INFORMATION TECHNOLOGY OUTSOURCING

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CONTRACTING IN IT OUTSOURCING

Hierarchical and Psychological Contractual Elements as Key Managerial Governance Mechanisms

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Abstract: *Drawing predominantly from organizational economics, current research on outsourcing contracts has focused on designing contract structures to align the incentives of outsourcing parties, and address the issues of adverse selection and moral hazard. This perspective of information technology (IT) contracting is unnecessarily narrow, as it fails to acknowledge the valuable role of contracts as a managerial governance mechanism. In this chapter, we propose a conceptual framework that adds hierarchical and psychological contractual elements to existing contract structures. Hierarchical elements emulate the social structures underlying hierarchical governance mechanisms and provide a useful means to address the limitations of market exchanges. The psychological contract, representing the client's and vendor's beliefs and expectations about their mutual obligations in outsourcing, governs the behaviors of and interactions between the parties.*

Keywords: *IT Outsourcing Success, IT Outsourcing Management, Legal Contracts, Psychological Contracts*

INTRODUCTION

Information technology (IT) outsourcing remains one of the most enduring trends in the management of IT resources (Ang and Beath, 1993; Ang and Cummings, 1997; Ang and Slaughter, 2001; Ang and Straub, 1998; Lacity and Willcocks, 2001; Slaughter and Ang, 1996). It is estimated that the worldwide outsourcing market will grow from US$191 billion in 2004 to US$267 billion by 2009 (Gartner Forecast, 2005). Newer forms of outsourcing are becoming more popular. The advent and widespread use of the Internet has propelled a rapid growth in application service provider (ASP) outsourcing (Currie and Seltsikas, 2001). Another new form of outsourcing, business process outsourcing (BPO), is the fastest-growing market, projected to reach US$133.7 billion in 2005 (Gartner Press Release, 2005).

Despite the growth of outsourcing, empirical results on outsourcing success remain mixed (Lee, Miranda, and Kim, 2004; Levina and Ross, 2003). While there are some success stories (e.g., Lacity and Willcocks, 1998), persistent evidence remains of contract cancellations and early terminations (e.g., Bahli and Rivard, 2003; Kern, Willcocks, and van Heck, 2002; Lacity and Willcocks, 2000b; Michell and Fitzgerald, 1997) and lawsuits (e.g., Ang and Toh, 1998).

One major contributing factor to low success rates in IT outsourcing is the relative lack of attention to the implementation and management of IT outsourcing. To date, outsourcing research has focused more on the decision and contracting for outsourcing. Drawing predominantly from organizational economics, research on outsourcing has focused on designing contract structures to align the financial incentives of outsourcing parties (e.g., see Bryson and Sullivan, 2003; Bryson and Ngwenyama, 2000; Chaudhury, Nam, and Rao, 1995; Gopal et al., 2003; Richmond and Seidmann, 1993; Wang, Barron, and Seidmann, 1997; Whang, 1992). Research on strategies for managing outsourcing remains relatively scarce (Dibbern et al., 2004). Perhaps the assumption is that once a careful strategic analysis is made of the sourcing decision, outsourcing success should occur. Typically, in strategic analysis, a legal contract is drawn that narrowly specifies the exchange of goods and services in return for certain levels of financial consideration. Yet, as in any managerial task or the management of complex projects, careful and thorough strategic analysis does not naturally translate into a successful execution of the sourcing decision (Mintzberg, 2004).

In this chapter, we propose that outsourcing success requires the contracting process to extend beyond strategic analysis and legal contracting. Rather, outsourcing projects require that both parties in the outsourcing arrangement implement appropriate managerial governance mechanisms in the structure of the contract. We begin the chapter by describing legal contracting and its relation to outsourcing. Then, we present an expanded perspective on contracting. The expanded perspective infuses managerial governance mechanisms in the form of hierarchical and psychological contractual elements into existing legal contract structures. Hierarchical elements emulate the social structures underlying hierarchical governance mechanisms and provide a useful means to address limitations of market exchanges. The psychological contract, representing the client's and vendor's beliefs and expectations about their mutual obligations in outsourcing, governs the behaviors of and interactions between the parties. We conclude with directions for future research on the value of such an expanded perspective in IT contracting.

