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Fei Ye

University of Maryland, College Park

Ritu Agarwal

University of Maryland, College Park

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STRATEGIC INFORMATION TECHNOLOGY PARTNERSHIPS IN OUTSOURCING AS A DISTINCTIVE SOURCE OF INFORMATION TECHNOLOGY VALUE: A SOCIAL CAPITAL PERSPECTIVE

Fei Ye and Ritu Agarwal

Decision and Information Technologies Department
Robert H. Smith School of Business
University of Maryland
College Park, MD USA

fye@rhsmith.umd.edu

ragarwal@rhsmith.umd.edu

Abstract

Firms increasingly acquire needed information technology (IT) products and services from external partners. In spite of the ubiquity of IT outsourcing in contemporary organizations, however, theoretical understanding of the dynamics of this phenomenon is limited. A dominant perspective used to explain IT outsourcing is transactions-cost economics (TCE) that focuses attention on efficiency and cost-reduction goals, and emphasizes opportunistic behavior. We suggest that by viewing outsourcing relationships as arms-length transactions, TCE may lead to overlooking potential mechanisms inherent in IT outsourcing relationships for the creation of alternative types of value. We present a relational lens for viewing the IT outsourcing phenomenon that is premised on knowledge exchange and learning. Specifically, we argue that the strategic partnership a firm forms through IT outsourcing constitutes a source of social capital for the focal firm, which facilitates (IT) collaboration between the focal firm and its partner. The learning resulting from knowledge exchange and transfer through the collaboration, in turn, generates (IT) value for the focal firm. Two manifestations of IT value are considered: strengthened internal IT partnerships, and IT-enabled innovation. We examine specific characteristics of social capital and how they influence the learning that occurs in the partnership. Propositions that can serve as the basis for future research are developed.

Introduction

The increasing prevalence of information technology (IT) outsourcing reflects an important shift in the managerial mindset of chief information officers (CIOs): from a focus on internal development in the early days of business computing, to external partnerships and alliances. IT outsourcing can be defined as “the delegation, through a contractual agreement, of all or any part of the technical resources, the human resources, and the management responsibilities associated with providing IT services to an external vendor” (Clark et al. 1995). According to the IT Index¹ prepared by the Outsourcing Institute, spending on IT outsourcing reached \$56 billion in 2000 and is expected to top \$100 billion by 2005. Today, firms engage in a variety of outsourcing relationships to access infrastructure technologies, improve business applications, change business processes, or even achieve business transformations.

The IT Index 2001 shows that although cost reduction remains the major motive for outsourcing, it is closely followed by goals such as “improving company focus” and “resources not available internally.” Market research has found mounting evidence that

¹URL: http://www.outsourcing.com/content.asp?page=02i/other/_sungard/it_index.htm&nonav=true.

companies have turned to outsourcing for more strategic reasons, including keeping up with cutting-edge technology, building partnerships, creating value for the organization and its customers, and broadening infrastructure and operations reach.

Not surprisingly, the IT outsourcing phenomenon has been the subject of much academic research. The extant literature has tapped into a variety of issues such as the motivations and decisions of IT outsourcing (Grover et al. 1994b; Loh et al. 1992), types of IT functions outsourced (Grover et al. 1994a), types of vendor-client relationships (Willcocks and Kern 1998), contract types (Saunders et al. 1997), determinants of successful IT outsourcing (Willcocks and Kern 1998), pros and cons of IT outsourcing (Earl 1996), and scope of IT outsourcing (Willcocks and Choi 1995). See Lacity and Willcocks (2002) for an extensive literature review.

In spite of a fairly extensive body of research on IT outsourcing, however, the research literature to date lags contemporary reality in at least three ways. First, the predominant theoretical frameworks used to explain the IT outsourcing decision have been transaction cost economics (TCE) and the resource-based view (RBV). According to TCE and RBV, the boundary choice of a firm is based on a comparison of the performance of alternative governance structures (i.e., market and hierarchy) and the gap between internally available resources and required resources. Although TCE and RBV help explain *why* a particular boundary choice is made, they have not illuminated the question of *what* benefit such a choice would yield and *how* the choice could be potentially valuable for the firm. The extant literature on IT outsourcing has helped us understand the reasons underlying IT sourcing decisions, but there remains a theoretical void to be filled as to how such a boundary choice of a firm would serve the firm's ultimate goal of value creation once the sourcing decision is made. Therefore, using complementary theoretical frameworks to investigate the IT outsourcing phenomenon is a promising research avenue to pursue. We propose an alternative theoretical lens, not as a substitute of TCE or RBV, but as a complement, to explore some relatively understudied areas.

