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Moments of Governance in IS Outsourcing: Conceptualizing Effects of Contracts on Value Capture and Creation

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Introduction

Early research on IS outsourcing focused largely on the role of the contract and service level agreements in structuring and governing the client–provider relationship (e.g., Lacity and Willcocks 1998). More recently, researchers have begun to consider the role of non-contractual mechanisms such as trust and psychological contracts, which may be implemented at different moments during the inter-organizational relationship (e.g., Koh et al. 2004; Sabherwal 1999; Willcocks and Kern 1998; Davis 1996). Research has also begun to consider alternate forms of governance, that is, arm's-length *vs* embedded, that may be implemented via each mechanism (e.g., Lee et al. 2004). With these research

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streams has been a growing realization that different forms of governance invoked at different times during a relationship have different impacts on the nature of the rents that accrue to the client. The objective of this paper is to synthesize our understandings of the different forms of governance that may be exercised at different moments in the client–provider relationship and the manner in which governance choices at one moment constrain those at another, and subsequently the nature of rents mobilized. We draw upon the organizational literature on inter-organizational relationships to extend and sharpen our understanding of governance in the IS outsourcing relationship.

IS outsourcing is a boundary-spanning inter-organizational relationship, in which functions traditionally performed in-house are performed by another organization. In the IT discipline, governance has been defined as 'specifying the decision rights and accountability framework to encourage desirable behavior in the use of IT' (Weill and Ross 2004: 8). As a strategy though, we consider governance not just in terms of pre-specified frameworks, but also those frameworks that emerge in interactions between client and provider (Mintzberg 1978). Three forms of governance are widely recognized: the *market* is an institutionally derived and transaction- or contract-based governance form; the *hierarchy* is an institutionally derived authority-based form; the *network* is a socially-derived informal form (Williamson 1994; Shapiro 1987)[1].

The following sections develop a model of IS outsourcing as a series of governance choices that constrain or promote certain outcomes. The model addresses the question of how governance choices affect outcomes of IS outsourcing in terms of (1) value capture and (2) value creation. The focus of the MoG model is on post-adoption governance choices, that is, after the decision has been made to outsource an IS function. The model identifies three outsourcing phases: the promissory contract, the psychological contract, and elicitation of inter-organizational rents.

[1] These parallel the price-, authority-, and trust-based governance forms identified by Davis (1996). However, the governance forms identified by Davis have a more limited meaning that those appearing in organizational theory (OT) literatures. For example, trust is only one aspect of network governance (e.g., Nahapiet and Ghoshal 1998). We therefore adopt the governance typology provided by the OT literatures.

In each of these three phases, the building blocks derived from Ring and Van De Ven (1994) and Nahapiet and Ghoshal (1998) delineate specific processes undertaken and structures that emerge. We view the promissory contract and the psychological contract as two moments of governance following adoption.[2] The promissory contract represents formally stipulated 'paid for promises' (Rousseau and Parks 1994: 4). Psychological contracts refer to 'an individual's beliefs regarding terms and conditions of a reciprocal exchange agreement between that person and another party' (Rousseau and Parks 1994: 19). We focus on psychological contracts rather than social contracts as a counterpoint to promissory contracts because social contracts are based on 'shared, collective beliefs regarding appropriate behavior' (Rousseau and Parks 1994: 3). While it is hoped that such shared, collective beliefs will emerge at this governance moment, they cannot be assumed. Furthermore, social contracts are believed to be automatically 'inherited at birth or acquired by membership' (Rousseau and Parks 1994: 4). In contrast, psychological contracts emerge in the course fulfillment of the terms of the promissory contract. Clients' capture and creation of value is enabled and constrained by these two governance moments.

At each governance moment, firms govern the outsourcing relationship via market, hierarchy, or network arrangements (Adler 2001). Note that our reference to governance specifically entails governance of the interorganizational relationship, not the governance of the participant organizations. In the following section, we describe governance choices at each moment, how the choices are constrained and acquire specific meaning within the IS arena, and how choices at one moment affect later options.

Overview of the Theoretical Model

Researchers on organizational strategy have noted two mechanisms whereby organizations attain rents – via the capture of value via efficiency-seeking or the creation of value through innovation (e.g., Dutta

[2] This distinction is consistent with Macneil's (1985) legal *vs* behavioral contracts.

et al. 2003). Research on inter-organizational relationships, and, more recently, on IS outsourcing, has recognized the existence of arm's-length *vs* embedded governance structures in inter-organizational relationships (e.g., Uzzi 1997, 1999; Jarillo 1988; Lee et al. 2004). Arms-length relationships are those that are exclusively economic and rely solely on formal means of governance. Embedded relationships are those in which the economic and social content of the relationship overlap and the social relationship is tapped for regulating the relationship. These studies have recognized that the different governance structures tend to elicit different types of rents in inter-organizational relationships. Thus, while arms-length relationships facilitate the efficient deployment of economic and intellectual capital, embedded relationships lead to the creation and growth of these inter-organizational resources. The different rent-mobilizing governance pathways elucidated in this paper are summarized in Fig. 4.1. This model highlights two 'moments' of governance in inter-organizational relationships – the moment of the promissory contract

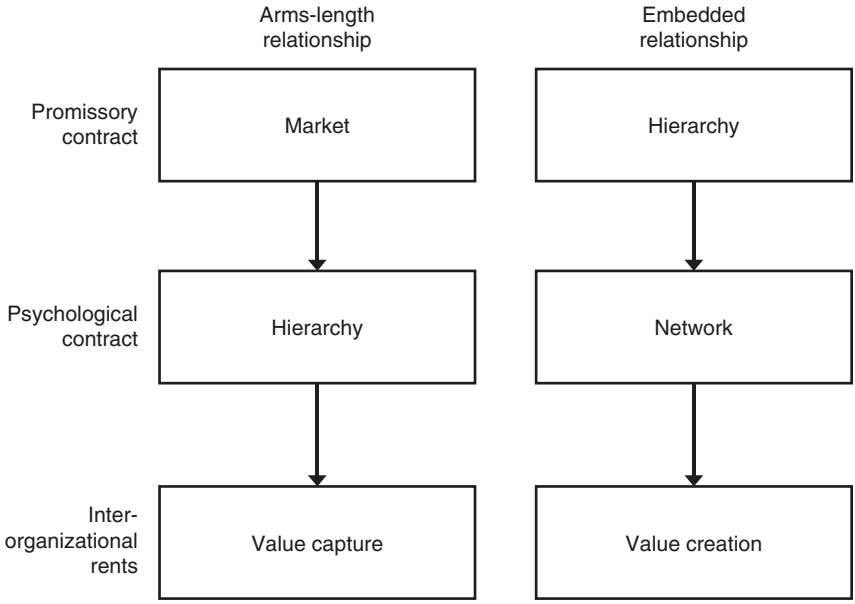

Fig. 4.1 Alternate governance patterns in IS outsourcing relationships

and the moment of the psychological contract. At each moment, one of two viable governance choices is available – market *vs* hierarchy at the moment of the promissory contract and hierarchy *vs* network at the moment of the psychological contract (Adler 2001). As depicted in Fig. 4.1, path-dependencies are engendered by the initial governance choice at the moment of the promissory contract, culminating in the acquisition of rents through either the capture of value or the creation of value. Alternatively, at the moment of the psychological contract, the terms of the promissory contract may be re-negotiated, commencing a new arrangement and re-starting the governance cycle.

In order to understand *how* these path-dependencies emerge, we consider the nature of the promissory and psychological contracts. We delineate the choices entailed in each of these moments, which, along with rent-mobilization choices, aggregate into arms-length *vs* embedded strategies. In doing so, we develop the MoG model summarized in Fig. 4.2. This model considers the process and emergent structure at

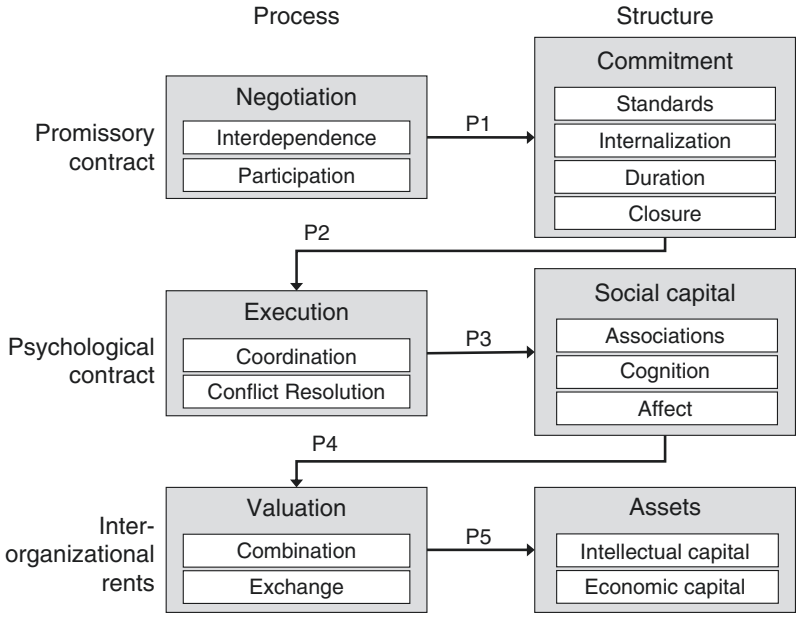

Fig. 4.2 A moments of governance (MoG) model of IS outsourcing

each governance moment and in the mobilization of inter-organizational rents. Here, structure is defined as rules and resources (Giddens 1979) or as assets that can be utilized by the organization (Stewart 1999). Such an approach enables a more comprehensive picture of the outsourcing relationship.

