

3

A theory of the outsourcing firm

DAVE LUVISON AND MIKE BENDIXEN
Nova Southeastern University

Introduction

Outsourcing has evolved into a significant organizational practice over the last decade (Hoecht and Trott, 2006). However, as firms expand the practice by outsourcing increasingly key and core functions, new management challenges can be anticipated. The organizational changes that accompany these challenges are likely to be sweeping, suggesting that it is now appropriate to consider the need for a comprehensive behavioral theory of the outsourcing firm.

Both transaction cost economics (TCE) and the resource-based view of the firm (RBV) have been useful perspectives to investigate the determinants and conditions under which firms can best leverage outsourcing (Holcomb and Hitt, 2007; McIvor, 2009). Transaction cost economics provides clear direction as to economic trade-offs and contracting styles that a firm can use to evaluate the consequences of a potential outsourcing decision (Williamson, 2008). Similarly, the resource-based view highlights how unique capabilities of the firm can offer advantage when appropriately matched to environmental conditions (Peteraf, 1993); this has made it an effective measure to determine the extent to which a firm's competencies can and should be outsourced (Jennings, 2002; McIvor, 2003).

While TCE and RBV offer helpful vehicles for measuring the efficiencies gained through outsourcing, they offer a less helpful look into the organizational changes that occur within the firm as it outsources an increasingly larger percentage of its functionality to external contract providers. For example, transaction cost economics can provide some level of insight into the differences that constitute "*ex post* misalignments" but only to the extent of the difference rather than the magnitude of resultant costs (Williamson, 1985). TCE is less clear as to the nature of the operational and behavioral changes that the firm will undergo as a smaller but outward-reaching firm (Harland *et al.*,

2005). By the same token, RBV is less clear as to the manner in which organizations develop their capabilities (Helfat and Peteraf, 2003), and two key tenets of the resource-based view, causal ambiguity and path-dependency, highlight the difficulty firms face in consciously creating and building their capabilities (Lado *et al.*, 2006).

TCE and RBV will continue to represent powerful theories by which to understand and assess outsourcing considerations. However, their inability to fully anticipate *ex post* behaviors and the concomitant development of new capabilities limit their potential to prescribe operational guidelines for managers. Firms, especially those outsourcing key functions, will have to contend with new forms of organizational complexity and new levels of managerial effort as a result of their outsourcing decisions (Rothaermel *et al.*, 2006). Hence, a clear theory of post-outsourcing behaviors is highly relevant for modern firms.

As today's firms push for operational cost reductions (Hormozi *et al.*, 2003), conversion of fixed costs to variable costs (Alexander and Young, 1996), and flexibility (Jennings, 2002), they also need to deal with increased organizational cost (Barthelemy, 2001) and business risk (Adler, 2003; Mahnke, 2001). This simultaneous juxtaposition of operational efficiency and organizational complexity represents a contradiction (Cameron, 1986) that managers of outsourcing firms are likely to face. Such contradictions, which are inherent in social organizations (Clegg *et al.*, 2002; Quinn and Cameron, 1988), can therefore be more fully appreciated when viewed through the lens of paradox.

The major contribution of this chapter is to categorize a new set of organizational behaviors that address the following question: "Given that firms expand the scope of their outsourcing activities to increasingly core functions, what fundamental organizational and behavioral changes do managers need to anticipate as a result of outsourcing decisions?" The stimulus for this study is the belief that paradox sheds new light on some of the implications of outsourcing that managers will need to focus on in the future. The authors' intention is not to replace TCE and RBV's usefulness to outsourcing considerations, but rather to advance a more behavioral perspective that augments these two important theories.

The organization of this chapter begins with a summary of three critical paradoxes that are created by outsourcing and then uses a

hypothetical example to depict how a firm's behaviors differ as it evolves from a fully integrated to a disintegrated state. This is followed by an investigation that maps how organizational factors such as leadership, learning, firm culture, and processes are expected to change during this evolution. Finally, a set of characteristics that determine the firm's ability to successfully manage its outsourcing evolution are summarized.

Three outsourcing paradoxes

Paradoxes are “dynamic tensions of juxtaposed opposites” (Rosen, 1994: xvii) that contain “contradictory, mutually exclusive elements that are present and operate equally at the same time” (Cameron, 1986: 545). Despite the fact that managers have difficulty dealing with such inconsistencies (Marsh and Macalpine, 1999) paradoxes are considered to be a fundamental aspect of organizational life (Clegg *et al.*, 2002). Paradoxes should not be confused with economic trade-offs, which represent conscious decisions to favor one outcome over another, since paradoxes are often unintended and inevitable. This is why scholars have suggested that paradoxes cannot be solved (e.g., Chen, 2002; Lewis, 2000), leading to the prevailing practitioner thinking that they can only be managed (Rhinesmith, 2001).

Three paradoxical situations of outsourcing are summarized in this section. The first paradox highlights the fact that outsourcing increases operational expediency at the expense of increased managerial complexity; the second underscores the phenomenon that increased efficiencies are accompanied by the need for new and more complex organizational learning; and the third reflects the manner in which operational expediency increases the risk profile of the firm, thereby creating strategic complexity.

Increased expediency leads to increased managerial complexity

The firm's opportunity to reduce infrastructure has been a recurrent theme in the outsourcing literature, with numerous studies featuring outsourcing as the transfer of activities to third parties (Bailey *et al.*, 2002; McCarthy and Anagnostou, 2004; Quelin and Duhamel, 2003).

In some instances this transfer can have minimal operational impact, such as the decision to outsource benefits administration from an internal human resources group to a third party. In other instances it has the potential to be highly disruptive, such as the case of relocating staff and equipment to an external contract provider (Willcocks and Feeny, 2006).

In many cases, outsourcing firms need to take on new managerial responsibilities that do not already exist in typical firms and which subsequently need to be developed (Takeishi, 2001). The most prominent of these involve managing the boundary-spanning efforts necessary to oversee activities with the outsource contract provider. Boundary-spanning units allow firms to adjust to external contingencies (Thompson, 1967), and the more complex a firm's environment the greater the variety of boundary roles the organization will employ (Aldrich and Herker, 1977). However, boundary-spanning roles are inherently complex because they operate as both internal liaisons and external gatekeepers (Katz and Tushman, 1983), and very often boundary spanners operate in areas that represent high risk for the firm (Hoecht and Trott, 2006). Individuals in these roles need to demonstrate a unique combination of technical competency and personal attributes that makes them difficult to find and hire (Tushman and Scanlan, 1981a).

A number of outsourcing scholars have recommended formalizing and expanding the boundary-spanning role through the deployment of cross-functional teams to manage the outsourcing relationship (Lonsdale, 1999) or even a special department within the firm to capitalize on outsource management expertise (Barthelemy, 2001). Regardless of the form in which it is implemented, the effort required to coordinate these groups and their related activities increases managerial complexity significantly, potentially to the point where management can become overloaded (Rothaermel *et al.*, 2006). Moreover, the increased boundary-spanning activities represent potential risk areas to firms unprepared or unable to address such processes (Adler, 2003) as well as significant centers of hidden costs (Barthelemy, 2001). Finally, as firms outsource additional and different functions (e.g., manufacturing, research and development, sales) such managerial requirements can be expected to grow in a non-linear fashion. Consequently, firms that progressively outsource functions will achieve expediency benefits, reduced infrastructure, and reduced operational costs, but can be

expected to do so at the expense of more difficult-to-manage boundary-spanning activities that both increase and change their managerial requirements.

Increased efficiencies lead to increased learning requirements

Outsourcing enables firms to operate much more efficiently through reduced costs, greater flexibility, and increased scope economies (Ellram *et al.*, 2008). Such benefits have made outsourcing an appealing tactic despite some of the inherent drawbacks, such as managing in a condition of reduced control (Hormozi *et al.*, 2003) or overcoming negative public opinion when jobs are moved out of the community (Kakumanu and Portanova, 2006). More importantly, such cost efficiencies do not always lead to improved productivity or profitability (Jiang *et al.*, 2006). Nevertheless, the search for more streamlined organizations has been an important motivation for firms to disintegrate their operation, making the outcome assessment process an important stage in the outsourcing lifecycle (e.g., Greaver, 1999; Johnson, 1997; Lonsdale and Cox, 1997).