Second, although numerous researchers have demonstrated the performance benefits that accrue from IT outsourcing, this research strand lacks a systematic theoretical explanation of the relationship between the IT outsourcing decision and improved performance. Moreover, in studies that highlight performance benefits, the measures used have a tendency to be short-term oriented and primarily financial-performance based. Finally, the IT outsourcing literature, dominated by the TCE view, treats the relationship between the outsourcer and the client as something close to an arms-length transaction. Here, both parties are viewed as passive participants, with the client firm handing off part or all of its IT functions to the vendor, and the vendor firm striving to hit the base-line as agreed upon in the IT outsourcing contract. With a few exceptions (Lasher et al. 1991; Lynskey 1999), most studies on IT outsourcing have failed to demonstrate how the client and the vendor interact throughout the IT outsourcing practice to achieve targeted goals. Thus, the real dynamics of the phenomenon remain largely unknown.

Today, anecdotal evidence suggests that the dynamics of IT outsourcing are more complex and multifaceted. Preliminary interview conversations² with several project managers of IT outsourcing projects revealed that outsourcing relationships are being viewed as cooperative and collaborative, and that successful IT outsourcing relationships could potentially extend the capabilities of firms involved. During the interviews, the project managers highlighted extensive knowledge transfer (both technical and non-technical) from the external partner to the focal firm, thereby debunking the assertion that IT outsourcing would result in lack of knowledge transfer and a loss of learning capability for the firm. Further, these project managers considered the outsourcers *partners* because the focal firm viewed the outsourcer as possessing knowledge, expertise, and business perspectives that can contribute in strategic ways to its business goals (McDowell 2003) and, more importantly, working benevolently to achieve the goals of the focal firm.

The objective of this paper is to provide an alternative lens for viewing the IT outsourcing phenomenon. We argue that the strategic partnership a firm forms through IT outsourcing may constitute a source of social capital for the focal firm, which facilitates IT collaboration between the focal firm and its partner. Although knowledge transfer may not be the primary goal at the time of the boundary choice decision, we speculate that knowledge transfer would become a more important concern when firms are involved in building and maintaining an outsourcing relationship. The learning resulting from knowledge exchange and transfer through collaboration can, in turn, generate IT value for the focal firm. We examine specific characteristics of social capital and how they influence the learning that occurs in the partnership. We primarily focus on two types of IT outsourcing relationships proposed by Nam et al. (1996): *alignment* and *alliance*. Examples of the *alignment* relationship are IS consulting or technical supervision for IT planning and design, and for system conversion. IS planning, new product design, and new systems design to help new market entry are some examples of the *alliance* relationship (Nam et al. 1996).

²Due to the space limitations, detailed interview findings are not elaborated in the text. Details are available upon request.

We acknowledge that IT outsourcing partnerships involve great risk and often times lead to unsuccessful results, as shown in prior literature (Earl 1996; Lacity et al. 1996) and news articles.³ We do not claim IT outsourcing partnerships as a panacea for problems firms are now facing; however, the failure of IT outsourcing is beyond the scope of the present study. Here, we specifically focus on the positive effects of the IT outsourcing partnerships.

The remainder of this paper proceeds as follows. We first present the conceptual underpinnings of the theoretical model that draws upon multiple streams of research, including the knowledge-based view of the firm, organizational learning, and strategic alliances. This is followed by the specific research model and propositions. The paper concludes with a discussion of the implications of the model and directions for future research.

The Knowledge-Based View, Organizational Learning, and Strategic Alliances

Three streams of research inform the model developed here. Key findings are briefly reviewed below.

The Knowledge-Based View of the Firm

The knowledge-based view of the firm treats knowledge as the most strategically significant resource possessed by the firm (Grant 1996b). Researchers adopting this perspective argue that heterogeneous knowledge bases and capabilities among firms are the main determinants of sustainable competitive advantage and superior performance. Two types of knowledge are generally discussed (Polanyi 1962). Tacit knowledge is embedded in the individual, is difficult to articulate, and can only be learned through observation and practice. As knowledge is explored, put into action, and socially justified, some part of it may be codified into explicit forms that can be processed and transferred. Tacit knowledge has the potential to confer sustainable competitive advantage because of its inimitability and relative immobility (Grant 1996b; Gupta and Govindarajan 2000). Viewing organizational knowledge creation as an upward spiral process, starting from the individual level, moving up to group level and organizational level, and even reaching to the interorganizational level, Nonaka (1994) posits that organizational knowledge is created through an ongoing dialogue between tacit and explicit knowledge. Nonaka argues that while individuals develop new knowledge, organizations play a critical role in articulating and amplifying that knowledge.