The building blocks for the MoG model are derived from Ring and Van de Ven's (1994) developmental framework of cooperative inter-organizational relationships and Nahapiet and Ghoshal's (1998) theory of intellectual capital creation via social capital. Ring and Van de Ven identify three stages in the development of inter-organizational relationships: negotiation, commitment, and execution. While these authors view the development of the explicit, formal contract and the implicit, informal contract as concurrent, based on the outsourcing literature (e.g., Willcocks and Kern 1998), we model them as consecutive moments. Furthermore, we explicitly model negotiation and execution as processes and commitment as the structure of the formal contract. This is consistent with Ring and Van De Ven (1994) who view negotiation as 'formal bargaining processes' (p. 97), commitment as 'the terms and governance structure of the relationship' (p. 98) or the *content* of the contract, and execution as the stage when 'commitments and rules of action are carried into effect' (p. 98). Finally, at each of these three stages, we contrast integrative *vs* isolative processes and structures and their subsequent effects on the relationship. Thus, we propose that the process of negotiating the contract impacts the contract terms to which the parties commit. This commitment, in turn, influences the manner in which the contract is executed.

Nahapiet and Ghoshal (1998) develop a model wherein social capital, 'a set of resources rooted in relationships' (p. 243), is a conduit for the valuation, that is, exchange and recombination, of intellectual capital, resulting in the growth of intellectual capital. The MoG model borrows from this perspective, but differs in the following respects. First, it distinguishes between social capital based on formally or informally derived relationships. It recognizes that hierarchical relationships are also associated with social capital, though a qualitatively different social capital than that which derives from informal, network relationships. Second, the MoG model views economic capital as a structure that

parallels intellectual capital in its diffusion through social networks. Third, based on Moran and Ghoshal (1999), the model distinguishes between types of combination and exchange. Finally, we model alternate outcomes in regard to intellectual and economic capital, that is, value capture *vs* value creation. Specifically, we propose that the manner in which the contract is executed defines the social capital as formal and hierarchical or as informal and network-based. This social capital, in turn, influences the manner in which the valuation of resources takes place, ultimately determining the extent to which resources are developed or simply protected.

Promissory Contract Choices

The promissory contract is an important element of any complex business relationship. It facilitates communication of expectations and needs (Macaulay 1963). The promissory contract has been legitimized as an initiation point for IS outsourcing (e.g., Willcocks and Kern 1998; Hu et al. 1997; Lacity and Hirschheim 1993). It is a formal mechanism. As such, it precludes governance via the network and limits governance at the moment of the promissory contract to formal mechanisms, that is, market or hierarchy governance (Williamson 1996).

There can be considerable variation in the construction and language of contracts. Researchers have distinguished among types of promissory contracts as transactional *vs* relational (Rousseau and Parks 1994) and market *vs* hierarchy (Ang and Beath 1993; Stinchcombe 1985). We synthesize these earlier perspectives and identify processes and structures as constitutive of a market or hierarchy form of governance at the stage of the contract. The MoG model focuses exclusively on those contract terms that are entirely discretionary *vs* those constrained by task or technological requirements. For example, Rousseau and Parks (1994) distinguish between transactional and relational contracts in terms of Thompson's (1967) notion of interdependence and based on the dedication of resources to the relationship. Pooled *vs* reciprocal interdependence represents a task constraint (Thompson 1967), while resource allocations are a function of requirements. We therefore exclude such

distinctions from our model. Table 4.1 delineates and defines the elements of the promissory contract that are the focus of the MoG model. The source of the element in the literature is indicated. The next two columns of Table 4.1 indicate what market and hierarchy forms of governance mean vis-à-vis each of the promissory contract elements identified.

'Alliance negotiations set the tone for the relationship' (Hutt et al. 2000: 59). We model the contract negotiation process as entailing varying levels interdependence and participation during the negotiation of the contract.

Unilateral contracts and limited participation are indicative of market-type relationships. In such relationships, the abilities, needs, and constraints of one partner are viewed as interchangeable with those of others, making pro-forma contracts seem viable. In other words, the provider views the needs of one client as identical to another or the client views providers' abilities and constraints as identical. Rather than attempting to involve multiple constituents in the relationship, the relationship is restricted to those immediately contracting for services. This sets up a classic buyer-seller relationship in which the 'identity [of the buyer and seller] is unimportant' (Williamson 1994: 102). In contrast, bilateral negotiation with extensive participation by both constituencies sets up an integrated relationship, which may then be hierarchically structured.

The content of a contract specifies the commitments or obligations of each party to the relationship. These commitments set up alternate governance structures. We explore the following contract terms: standards, internalization, duration, and closure. Behavior-based benchmarks and incentives, and cost-recovery approaches are viewed as hierarchical structures, while outcome-based benchmarks and incentives and market-pricing are viewed as market structures (Ang and Beath 1993; Stinchcombe 1985). Internalized and integrative authority structures and dispute resolution are also characteristics of conventional hierarchical structures (Ang and Beath 1993). Note that a unilateral authority and dispute resolution structure is not truly internalized in that it would offer no internal recourse to the excluded party: 'A one-sided holding of hostages, a one-sided monopoly, a one-sided transfer of control over

Table 4.1 Alternative forms of the promissory contract

Elements of promissory contract			Governance alternatives	
Element	Definition	Source	Market	Hierarchy
Promissory contract processes: negotiation				
Interdependence	Bilateral negotiation of the contract	Hutt et al. (2000)	Use of pro-forma contract	Bilateral negotiation of contract
Participation	Extent to which individuals from different organizational levels and functional areas are involved in the contracting process	Hutt et al. (2000)	Limited	Extended
Promissory contract structures: content/commitment				
Standards	Benchmarks for performance and compensation, including incentive and pricing systems	Ang and Beath (1993); Stinchcombe (1985)	Outcome-based benchmarks and incentives; outcome-pricing: specification of what should be accomplished	Behavior-based benchmarks and incentives; rule-based input-pricing: specification of what should be done
Internalization	Specifications of authority systems, that is, 'contractual terms that certify given orders or communications as authoritative', and mechanisms for internal resolution of disagreements	Ang and Beath (1993); Stinchcombe (1985)	Authority relationships not specified or are unilateral; Dispute resolution is externalized in the legal system	Authority relationships and dispute resolution are internalized and integrated (bilateral)
Duration	Time frame of the contract	Rousseau and Parks (1994); Stinchcombe (1985)	Brief, close-ended, specific duration	Open-ended, evergreen
Closure	Scope of contract and ability to switch providers	Rousseau and Parks (1994)	Narrow scope of relationship; ability to negotiate new contracts with alternate providers	Pervasive and comprehensive relationship

one's resources, all lead to slavery' (Stinchcombe 1985: 133). Such a relationship would necessitate the externalization in the resolution of inequities or problems experienced by the excluded party. Such externalization of dispute resolution characterizes market relationships.

Given the extended nature of hierarchies and the transitory nature of pure market relationships (Williamson 1994), evergreen or open-ended contracts are indicative of a hierarchical structure: 'A chief feature of the hierarchical incentive system would be the continuity of exchanges' (Stinchcombe 1985: 131–132). Similarly, pure market transactions are characterized by easily soluble relationships with multiple others (Williamson 1994), whereas hierarchies are characterized by relatively durable relationships with a few (Weber 1978). Large hierarchies translate to wider spans of control or additional hierarchical levels. A wider span of control generates higher informational and monitoring costs (Eisenhardt 1988). Additional hierarchical levels create information losses during communication, which also adds to monitoring costs (Williamson 1985). Thus, as a hierarchy grows in size, 'the effects of control loss eventually exceed the gains' of the hierarchy over market transactions (Williamson 1985: 134).

The four elements of contract content or commitments tend to be inter-related. For example, relationships that emphasize 'long-term membership largely focus on behaviorally oriented assessments' (Rousseau 1995: 77). Similarly, contracts with 'endogenous safeguards', that is, internalized authority and dispute resolution systems, tend to be associated with extended and committed relationships (Ring and Van De Ven 1994).