CONTRACTS AS A LEGAL PROMISE FOR THE EXCHANGE OF GOODS AND SERVICES

Research on outsourcing management has emphasized the importance of the contract structures embedded in the legal contract. In the classical view of contracting (Macneil, 1980), a contract represents a promise enforceable by law, involving the exchange of a promise for consideration. The required elements in all contracts are, therefore, a clear definition of what is being promised and the price at which the promise will be fulfilled.

IT outsourcing is a form of legal contracting. A provider makes a promise to deliver certain products/services to a client, in exchange for payment or financial consideration. The outsourcing contract, being essentially a legal document, must therefore stipulate the terms of the exchange between the client and the vendor, embodied in the products/services exchange and the financial exchange (Kern and Willcocks, 2000; Whang, 1992).

Adopting a legal view of contracting, outsourcing research has examined four key elements of contract structures:

- *Products/services specifications*—The ability to define the products/services exchanged is an essential condition for market exchanges. It provides the basis for assessing contract performance (Williamson, 1979). In IT outsourcing, the products/services are usually specified in service-level agreements defining the service being contracted for, and where and when it is delivered (Larson, 1998). The service-level agreement typically includes detailed metrics

related to areas such as volume of work (e.g., the number of service calls or maintenance requests to be handled per unit of time), quality (e.g., defect rates, service availability), and responsiveness (e.g., time taken to handle a service request) (Hayes, 2004; Misra, 2004). To ensure that the metrics set are realistic, firms should baseline their current performance, and benchmark against the industry (Hayes, 2004; Lacity and Willcocks, 1998; Rubin, 1997).

- *Pricing structure*—The choice of pricing structure has attracted much research. Research has either adopted an empirical or analytic methodology to understand how pricing structure can influence the effectiveness of a contract (e.g., see Bryson and Sullivan, 2003; Bryson and Ngwenyama, 2000; Chaudhury, Nam, and Rao, 1995; Gopal et al., 2003; Richmond and Seidmann, 1993; Wang, Barron, and Seidmann; Whang, 1992). The most commonly adopted pricing structures in IT outsourcing are fixed-fee contracts, time-and-materials contracts, and cost-plus or hybrid contracts (Kalnins and Mayer, 2004; Slaughter et al., 2005). These pricing structures differ in how risks are allocated between the parties and, therefore, they provide different financial incentives that can promote or discourage opportunistic behaviors. For example, a fixed-price contract places risks predominantly with the vendor, and the vendor may thus be motivated to cut costs to enhance its profits, especially where product quality is hard to assess.

- *Payment schedule*—Although relatively less studied, the payment schedule is also an important aspect of the financial exchange. Payment schedules have a direct effect on the vendor's project finances and profitability, and clients can use progressive payments linked to project milestones as an incentive to ensure schedule compliance by the vendor (e.g., Dayanand and Padman, 2001).

- *Contract duration*—This defines the duration of the exchange, and is an important contract choice, in addition to the pricing structure (Cheung, 1969). A principal limitation of long-term contracts is their inflexibility in the face of uncertainty (Coase, 1937), and firms can use contract length as a means to achieve efficient low-cost adaptation to change (Crocker and Masten, 1988, 1991). Similarly, IT outsourcing research suggests that short-term contracts are more successful, because shorter contracts enable the parties to more accurately assess their requirements and analyze the cost implications, provide greater motivation for vendors to perform, and allow clients to recover faster from mistakes (Lacity and Willcocks, 1998).