Dierickx and Cool (1989) conceptualized the knowledge resource of a firm as stocks and flows. Superior stocks and flows are viewed as sources of sustained competitive advantage and better performance. Kogut and Zander (1992) posited that firms do better than markets in terms of knowledge creation and transfer. They argued that although knowledge resides in individuals, it is embedded in the organizational principles and routines whereby people voluntarily cooperate in an organizational context. Knowledge creation is path dependent through the replication and recombination of existing knowledge. A firm also needs to continuously recombine its knowledge and apply it to new opportunities in order to deter imitation by its competitors.

As is evident from this brief review, there is agreement that knowledge constitutes a significant resource for firms and confers the potential for superior performance and competitive advantage. In essence, knowledge constitutes the basis for organizational learning.

Organizational Learning

Huber (1991) defines learning as a process of information processing by an entity, which changes its range of potential behaviors. Although learning theory originally focused on individuals, it has been increasingly applied to organizational levels, where it is viewed as a key process in the adaptation of organizations to the environment. Cohen and Levinthal (1990) linked organizational learning and innovation to the evolving knowledge base of the firm by introducing the idea of absorptive capacity, which is the ability to recognize the value of external information, assimilate it and apply it to commercial ends. According to this view, a firm's ability to internalize external information and knowledge is largely a function of the level of the firm's prior knowledge. In the same vein, Nonaka and Takeuchi (1995) view organizational learning as an adaptive change process that is influenced by past experience, focused on developing and modifying routines, and supported by organizational memory. Studies have shown that in addition to learning from internal search, firms learn from external sources such as acquisitions, the experience of others, or alliances.

³URL: <http://www.cio.com/archive/030103/home.html>; <http://www.firmbuilder.com/articles/19/48/388/>.

Brown and Duguid (1991) proposed a view of organizational learning in communities of practice. They argue that learning theory should be distanced from codified, transferable, and objective knowledge, and instead focus on knowledge in context. In their view, meaningful knowledge is deeply related to daily work, and the acquisition of new knowledge (learning) is socially constructed from working practices.

Knowledge and Learning in IT

After extensive debates related to the conceptualization of IT, IT researchers have coalesced upon a view of IT that treats it as socially constructed and contextually situated (DeSanctis and Poole 1994; Yates and Orlikowski 1992). Based on the core tenet of RBV, information technology alone, as an artifact, will not be able to generate value for the firm (Mata et al. 1995). It is when IT is utilized in the organizational context, put into action, and rationalized through business processes that it will be valuable for users. In the same vein, knowledge about IT should not be restricted to the technological part of it because of the emerging emphasis on technology-in-use in the IT field. Studies have shown that even the same technology can be utilized in various ways and to a different extent, thus generating significantly different outcomes for the firm (Barley 1986). Therefore, knowledge about IT cannot be singled out in the absence of the *context*.

Strategic Alliances

Because we are interested in the generation of knowledge in strategic IT partnerships, it is instructive to review key findings from research in strategic alliances. Strategy researchers increasingly recognize a growing trend of the hybrid form of governance structure, or “network form of organization” (Powell 1999). The proliferation of interfirm networks such as strategic alliances is argued to be driven by the challenge of growing knowledge intensity (Adler 2001; Powell 1998). Researchers have found that firms are becoming less self-sufficient to generate science and technology to sustain growth in face of the uncertainty and complexity of today’s globalized business environment (Powell 1999) and that the most qualified centers of excellence in the relevant know-how are often located outside the firm’s boundary (Hagedoorn 1993; Kogut and Zander 1992).

Studies on strategic alliances confirm a significant increase in their use as a strategic device (Anand and Khanna 2000; Gulati et al. 2000; Kale et al. 2000; Kogut and Zander 1996; Mowery et al. 1996). Alliances are viewed not only as a means to acquire complementary resources and capabilities that firms lack (Parise and Henderson 2001), but also as a channel to gain access to other firm’s capabilities, supporting more focused, intensive exploitation of existing capabilities within each firm (Mowery et al. 1996).

Increasing attention in academic research has been paid to strategic alliances motivated by learning (Anand and Khanna 2000; Dyer and Nobeoka 2000; Gulati et al. 2000; Kogut and Zander 1996; Mowery et al. 1996). To survive and respond to changes in a highly competitive and volatile environment, a firm must be able to keep learning new knowledge and practices. Forming strategic alliances with external entities allows the firm to focus more on its core competencies as well as to exchange knowledge and new ideas with them. Pennings and Harianto (1992) found that technological networking was the best predictor for technological innovation and firms with extensive networking are more likely to implement innovation with external partners. In other words, knowledge transfer can occur as a by-product of strategic alliances.