Unfortunately, cost efficiencies are often achieved by outsourcing functions that are heavily process-oriented, such as manufacturing, logistics, data processing, and call centers; those organizations are still required to retain skill-based tasks such as design and engineering (McIvor, 2003). More importantly, firms need to acquire the skills to exist effectively in an outsourced world. Over and above their need for boundary spanners, outsourcing firms need to invest in supply-chain-related inter-organizational competencies (Espino-Rodríguez and Padrón-Robaina, 2006). Among the hidden costs of outsourcing is the requirement to manage the relationship (Tadelis, 2007). However, significant effort is required to develop and internalize collaborative processes and knowledge-sharing routines (Dyer and Singh, 1998), and firms often overlook the need to develop necessary skills to manage external contract providers (Hoecht and Trott, 2006). Although this relational learning requirement has been emphasized in the outsourcing literature (e.g., Spekman *et al.*, 2002) firms do not normally possess such skills (Holcomb and Hitt, 2007) so their learning complexity increases. Therefore, while firms may achieve expediency by outsourcing functions, such efficiencies can be offset by the requirement to learn and internalize new skills related to their relationship

management. Consequently, firms that progressively outsource tend to replace efficiencies gained in one dimension with the effort to learn new processes in other dimensions.

Increased expediency increases strategic complexity

Many scholars have noted that outsourcing increases the flexibility of the firm (Jennings, 2002; Quelin and Duhamel, 2003; Rothaermel *et al.*, 2006; Snow *et al.*, 1992; Willcocks and Feeny, 2006). This follows from the argument that firms made leaner through outsourcing will also have the ability to be more nimble and competitively adaptive. Moreover, firms that outsource can tap into lower cost outsourcing contract providers (Espino-Rodríguez and Padrón-Robaina, 2006) or third parties that offer a high level of domain expertise (Holcomb and Hitt, 2007). All of these factors create conditions that can improve the competitive position of the firm.

However, there is significant evidence to suggest that outsourcing also reduces the competitive capabilities of the firm. One cause of this occurs when organizations outsource the wrong functions either because the firm cannot execute them well (Lonsdale and Cox, 1997) or the firm simply wishes to eliminate costs centers (McIvor, 2000). A greater impact on competitive capability occurs when firms outsource functions that represent core competencies, which can occur when firms misjudge how such core requirements will change over time (Mahnke, 2001). Another danger of outsourcing is that firms can lose their absorptive capacity when they outsource (Cohen and Levinthal, 1990). This can prevent firms from recovering in cases where market conditions change (Mömme, 2002), or when an outsourcing decision needs to be reversed because the external contract provider loses its leadership position (Barthelemy, 2003) or forward integrates to become a competitor (Cox, 1999). In such situations firms may have lost the know-how necessary to reactivate their old functions (Sadowski *et al.*, 2003). This also poses long-term challenges for the firm because its competitive capabilities, now transferred to external contract providers, are likely to have been “leveled out” across the market (Hoecht and Trott, 2006). As a result, firms that progressively outsource will be more expedient in terms of their existing capabilities and may even temporarily improve their short-term competitiveness due to accessibility to best-in-class contract providers. But, in so doing,

they may undermine their long-term ability to remain adaptive. As this occurs, firms will ultimately be required to replace old behaviors with new ways of developing competitive capability.

Test in extremum

The three paradoxes described above suggest that outsourcing firms, particularly those that outsource a large portion of their operation, will face a greater level of managerial effort, need to learn new skills, and contend with increased strategic complexity in order to be competitive. In short, as operational functions are eliminated they will be replaced by the need for new, more difficult behavioral functions. This can be best demonstrated by a brief *in extremum* example showing the various changes a firm can be expected to undergo as it moves from a fully integrated to fully disintegrated state.

A fully integrated firm will (a) have developed a number of internal proficiencies that permit it to absorb and transfer knowledge so that it can adapt to market conditions, and (b) embody a culture and set of organizational routines that facilitate internal communication, collaboration, and decision-making. Because all of its functions are integrated internally, the firm can develop, produce, market, and service its products independently. Only a small subset of its activities, most notably procurement and sales, will operate through external interfaces. All of the organization's routines will be a product of path-dependent evolution processes that take advantage of a set of coherent objectives and environmental responses to external markets (Barney, 2001; Nelson and Winter, 1982).

Assuming this firm pursues efficiency to the extreme degree, it could elect to outsource all of its functionality until it has reduced its infrastructure to a single titular official (e.g., the CEO). At this stage, the structure of the firm is essentially turned "inside out"; functions that had previously been governed by internally congruent routines are now operationalized as a series of interactions with external parties. Consequently, there is no collective culture to orient communication, collaboration, and decision-making processes. All elements of knowledge transfer, such as the product development cycle that occurs among research and development (R&D), manufacturing, and operations, are now inter-organizational and subject to influence and redirection by the firm's external contract providers. As a result, the firm

has less ability to create sustainable competitive advantage (Porter, 1996). Though the disintegrated organization may have successfully achieved its objective of operational expediency, it now exists in an environment that is managerially more complex and strategically less agile than before.

The lessons from this example suggest that progressive outsourcing creates two major factors of change for the organization. First, the organization has changed from a largely self-contained entity to a completely boundary-spanning form. Because boundary-spanning has been conceptualized as a function that occurs at the “edges” of the organization through liaison and gatekeeper behaviors (Katz and Tushman, 1983) there is little theoretical precedent for how it operates at the “middle” of the firm. Second, the firm’s competitive capability has now been externalized. Consequently, the firm’s strategic advantage is contingent on its ability to configure available capabilities externally and collaborate more effectively than its competitors.

These two factors point to specific areas that firms will need to manage differently in a largely outsourced world. The next sections of this chapter identify the strategic and managerial areas that will challenge firms as they travel along the path from integration to disintegration.

Strategic implications of outsourcing

As was discussed above, even firms that guard their core competencies and retain them internally are not immune to the potential loss of absorptive capacity (Cohen and Levinthal, 1990). This can become an issue when firms determine that they need to rethink their outsourcing decisions (Barthelemy, 2003; Cox, 1999; Momme, 2002), identify a replacement provider (Barthelemy, 2001), or return the function in-house (Tadelis, 2007). Firms facing these situations risk not having the necessary skills to reassess or reestablish the outsourced function. Even in cases where such readjustment is not required, firms may find that the narrowed focus caused by outsourcing tends to lead them toward organizational oversimplification, especially in dynamically changing markets, that can hurt subsequent performance (Miller and Chen, 1996).

Given that the firm risks diminished competitive capability in an outsourced world, it must develop new means of adaptation to an environment where it has less direct control over factors that breed

advantage. The following sections discuss how these new strategic challenges are manifest in areas of leadership, learning, and risk management.

Leadership

Though scholars have offered important conceptual models for the traditional highly integrated firm (e.g., Katz and Kahn, 1966; Lawrence and Lorsch, 1967; Thompson, 1967), it has been argued here that the disintegrated firm is likely to have different dynamics. An important question, therefore, is what constitutes effective management in the highly outsourced firm. Management's ability to orchestrate and direct strategic capabilities within the organization has traditionally been subject to its ability to lever internal power bases (Hall, 1999). Even in firms that espouse empowerment, both overt and subliminal power-based cues are often predominant (Argyris, 1998). For example, the typical planning process of the firm assigns vision creation, strategy definition, process definition and role specification to executive ranks, thereby signaling the overriding power center of the organization. And, on an ongoing basis, workers are continually reminded that management controls their efforts by changing priorities, reallocating resources, allowing project failures, and micromanaging (Sheard and Kakabadse, 2002).