Psychological Contract Choices

The promissory contract alone has proved inadequate in governing IS outsourcing (Koh et al. 2004). While it is useful in communicating initial expectations, no contract can fully cover exigencies that emerge during fulfillment (Macaulay 1963; Ring and Van De Ven 1994). Furthermore, if parties to a formal contract need to reference it during fulfillment, the ensuing discord breaks down the relationship (e.g., Willcocks and Kern 1998). Researchers therefore recognize that

additional governance is required after signing a promissory contract. The objective of such governance is to facilitate cooperative work (Sabherwal 1999; Willcocks and Kern 1998). We term this governance stage the psychological contract. In IS outsourcing research, psychological contracts have been considered in terms of vendors' and clients' expectations of each other's obligations (Koh et al. 2004). Here, however, the psychological contract is considered in terms of shared or mutual understandings about parties' obligations.

At this stage in the IS outsourcing process, the market ceases to be a viable governance option, at least for the duration specified by the promissory contract and frequently for a period that extends beyond that specified by the contract. Unlike supply-chain relationships, for example, a client cannot shop around for an alternate provider at the first signs of provider non-performance or malfeasance. Once a provider assumes responsibility for a client's telecommunications or application development, the client and provider are both locked into the relationship – minimally for the duration specified within the contract. However, the prohibitively high costs of changing a provider may extend the relationship even beyond the specifications of the contract (Lacity and Willcocks 1998). For example, application service providers (a specialized type of outsourcing arrangement in which client applications are hosted by the provider) that provide ERP services may charge to transport data that they have hitherto hosted. Thus, once a promissory contract has been signed, the only viable governance choices are hierarchy and network.

At this moment of governance, a hierarchy form of governance implies the extension of firms' internal bureaucratic structures to incorporate the other firm: 'The easy way to get flexible continuous performance over time is a hierarchy isolated from direct market processes' (Stinchcombe 1985: 122). In contrast, the network form of governance relies on less formalized inter-organizational structures to govern the relationship. Elements of the psychological contract that distinguish between hierarchy and network forms of governance are summarized in Table 4.2.

The psychological contract emerges during the process of executing the promissory contract. The psychological contract facilitates

Table 4.2 Alternative forms of the psychological contract

Elements of psychological contract			Governance alternatives	
Element	Definition	Source	Hierarchy	Network
Psychological contract processes: execution				
Coordination	'Integrating or linking together different parts . . . to accomplish a collective set of tasks'	Van de Ven, Delbecq, and Koenig (1976)	Document-based (standards and schedules/plans)	Interaction-based (mutual adjustment and teams)
Conflict resolution	Addressing disputes regarding expectations	Kale et al. (2000)	Distributive	Integrative
Psychological contract structures: social capital				
Associations	Nature of the linkages across the inter-organizational relationship	Nahapiet and Ghoshal (1998)	Few, formal	Extensive, informal
Affect	Presumed opportunism or trust within the relationship	Williamson (1985); Nahapiet and Ghoshal (1998)	Presumed opportunism	Presumed trust
Cognition	Extent to which the relationship has common knowledge and a shared identity	Nahapiet and Ghoshal (1998)	Discrete identities, codes, and understandings	Shared identity and common knowledge

adjustment or alignment across the boundaries of client and provider firms. Based on the literature on alignment across inter-departmental and inter-organizational boundaries, we identify two processes – routine alignment via coordination and non-routine alignment via conflict resolution (e.g., Adler 1995; Kale et al. 2000). These have been identified as key processes in eliciting cooperation from disparate

constituencies such as global virtual teams (Montoya-Weiss et al. 2001) and supply-chain collaboration (Spekman 1988).

Coordination in hierarchical or bureaucratic governance 'is based upon written documents' (Weber 1978: 957). Bureaucracies rely on the impersonal application of pre-specified rules (Weber 1978). This impersonal application of rules to conflict situations is likely to preclude the exploratory behaviors necessary for integrative conflict resolution. In contrast, network governance that derives from social interaction and a focus on the common good (Uzzi 1997; Powell 1996) translate into interaction-based coordination mechanisms and integrative conflict resolution.

The inter-organizational structures that emerge during execution are referred to as social capital. Social capital has been defined in terms of the patterns of associations and the resources that may potentially be accessed through those associations (Nahapiet and Ghoshal 1998: 243). While social capital is typically viewed as derived from informal network relationships (e.g., Burt 1992; Granovetter 1985), we apply the term social capital also to formally constituted hierarchical relationships. However, the nature of this social capital is qualitatively different.

The literature on social capital and the structure of socio-economic relationships has identified three elements: the associations among socio-economic actors, their feelings of toward one another, and shared language and cognitive resources (e.g., Nahapiet and Ghoshal 1998; Kogut and Zander 1996). Based on these we delineate three structural elements of control: associations, affect, and cognition.

Extensive associations are necessary for network governance. Whereas sparse ties in a socio-economic domain make for tenuous relationships and enable self-interested behavior (e.g., Burt 1992; Padgett and Ansell 1993), a dense network creates a social structure through which the behavior of individuals may be informally regulated (Granovetter 1985). Trust is critical to informal regulation (Granovetter 1985). Finally, common knowledge, that is, shared identity, beliefs, expectations, and understandings, are also invaluable in informally regulating the relationship. They provide a basis for mutual understanding in inter-organizational relationships (Sabel 1993) and the rules for interaction (Grant 1996). Thus, extensive, informal ties, common knowledge, and trust

will characterize network governance at the stage of the psychological contract. In contrast, hierarchical governance will be marked by sparse, formal ties, and presumed opportunism. To the extent that clients and outsourcing providers operate in different industries, their identities and knowledge-bases will differ. Whereas an internal bureaucratic structure facilitates a common identity and shared understandings, the underlying plurality of an inter-organizational bureaucratic structure will make such a shared identity and knowledge-base more difficult to achieve. Therefore, hierarchical governance will manifest discrete identities and lower levels of overlap in knowledge bases. In contrast, network structures that are based on informal, interaction-based identities will facilitate a shared identity that is independent of the formal identity of the individual firms. Thus, hierarchical and network inter-organizational structures mark different types of social capital with regard to interpersonal associations, affect, and cognition.

Inter-organizational Rents

Alternate forms of governance mobilize inter-organizational rents differently. We consider organizational rents in terms of value capture and value creation (Dutta et al. 2003; Priem 2001). We see two disparate orientations toward the mobilization of rents in inter-organizational relationships: allocative efficiency or efforts at value capture and adaptive efficiency or efforts at value creation (Priem 2001; Moran and Ghoshal 1999; North 1990). These distinctions between value creation and value capture map also to firms' efforts to balance 'trying to learn and trying to protect' (Kale et al. 2000: 217) and are summarized in Table 4.3. Allocative efficiency or value capture focuses on efficient, Pareto-optimal deployment of resources. This orientation focuses on hoarding or guarding capital, so as to protect ones' core competencies or positions. In contrast, adaptive efficiency or value capture is oriented 'to acquire knowledge and learning, to induce innovation, to undertake risk and creative activity of all sorts, as well as to resolve problems and bottlenecks of the society through time' (North 1990: 80). This orientation focuses on learning from partners and building or increasing capability.

Table 4.3 Alternative mobilizations of inter-organizational rents

Elements of inter-organizational rents			Alternate mobilizations	
Element	Definition	Source	Value capture	Value creation
Inter-organizational rent processes: valuation				
Exchange	Process of trading resources, thereby making them available to those who can put them to better use	Moran and Ghoshal (1999)	Planned, impersonal, formal, immediate compensation	Impromptu, personal, informal, deferred compensation
Combination	Deployment of resources, except deployments entailing exchange; process by which 'resources are pressed into service'	Moran and Ghoshal (1999: 392)	Routine, known ends, deterministic relationship between inputs and process and outcome	Novel, unknown ends, probabilistic relationship between inputs and processes and outcomes
Inter-organizational rent structures: assets				
Intellectual Capital	'The knowledge and knowing capability' accessible to parties to the outsourcing relationship	Nahapiet and Ghoshal (1998: 245)	Retention of core competencies	New knowledge, inimitable capabilities, and sustainable future advantage
Economic Capital	Financial and material assets	Nahapiet and Ghoshal (1998); Dyer and Singh (1998)	Independent and non-specific assets	Relationship-specific and complementary assets

'Allocative efficiency and adaptive efficiency may not always be consistent. Allocatively efficient rules would make today's firms and decisions secure – but frequently at the expense of the creative destruction process that Schumpeter had in mind' (North 1990: 81–82). Limiting the relationship to independent and non-specific assets can ensure the protection of firms' assets or value capture by permitting the client to easily transfer the outsourced operations to an alternate provider or allowing the provider to not suffer undue losses in the event of termination of the relationship. The development of relationship-specific and complementary assets, in contrast, yields sustainable advantage to the relationship (Dyer and Singh 1998). Inter-organizational relationships therefore need to address this 'tradeoff between current profitability and investing in future capability' for long-term survival (Kogut and Zander 1992: 393).