Summary

As illustrated in the literature reviewed above, the knowledge-based view of the firm argues for the primacy of knowledge as a value-generating asset and a source of competitive advantage. This view notes that organizational learning is critical for continually expanding a firm’s knowledge stock, and highlights the social aspects of learning and knowledge creation. The strategic alliance literature identifies knowledge creation and learning as a potential outcome of such alliances. Extending these arguments to the IT outsourcing phenomenon suggests that outsourcing is more than just getting an IT-related job done across organizational boundaries. Rather than simply obtaining certain information technologies from external sources, both the focal firm and the outsourcer will need to exert effort to make the information technologies work in the focal firm’s context. This effort, from a knowledge-based perspective, involves flows of knowledge and ongoing interorganizational learning between these two entities. What are the drivers of such learning? How does this learning generate value for the focal firm? These questions motivate the model described next.

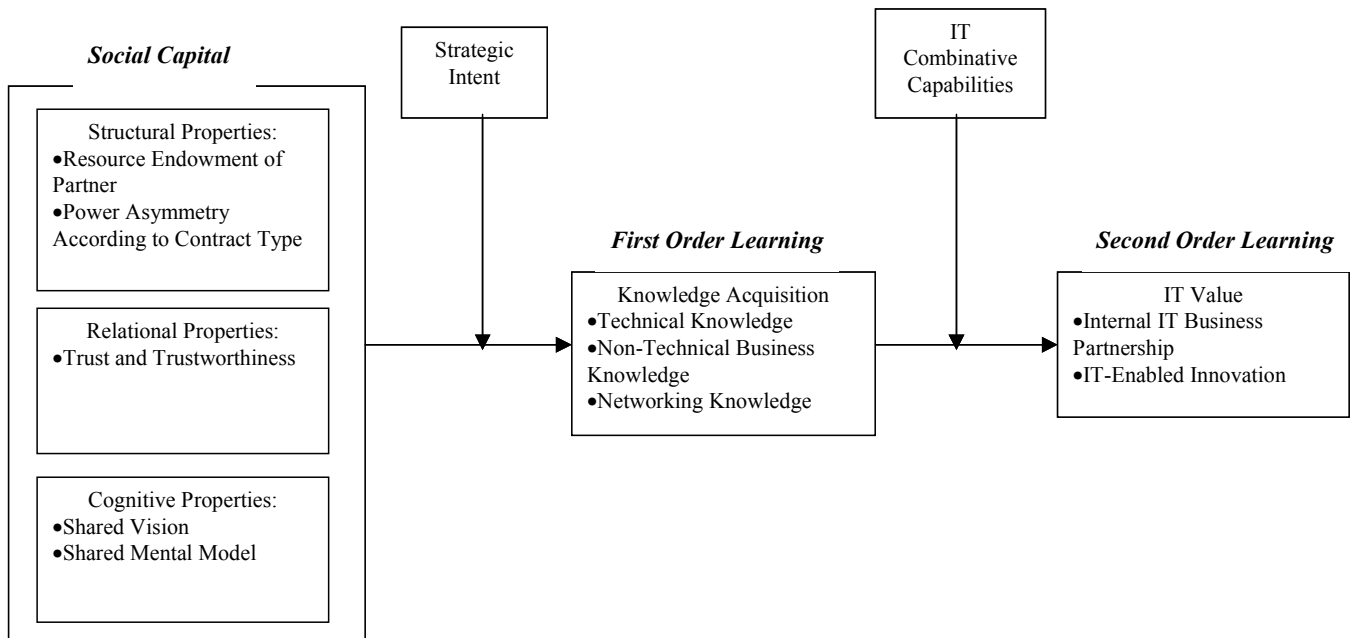


Figure 1. IT Value Creation through Strategic IT Outsourcing Partnerships

Theoretical Model and Research Propositions

The focus of our theorizing is on strategic IT partnerships established through the firm’s sourcing decision of acquiring IT services from an external entity. The word *partnership* is used here to connote a working relationship that reflects a long-term commitment, a sense of mutual cooperation, shared risk and benefits, and other qualities consistent with concepts and theories of participatory decision-making, and joint, mutually dependent action (Henderson 1990). As shown in the theoretical model in Figure 1, we adopt a social capital perspective to examine the (IT) value creation process of IT outsourcing partnerships. In essence, we view a strategic IT partnership as a form of social capital possessed by the focal firm. Various facets of social capital interact with the strategic intent of the partnership and may jointly result in an increase in the firm’s knowledge stock, i.e., they yield first-order learning. First-order learning in turn interacts with the firm’s combinative capabilities and may lead to IT value creation or second-order learning. The model and propositions are discussed below.