As the firm outsources functionality, these power bases become less potent. Because the firm has now entered a contractual relationship with a third party, it has in essence moved into one of two non-hierarchical models: market or hybrid (Williamson, 1985). A market model places the firm in a supply-chain environment since the firm becomes a buyer of the services that external contract providers supply. In this configuration, the firm should expect to see its power relationship changed into one based on traditional channel power models (Cox, 2001). Although the outsourcing firm can retain a level of control in situations where multiple providers are available to bid on its requirements, this only grants it power over the selection process. It is subsequently possible for the firm to see diminished power relative to the provider, such as in cases where the external contract provider uses its learned skills for the benefit of other firms (Takeishi, 2001). The second of the two non-hierarchical models, the hybrid form, represents a collaborative relationship. Here, the firm faces the risk that

one party will attempt to take advantage of the other. In an outsourced relationship such opportunism can take the form of leaked information (Mahnke, 2001) or the threat that the external contract provider will become a competitor (Cox, 1999; Hoecht and Trott, 2006). Consequently, governance structure and authority factors will differ from those typically experienced by the firm (Barney, 1999), likely evolving into sophisticated governance models (Fawcett *et al.*, 2006) that increase managerial cost and effort.

As the firm progressively outsources, the focus of its leaders is also likely to change. Transaction cost economics has been a useful perspective to assess outsourcing decisions, but over time it is anticipated that the leadership model of the firm may need to become less transactional and more relational in order to remain competitive (Holcomb and Hitt, 2007). In an environment where firms increasingly depend upon a range of commoditized outsourced capabilities that are not likely to offer sufficient differentiation to their firm (Hoecht and Trott, 2006), managing top-line growth and product breakthroughs as well as operational efficiency will be crucial. An expediency-seeking focus is capable of producing the latter, but these will not likely be adequate to produce competitive advantage (Porter, 2001). Instead, leaders who embody a transformational style may be better suited to guide their firms down a path to competitive advantage in an evolving outsourced world (Bass and Avolio, 1994). For example, Burnes and James (1995) found that firms operating in a steady and predictable business environment were best suited by following a transactional leadership style, whereas those operating in a changing and challenging business environment were better suited by using a transformational style because it encouraged the organization to think beyond conventional solutions.

Learning

The strategic potential of the outsourcing firm changes as it approaches disintegration, so the need to acquire knowledge and the nature of how firms do so becomes more important. Even if a firm retains internal control of its core competency, that firm will not be completely immune from its reliance on outsourced capabilities. In looking back at the *in extremum* example described above, it becomes evident that a highly disintegrated firm will face constraints imposed by its external contract providers. For example, a breakthrough product feature,

developed by an internal R&D group, may still be unusable if the external manufacturer (i.e., external contract provider) is unable to develop the corresponding breakthrough processes required to manufacture it. Managing the interdependencies between outsourced and retained functions therefore represents a significant risk to the firm (Adler, 2003).

The need to assess such interdependencies, as well as the need to integrate and transfer learning across organizational lines, becomes a significant challenge for the disintegrated firm (Easterby-Smith *et al.*, 2008). Organizational learning depends upon shared insights and knowledge that has been built on the cumulative past experience of the firm (Stata, 1989), and it defines the continually evolving nature and needs of organizations (Pahlberg, 2001). Knowledge acquisition and transfer is considered to be a critical component of a firm's success (Argote and Ingram, 2000; Inkpen and Tsang, 2005), such that the firm's ability to create, own, protect, and use difficult-to-imitate intellectual assets can provide a competitive advantage (Teece, 2000).

Nevertheless, many organizations simply do not know how to learn (Szulanski, 1996) due to the difficulty in transferring and integrating knowledge (Grant, 1996b). This difficulty is attributable to three conditions: the lack of motivation to transfer knowledge, the tacitness of the knowledge to be transferred, and the ability of the organization to absorb that knowledge. With regard to the first condition, motivation to transfer knowledge is often influenced by the desire to control knowledge, the relationship with the individual to whom the information will be conveyed, and the perceived rewards for sharing that knowledge (Ipe, 2003). Szulanski (1995) found that the motivation and reputation of the sender, as well as the motivation and ability of the recipient, had a high correlation with successful knowledge transfer. The second condition, degree of tacitness, has an impact on the exchangeability of the information; since tacitness relates to ambiguity it impedes the formalization of the learning process (Simonin, 1999). Grant (1996a) argues that knowledge is contained in individuals rather than institutions, such that tacit knowledge transfers within the firm only occur through lengthy contacts among its members. Therefore new knowledge can only enter the firm through the incremental learning of existing members or the incorporation of new members bringing new knowledge. Finally, absorbing knowledge is dependent on the ability to recognize the value of new information in order to assimilate

and apply it (Cohen and Levinthal, 1990). Thus, knowledge transfer within the firm is dependent upon the absorptive capacity of the recipient, the causal ambiguity of the transfer process, and the willingness to engage in the repeated exchanges between participants in the process (Szulanski, 1996).

Mullen and Lyles (1993) suggest that, in the traditional organization, the framework for learning starts with the communication of the firm's strategies to internal educators and line managers; they then develop the behavioral modes, communicate those through training programs, and finally transfer those back to senior management for incorporation into the firm's overall support system. Such a model indicates that knowledge transfer is dependent upon structural, cultural, and relational factors within the firm (Inkpen and Tsang, 2005). However, firms that heavily outsource begin to undermine this process in two ways. First, by shrinking the organization they reduce both the number of domain experts required for the learning development process and disrupt the familiarity ties that foster knowledge transfer (Grant, 1996a). Second, these firms now introduce the need to exchange tacit knowledge across its boundaries with its outsourcers, and this will be dependent upon the degree to which firms are connected to their external contract providers (Eriksson and Hohenthal, 2001). While there is a significant opportunity to learn through ties created by inter-organizational relationships (Burt, 1992; Powell *et al.*, 1996), the ability to actually transfer knowledge will be challenged.

As has been noted previously in this chapter, the ability to build and manage relationships with external contract providers is a skill that many firms do not possess (McIvor, 2003). If firms are to be effective at scanning the external environment for new innovation as well as increasing their own ability to innovate they will need to reassess their relationships with their outsource partners. The strategic alliance literature has provided insight on the type of knowledge-exchanging behaviors that outsourcers will need to learn. One dimension of this is the firm's objective in creating its outsourcing relationships. Grant and Baden-Fuller (2004) suggest that collaborations need to be viewed as knowledge-accessing relationships rather than knowledge-acquisition relationships. Where knowledge-acquisition relationships tend to view knowledge as the finite entity to be transferred between the partners, knowledge-accessing relationships conceptualize learning as the outcome of the relationship. Consequently, knowledge-accessing

collaborations with outsourcers would work to increase rather than partition knowledge. Grant and Baden-Fuller argue that this will lead to greater efficiency in both the application and utilization of the information. Similarly, ties to third parties have been shown to expand a firm's ability to both exploit existing knowledge and explore new knowledge sources (Vanhaverbeke *et al.*, 2004). Firms looking to leverage their outsourcing relationships will therefore want to assess the networks in which their external contract providers are situated and consciously match their outsourcing requirements to firms which have compatible knowledge bases, organizational outlooks, and operational logic systems (Lane and Lubatkin, 1998).

A second dimension lies in the way in which disintegrated firms will structure their relationships. First of all, executives will need to adopt a more proactive role in fostering a learning culture in their firms (Amittay *et al.*, 2005). Second, they will need to define ways in which the knowledge-accessing process is opened up with their outsourcer. Given that tacit knowledge is learned primarily through observation (Inkpen and Tsang, 2007), it will be essential for managers to create a high level of transparency and receptivity between their firm and their outsource contract provider (Larsson *et al.*, 1998). While they will need to balance this transparency with governance models that maximize learning while minimizing related risks (Mohr and Sengupta, 2002), such a leadership approach is highly congruent with the transformational style suggested above.

Risk mitigation

In conducting business, a firm is exposed to both internal and external risks, some of which – but not all – are controllable, or partially controllable (Wu *et al.*, 2006). When the firm outsources, it also exposes itself to the internal and external risks of its external contract providers. Furthermore, the very act of outsourcing introduces the firm to additional strategic and operational risks. At a strategic level, the firm may not be astute at identifying its core and thus get too close to outsourcing it (Harland *et al.*, 2005). Similarly, the firm may overlook the possibility that the outsourced function will need to be brought back into the firm at a future date (Harland *et al.*, 2005; Tadelis, 2007).