Rents – either value capture or value creation – accrue via processes of exchange and combination (Moran and Ghoshal 1999). Combinations refer to the appropriation of resources (Moran and Ghoshal 1999). Processes of exchange serve to make resources available were toward productive use; they also stimulate innovation by increasing the possibility for the perception of creative combinations (Moran and Ghoshal 1999).

The attainment of rents may be noted in the accumulation of different types of capital. Consistent with prior business literature, we focus on two forms of capital in addition to social capital, that is, economic and intellectual capital (Nahapiet and Ghoshal 1998). While other forms of capital have been identified, e.g., cultural capital (Bourdieu 1983), economic capital and intellectual capital are of interest as rents that accrue from economic action (Nahapiet and Ghoshal 1998).

Illustration of the Proposed Model

Before we develop the proposed MoG model, we consider the Xerox-EDS outsourcing arrangement as a preliminary anecdotal validation of the model. To initiate the outsourcing arrangement, Xerox constituted a 'very small Core Outsourcing Team', which included two

lawyers (Davis 1996: 163). The Xerox team tended to dictate promissory contract terms, and Davis observes that statements by team members appeared inadequately informed and lacking in concern for EDS' processes or cost of providing service. This led to a commitment that was unilaterally structured and price-driven. Consider the following statement by a member of the Xerox outsourcing team: 'We believe that we are developing a contract that will guarantee us a competitive price throughout the period. We are going to build into the contract productivity guarantees [and] price performance guarantees . . . ' (Davis 1996: 162). Final authority in regard to contract changes and dispute resolution lay with Xerox. Thus, the standards defined for performance and rewards and the manner in which authority structures and dispute resolution were set up represented market governance. However, the scope and duration of the contract were representative of hierarchical governance. The Xerox–EDS relationship was extensive in nature, with EDS assuming all functions that 'did not qualify as core competencies', that is, 'the majority of Xerox's IT function' (Davis 1996: 149). The contract was an evergreen contract, indicating Xerox's anticipation that its relationship with EDS would be long-term (Kern and Willcocks 2001; Applegate et al. 1999). The contract was 'formulated to encourage partnering, and both EDS and Xerox's senior managers had committed to this notion' (Kern and Willcocks 2001: 100).

It is clear from Davis' account that the promissory contract initially impaired the type of psychological contract needed and desired by Xerox and EDS. In the process of executing the contract, 'both sides realized that the relationship required an integration of efforts, which could only be achieved through a high degree of cooperation'. However, 'the very existence of 'price' based control clauses within the contract ensured that price controls would be operative', which created a 'disconnect between the contract and the need for cooperative controls' (Davis 1996: 171). The interorganizational structure represented a hierarchical form in which Xerox occupied a position of supremacy: 'Clearly the customer has received an elevated position' (Davis 1996: 176). While both parties came to believe that 'trust was an important part of the relationship' (p. 179), Xerox and EDS

initially believed the other to be exclusively self-interested and that the relationship 'was no different than our relationship with anyone else who supplies us with parts' (Davis 1996: 162).

The promissory contract had set up a psychological contract that was at odds with the value generation that Xerox hoped for. Among a variety of objectives, 'Xerox managers were relying on EDS' environmental scanning expertise' to help Xerox transition to a client–server architecture as well as stay current with other IT developments in the field. In other words, Xerox anticipated novel technical knowledge to assist in the development of new architectures and solutions and the possible development of relationship-specific assets.

Only after deliberate efforts to overcome the limitations of the initial contract through bilateral negotiation were Xerox and EDS able to establish a cooperative relationship. This cooperative relationship was predicated on Xerox's realization that 'some of the stuff that we wrote in [the contract] isn't the right way of working' (Davis 1996: 181). Interventions that focused on team-based coordination and joint problem-solving helped Xerox and EDS develop the atmosphere of trust necessary for the achievement of its desired outcomes (Davis 1996). Central to these interventions were joint social activities and EDS' conscious efforts to leverage the personnel transferred from Xerox to EDS following the outsourcing to facilitate a trust-based relationship (Kern and Willcocks 2001). Then, 'authority control was replaced with a greater reliance on trust', at which point 'Xerox and EDS [began] to explicitly deemphasize the contract' (Davis 1996: 180). Critical to this transition was also the shared identity – the 'perceived similarity in the organizations' strategic intents' (Kern and Willcocks 2001: 100).

In addition to Xerox's learning objectives, though, efficiency was also important. 'The intention was to reduce costs by cutting the headcount, by diminishing IT spent on legacy systems including applications, and by changing the cost structure from fixed to variable' (Kern and Willcocks 2001: 97). That the embedded relationship is antithetical to value capture or allocative efficiency is apparent in the Xerox–EDS relationship, in which 'unanticipated cost increases' were noted to occur (Kern and Willcocks 2001: 87). Problems with

allocative efficiency were also evident in EDS' inability to 'manage the migration and integration, while handling in parallel the day-to-day problems and requests . . . As a result, frustrated [Xerox] managers began to micro-manage' (Kern and Willcocks 2001: 107–108). Such micro-management resulted in a downward relational spiral and in the renegotiation of the contract. At this time, detailed service levels and compensations were specified in the contract.

Thus, the embedded relationship initially structured by Xerox and EDS was inconsistent with Xerox's value capture objectives. 'The conditions underlying Xerox's outsourcing initiative were essentially . . . a drive for operational efficiency and a refocus on core competence' (Kern and Willcocks 2001: 122). To attain these objectives, the appropriate pathway was an arm's-length, not an embedded, relationship. The application of a hierarchical contract and efforts at a networked psychological contract, while conducive to adaptive efficiency – as manifest in Xerox's migration to the new client–server architecture, thus frustrated the achievement of the desired allocative efficiency.

Causal Relationships in the Moments of Governance

Having delineated the building blocks of the MoG model, we now explore the causal relationships among them that are depicted in Fig. 4.2. We examine how processes produce structures and how these structures constrain and enable subsequent processes.

From Promissory Contract to Psychological Contract

Promissory contract structures, or the terms to which parties commit, emerge from contract processes. A bilaterally negotiated contract, that is, interdependence in the promissory contract process, fosters a mutual understanding of firms' objectives and processes. Behavior-based standards address how people do their jobs (Rousseau 1995). *A priori* specification of such standards in an outsourcing relationship

requires that the parties to the contract understand how jobs are done across client–provider boundaries. Similarly, the specification of internal authority systems and dispute resolution mechanisms requires an understanding of how the other organization works and a shared understanding of how the inter-organizational relationship will function. Interdependence in contract negotiations provides such an understanding. Thus, interdependence during the negotiation of the promissory contract will promote the utilization of behavior-based standards and internal authority systems.

Different functional areas have different perspectives to contribute to the contract (Macaulay 1963). The involvement of business personnel, in addition to technical and legal experts, assists in identifying how the provider may add value (Kavan et al. 1999). Extensive and multi-level organizational participation thus provides the information necessary for informed contracting (Rousseau 1995). Information supplied by individuals in the functional area being outsourced can be invaluable in specifying behavior-based standards. Participation of top management signals higher level of involvement and the 'direct interpersonal contact between the two senior executives at the partnering firms created the opportunity for cooperation' (Hutt et al. 2000: 53). Top management participation is necessary for agreement on internalized authority systems and dispute resolution mechanisms. Top management participation also provides the commitment necessary for undertaking riskier relationships, that is, relationships that are long-term and relatively exclusive or closed. In sum, increased interaction via participation and interdependence will provide the information and enable the sense-making necessary for specifying a more detailed and involved relationship (Nahapiet and Ghoshal 1998; Ring and Van De Ven 1994). Thus, extensive participation in the contracting process will promote internalization of control and longer-term and more exclusive relationships. In contrast, in the absence of the rich understandings fostered by interdependence and widespread participation in the negotiation process, clients will default to outcome-based standards, externalization of control, and more tentative contracts in terms of duration and exclusiveness.

Proposition 1A *Market governance processes at the time of the promissory contract, that is, low participation and pro-forma contracts, promote market structures in the promissory contract.*
Proposition 1B *Hierarchical governance processes at the time of the promissory contract, that is, extended participation and bilateral negotiation, promote hierarchical structures in the promissory contract.*

Detailed fee-for-service contracts, that is, outcome-based standards, have been found to be more successful in yielding economic benefits than more generic contracts (Lacity and Willcocks 1998). However, absent total control, a focus on outcomes *vs* behaviors 'fuels destructive behavior' (Pfeffer and Sutton 2000). It limits provider flexibility and responsiveness in the face of technological or task changes. The heightened objectivity of outcomes vis-à-vis behavior further lessens the perceived need for interaction (Rousseau and Parks 1994). Outcome-based contracts therefore reduce coordination efforts to references to outcomes specified in the contract. They preclude integrative behaviors by prespecifying desired outcomes.