Social Capital and First Order Organizational Learning

As shown in Figure 1, we argue that the social capital embedded in an IT outsourcing partnership may yield IT value via the intervening process of learning. Social capital is defined as “the sum of the actual and potential resources embedded within, available through, and derived from the network of relationships possessed by an individual or social unit” (Nahapiet and Ghoshal 1998). Analysts of social capital are centrally concerned with the significance of relationships as a resource for social action (Burt 1992). Participating in an IT outsourcing partnership can be treated as a form of social capital because it encompasses both actual and potential resources and capabilities a firm may obtain through its embeddedness in the partner relationship.

Prior literature has identified two distinct benefits of social capital: allocative efficiency and adaptive efficiency (Burt 2000; Nahapiet and Ghoshal 1998). Allocative efficiency results from reduced information redundancy due to the structural characteristics of the network ties and the decreasing probability of opportunistic behavior due to high levels of trust. Adaptive efficiency is an outcome of the facilitating role of social capital in creativity and learning (Nahapiet and Ghoshal 1998). Nahapiet and Ghoshal argue that social capital facilitates the development of intellectual capital by affecting the conditions necessary for knowledge exchange and combination to occur.

For the purposes of the present study, the definition of organizational learning is adapted from Huber and from Grant. Organizational learning is viewed as (1) the increase in knowledge stock as a result of information processing, which will change

the range of the firm's potential behavior (Huber 1991); and (2) a regular pattern of interaction among entities that permits transfer, recombination, or creation of specialized knowledge (Grant 1996b).

We consider the two-step process of organizational learning as the underlying mechanism of value creation in strategic IT partnerships or alliances. First-order learning involves access to and acquisition of IT resources and knowledge from the strategic partner, and is consistent with the concept of knowledge acquisition by Huber. Thus, first-order learning is a manifestation of the "increased knowledge and information" in the definition. Second-order learning involves higher levels of knowledge internalization and integration, in which acquired IT resources and knowledge are combined with existing resources and capabilities to create value for the focal firm. This process encompasses the concepts of information distribution, information interpretation, and organizational memory (Huber 1991), and is consistent with the notion of capability integration (Grant 1996a).

We argue that social capital has the potential to generate three types of knowledge for the focal firm: technical IT knowledge, managerial IT knowledge, and networking knowledge. Technical IT knowledge refers to the know-how needed to build IT applications using available technology and to operate them to make products or provide services (Capon and Glazer 1987). Managerial IT knowledge is management's ability to conceive of, develop, and exploit IT to support and enhance other business functions (Capon and Glazer 1987). Finally, networking knowledge is the knowledge accumulated through prior experience in networking and partnering. Such knowledge has been recognized as a key asset. For instance, Lorenzoni and Lipparini (1999) view a firm's capability to interact with other companies as a distinctive organizational capability. Pennings and Harianto (1992) argue that a firm's experience in dealing with external partners is an integral component of its stock of skills. Anand and Khanna (2000) found that experience in certain types of alliances helps a firm learn to create value. Gulati (1999) examined the network resources a firm possesses and found that the extent of capabilities firms accumulated with forming alliances positively affected the frequency with which they enter new alliances. Following from the allocative efficiency benefits of social capital, we suggest:

Proposition 1: The social capital embedded in an IT outsourcing partnership is positively related to first-order learning by the focal firm.

Social capital provides an enabling foundation for knowledge exchange and transfer. However, the foundation alone does not guarantee knowledge transfer. Firms may view the purpose of the strategic partnership differently. Some may consider the partnership an opportunity for external exploration of knowledge, while others may adopt the more traditional perspective of TCE that questions the existence of learning within this relationship. Therefore, firms may have different intentions in terms of learning. Intent to learn refers to the firm's propensity to view alliances as an opportunity to learn (Parise and Henderson 2001); we term such motivations *strategic intent*. With greater strategic intent, the focal firm may purposively seek knowledge from its partner and encourage knowledge transfer, thus yielding an increased knowledge stock. In its absence, the focal firm may overlook the useful knowledge that the partner possesses and bypass the opportunity of knowledge transfer. Therefore, strategic intent works as a moderator in the relationship between social capital and increase in knowledge stock.

Proposition 2: The influence of social capital embedded in an IT outsourcing partnership on first-order organizational learning is moderated by the focal firm's strategic intent.

The Dimensions of Social Capital

As Nahapiet and Ghoshal (1998) point out, social capital is a multidimensional concept and has many different attributes. They proposed three dimensions of social capital: structural, relational, and cognitive. Although relationships between each dimension are possible (Tsai and Ghoshal 1998), the primary focus of this research is not on the interrelationship among them. Rather, we examine how the three distinctive dimensions collectively determine the incremental knowledge stock of a firm.