At an operational level, Harland *et al.* (2005: 841) identify the “lack of skills and competence to manage outsource relationships” and the

“increased costs in relationship management” as key risks of outsourcing. These tie back to the boundary-spanning activities previously identified. Harland *et al.* (2005: 841) further identify the ability to “design appropriate service level agreements” with outsourcing partners as another operational risk.

Risk management begins with the analysis of potential risk in the supply chain using techniques such as analytical hierarchy processing (Wu *et al.*, 2006) or other advanced analytical tools (Chopra and Sodhi, 2004; Norrman and Jansson, 2004). At a strategic level, Chopra and Sodhi (2004: 60) suggest that the firm “mitigate risk by building various forms of reserves, including inventory, capacity, redundant suppliers, and responsiveness.” Unfortunately, such actions are likely to offset the benefits anticipated by the outsourcing decision.

Managerial implications of outsourcing

Establishing and managing a network of outsourced providers can be likened to the development of an inter-organizational community of practice (CoP). In a CoP, groups of people interact, often across organizational boundaries (Zboralski and Gemünden, 2006), so as to deepen their knowledge and share their expertise about a set of problems (Wenger *et al.*, 2002). Scarso and Bolisani (2008) identify what they term the four pillars of a CoP in its organizational, cognitive, economic, and technological dimensions. The organizational dimension concerns relationships and roles within the CoP as well as between the CoP and the rest of its environment, while the cognitive dimension deals with the specific knowledge domain that is the focus of the CoP. The economic dimension concerns benefits, costs, and performance, and the technological dimension encompasses the CoP’s enabling technologies. In this chapter, the four dimensions reflect specific areas of managerial process and organizational routines that will evolve as firms progressively outsource. The primary emphasis in the following section of the chapter is to elaborate the organizational and cognitive dimensions caused by outsourcing; because the economic and technological dimensions have received much more extensive analysis in the literature they are discussed only briefly here.

These four managerial dimensions support the strategic implications discussed in the previous section: the need to develop new approaches to relational leadership, organizational learning, and risk management.



Figure 3.1. Outsourcing model as an inter-firm CoP (adapted from Scarso and Bolisani, 2008).

Figure 3.1 depicts the integration of the strategic and managerial implications of this model.

Organizational dimension

Organizational factors pertain to the relationships that arise between the outsourcer and its external contract provider. Three elements are considered in the following section: the way in which the relationship will be set up and governed, how that relationship will be managed by boundary spanning, and how the participants organize themselves into a virtualized entity.

Governance

As its outsourced relationships proliferate, the firm can expect the resultant effort associated with governing those relationships to increase also. The central challenge of governance is “how to motivate people to take others’ interests at [sic] heart” (Nooteboom, 2000: 77), and it reflects the agency conflicts that arise when external parties have the ability to take actions that affect the interest of a principal (Jensen and Meckling, 1976). The primary driver of such interparty relationships is the potential for one member to take opportunistic

advantage of the other, a condition created by the inability of firms to completely anticipate the intentions of external parties (Williamson, 1985). In order to protect itself *ex ante* the firm consequently requires the drafting and negotiation of complicated contracts, the commitment of asset-specific investments, and the implementation of monitoring systems to ensure compliance. All of these create significant transaction costs for the firm.

However, transactional instruments are not the sole means of managing relationships with external parties. A significant stream of literature suggests that social exchange (Granovetter, 1985) in the way of trustworthy dealings between the parties can serve to reduce the need for governance in inter-firm relationships (e.g., Gulati, 1995; Muehlberger, 2007; Wang and Wei, 2007; Yu *et al.*, 2006). Such trust can be based on the calculative assessment of the risks of performance (Williamson and Craswell, 1993), past performance (Dodgson, 1993), or merely goodwill intentions (Dodgson, 1993), but generally over time trust has been found to moderate the need for explicit governance vehicles. Regardless of whether relationship factors such as trust ultimately serve to offset or complement transactional mechanisms such as contracts (Poppo and Zenger, 2002), there is general acknowledgment that inter-firm relationships, such as outsourcing, are best governed when attention is paid to both elements.

Similarly, governance considerations for outsourcing firms are subject to both temporal and environmental factors. Mahnke, Özcan, and Overby (2006) have noted that *when* a firm outsources will have a bearing on its governance requirements. For example, those firms that outsource information technology operations early in relation to the rest of their industry are more prone to need complex contracts and monitoring mechanisms than late outsourcers since the transactional risks in relation to technologies will be greater. Geographic factors will likewise be a consideration of the outsourcing firm since international differences will necessitate different governance requirements (Pedersen and Thomsen, 1999). Similarly, time zones, language, culture, and local business norms complicate the ability to anticipate intentions and increase the difficulty with which oversight mechanisms can be implemented (Stratman, 2008). Finally, as firms and their competitors progressively outsource they essentially create a web of external contract-provider networks. The embeddedness which results from such networks creates controls based on reputation (Uzzi, 1997)

and self-monitoring (de Man, 2004) that, when coupled with a balance of formal and informal mechanisms (Winkler, 2006), serve to reduce the unilateral dependence on contracts and similar transactional mechanisms.

Firms that progressively outsource can therefore be expected to implement formal contractual mechanisms with their contract providers, but their use is likely to be moderated by relationship-building capabilities coupled with the reputation and experience effects. All of these work to clarify the intentions of the outsourcer and external contract provider over time and redefine the need for strict governance. One might anticipate that firms which continue to operate in a traditional agency mind-set will experience increased governance effort over the long term. On the other hand, those firms that develop strong relationship-management skills can be expected to reduce such effort over time, though this will be somewhat offset by the increased effort associated with developing relationship-management skills.

Managing boundary-spanning requirements

As was suggested above, firms that progressively outsource operations will essentially turn themselves “inside-out,” meaning that functions which formerly operated within the firm will now operate externally. If for no other reason than lack of more precise terminology, interaction with these external units has been considered a boundary-spanning function. However, boundary spanning has traditionally been used to describe activities needed to address organization–environment interactions (Jemison, 1984). Such conceptualizations involve procuring or disposing of inputs, linking the organization to the larger community, and preparing the organization for future challenges by scanning the environment for trends (Katz and Kahn, 1966). Definitions of boundary spanning have generally revolved around the tasks of communicating across organizational borders, linking the organization to its environment and often serving as the conduit for teaching this external information to the organization (Fennell and Alexander, 1987; Katz and Tushman, 1983; Thompson, 1967; Tushman and Scanlan, 1981a, 1981b). However, as organizations redeploy increasing portions of formerly internal operations to external contract providers, one must argue that the primary consideration should no longer be communication but rather management. In other words, highly disintegrated

organizations will need to understand how to direct their externalized functions if they are to sustain their competitiveness.

One model of boundary-spanning behavior that outsourcing firms can consider is the relationship management function firms have implemented for their strategic alliances. The functionalization of alliance-relationship management within the firm (Kale *et al.*, 2001) and the development of relationship-specific procedures (Heimeriks and Duysters, 2007) have been shown to positively impact both firm and relationship performance. This is because an alliance-management function ensures the adoption of inter-organizational communication processes needed to coordinate goals, align priorities, reconcile decision-making structure, and develop trust (Kale and Singh, 2007). Such a function is similar to outsourcing boundary-spanning groups recommended by Barthelemy (2001) and Lonsdale (1999). Since the consequences of outsourcing are often unanticipated, especially if the firm has the mind-set that outsourcing streamlines operations and thereby reduces both headcount and effort, the creation of such dedicated functions is often overlooked. Nevertheless, as firms outsource increasing portions of their business, the need for such a formalized boundary-spanning entity to address the organizational complexity being created becomes ever more critical.

Virtualization

As an organization outsources, it takes on a more distributed nature, thereby behaving like a “network of virtual teams” that can be scattered around the globe. Virtual teams are most often characterized by their lack of spatial proximity and dependence on advanced communication (e.g., Bell and Kozłowski, 2002), and they have been defined as “groups of geographically and/or organizationally dispersed co-workers that are assembled using a combination of telecommunications and information technologies to accomplish an organizational task” (Townsend *et al.*, 1998: 17). As does outsourcing, the use of virtual teams enables organizations to become more flexible, responsive, and lean. These teams represent a good analog to the virtualized interactions of outsourcing because they (a) contain functions that can be organizationally and physically located both inside and outside the firm, (b) over time can represent networks that are spread across continents, and (c) are not collocated and therefore are highly reliant on modes of communication other than face-to-face meetings.