The specification of authority systems and internalization of dispute resolution helps institutionalize modes of conflict resolution before conflict occurs (Kale et al. 2000). By precluding or minimizing references to the formal institutional environment, internalization of authority systems and dispute resolution focuses attention on interaction in navigating the relationship (Ring and Van De Ven 1994). Coordination efforts, therefore, tend to be interaction-based. Since such internalized systems derive from joint sense-making across organizational boundaries, they are likely to foster integrative efforts in resolving conflict.

The time frame of the contract has been the focus of much research on IS outsourcing (Lacity and Willcocks 1998; Kavan et al. 1999). Lacity and Willcocks (1998) report that short-term contracts were more successful than long-term, and more recent contracts were more successful than older contracts. This may be because the rapid pace of technological change renders the terms of longer-term contracts obsolete. Another reason for the apparent success of shorter-term contracts may be the outsourcers' ability to cut their losses if the provider does not

meet their objectives. However, this failure to meet objectives may be a result of a lack of clarity of objectives and outsourcers' focus on pre-specified transactions rather than value-added in the uncertain future environment of information technology. Kavan et al. (1999) conclude that longer-term contracts are preferable because high-setup costs can be distributed over a longer period. A short-term contract would therefore inhibit costly innovation on the part of the provider even where the innovation would provide benefit to the outsourcer.

Time introduces an element of indeterminacy or risk in relationships (Coleman 1990). However, this risk may be offset by the benefits of a prolonged relationship. Time distinguishes purely economic transactions from social relationships (Coleman 1990). In time, social interactions facilitate mutual accommodation (Ring and Van De Ven 1994). The effects of time have been noted in the attitudinal disparities between contract and permanent workers: contract workers tend to display lower in-role and extra-role behaviors than permanent workers and are perceived by supervisors as being less loyal, obedient, and trustworthy; their job scope is therefore limited, heightening the perception of them being less committed (Ang and Slaughter 2001).

Contracts may be narrow in scope, with multiple providers being utilized to complete various tasks; the contract may allow for easy dissolution of the relationship and re-negotiation of terms with alternate providers (Rousseau and Parks 1994). Alternatively, contracts may set up pervasive and comprehensive relationships with a single or few providers. These terms set up the level of closure within the client–provider relationship. Many providers are a continuous reminder that the provider is dispensable and thereby creates fear and distrust in the relationship (Nahapiet and Ghoshal 1998). Fear and distrust pre-empt open interaction and integrative problem-solving (Pfeffer and Sutton 2000). Close, exclusive relationships, on the other hand, force both parties to find solutions to difficult situations (Nahapiet and Ghoshal 1998). Furthermore, non-exclusive relationships exacerbate concerns about protecting organizational resources from 'leakage' (Kale et al. 2000). This results in efforts to minimize spontaneous, non-document-based coordination and facilitate a distributive approach to conflict resolution.

Thus, in longer-term, closed relationships, a greater sense of commitment motivates parties to accommodate each other's needs. A focus on behavior-based standards requires that parties remain cognizant of each other's efforts. Internalized authority resolution also requires ongoing communication. These requirements for ongoing interaction over time enhance the likelihood that parties will avail of interaction-based coordination. The heightened commitment and mutual understanding fostered by hierarchical contracts will foster integrative conflict management. In contrast, market-oriented contract structures will provide fewer opportunities for communication and for the development of an emergent understanding of each other's needs. The absence of a long-term, committed relationship will dissuade parties from accommodating each other's needs.

Proposition 2A *Market governance structures in the promissory contract, that is, outcome-based standards, externalized authority and dispute resolution systems, limited duration, and multiple providers, promote reliance on hierarchical governance in the process of developing the psychological contract.*

Proposition 2B *Hierarchical governance structures in the promissory contract, that is, behavior-based standards, internalized authority and dispute resolution systems, extended duration, and closure promote reliance on network governance in the process of developing the psychological contract.*

From Psychological Contract to Inter-Organizational Resources

As noted earlier, the manner in which firms coordinate and resolve conflict derives from the terms of the promissory contract and sets up the relationship's social capital or the structure of the psychological contract. This social capital, in turn, influences the manner in which inter-organizational resources are mobilized.

The objective of coordination is to facilitate integration across specialized groups (Grant 1996; Adler 1995). There are two sets of coordination mechanisms: document-based coordination via standards and

schedules/plans and interaction-based coordination via teamwork and mutual adjustment (Adler 1995; Van De Ven et al. 1976). Document-based coordination is impersonal and requires minimal interaction and communication across organizational boundaries; tasks may be jointly completed by simply referencing written standards, plans, and schedules (Van De Ven et al. 1976). Interaction-based coordination necessitates communication and depends on committees and teams for the synchronization of tasks across organizational boundaries (Adler 1995).

The inherent dependencies, coupled with divergent partner goals in inter-organizational relationships, necessitate ongoing conflict resolution in managing inter-organizational relationships (Kale et al. 2000). Crises points that drive conflict and the process of conflict resolution can also provide occasions for joint sense-making (Weick 1995). How the conflict is resolved, however, determines whether the conflict has a productive or destructive effect on the relationship (Deutsch 1969). The two types of conflict resolution strategies that may be undertaken in inter-organizational relationships are integrative or distributive strategies (Kale et al. 2000). In integrative strategies, attempts are made to seek out mutually satisfying outcomes; distributive strategies entail prioritizing one's own outcomes over those of the other party (Sillars 1980). Integrative strategies are interaction-intensive and entail joint problem-solving. They are suitable on complex tasks on which there are no right answers and in circumstances in which there is not a disparate distribution of power across the conflicting parties (Rahim 1985). In distributive conflict resolution, where each party is concerned only about their own outcomes, such interaction and joint-problem solving is unnecessary.

Interactive coordination and integrative conflict resolution strategies facilitate the formation of inter-organizational linkages as people are required to interact and communicate repeatedly in order to accomplish tasks or resolve disputes and cannot simply refer to written documents or external entities (e.g., Nahapiet and Ghoshal 1998). Interaction-based coordination provides the opportunities for parties to socialize and to develop positive affect and shared understandings that are the hallmark of network structures (Adler 2001). Such interactions increase the possibility for forging new ties across organizational boundaries. Social

ties emerge while individuals are involved in social activities (Feld 1981). Such informally developed ties increase the coverage of the inter-organizational network. Deep, personal relationships emerge from sympathetic interactions, rather than necessary interactions (Silver, 1990). Interaction-based coordination facilitates the development of shared cognition since it enables greater information sharing and immediate feedback (Van De Ven et al. 1976).

Integrative conflict resolution can contribute to the development of process trust. Reciprocity and a mutual concern is key to process trust. In Uzzi's study of firms in New York City's garment district, trust was found to be an important element in the relationship. Trust emerged when one party offered extra effort voluntarily and when such effort was then reciprocated (Uzzi 1997). These 'extra efforts' were not easy to value in a monetary sense, but typically involved voluntary problem-solving when the other party was faced with a crisis. In Davis' (1996) study of the Xerox–EDS and Kodak–IBM relationships, interaction-based coordination via groups and committees facilitated the development of inter-organizational trust. At Kodak, partners' training in negotiation and conflict management helped develop inter-organizational trust (Davis 1996).

The ties that develop from interactive coordination and integrative conflict resolution transcend those specified in the contract in breadth, that is, the number of ties increase over time, and in depth, that is, they develop a social content, rather than a purely economic content. Such ties are the hallmark of a network structure (Nahapiet and Ghoshal 1998). They promote a common identity and foster shared norms and trust (Coleman 1990). They dispel concerns about partner opportunism as voluntary good-faith is demonstrated.

In contrast, document-based coordination entails referencing the contract and service-level agreements in order to ensure that specialized activities across client and provider organizations are synchronized. Distributive conflict resolution focuses parties on their own interests (Rahim 1985), requiring no understanding of the emergent needs and constraints of the other party. These relationship–management strategies therefore preclude the development of close, personalized ties and a shared understanding necessary for network relationship (Adler 2001).

As such, presumptions of opportunism prevail and contentions necessitate recourse to formal channels for resolution.