The structural dimension of social capital refers to "the overall pattern of connections between actors—that is, who you reach and how you reach them" (Nahapiet and Ghoshal 1998). Network ties provide access to resources, and social capital is a valuable source of information benefits because *who* you know affects *what* you know. In the proposed model, we use the resource endowment of partner (size, financial abundance, and diversity) to describe potential sources of benefits from who you know, which will determine what you know.

The information benefits of social capital are realized in three forms: access, timing, and referrals (Burt 1992). Partners with better resource endowment are more likely to provide such benefits due to their network centrality, financial slack, and knowledge scope. In the IT context, a firm may find from time to time that it needs certain technological capabilities that are critical to its

success yet are not readily available through internal development. Anecdotal evidence suggests that large and well-established firms tend to have larger knowledge stocks and more relational resources, and partnering with such firms may enable the focal firm to access much-needed knowledge and skills in a timely manner. For instance, Stuart (2000) found that partner endowment could influence the advantage of the alliance partner and partnering with well-known firms conveys status to a focal firm. Henderson and Cockburn (1996) observed that the effects of economies of scale and knowledge spillovers were stronger in larger firms than in smaller firms and that large firms benefitted primarily from economies of scope in the form of a larger and more a diversified knowledge pool. Therefore,

Proposition 3a: The resource endowment of the IT outsourcing partner is positively related to first-order organizational learning by the focal firm.⁴

In addition to who you know, the nature of the contract and the power asymmetry specified in the contract can also influence the way the two firms interact, thus affecting the knowledge transfer process. Mowery et al. (1996) suggest that interfirm knowledge transfers should be more limited in *unilateral* contract-based alliances such as licensing agreements, as opposed to those in *bilateral* contractual arrangements such as technology sharing or joint development agreement. Research also asserts that certain types of alliance are more effective in knowledge transfer than others (Osborn and Hagedoorn 1997). The nature of the IT outsourcing contract determines the power each partner has in terms of decision making and problem solving. Regardless of the heterogeneity of knowledge and skills, the focal firm and the outsourcer should have relatively symmetric power in decision making and problem solving in the partnership in order for effective knowledge transfer to occur. Asymmetric power is a hindrance to collaborative partnership and will inhibit effective knowledge transfer, with one firm having better advantage to learn at the cost of the other. Therefore,

Proposition 3b: The power asymmetry of the IT outsourcing partnership is negatively related to first-order organizational learning by the focal firm.

The relational dimension of social capital refers to “those assets created and leveraged through relationships, and parallel to what was described as behavioral as opposed to structural” (Nahapiet and Ghoshal 1998). Many studies of strategic alliances have found that trust is a major antecedent of successful partnerships (Dyer and Singh 1998; Gulati 1995; Gulati et al. 2000; Hamel et al. 1989; Kogut and Zander 1996; Mowery et al. 1996). Trust indicates a willingness to take the risk when the other party might take advantage of your vulnerability, based on beliefs about the good intentions, concern, competence, capability, and reliability of exchange partners. Prior studies have found that trust lubricates cooperation and facilitates knowledge transfer; it is at the heart of effective knowledge-intensive interfirm networks (Powell 1999). A burgeoning body of research shows that when firms need innovation and knowledge inputs from suppliers rather than just standardized commodities, no combination of strong hierarchical control and market discipline can assure as high a level of performance as trust-based community (Dyer 1996). Low trust relations enable cost improvements but are unable to stimulate the creation of new knowledge (Adler 2001). Trust stems from previous experience or reputation if there is no prior encounter. Therefore,

Proposition 4: Trust between the focal firm and the IT outsourcing partner is positively related to first-order organizational learning by the focal firm.

The cognitive dimension of social capital refers to “those resources providing shared representations, interpretations, and systems of meaning among parties” (Nahapiet and Ghoshal 1998). Although it recognized that innovation is achieved by combining different knowledge and experience and that diversity of knowledge background is useful, social exchange and combination processes require meaningful communication, which is based on some sharing of language or understanding of the context (Boland and Tenkasi 1995; Nahapiet and Ghoshal 1998).

Knowledge transfer and learning requires shared cognition and shared vision. Shared cognition reduces the barriers of understanding between the partners because they have similar mental models and knowledge regarding the context. However, the relatedness between the knowledge base of the focal firm and that of its partner may be curvilinearly related to learning. It is well established that the creation of knowledge often occurs by bringing together knowledge from disparate sources and disciplines. While too little relatedness will provide little common background of understanding and absorptive capacity on both sides, and both parties will suffer from the stickiness of the knowledge transferred (Szulanski 1996), too much relatedness creates the pitfall of the weakness of strong ties in that little new knowledge is likely to be created. Lane and Lubatkin (1996) introduced

⁴For the sake of brevity, propositions relating the dimensions of social capital to first-order learning are posited as main effects. However, the interaction with strategic intent as stated in Proposition 2 is expected in all of these relationships.

the concept of relative absorptive capacity and examined the relationship between knowledge transfer and similarity between partners. They found that similarity of basic knowledge was positively related to learning, while similarity of specialized knowledge was negatively related to learning. Collectively, these findings suggest the following:

Proposition 5a: A shared mental model (relatedness of knowledge base) between the focal firm and the IT outsourcing partner is positively related to first-order learning by the focal firm in a non-linear fashion.