A number of critical factors have been associated with the operation of virtual teams, and these can be directly applied to the manner in which firms need to manage their outsourcing relationships. A major factor is the ability to be committed to attaining mutual goals. Shared understanding of goals is essential for effective collaboration in virtually organized groups (Peters and Manz, 2007), and, even though they are essentially contracted, an external provider needs to carefully synchronize its goals, expectations, and actions with the outsourcer in order to provide the most desirable outcome (Hertel *et al.*, 2004). Since incongruent expectations have been shown to lead to weak motivation and low levels of satisfaction among extended virtual teams (Bosch-Sijtsema, 2007), one could extrapolate that both parties in an outsourcing relationship will need to enjoy high levels of satisfaction if they are to continue to remain committed to mutual objectives.

Many scholars have noted the importance of creating a trusting relationship among virtual team members in order to facilitate congruent behaviors. Bergiel, Bergiel, and Balsmeier (2008: 101) note that “trust is the foundation of all successful relationships and, in order for virtual teams to succeed, they need to build and foster their relationship carefully and intentionally.” Rosen, Furst, and Blackburn (2007) assert that without the ability to establish a strong level of trust, virtual teammates will view requests for information as risky and will tend to impede effective interaction. It is important to emphasize that the need for trusting behaviors among virtual teams has been found to be identical to the relational behaviors that have been suggested as critical to outsourcing relationships (e.g., Spekman *et al.*, 2002). The lesson is that outsourcing relationships have many parallels with virtual team relationships, suggesting that there is much that can be learned from that literature. At a minimum, firms will need to develop new skills in the area of cross-boundary interaction and extra-boundary trust-building in order to minimize potentially deleterious tendencies in their outsourcing relationships.

Cognitive dimension

This dimension represents the cognitive homogeneity (Scarso and Bolisani, 2008) of the outsourcer–external contract provider relationship and deals with the mechanisms that are employed to coordinate it. The elements considered in this section discuss the impact of

organization and national cultures on outsourcing relationships as well as the communication modes those parties utilize to bridge their unique cultures.

Culture

As the firm takes on the characteristics of an inter-organizational relationship (Klein *et al.*, 2000), it will encounter different work practices and orientations. These elements represent organizational culture and values which ultimately map to national culture (Hofstede, 2001). Outsourcing in general requires organizations to deal with differences in organizational culture, and offshoring will add the necessity of having to deal with differences in national culture. Both situations will have implications for leaders and their style of management (Dorfman and House, 2004).

Despite efforts to anticipate cultural differences, there are a number of challenges associated with overcoming them in virtualized relationships such as outsourcing. Culturally diverse actors naturally gravitate toward different expectations, can have a difficult time understanding the intentions of the outsourcer, and are often hesitant to share ideas and feedback, which can result in certain participants being marginalized (Rosen *et al.*, 2007). Scholars have found that factors such as geographic dispersion and national diversity hinder innovation unless a psychologically safe communication climate is created (Gibson and Gibbs, 2006). These suggest that one of the most important requirements for the outsourcer is conscious leadership to ensure that the cultures and interests of the dispersed actors on both sides of the outsourcing relationship are aligned (Latapie and Tran, 2007).

Communication

A second cognitive challenge involves communicating with the outsource contract provider. Effective collaboration within a supply chain is highly dependent on open lines of communication (Dwyer *et al.*, 1987), but the nature of communication changes during the various phases of the relationship (Ambrose *et al.*, 2008). Careful attention must therefore be paid to how outsourcer and external contract provider interact over the life cycle of their relationship (Furst *et al.*, 2004), especially since many firms are conditioned to treat external relationships as adversarial (Mudambi and Helper, 1998) and may be unable to step outside of that mind-set (Spekman *et al.*, 2002).

Again, there is much to be learned from the virtual team literature to anticipate the new communication requirements that outsourcing creates. Because of the virtual nature of the outsourcer–external contract provider relationship, much of its communication will occur in an asynchronous manner through modes such as email and voicemail rather than through synchronous forms such as face-to-face meetings and telephone conversations. Synchronicity of communication has been shown to be a key determinant of effectiveness, with asynchronous forms being found best suited for information conveyance and highly synchronous modes being better for achieving convergence of shared meaning (DeLuca and Valacich, 2006). Given the importance of goal congruence as mentioned above, in order to bolster their outsourcing relationships, firms should be encouraged to err on the side of promoting greater use of interactive, synchronous modes. However, the physically distributed nature of many outsourcing relationships, and the related costs of face-to-face meetings, suggests that firms will gravitate toward asynchronous methods.

Economic dimension

The economic dimension highlights benefits, costs, and performance factors in an outsourcing relationship. It is imperative that in the long term the outsourced operation continues to add value to both parties. Thus, transaction costs and benefits need to be assessed on a continuous basis. A holistic view needs to be adopted as the firm outsources more and more of its operations. While a particular outsourced operation may add value, this may be detrimental to other outsourced operations. Thus, assessment should be in terms of the total supply chain. While the value created by outsourcing may generate acceptable returns to the firm, this may come at a higher level of risk than is acceptable to the stakeholders. Thus, ongoing risk assessment is an additional aspect of the economic dimension. These areas are beyond the scope of a detailed discussion in this chapter.

Technological dimension

This dimension relates to the technologies that will enable and facilitate the outsourcing relationship. Technology has been offered as a means of compensating for the challenges of communicating in more

distributed relationships such as outsourcing. Hewitt (2006) has noted that email may not be as effective as more synchronous modes, but with proper use it can nevertheless convey influence, communicate intent, and reinforce shared objectives and goal alignment. However, other scholars have noted that there are trade-offs, foremost among which are miscommunication (Byron, 2008) and negative effects on overall cohesion and commitment (Driskell *et al.*, 2006). Consequently, managers interested in achieving the highest leverage from their outsourcing relationships will need to consider ways in which they can improve the effectiveness of their firms' interaction with their outsource contract providers. Members of the outsourcing teams will thereby need to be encouraged to adopt high frequency, active communication profiles in order to build the level of trust necessary for good communication.

In addition, technology in the form of information systems needs to be implemented to facilitate the continuous assessment and monitoring of the outsourced operation. These systems should form part of an overarching knowledge-management system.

Conclusions

By extrapolating the effects of progressive outsourcing to its logical extreme, it is possible to conclude that the operational expediency achieved through outsourcing will be paradoxically replaced by new management, learning, and strategic requirements. This relationship is depicted in Figure 3.2. A vertically integrated firm (Time 0) can improve its operational expediency in the short term by outsourcing (Time 1). However, as it continues to progressively outsource increasingly key (and even core) functionality, additional benefits will be joined by new levels of complexity (Time 2). The argument of this chapter is that this process is predictable, though often unintended. The majority of this chapter has endeavored to define the nature and scope of these complexities and provide insight into the organizational and behavioral changes that may be anticipated when outsourcing key and core functions.