Proposition 3A *Hierarchical control processes, that is, document-based coordination and distributive conflict resolution, promote hierarchical control structures.*
Proposition 3B *Network control processes, that is, interaction-based coordination and integrative conflict resolution, promote network control structures.*

The nature of the social capital that emerges in the management of the psychological contract circumscribes the rent-attainment processes available to the outsourcing relationship. Ties between boundary-spanners in inter-organizational relationships are important in cementing the relationship (Seabright et al. 1992). Direct ties facilitate knowledge-spillover benefits (Ahuja 2000). They provide privileged access to intellectual (e.g., Burt 1992; Granovetter 1978) and economic resources (e.g., Lincoln et al. 1996). A reliance on close, personal ties is evident in studies of IS outsourcing too: Speaking of his/her relationship with Kodak, an IBM manager said: 'I've gotten more direct coaching from Kodak managers than from my own boss. We play golf together, we go out to dinner together; there is a level of social interaction' (Davis 1996: 259).

The nature of inter-organizational affect, that is, presumed trust or opportunism, is critical to resource sharing too. Presumed opportunism refers to the belief that others will act in a self-interested fashion; in its ultimate sense, opportunism is seen as 'calculated efforts to mislead, deceive, obfuscate, and otherwise confuse' (Williamson 1994: 102). Presumed opportunism prompts guarded interaction with others. By contrast, trust is the assumption of risk with the expectation that another will act in a beneficial fashion (Gambetta 1988). In defining trust, we explicitly adopt the position that trust in informal governance structures parallels opportunism in formal governance structures.[3] Zucker (1986) identifies

[3] This is in opposition to the position sometimes implicitly adopted in the literature, that is, that trust is an informal regulatory mechanism. Trust, *per se*, has no regulatory value. Rather, it enables the reliance on shared norms and values that are informally constituted. Based on Nee and Ingram (1998), we view the regulatory potential of networks as stemming from shared norms. Thus, the

three forms of trust: characteristic-based trust, process trust, and institutional trust. Characteristic-based trust surfaces swiftly based on demographic similarities. Process trust emerges over time, in the process of interaction. Rousseau et al. (1998) refer to this type of trust as relational trust. Institutional trust refers to trust that derives from third-party regulation.

IS researchers have found trust to be important in outsourcing relationships. Trust was found to contribute to a virtuous circle marked by quality and on-time performance; distrust formed a vicious cycle of poor-quality performance and delays (Sabherwal 1999). In another study, trust was found to be a determinant of perceived partnership quality (Lee and Kim 1999).

Trust facilitates voluntary exchange (Uzzi 1997). In Davis' research, trust-based controls enabled the informal, personalized exchanges necessary for the achievement of the firms' complex goals. The commitment of resources in inter-organizational relationships is often incremental (Khanna et al. 1998). Trust facilitates the commitment of economic resources across organizations (Sabel 1993).

Similarities in cultural attributes are essential to successful alliances (e.g., Hutt et al. 2000). Shared beliefs, expectations, and understandings do not have to be all pervasive, but cover the relationship and joint operations (Sabel 1993). This facilitates the sharing of knowledge that is not common (Grant 1996). Common knowledge and a shared identity can help circumvent issues of bounded rationality in individuals' ability to acquire and process information (Grant 1996). It defines rules for interaction and processes for social learning (Kogut and Zander 1996).

As seen earlier, perceived commonalities are essential to characteristic-based trust (Zucker 1986). Characteristic-based trust is rooted in the expectation that those who are demographically and socially similar to us are more likely to act in an anticipated fashion than those who are dissimilar to us. This is supported by the mergers and acquisitions literature where cultural incompatibility has frequently been found to impede the

network counterpoint of the externally-and formally constituted and legitimized rules of market- and hierarchy-based regulation are internally- and informally legitimized norms and sanctions.

development of trust (Doherty 1988). Thus, organizational similarities or compatibility will tend to facilitate characteristic-based trust. Further, compatibility provides a common ground for negotiating relational or process-based trust. Sabel (1993) posits that trust can emerge even among relatively disparate organizations when they are motivated by the possibility of long-term benefits. Such studied trust arises out of a joint reframing of organizational identities resulting in shared beliefs, expectations, and understandings.

Cultural similarity across disparate organizations may be affected by identity reconstruction (Wishart et al. 1996; Sabel 1993). A shared identity fosters a belief that others will not act in an opportunistic fashion; this promotes expectations of cooperation and thereby encourages cooperative exchanges (Kogut and Zander 1996). A shared identity expedites the transfer of tacit knowledge (Grant 1996).

Formal relationships, anticipated opportunism, and disparate identities promote only impersonal, planned, and immediate exchanges. Formal relationships will offer fewer occasions for the occurrence of what Moran and Ghoshal (1999) term the 'multiple coincidence', that is, existing opportunity, perceived opportunity, and motivation for all parties. Anticipated opportunism will result in a reliance on planned exchanges alone so as to forestall the other's opportunistic behavior (e.g., Kale et al. 2000). Identity discontinuities serve as knowledge boundaries, preventing the seepage of knowledge from one identity to another (e.g., Kogut and Zander 1996).

Strong ties, trust, and a shared identity also facilitate novel combinations. Strong ties facilitate the incorporation of knowledge from an old project into a new project (Hansen 1999). This represents a novel combination. A reframed, shared inter-organizational identity enables organizations to attract resources from other public and private organizations (Sabel 1993), thereby increasing the pool of resources available, and the possibility of novel combination (Moran and Ghoshal 1999).

Again, formal relationships, anticipated opportunism, and disparate identities promote only routine combinations. Exchanges via formal relationships alone constrain the pool of resources available for combination, thus limiting the probability of novel combinations. Presumed opportunism leads to efforts to minimize uncertainty (e.g., Williamson

1985). Since uncertainty is the hallmark of novel combinations, beliefs that the other party will act opportunistically will minimize efforts at novel combination. Finally, since a shared identity is necessary the transfer of knowledge (Kogut and Zander 1996), disparate identities will hamper such knowledge transfer.

Proposition 4A *Hierarchical governance structures, that is, limited, formal associations, presumed opportunism, and disparate identities, lead to impersonal exchange and routine combination of capital.*
Proposition 4B *Network governance structures, that is, extensive, informal associations, presumed trust, and a shared identity, promote personal exchange and novel combination of capital.*

The final process in the MoG model is that of valuation, that is, the manner in which resources are exchanged and combined in the relationship. Personalized exchanges are informally and socially regulated, impersonal exchanges rely on formal institutional support (Moran and Ghoshal 1999). Another distinction between impersonal and personal exchanges is in the nature of reciprocation. Instantaneous reciprocation reduces a social act to an economic transaction (Simmel 1978). Therefore, reciprocity is immediate in the case of impersonal exchanges and deferred in the case of personal exchanges. Moran and Ghoshal (1999) stipulate three conditions necessary for exchange: 'the opportunity for exchange must exist, it must be motivated and perceived' by all parties to the exchange (p. 387). They term these three conditions a 'multiple coincidence', alluding to the relative improbability of its occurrence. Thus, in order for impersonal exchanges to occur, they need to be planned. The likelihood of personalized exchange is fairly high, though, since it is intrinsic to most voluntary social interactions and immediate repayment is unnecessary.

Routine combinations 'are more likely to replicate services that already exist' (Moran and Ghoshal 1999). They are manifested in conventional production. Novel combinations facilitate the discovery of innovative processes, products, or services, for example, 3 M's Post-It Notes (Moran and Ghoshal 1999). While the process of routine combination is structured and deterministic, the process of novel combination

is not. In other words, one knows what the final product will be in routine production and exactly what needs to be done in order to obtain the final product. In the case of innovation, however, the final product is not known *a priori*. In fact, it may be unintentionally derived and once a product is obtained, it may or may not be one that is commercially viable (Moran and Ghoshal 1999). Thus, the process of novel combination is fraught with uncertainty.

Impromptu exchange makes additional resources available for novel combination, which in turn facilitates innovation (Moran and Ghoshal 1999). We see considerable evidence of capital development via impromptu exchange and novel combination. For example, the success of Silicon Valley firms, in contrast to those in the Massachusetts' Route 128 area, has been attributed to the development of technological knowledge via exchange (Saxenian 1996). Rolm provides an excellent example of knowledge development through recombination. Leveraging their technical knowledge and customers' knowledge of firms' telecommunication needs and inter-organizational social ties, Rolm was able to create not only a marketable product but also a marketing infrastructure that enabled them to gain a distinctive advantage (Lane and Maxfield 1996). The joint problem-solving observed among the garment-industry firms studied by Uzzi (1997) is yet another example of growth through personalized exchange and novel combination. Research on the Sydney hotel industry found that network ties translated to a dollar-value in terms of improved hotel yield; these economic benefits were augmented by the density of network ties, that is, when one's friends were also friends (Ingram and Roberts 2000). These advantages accrued through improved collaboration, mitigated competition, and richer information exchanges.