A shared vision clarifies the common goal of the partnership, reduces conflict in interests, and mitigates the problem of opportunistic behaviors in the “learning race” (Kogut 2000). If the focal firm and the partner share a vision and values, they will be more motivated to share knowledge with each other to achieve the common goal of the partnership and make both sides better off. Each partner realizes that it can depend on the capabilities and expertise of the other partner in a win/win situation.

Proposition 5b: A shared vision between the focal firm and the IT outsourcing partner is positively related to first-order organizational learning.

IT Value Creation: From First-Order to Second Order Learning

Access to and the acquisition of knowledge is the first step toward value creation because it provides the essential ingredients in the form of technical, nontechnical, and networking knowledge. However, in order for the knowledge to become useful and valuable for the focal firm, it has to be integrated with existing knowledge and capabilities. In other words, it is through a process of knowledge recombination that value gets created (Grant 1996a; Kogut and Zander 1992). We term this outcome second-order learning, and suggest that it manifests itself in the form of **IT value**, viz, *strengthened internal partnerships* and *IT enabled innovation*. We argue that first-order learning interacts with a firm’s combinative capabilities in generating such value.

Internal IT Partnership

The importance of partnerships between IT and the rest of the firm has been highlighted in significant research in IT management (Boynton and Zmud 1987; Chatterjee et al. 2001). Conceptual and empirical research examining IT-business partnerships (Henderson 1990) has found that information technology must be integrated into every aspect of the organization, and that there is a critical need to build an effective working relationship between line managers and information systems managers and specialists. Internal IT partnerships forge links between the IT and business and result in harmonious working relationships. Strong internal partnerships constitute a form of IT value because, as documented in prior research, appropriate use of IT requires knowledge and understanding at the confluence of business and technology (Nambisan et al. 1999). Furthermore, the complex task of implementing systems and getting them accepted by users is facilitated when IT and business are widely regarded as working together in an amicable fashion (Watson et al. 1998). Finally, internal partnerships are valuable for the focal firm because such relationships will eventually amplify the strategic importance of IT and enable the focal firm to better utilize IT resources to realize its strategic goals.

Knowledge and capabilities acquired from a successful external partnership can strengthen internal partnerships between IT department and business units in the following ways. First, access to external resources, knowledge and capabilities makes the executives and line managers more aware of the important role of IT in facilitating strategies to achieve the firm’s business objectives. The increased recognition of the importance of IT urges the business managers to treat the IT unit as an equal partner in every significant business development initiative. Second, experience cumulated from managing the IT partnership and knowledge acquired from external partners make the firm more apt to efficiently utilize both internal and external IT resources simultaneously to meet the needs of business operations. Third, successful knowledge transfer in IT partnerships requires that the focal firm have a minimum level of understanding of IT and that the external partner understand the business needs of the focal firm. The IT unit of the focal firm plays a critical role in integrating the external resources and knowledge with the internal IT capabilities by bridging the gap between the external partner and the business units. The IT unit has both technical and business knowledge and therefore is able to assume the brokerage role in ensuring the satisfaction of the users in business units while at the same time communicating their needs to the external partner. The important brokerage role strengthens the interdependence between the business units and the IT unit. Based on the argument above,

Proposition 6a: The knowledge acquisition of the focal firm through the strategic IT alliance/partnership is positively related to its internal business IT partnership.

IT-Enabled Innovation

The second manifestation of IT value, IT-enabled innovation, is perhaps the most important way in which IT can contribute to a firm (Mason et al. 1997). Innovation, defined as commercialized new ideas, such as new products and/or services, new organizational forms, or new markets (Schumpeter 1950), is widely acknowledged to lie at the heart of a firm's capability to sustain competitive advantage (Abernathy and Clark 1985). Innovation is critical for success in a high velocity environment, in which firms can only have temporal competitive advantage and have to keep refining their competitive advantage through "creative destruction" (Schumpeter 1950) on a regular basis. For example, in the mid- to late 1990s, many firms partnered with Internet-based service providers to speedily establish a Web presence. Going online enabled these firms to provide new products or services to a larger customer base through the newly created distribution channel. However, such opportunities could not have been realized without the extensive application of technology. We view IT-enabled innovation as new products or services developed, new organizational forms realized, and new market opportunities realized by a firm through the application of IT (Agarwal and Sambamurthy 2002; Chatterjee et al. 2002), and suggest that such innovation is a key facet of the value that IT generates for a firm.