From a theoretical perspective, much of the work on contract structures is motivated by agency theoretic principles and the inherent need to design an effective contract structure to address issues of adverse selection and moral hazard (Grossman and Hart, 1983; Holmstrom, 1979; Milgrom and Roberts, 1992).

IT outsourcing involves essentially an agency relationship between the client and vendor, typified by goal incongruence between the parties (Lacity and Hirschheim, 1993). Agency theory holds that individuals act through self-interest and, therefore, the goals of the principal and the agent often diverge. Consequently, the agent may not always behave in the principal's best interests, resulting in the danger of adverse selection and moral hazard (Jensen and Meckling, 1976; Ross, 1989). These risks may be particularly acute in complex exchanges such as IT outsourcing, where difficulties often exist in specifying and verifying product quality attributes, and information asymmetry between the client and vendor, giving rise to the classic "lemons" problem described by Akerlof (1970). Therefore, contract theory and agency theory suggest that the choice of an appropriate contract structure is crucial; the contract structure should be designed to provide incentives to align the goals of the client and vendor, and address issues of adverse selection and moral hazard (Grossman and Hart, 1983; Holmstrom, 1979; Milgrom and Roberts, 1992).

While we acknowledge the importance of this stream of work, the limited focus on the contract structure ignores the wider role of the contract as a governance mechanism. The contract not only defines the terms of the exchange, but also forms the foundation for daily interactions between the parties (Kern and Willcocks, 2000). Yet, there is little emphasis in the literature on the use of the contract to actually manage the postcontract process. We believe that research needs to move beyond the emphasis on legal contract elements, examine managerial governance mechanisms, and incorporate them explicitly into IT contracts. To that end, we propose a conceptual framework that incorporates both hierarchical and psychological contractual elements into the contract structures of an IT contract.

HIERARCHICAL ELEMENTS IN IT

Stinchcombe (1985, 1990) developed the idea of hierarchical elements in contracts as a means of addressing the limitations of market exchanges in handling complex and uncertain transactions, such as IT outsourcing. Transaction costs theory predicts that firms should refrain from outsourcing when they experience difficulty in specifying requirements in advance; when they are uncertain about prices, costs, or quantities; when they require specific assets; or when they cannot control the behavior of agents. Outsourcing in such situations is less efficient than internal hierarchical governance, since firms incur higher transactions costs in negotiating and enforcing such contracts (Williamson, 1979). However, Stinchcombe proposes that firms can address these market limitations by emulating the social structures underlying hierarchical governance mechanisms. In essence, the hierarchical elements framework proposes that firms can incorporate into the contract elements that are commonly found when the activity is governed internally or hierarchically (Stinchcombe, 1985, 1990).

Based on parallels to the social structures underlying hierarchical intrafirm transactions, Ang and Beath (1993) identified five hierarchical elements as they relate to IT outsourcing (see Table 15.1 for a summary). These are:

- *Command structures and authority systems* where rights and responsibilities are assigned to either the client or vendor to make discretionary decisions, issue orders, or demand performance. The authority structure must clearly specify the person who is authorized to make certain decisions and the appropriate communication and approval process. For example, in software projects where requirement changes are often frequent, the contract should identify the client personnel who is authorized to issue such change requests, how such changes should be communicated to the vendor, and the vendor personnel who is authorized to accept or reject the changes. In large outsourcing projects, the contract may also designate certain key vendor personnel and require the vendor to obtain client approval before any changes can be made.
- *Rule-based incentive systems* where rewards and punishments are tied to vendor performance, and not to the market. Rule-based incentive systems are appropriate for transactions with high uncertainty, where it is difficult to specify performance contingencies in advance. In such situations, the incentive system must provide inducements for future performance rather than simply serve as a reward for past performance. This can be achieved through rule-based incentive systems that tie the compensation level to the level of performance achieved, instead of based on market-determined forces. For example, if timely delivery is vital, the contract may include penalties for delays beyond an agreed-upon completion date and bonuses for early completion. Similarly, operations and network outsourcing

contracts may specify penalties to be imposed if the vendor fails to meet prespecified service levels.