While authors have observed that intellectual capital grows with personalized exchange and novel combination, the potential for the growth of economic capital has frequently gone unnoticed. Money has typically been viewed as a zero-sum asset, to which one no longer has access once it is given up in exchange. However, Parsons (1963) describes the non-zero-sum nature of money. He points to the vehicle of credit through which money acquires multiple simultaneous uses in collectives. Money is therefore not a static or a social resource. Those with economic resources are

more likely to attract additional resources by being deemed credit- or investment-worthy. This tendency is captured in the Matthew Effect. Merton (1968) observes that real-life frequently parallels the biblical parable of the talents in that those who have the resources attract further resources, while those that do not tend to lose even what they have. Further, economic resources are convertible to other forms of capital (Bourdieu 1983). Money attracts rich social ties and can purchase knowledge. Relationships extend the credit available (Stark 1990).

Through mechanisms of credit, investment, and risk-diffusion, economic resources can be reallocated across the relationship so that they may be pressed into more effective service. Direct evidence of such combination and exchange entailing economic capital in networks is sparse. Nonetheless, we find some preliminary evidence of resource combination and exchange in diffusing economic risk and facilitating economic recovery. Research on post-socialist enterprises in Hungary notes the pervasiveness of 'recombinant property', property 'that can be justified or assessed by more than one standard of evaluation' (Stark 2001). Such recombinant property facilitates coping with uncertainties stemming from a volatile economic environment and enables heightened responsiveness to state mandates. In diffusing risks, recombinant property enables the assumption of risk (Stark 2001). Research on keiretsus demonstrates that firms with network ties were able to invest more in times of financial distress than did independent firms, and subsequently stronger sales growth (Hoshi et al. 1991). Thus, impromptu exchanges and recombination will facilitate the development of advantageous complementary and potentially relationship-specific assets.

In contrast, planned exchanges enable parties to an interorganizational relationship to identify in advance what resources will be shared and what will be 'off-limits'. This facilitates protection of indigenous resources (Kale et al. 2000) and the capture of value along pre-negotiated lines. Routine combinations will enable the organizations to preserve their existing positions or those stipulated in the contract (Moran and Ghoshal 1999). In other words, the provider will attain rents via the economies of scale and scope that they are able to leverage, less the rents they are contractually obligated to transfer to the client.

Proposition 5A *Planned exchanges and routine combinations facilitate the capture of value with regard to intellectual and economic capital.*
Proposition 5B *Impromptu exchanges and re-combinations facilitate the creation of value with regard to intellectual and economic capital.*

Power-asymmetries Associated with Governance Strategies

An organization's need for financial, physical, and informational resources makes it dependent on resource sources external to the organization; external organizations that control these resource streams enjoy heightened levels of power (Pfeffer and Salancik, 2003/1978). Initial command over resources offers firms disparate opportunities to define the relationship and outcomes that would constitute an effective relationship (Sydow and Windeler 1998). These initial disparities in dominance are then produced and reproduced in the execution of the relationship (Sydow and Windeler 1998). Conditions set up by hierarchical contracts permit provider control of decision-making within the client organization. Exclusive and long-term contracts concentrate the external control of the client's critical IS resources in the hands of a single vendor. Such concentration of control confers power over the client to the provider (Pfeffer and Salancik 2003/1978).

Proposition 6A *Clients in embedded relationships experience greater control by their provider than clients in arm's-length relationship at the moment of the promissory contract.*

Conditions of resource dependence promote the development of stronger inter-organizational relationships (Pfeffer and Salancik 2003/1978). They stimulate inter-organizational communication and, consequently, the incidence of interaction-based coordination and consensus, which, in turn, promotes heightened exchange and referrals (Van De Ven and Walker 1984). These mechanisms can serve to reduce the client's experience of dependence on and control by the vendor (Pfeffer and Salancik 2003/1978; Van De Ven and Walker 1984).

Proposition 6B *The external control experienced by clients in embedded relationships is no different than that experienced by clients in arm's-length relationship at the moment of the psychological contract.*

Situational Boundaries of the Model and Research Directions

An important aspect of theory development is circumscribing the boundaries of the theory (Whetten 1989). These situational boundaries are summarized in Fig. 4.3. From this figure, it will be apparent that we anticipate that the nature of the transaction, the resource environment, institutional conditions, and geographies of time and space serve as external constraints on the moments of governance in IS outsourcing. Below, we consider each of these conditions.

Transactions

The nature of a transaction can engender high transaction costs, that is, costs of safeguarding a transaction from performance gaps (Williamson 1994). Transactions that are asset-specific, that is, are idiosyncratic to the client, create an ex-post small-numbers condition wherein the client is dependent on the existing provider because no other provider has developed the competence to meet its needs. This renders the client vulnerable to opportunism (Williamson 1985). Transactions may also be uncertain, that is, where knowledge about 'the future state of the environment and what will be required to cope with that world' is unavailable (Pfeffer 1982: 135). On such transactions, boundedly rational decision-makers will be unable to ascertain the potential outcomes associated with alternate courses of action.

Conditions of asset-specificity and uncertainty that give rise to transaction costs therefore impose constraints on governance choices, enabling efficiencies for internalized transactions and vulnerability to hazards for externalized transactions (Williamson 1985). Under such

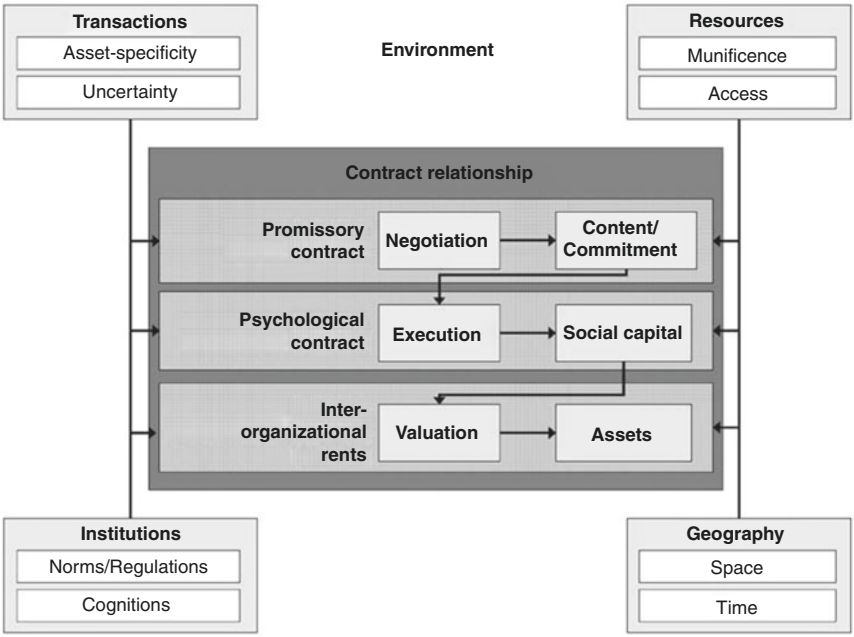

Fig. 4.3 Environmental conditions

conditions, it the promissory contract can at best be loosely structured and the psychological contract must be well-developed (Williamson 1985).

Resources

Social capital has been defined as 'the aggregate of the actual or potential *resources* which are linked to possession of a durable *network*' (Bourdieu 1983: 248–249). Two salient resource attributes are therefore munificence and access (Lin 2001). Organizational slack facilitates experimentation because slack buffers against downside risks (Reuer and Leiblein 2000; Wiseman and Bromiley 1996; Hannan and Freeman 1984). As slack reduces, organizations are more cognizant of risks and attempt to limit their downside exposure (Steensma and Corley 2001). Under such

conditions, decision-makers also resort to more rational decision making, using objective and justifiable criteria (Schick 1985); low slack intensifies belt-tightening strategies (Hambrick and D'Aveni 1988).

Not all members of a social network have equal access to the resources within the network; rather, access is a function of one's position – location or status – within a network (Lin 2001). Thus, a client that is highly visible within the business community is likely to enjoy heightened resource access vis-à-vis the provider. The nature of the resources held also influences access: relationship-specific resources permit easier access, while access to organization-specific resources requires negotiation (Dyer and Singh 1998).

Key individuals or groups can determine the pool of resources available to the entire network and accessible to specific players. When such players exit the relationship, it can prove to be extremely detrimental to the network. One reason for the downfall of Japanese networks was the exit of key players such as Toyota from financial networks. As these organizations became more successful, they began to finance their own growth, no longer relying on banks. Consequently, Japanese banks were forced to seek out weaker players, without recourse to the stronger players to offset these new risky investments (Ozawa 1999).

The potential for the exit of key players is particularly problematic in complex outsourcing relationships such as application service providers. A vendor's failure or the turnover of critical employees could have a detrimental effect on the effectiveness of embedded relationships. Prior to the development of an embedded relationship, parties need to carefully investigate each player's long-term financial and managerial viability so as to ensure that critical players do not abruptly exit the relationship.