As observed earlier, the role of knowledge in enhancing and sustaining innovation is a recurrent theme in the strategic management literature (Grant 1996a, 1996b; Helfat and Raubitschek 2000; Kale et al. 2000; Kogut and Zander 1992, 1996). Clearly, in the presence of first-order learning, the firm acquires the technical know-how and business understanding necessary to generate new thinking about the application of IT, and such knowledge should result in greater IT-enabled innovation. Therefore,

Proposition 6b: The knowledge acquisition of the focal firm is positively related to its IT-enabled innovation.

However, the strength of these transformations is profoundly dependent on the combinative capabilities of the firm. As Kogut and Zander (1992) point out, "Creating new knowledge does not occur in abstraction from current abilities. Rather, new learning, such as innovations, is the product of a firm's combinative capabilities to generate new applications from existing knowledge." They define combinative capabilities as "the intersection of the capability of the firm to exploit its knowledge and the unexplored potential of the technology, or technological opportunity." The underlying theoretical mechanism through which knowledge gets transformed into value is one of recombination, integration, and exploitation. As a result of partnering with an IT outsourcer, a firm acquires a combination of the three types of knowledge: technological, nontechnological, and networking. Then, as a result of its own combinative capabilities, it creates new knowledge through the integration of its existing knowledge and the externally obtained knowledge. This recombined knowledge can then be fully deployed to its greatest potential so as to create value for the focal firm.

Proposition 7: The strength of the positive relationship between first-order organizational learning by the focal firm in a strategic IT outsourcing partnership and IT value creation is positively moderated by the focal firm's combinative capabilities.

Discussion and Conclusion

Notwithstanding the fast growth of the IT outsourcing industry, our understanding of IT outsourcing practice remains superficial. The proposed model is an attempt to bridge a widening gap between the research literature on IT outsourcing and the reality. To this end, we believe it is useful to examine the IT outsourcing phenomenon from a social capital perspective. The contribution of the model is twofold. First, our theoretical perspective incorporates the concept of knowledge transfer into the IT outsourcing phenomenon, in contrast with prior literature where most researchers have questioned the existence of knowledge transfer or learning in IT outsourcing practices. Preliminary support for the propositions is provided by interviews with several project managers involved in various IT outsourcing projects. Second, the social capital perspective is a complementary theoretical framework for IT outsourcing research. While theories such as TCE and RBV have been used to explain the boundary choice decision of a firm, supplementary theoretical frameworks are needed to further explore the IT outsourcing phenomenon in the post-boundary-choice phase. As the focus on IT outsourcing shifts from transactions to relationship building, social capital, which emphasizes the relationship between entities, seems to be an appropriate perspective to explore the emerging issues.

The model also has managerial implications. The propositions suggest that IT outsourcing should no longer be regarded as a tactical mechanism for realizing cost related benefits. Rather, it would be fruitful for managers to view IT outsourcing as a potential strategic vehicle for gaining access to resources and capabilities from an external source in a changing environment that

requires both focus and flexibility. Further, the model highlights different factors that influence the extent of knowledge transfer and knowledge exploitation that occurs in outsourcing. To the extent that many of these factors are under the direct control of executives and managers, the model provides guidance on actions and interventions that can help in extracting maximal value from an IT outsourcing partnership.

The proposed model has several limitations that suggest fruitful avenues for future research. The first and most obvious limitation is that the research model and propositions need to be empirically tested. As an ongoing research effort, we are currently conducting interviews with project managers involved in various IT outsourcing projects to clarify uncertain issues in the research model. At the same time, we are developing operational measures of each of the research constructs in order to subject the model to a field test. Data will be collected at the level of the firm-IT outsourcing partner dyad. Such empirical testing is likely to yield refinements and extensions to the theoretical model. Second, social capital theory identifies many distinct dimensions that constitute social capital. In our model, we use a selective set of structural, relational, and cognitive properties, based on Nahapiet and Ghoshal's widely recognized conceptual model. A useful extension would be to examine additional properties mentioned in the original social capital literature and investigate how they relate to first-order organizational learning. Finally, we chose to focus our attention on IT value in the form of IT-enabled innovation and internal partnerships. To the extent that other forms of IT value have been acknowledged in the literature (Barua et al. 1995; Bharadwaj et al. 1999; Hitt and Brynjolfsson 1996), extending the model to include these other forms of value would lead to greater insight into the value creation potential of IT outsourcing partnerships.

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