- *Standard operating procedures* where routines are followed by parties in the contract to ensure that the contract progresses as planned. Such standard operating procedures define the specific actions or behaviors that vendors are supposed to follow and are important as a basis for behavior and outcome controls. Common examples include requiring the vendor to produce formal progress reports; to conduct regular face-to-face meetings with clients; and to bring the client's attention to potential IT operational problems and project delays.

- *Non–market-based pricing systems* where pricing algorithms are designed to accommodate cost uncertainties in long-term IT contracts. Non–market-based systems use the market price established by competitive bidding but modified by cost-recovery procedures. A combination of market pricing and cost-recovery algorithms is designed to ensure a reasonable balance between price risk for the client and compensation risk for the vendor. Examples include a time-and-materials contract as well as reimbursements for costs incurred by the vendor.

- *Informal dispute resolution mechanisms* where procedures are developed to settle conflicts without direct referral to court sanction. Disputes are inevitable in most outsourcing contracts, and parties should aim to resolve the disputes with minimal damage to the relationship. Because of the potential damage to business relationships, legal recourse should be sought only as a last-resort measure. Rather, firms should use private grievance procedures to handle disputes as far as possible. When a dispute first arises, project managers from the client and vendor organizations should work together to try to resolve the dispute. If this fails, the dispute can be referred higher to senior management from both organizations, who will then intervene and negotiate the dispute directly. If the dispute still cannot be resolved by the senior management teams, the client and vendor may agree to submit the dispute to nonbinding mediation by a mutually agreed-upon party, or to seek arbitration to reach a final and binding solution. Formal legal redress should be used as a last resort only after all of these private grievance mechanisms have been exhausted.

Hierarchical elements help firms meet two important objectives: control and coordination (Gulati and Singh, 1998). Reflecting its roots in transaction costs theory, hierarchical elements are often viewed as a response to appropriation concerns, based on their ability to assert control by fiat, provide monitoring, and align incentives. Incentive systems and nonmarket pricing, in particular, highlight attempts to achieve control by aligning the interests of the parties. Besides control, outsourcing parties also need to coordinate their tasks and make mutual adjustments during the contract in response to other parties' actions as well as changes in the environment. Hierarchical elements, such as command structure and authority systems, and standard operating procedures make it easier to coordinate tasks between the partners by clarifying decision-making procedures and anticipating issues before they arise. Similarly, dispute resolution procedures help to reduce the scope of disputes and allow parties to discover joint solutions to more effective coordination (Gulati, Lawrence, and Puranam, 2005; Gulati and Singh, 1998).

In sum, the hierarchical elements framework argues that firms can achieve the flexibility and necessary control functions afforded by hierarchies by incorporating such hierarchical governance mechanisms into their contracts. Research has demonstrated the usefulness of the hierarchical elements framework in the context of IT outsourcing. Firms can use hierarchical elements to address the high appropriation risks associated with software outsourcing contracts, which are typically characterized by high asset specificity and uncertainty (Ang and Beath, 1993). Failure to incorporate such hierarchical elements into the contract often contributes to outsourcing failures