The bigger question is how a firm manages itself through this evolution. Several of the salient factors have been suggested in this chapter, though one must assume that firms will exhibit differing abilities to

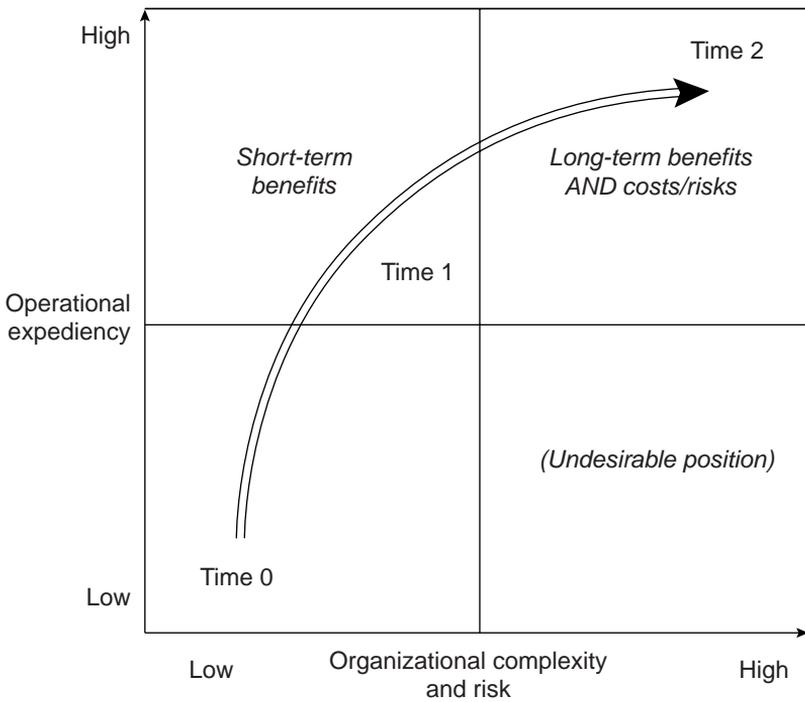


Figure 3.2. The relationship of organizational expediency to complexity and risk over time.

transition through this process based on their unique proficiencies for organizational change and their abilities to evolve adaptive leadership styles and cultures. Consequently, more adept firms can be expected to achieve greater levels of expediency than their competitors at comparable levels of complexity. This offers opportunity for future empirical studies, as it suggests that a firm's behavioral profile, as well as its ability to adapt that profile to ongoing challenges, can determine its ability to achieve maximum efficiency with minimal incremental complexity when outsourcing. This also presents significant opportunities for applied studies, as it suggests that management teams that anticipate these changes, discern the right responses, and properly adapt their organizations can effectively leverage both sides of the expediency-complexity paradox.

References

- Adler, P.S. 2003. "Making the HR outsourcing decision," *MIT Sloan Management Review* 45: 53–60.
- Aldrich, H. and Herker, D. 1977. "Boundary spanning roles and organization structure," *The Academy of Management Review* 2: 217–30.
- Alexander, M. and Young, D. 1996. "Outsourcing: where's the value?" *Long Range Planning* 29: 728–30.
- Ambrose, E., Lynch, D., Fynes, B., and Marshall, D. 2008. "Communication media selection in buyer-supplier relationships," *International Journal of Operations & Production Management* 28: 360–79.
- Amitay, M., Popper, M., and Lipshitz, R. 2005. "Leadership styles and organizational learning in community clinics," *The Learning Organization* 12: 57–70.
- Argote, L. and Ingram, P. 2000. "Knowledge transfer: a basis for competitive advantage in firms," *Organizational Behavior and Human Decision Processes* 82: 150–69.
- Argyris, C. 1998. "Empowerment: the emperor's new clothes," *Harvard Business Review* 76: 98–105.
- Bailey, W., Masson, R., and Raeside, R. 2002. "Outsourcing in Edinburgh and the Lothians," *European Journal of Purchasing & Supply Management* 8: 83–95.
- Barney, J.B. 1999. "How a firm's capabilities affect boundary decisions," *MIT Sloan Management Review* 40: 137–45.
2001. "Resource-based theories of competitive advantage: a ten-year retrospective on the resource-based view," *Journal of Management* 27: 643–50.
- Barthelemy, J. 2001. "The hidden costs of IT outsourcing," *MIT Sloan Management Review* 42: 60–69.
2003. "The seven deadly sins of outsourcing: executive commentary," *The Academy of Management Executive* 17: 87–98.
- Bass, B.M. and Avolio, B.J. 1994. *Improving Organizational Effectiveness Through Transformational Leadership*. Thousand Oaks, CA: SAGE.
- Bell, B.S. and Kozlowski, S.W.J. 2002. "A typology of virtual teams: implications for effective leadership," *Group & Organization Management* 27: 14–49.
- Bergiel, B.J., Bergiel, E.B., and Balsmeier, P.W. 2008. "Nature of virtual teams: a summary of their advantages and disadvantages," *Management Research News* 31: 99–110.
- Bosch-Sijtsema, P. 2007. "The impact of individual expectations and expectation conflicts on virtual teams," *Group & Organization Management* 32: 358–88.

- Burnes, B. and James, H. 1995. "Culture, cognitive dissonance and the management of change," *International Journal of Operations & Production Management* 15: 14–33.
- Burt, R.S. 1992. *Structural Holes: The Social Structure of Competition*. Cambridge, MA: Harvard University Press.
- Byron, K. 2008. "Carrying too heavy a load? The communication and miscommunication of emotion by email," *Academy of Management Review* 33: 309–27.
- Cameron, K.S. 1986. "Effectiveness as paradox: consensus and conflict in conceptions of organizational effectiveness," *Management Science* 32: 539–53.
- Chen, M.-J. 2002. "Transcending paradox: the Chinese 'middle way' perspective," *Asia Pacific Journal of Management* 19: 179–99.
- Chopra, S. and Sodhi, M.S. 2004. "Managing risk to avoid supply-chain breakdown," *MIT Sloan Management Review* 46: 53–61.
- Clegg, S.R., de Cunha, J.V., and Cunha, M.P. 2002. "Management paradoxes: a relational view," *Human Relations* 55: 483–503.
- Cohen, W.M. and Levinthal, D.A. 1990. "Absorptive capacity: a new perspective on learning and innovation," *Administrative Science Quarterly* 35: 128–52.
- Cox, A. 1999. "Power, value and supply chain management," *Supply Chain Management* 4: 167–75.
2001. "The power perspective in procurement and supply management," *Journal of Supply Chain Management* 37: 4–7.
- DeLuca, D. and Valacich, J.S. 2006. "Virtual teams in and out of synchronicity," *Information Technology & People* 19: 323–44.
- de Man, A.-P. 2004. *The Network Economy*. Cheltenham: Edward Elgar.
- Dodgson, M. 1993. "Learning, trust and technological collaboration," *Human Relations* 46: 77–95.
- Dorfman, P.W. and House, R.J. 2004. "Cultural influences on organizational leadership: literature review, theoretical rationale, and GLOBE Project goals," in R.J. House, P.J. Hanges, M. Javidan, P.W. Dorfman, and V. Gupta (eds.), *Culture, Leadership and Organizations: The GLOBE Study of 62 Societies*. Thousand Oaks, CA: SAGE.
- Driskell, J.E., Goodwin, G.F., Salas, E., and O'Shea, P.G. 2006. "What makes a good team player? Personality and team effectiveness," *Group Dynamics: Theory, Research, and Practice* 10: 249–71.
- Dwyer, F.R., Schurr, P.H., and Oh, S. 1987. "Developing buyer-seller relationships," *Journal of Marketing* 51: 11–27.
- Dyer, J.H. and Singh, H. 1998. "The relational view: cooperative strategy and sources of interorganizational competitive advantage," *The Academy of Management Review* 23: 660–79.