Institutional Pressures

Institutions constrain organizational choices and the viability of those choices (Meyer and Rowan 1977; North 1990). This is no less true of governance choices. The choice of an embedded strategy, for example, is susceptible to organizations' institutional environment, which may render embeddedness a liability instead of an asset. Uzzi (1997) proposes

that when firms face contravening institutional pressures, embeddedness may prove to be a liability. He cites the example of the large conglomerate Federated, Inc. who acquired retailers such as Macy's and Bullocks in the 1980s, and forced a shift from a relationship orientation to transaction orientation among retailers. Besides such direct effects, contravening institutional pressures also indirectly impact the viability of a network governance choice.

We also see evidence of the constraints of institutions in Asian financial networks. In reconstructing its economy after WWII, Japan sought to also preserve the integrity of its social values. This gave rise to the distinctive Japanese management model. The Japanese Model has been characterized by embedded internal and inter-organizational relationships. Internal embeddedness is manifested in social contracts of lifelong employment. External embeddedness is evident in keiretsu arrangements. Toward the late 1980s, these embedded relationships became problematic for the Japanese economy for two reasons. First, firms in keiretsus focused exclusively on growth rather than profit. Networks facilitate asset sharing and a diffusion of risk (Stark 2001). This funded the growth of firms in keiretsus. This growth, coupled with their insulation from knowledge that the market was slowing down, led to their investment in unsustainable growth (Ozawa 1999). Second, culturally favored collectivist values precluded penalizing weak or non-performing keiretsu members. When faced with a market slow down, keiretsus were no longer able to offset the losses racked up by its weaker members (Ozawa 1999).

Thus, a normative and regulatory environment that favored the sustenance of ties irrespective of their financial viability operated as a constraint. The internal cognitive environment may also pose institutional constraints on governance choices and their success (Selznick 1957). While a shared identity facilitates learning and cooperative endeavors, it can limit exploration and encourage the misapplication of existing rules (Burgelman 2002; Kogut and Zander 1996). In embedded relationship, a shared identity may create a diminished inclination to reconstruct the identity, even when such identity reconstruction is essential to the recognition and diagnosis of major problems. Just as the successful creation of an inter-organizational relationship necessitates a cognitive reframing of identities (Sabel 1993), the diagnosis of

major problems may necessitate similar reframing. Sense-making is after all inextricably linked to identity construction (Weick 1995). Consider, for instance, the Ford–Firestone relationship.

The Ford–Firestone relationship, by all accounts a close and collegial relationship until recently, goes back nearly a hundred years. The current Ford chairman, William Clay Ford, and his sisters are progeny of Ford and Firestone lineage. John Nevin, Firestone's chairman and CEO at the time of Bridgestone's acquisition of Firestone, was previously a 17-year Ford employee. The two companies' collective response to Ford's problem with its Explorer line is clearly illustrative of what Uzzi (1997) terms joint problem-solving. However, their very embeddedness and motivation to solve each other's problems resulted in their inability to recognize the catastrophic situation unfolding. As problems with the Ford–Firestone solution began to emerge, recognizing the problem could have resulted in significant dissonance between the organizations' desired identity and the identity that recognition of the problem may have necessitated. Ford and Firestone would have to construe of themselves as having settled on a fatal long-term solution to an immediate problem. An identity that encompassed either party or both parties as being the cause of customer fatalities would have represented a departure from the prevailing identity, and been untenable. Loyalty to each other and guilt for having suggested/agreed to the initial solution would also have precluded such a voluntary reconstruction of identity, necessary to recognize the problem.

Institutional pressures can also offset resource dependencies that emerge in embedded relationships (Pfeffer and Salancik 2003/1978). They thus encourage transactions that are otherwise difficult to sustain based on competitive market conditions (North 1990).

Geography of Space and Time

Research has suggested that social relationships are viable resources and governance structures in economic relationships. Such research, however, has focused exclusively on proximal, spatially bounded (e.g., Uzzi 1997; Saxenian 1996) and/or temporally continuous relationships (Kumar et al. 1998; Uzzi 1997). This raises the question: how can

embeddedness be an asset in the spatially – and temporally – mobile context that represents the majority of American businesses? In the outsourcing context, this issue of geography is particularly salient given the rapid proliferation of off-shore sourcing arrangements.

In Saxenian's (1996) account of Silicon Valley, we see embeddedness as deriving from geography: 'the natural boundaries of the peninsula . . . ensured a density of [real estate] development that minimized physical distances between companies and facilitated intensive informal communications' (p. 30). Spatial proximity contributed relationship development in three ways: First, the local university, associations, and trade groups facilitated formal interchanges. Second, engineers' met and shared information at impromptu gatherings around local watering holes. Third, due to the dense population of high-tech firms, job mobility within the area did not necessitate a disruption of one's family. Such mobility facilitated the development of embedded relationships among engineers. Kumar et al. (1998) see embeddedness as relating to time in two ways: First, merchants at Prato had long histories of associations from school, church, trade associations, and political parties. Second, Italian culture pre-disposes a longer-term, cross-generational memory of favors and betrayals than would be typical in US culture.

Geography need not preclude embedded relationships. Saxenian (1996) reports that embeddedness also derived from ad hoc information sharing via phone conversations. Robey et al. (2000) found that while co-location facilitated practice-based learning (associated with embeddedness) in virtual teams, such learning was also possible among remote members. Future research needs to better understand the effects of space and time on embeddedness. These may prove to moderate the possibility and/or the effectiveness of embeddedness in outsourcing relationships.

Conclusions

We now consider the implications of our proposed model for practice. We then delineate research issues and directions suggested by the model.

Implications for Practice

A prescriptive implication of the model presented in Fig. 4.1 is that governance choices need to be made based on the nature of the outcomes desired. Governance choices and desired outcomes define the relationship as either arms-length or embedded. A value creation strategy is inherently uncertain. The outcomes are frequently unknown and unspecifiable at the time of the promissory contract. Therefore, the manner in which desirable outcomes might be attained is also unknown. Such inherent uncertainties call for a hierarchical promissory contract (Stinchcombe 1985). Such a contract stipulates ongoing authority relationships via which an alignment of understanding may constantly be pursued.

In contrast, the more determinable nature of the outcomes and processes underlying a value capture strategy lend themselves to initial specification via a market-type promissory contract. In such a contract, the clear specification of desired efficiencies, along with commensurate rewards and penalties, fosters clients' ability to capture value from the provider's economies of scale and scope in the outsourcing relationship.

Research Directions

This paper modeled the processes and outcomes involved in the governance of IS outsourcing. Specifically, we suggest, embeddedness as an alternative governance mechanism and chart the consequences of this alternative in contrast to arms-length outsourcing relationships. However, before our proposed research model is investigated, preliminary research is needed to confirm the feasibility of embedded relationships in the geographically- and temporally mobile environment characteristic of US firms. Research also needs to build on the existing model, specifically attending to the issue of power.

In empirically examining the model presented in Fig. 4.1, the nature of the initial contract may be assessed by a content analysis of the document or from factual information regarding a firm's outsourcing activities (e.g., Ang and Beath 1993). Literature on

coordination and conflict resolution mechanisms is extensive, with an adequate supply of metrics from which to draw (e.g., Adler 1995; Kale et al. 2000). Existing measures are also available to assess associations, trust, and cognition. The nature of exchange and combination of economic and intellectual capital may be assessed via interviews or a review of archival data.

Research may also wish to investigate how promissory contract choices affect the governance cycle following the renegotiation of a promissory contract. Our position in this paper was that the renegotiated contract would simply start another governance cycle. However, it is likely that the cycle initiated by the renegotiated contract is not independent of the initial governance cycle. The nature of these potential path dependencies bears further consideration.

The proposed model may be investigated with a cross-sectional study. If such a study were to be undertaken, it is important to note that the complexity of the proposed model likely allow for only a portion of the model to be tested in a single study. However, in order to best explore the dynamics of the inter-organizational context, and provide a richer theoretical understanding of initial and emergent governance structures, a longitudinal, comparative, case study approach may be most appropriate. This approach will allow us to investigate the process of relationship development and the processes involved in moving from one governance scenario to another. It may also enable us to understand the circumstances under which embeddedness ceases to be a relational asset and becomes a liability.

At a more generic level, this paper proposed that governance choices circumscribe the capital that may accrue to relationships. Our analysis of IS outsourcing may be viewed as a case in point – an illustration of the effects of the terms of promissory and psychological contracts on capital. These effects may also pertain to other types of economic relationships – intra-organizational relationships *and* inter-organizational relationships. Future research may want to investigate the generalizability of our propositions to other organizational relationships. More attention is also required in conceptualizing and testing the boundary conditions of the model proposed in this manuscript.

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