. Mangham, ed. New York: John Wiley.

Quinn, James Brian (1992), *Intelligent Enterprise: A Knowledge and Service Based Paradigm for Industry*. New York: Free Press.

Ruekert, Robert W., Orville C. Walker Jr., and Kenneth J. Roering (1985), "The Organization of Marketing Activities: A Contingency Theory of Structure and Performance," *Journal of Marketing*, 49 (Winter), 13-25.

Sinkula, James M. (1994), "Market Information Processing and Organizational Learning," *Journal of Marketing*, 58 (January), 35-45.

Slater, Stanley F. and John C. Narver (1995a), "Does Competitive Environment Moderate the Market Orientation-Performance Relationship?" *Journal of Marketing*, 58 (January), 46-55.

——— and ——— (1995b), "Market Orientation and the Learning Organization," *Journal of Marketing*, 59 (July), 63-74.

Strauss, Anselm L. and Juliet M. Corbin (1998), *Basics of Qualitative Research: Techniques and Procedures for Developing Grounded Theory*. Thousand Oaks, CA: Sage.

Thompson, James D. (1967), *Organizations in Action*, New York: McGraw-Hill.

Wilson, Elizabeth J. and Richard P. Vlosky (1997), "Partnering Relationship Activities: Building Theory from Case Study Research," *Journal of Business Research*, 39 (May), 59-70.

Yin, Robert K. (1994), *Case Study Research: Design and Methods*. Thousand Oaks, CA: Sage.

Wayne A. Neu is an assistant professor of marketing at the Metropolitan State College of Denver. He earned his Ph.D. in marketing at Arizona State University. His research focuses on the formation of services in goods-dominant firms and the antecedents and consequences of improvisation in the context of business-to-business services.

Stephen W. Brown is the Edward M. Carson Chair in Services Marketing and founding director of the Center for Services Leadership at the W. P. Carey School of Business, Arizona State University. His recent research has focused on service quality, recovering from service failures, and building services in goods-dominant companies. He has coauthored and coedited 20 books and more than 150 articles. He is cofounder and cochair of the International Quality in Services conference, a past international president of the American Marketing Association, and a Winspear Visiting Scholar at the University of Victoria in Canada. He serves on the boards of directors at Integrated Information Systems, neoIT, and OnPoint Systems.