- Easterby-Smith, M., Lyles, M.A., and Tsang, E.W.K. 2008. "Inter-organizational knowledge transfer: current themes and future prospects," *Journal of Management Studies* 45: 677–90.
- Ellram, L.M., Tate, W.L., and Billington, C. 2008. "Offshore outsourcing of professional services: a transaction cost economics perspective," *Journal of Operations Management* 26: 148–63.
- Eriksson, K. and Hohenthal, J. 2001. "The transferability of knowledge in business network relationships," in H. Hakansson and J. Johanson (eds.), *Business Network Learning*. Oxford: Elsevier Science, pp. 91–106.
- Espino-Rodríguez, T.F. and Padrón-Robaina, V. 2006. "A review of outsourcing from the resource-based view of the firm," *International Journal of Management Reviews* 8: 49–70.
- Fawcett, S.E., Ogden, J.A., Magnan, G.M., and Cooper, M.B. 2006. "Organizational commitment and governance for supply chain success," *International Journal of Physical Distribution & Logistics Management* 36: 22–35.
- Fennell, M.L. and Alexander, J. 1987. "Organizational boundary spanning in institutionalized environments," *Academy of Management Journal* 30: 456–76.
- Furst, S.A., Reeves, M., Rosen, B., and Blackburn, R.S. 2004. "Managing the life cycle of virtual teams," *Academy of Management Executive* 18: 6–20.
- Gibson, C.B. and Gibbs, J.L. 2006. "Unpacking the concept of virtuality: the effects of geographic dispersion, electronic dependence, dynamic structure, and national diversity on team innovation," *Administrative Science Quarterly* 51: 451–95.
- Granovetter, M. 1985. "Economic action and social structure: the problem of embeddedness," *American Journal of Sociology* 91: 481–510.
- Grant, R.M. 1996a. "Prospering in dynamically-competitive environments: organizational capability as knowledge integration," *Organization Science* 7: 375–88.
- 1996b. "Toward a knowledge-based theory of the firm," *Strategic Management Journal* 17: 109–22.
- Grant, R.M. and Baden-Fuller, C. 2004. "A knowledge accessing theory of strategic alliances," *Journal of Management Studies* 41: 61–84.
- Greaver, M.F. 1999. *Strategic Outsourcing: A Structured Approach to Outsourcing Decisions and Initiatives*. New York: Amacon.
- Gulati, R. 1995. "Does familiarity breed trust? The implications of repeated ties for contractual choice in alliances," *Academy of Management Journal* 38: 85–112.
- Hall, R.H. 1999. *Organizations*. Upper Saddle River, NJ: Prentice Hall.

- Harland, C., Knight, L., Lamming, R., and Walker, H. 2005. "Outsourcing: assessing the risks and benefits for organisations, sectors and nations," *International Journal of Operations & Production Management* 25: 831–50.
- Heimeriks, K.H. and Duysters, G. 2007. "Alliance capability as a mediator between experience and alliance performance: an empirical investigation into the alliance capability development process," *Journal of Management Studies* 44: 25–49.
- Helfat, C.E. and Peteraf, M.A. 2003. "The dynamic resource-based view: capability lifecycles," *Strategic Management Journal* 24: 997–1010.
- Hertel, G., Konradt, U., and Orlikowski, B. 2004. "Managing distance by interdependence: goal setting, task interdependence, and team-based rewards in virtual teams," *European Journal of Work and Organizational Psychology* 13: 1–28.
- Hewitt, P. 2006. "Electronic mail and internal communication: a three-factor model," *Corporate Communications* 11: 78–92.
- Hoecht, A. and Trott, P. 2006. "Outsourcing, information leakage and the risk of losing technology-based competencies," *European Business Review* 18: 395–412.
- Hofstede, G. 2001. *Culture's Consequences: Comparing Values, Behaviors, Institutions, and Organizations Across Nations*, 2nd edn. Thousand Oaks, CA: Sage.
- Holcomb, T.R. and Hitt, M.A. 2007. "Toward a model of strategic outsourcing," *Journal of Operations Management* 25: 464–81.
- Hormozi, A., Hostetler, E., and Middleton, C. 2003. "Outsourcing information technology: assessing your options," *SAM Advanced Management Journal* 68: 18–23.
- Inkpen, A.C. and Tsang, E.W.K. 2005. "Social capital, networks, and knowledge transfer," *Academy of Management Review* 30: 146–65.
2007. "Learning and strategic alliances," *The Academy of Management Annals* 1: 479–511.
- Ipe, M. 2003. "Knowledge sharing in organizations," *Human Resource Development Review* 2: 337–59.
- Jemison, D.B. 1984. "The importance of boundary spanning roles in strategic decision-making," *Journal of Management Studies* 21: 131–52.
- Jennings, D. 2002. "Strategic sourcing: benefits, problems and a contextual model," *Management Decisions* 40: 26–34.
- Jensen, M.C. and Meckling, W.F. 1976. "Theory of the firm: managerial behavior, agency costs, and ownership structure," *Journal of Financial Economics* 3: 305–69.
- Jiang, B., Frazier, G.V., and Prater, E.L. 2006. "Outsourcing effects on firms' operational performance," *International Journal of Operations & Production Management* 26: 1280–300.

- Johnson, M. 1997. *Outsourcing...in brief*. London: Butterworth-Heinemann.
- Kakumanu, P. and Portanova, A. 2006. "Outsourcing: its benefits, drawbacks and other related issues," *Journal of American Academy of Business, Cambridge* 9: 1-7.
- Kale, P., Dyer, J.H., and Singh, H. 2001. "Value creation and success in strategic alliances: alliancing skills and the role of alliance structure and systems," *European Management Journal* 19: 463-71.
- Kale, P. and Singh, H. 2007. "Building firm capabilities through learning: the role of the alliance learning process in alliance capability and firm-level alliance success," *Strategic Management Journal* 28: 981-1000.
- Katz, D. and Kahn, R.L. 1966. *The Social Psychology of Organizations*. New York: John Wiley & Sons.
- Katz, R. and Tushman, M.L. 1983. "A longitudinal study of the effects of boundary spanning supervision on turnover and promotion in research and development," *Academy of Management Journal* 26: 437-56.
- Klein, K.J., Palmer, S.L., and Conn, A.B. 2000. "Interorganizational relationships: a multilevel perspective," in K.J. Klein and S.W.J. Kozlowski (eds.), *Multilevel Theory, Research and Methods in Organizations: Foundations, Extensions and New Directions*. San Francisco: Jossey-Bass, pp. 267-307.
- Lado, A.A., Boyd, N.G., Wright, P., and Kroll, M. 2006. "Paradox and theorizing within the resource-based view," *The Academy of Management Review* 31: 115-31.
- Lane, P.J. and Lubatkin, M. 1998. "Relative absorptive capacity and interorganizational learning," *Strategic Management Journal* 19: 461-77.
- Larsson, R., Bengtsson, L., Henriksson, K., and Sparks, J. 1998. "The interorganizational learning dilemma: collective knowledge development in strategic alliances," *Organization Science* 9: 285-305.
- Latapie, H.M. and Tran, V.N. 2007. "Subculture formation, evolution, and conflict between regional teams in virtual organizations - lessons learned and recommendations," *The Business Review, Cambridge* 7: 189-93.
- Lawrence, P.R. and Lorsch, J.W. 1967. *Organization and Environment*. Boston: Graduate School of Business Administration, Harvard University.
- Lewis, M.W. 2000. "Exploring paradox: toward a more comprehensive guide," *The Academy of Management Review* 25: 760-76.
- Lonsdale, C. 1999. "Effectively managing vertical supply relationships: a risk management model for outsourcing," *Supply Chain Management* 4: 176-83.

- Lonsdale, C. and Cox, A. 1997. "Outsourcing: risks and rewards," *Supply Management* 3: 32–34.
- Mahnke, V. 2001. "The process of vertical dis-integration: an evolutionary perspective on outsourcing," *Journal of Management & Governance* 5: 353–79.
- Mahnke, V., Özcan, S., and Overby, M.L. 2006. "Outsourcing innovative capabilities for IT-enabled services," *Industry and Innovation* 13: 189–207.
- Marsh, S. and Macalpine, M. 1999. "The search for reconciling insights: a 'really useful' tool for managing paradox," *The Journal of Management Development* 18: 642.
- McCarthy, I. and Anagnostou, A. 2004. "The impact of outsourcing on the transaction costs and boundaries of manufacturing," *International Journal of Production Economics* 88: 61–71.
- McIvor, R. 2000. "A practical framework for understanding the outsourcing process," *Supply Chain Management* 5: 22–36.
2003. "Outsourcing: insights from the telecommunications industry," *Supply Chain Management* 8: 380–94.
2009. "How the transaction cost and resource-based theories of the firm inform outsourcing evaluating," *Journal of Operations Management* 27: 45–63.
- Miller, D. and Chen, M.-J. 1996. "The simplicity of competitive repertoires: an empirical analysis," *Strategic Management Journal* 17: 419–39.
- Mohr, J.J. and Sengupta, S. 2002. "Managing the paradox of inter-firm learning: the role of governance mechanisms," *The Journal of Business & Industrial Marketing* 17: 282–301.
- Momme, J. 2002. "Framework for outsourcing manufacturing: strategic and operational implications," *Computers in Industry* 49: 59–75.
- Mudambi, R. and Helper, S. 1998. "The 'close but adversarial' model of supplier relations in the US auto industry," *Strategic Management Journal* 19: 775–92.
- Muehlberger, U. 2007. "Hierarchical forms of outsourcing and the creation of dependency," *Organization Studies* 28: 709–27.
- Mullen, T.P. and Lyles, M.A. 1993. "Toward improving management development's contribution to organizational learning," *Human Resource Planning* 16: 35–49.
- Nelson, R.R. and Winter, S.G. 1982. *An Evolutionary Theory of Economic Change*. Cambridge, MA: Harvard University Press.
- Nooteboom, B. 2000. "Learning by interaction: absorptive capacity, cognitive distance and governance," *Journal of Management & Governance* 4: 69–92.

- Norrman, A. and Jansson, U. 2004. "Ericsson's proactive supply chain risk management approach after a serious sub-supplier accident," *International Journal of Physical Distribution & Logistics Management* 34: 434–56.
- Pahlberg, C. 2001. "Creation and diffusion of knowledge in subsidiary business networks," in H. Hakansson and J. Johanson (eds.), *Business Network Learning*. Oxford: Elsevier Science, pp. 169–81.
- Pedersen, T. and Thomsen, S. 1999. "Business systems and corporate governance," *International Studies of Management & Organization* 29: 43–59.
- Peteraf, M.A. 1993. "The cornerstones of competitive advantage: a resource-based view," *Strategic Management Journal* 14: 179–91.
- Peters, L.M. and Manz, C.C. 2007. "Identifying antecedents of virtual team collaboration," *Team Performance Management* 13: 117–29.
- Poppo, L. and Zenger, T. 2002. "Do formal contracts and relational governance function as substitutes or complements?" *Strategic Management Journal* 23: 707–25.
- Porter, M.E. 1996. "What is strategy?" *Harvard Business Review* 74: 61–78.
2001. "Strategy and the internet," *Harvard Business Review* 79: 62–78.
- Powell, W.W., Koput, K.W., and Smith-Doerr, L. 1996. "Interorganizational collaboration and the locus of innovation: networks of learning in biotechnology," *Administrative Science Quarterly* 41: 116–45.
- Quelin, B. and Duhamel, F. 2003. "Bringing together strategic outsourcing and corporate strategy: outsourcing motives and risks," *European Management Journal* 21: 647–61.
- Quinn, R.E. and Cameron, K.S. 1988. *Paradox and Transformation: Toward a Theory of Change in Organization and Management*. Cambridge, MA: Ballinger.
- Rhinesmith, S.H. 2001. "How can you manage global paradox?" *Journal of Corporate Accounting & Finance* 12: 3–9.
- Rosen, S.M. 1994. *Science, Paradox, and the Moebius Principle*. Albany: State University of New York Press.
- Rosen, B., Furst, S., and Blackburn, R. 2007. "Overcoming barriers to knowledge sharing in virtual teams," *Organizational Dynamics* 36: 259–73.
- Rothaermel, F.T., Hitt, M.A., and Jobe, L.A. 2006. "Balancing vertical integration and strategic outsourcing: effects on product portfolio, product success, and firm performance," *Strategic Management Journal* 27: 1033–56.
- Sadowski, B.M., Dittrich, K., and Duysters, G.M. 2003. "Collaborative strategies in the event of technological discontinuities: the case of Nokia

- in the mobile telecommunication industry," *Small Business Economics* 21: 173–86.
- Scarso, E. and Bolisani, E. 2008. "Communities of practice as structures for managing knowledge in networked corporations," *Journal of Manufacturing Technology Management* 19: 374–90.
- Sheard, A.G. and Kakabadse, A.P. 2002. "From loose groups to effective teams: the nine key factors of the team landscape," *The Journal of Management Development* 21: 133–51.
- Simonin, B. 1999. "Ambiguity and the process of knowledge transfer in strategic alliances," *Strategic Management Journal* 20: 595–623.
- Snow, C.C., Miles, R.E., and Coleman, Jr., H.J. 1992. "Managing 21st century network organizations," *Organizational Dynamics* 20: 5–20.
- Spekman, R.E., Spear, J., and Kamauff, J. 2002. "Supply chain competency: learning as a key component," *Supply Chain Management* 7: 41–55.
- Stata, R. 1989. "Organizational learning – the key to management innovation," *MIT Sloan Management Review* 30: 63–74.
- Stratman, J.K. 2008. "Facilitating offshoring with enterprise technologies: reducing operational friction in the governance and production of services," *Journal of Operations Management* 26: 275–87.
- Szulanski, G. 1995. "Unpacking stickiness: an empirical investigation of the barriers to transfer best practice inside the firm," *Academy of Management Journal*: 437–41.
1996. "Exploring internal stickiness: impediments to the transfer of best practice within the firm," *Strategic Management Journal* 17: 27–43.
- Tadelis, S. 2007. "The innovative organization: creating value through outsourcing," *California Management Review* 50: 261–77.
- Takeishi, A. 2001. "Bridging inter- and intra-firm boundaries: management of supplier involvement in automobile product development," *Strategic Management Journal* 22: 403–33.
- Teece, D.J. 2000. "Strategies for managing knowledge assets: the role of firm structure and industrial context," *Long Range Planning* 33: 34–54.
- Thompson, J.D. 1967. *Organizations in Action: Social Science Bases of Administrative Theory*. New York: McGraw-Hill.
- Townsend, A.M., DeMarie, S.M., and Hendrickson, A.R. 1998. "Virtual teams: technology and the workplace of the future," *Academy of Management Executive* 12: 17–29.
- Tushman, M.L. and Scanlan, T.J. 1981a. "Boundary spanning individuals: their role in information transfer and their antecedents," *Academy of Management Journal* 24: 289–305.
- 1981b. "Characteristics and external orientations of boundary spanning individuals," *Academy of Management Journal* 24: 83–98.

- Uzzi, B. 1997. "Social structure and competition in interfirm networks: the paradox of embeddedness," *Administrative Science Quarterly* 42: 35–67.
- Vanhaverbeke, W., Beerkens, B., and Duysters, G. 2004. "Explorative and exploitative learning strategies in technology-based alliance networks," paper presented at the Academy of Management.
- Wang, E.T.G. and Wei, H.-L. 2007. "Interorganizational governance value creation: coordinating for information visibility and flexibility in supply chains," *Decision Sciences* 38: 647–74.
- Wenger, E., McDermott, R., and Snyder, V.M. 2002. *Cultivating Communities of Practice: A Guide to Managing Knowledge*. Boston: Harvard Business School.
- Willcocks, L.P. and Feeny, D. 2006. "IT outsourcing and core IS capabilities: challenges and lessons at Dupont," *Information Systems Management* 23: 49–56.
- Williamson, O.E. 1985. *The Economic Institutions of Capitalism*. New York: Free Press.
2008. "Outsourcing: transaction cost economics and supply chain management," *Journal of Supply Chain Management* 44: 5–16.
- Williamson, O.E. and Craswell, R. 1993. "Calculativeness, trust, and economic organization," *Journal of Law and Economics* 36: 453–78.
- Winkler, I. 2006. "Network governance between individual and collective goals: qualitative evidence from six networks," *Journal of Leadership & Organizational Studies* 12: 119–34.
- Wu, T., Blackhurst, J., and Chidambaram, V. 2006. "A model for inbound supply risk analysis," *Computers in Industry* 57: 350–65.
- Yu, C.-M.J., Liao, T.-J., and Lin, Z.-D. 2006. "Formal governance mechanisms, relational governance mechanisms, and transaction-specific investments in supplier-manufacturer relationships," *Industrial Marketing Management* 35: 128–39.
- Zboralski, K. and Gemünden, H.G. 2006. "The impact of communities of practice," in E. Coakes and S. Clarke (eds.), *Encyclopedia of Communities of Practice in Information and Knowledge Management*. Hershey, PA: Idea Group, pp. 218–23.

PART II

*The offshoring and outsourcing of
R&D and innovative activities*