Table 15.1

Hierarchical Elements in Outsourcing Contracts

Hierarchical elements	Examples	Illustrative statements
1. Command structures and authority systems	Explicit assignment of responsibilities	"Any changes in the functional specification must be specifically approved in writing by both client's project manager and vendor's vice president of programming."
	Explicit assignment of authority for authorizing changes Authority over price adjustments Authority over assignment/change of personnel Right to audit work in progress and final performance Right to cancel project	"Vendor shall not replace the vendor project manager for reasons other than death, disability, resignation, or termination of employment, or upon request by client. In the event that the vendor project manager must be replaced, vendor will give client at least thirty days' notice prior to assigning a new vendor project manager, and client will have the right to interview and reject the new assigned vendor project manager."
2. Rule-based incentive systems	Rules for penalties for delay	"In the event of a delay in delivery . . . vendor shall pay to client the sum of $X for each day of delay in delivery as liquidated damages."
	Rules for rewards for early completion Right to change incentive structure during the contract	"Vendor will be responsible for meeting the service level agreements specified in Attachment A. . . . In the event vendor fails to meet these service-level agreements, and total unplanned outages exceeds X percent for any week, a penalty of $Y will be imposed, and offset as a credit against vendor's fees for that week."
3. Standard operating procedures	Formal progress reports Regular meetings to discuss problems	"Vendor will develop, verify, and submit for review and approval each item listed in Attachment A for client. Vendor will provide client with weekly status reports outlining accomplishments, problems/issues, upcoming tasks, and project resource requirements."
4. Non–market-based pricing systems	Pricing based on cost recovery consideration	"For optional services, client will reimburse vendor for the number of hours spent, computed based on vendor's standard charges for such services at the time they are provided."
5. Informal dispute resolution mechanism	Private grievance procedures involving project managers at the first level and senior management at the second level Provision for third-party mediation/arbitration	"In the event of any dispute, controversy, or disagreement with respect to performance under this Agreement, the parties agree to first submit the dispute in writing to the designated client and vendor project managers. If the project managers cannot resolve the dispute within ten days of receipt of the dispute, the dispute shall be submitted in writing to the Project Executive Committee, comprised of at least two senior management members from both the client and vendor, to negotiate the dispute directly. If the Project Executive Committee cannot resolve the dispute within twenty days of receipt of the dispute, the dispute will be submitted to arbitration."

Source: Adapted from Ang and Beath (1993).

(Ang and Toh, 1998). As such, firms should design and incorporate these hierarchical elements into the contract.

THE CLIENT–VENDOR PSYCHOLOGICAL CONTRACT

In addition to the hierarchical elements, effective managerial governance of IT outsourcing also requires a clear and explicit understanding of the contracting parties' psychological contract. Unlike legal contracts that are made explicit, a psychological contract refers to people's *mental* beliefs and expectations about their mutual obligations in a contractual relation (Rousseau, 1995). These mental beliefs can be shaped by explicit obligations incorporated into the written contract. More critically, psychological contracts reflect implicit obligations that exist only in the parties' minds. Understanding the psychological contract is important because the parties' behaviors are driven by their beliefs and perceptions of these obligations, regardless of whether these obligations are incorporated into the written contract. Ultimately, "all contracts, whether written or unwritten, are fundamentally psychological, existing in the eye of the beholder" (Rousseau and Parks, 1993, 19), and it is the parties' subjective interpretations that govern their day-to-day interactions. It is important, therefore, to look beyond the written contract to understand the psychological contract between the parties. This is particularly critical in IT outsourcing, since it involves multiple stakeholders from both the client and vendor organizations (Lacity and Willcocks, 2000a), and the parties involved in negotiating and drafting the contract are often different from the parties involved in its day-to-day execution. Further, the written contract in large IT outsourcing deals is usually so long and complex that it is impractical to distribute the contract to all parties involved, leaving individuals to rely on their set of beliefs about the contract only.

Recent research by Ho, Ang, and Straub (2003) and Koh, Ang, and Straub (2004) demonstrates the critical role that the psychological contract plays in determining the success of IT outsourcing. IT outsourcing involves essentially a contract and a set of mutual obligations between a client and a vendor, whereby the vendor agrees to make specific contributions to the client in return for certain benefits from the client. Research shows six client obligations and six vendor obligations, and fulfillment of these obligations has a significant positive effect on outsourcing success, over and above the effects of project characteristics such as project type, duration, and size. Table 15.2 summarizes these obligations.

Client project managers expect their vendor to fulfill six vendor obligations:

- *Vendor obligation for accurate project scoping.* Clients expect vendors to define precisely the nature and range of services covered in the outsourcing contract and to be flexible in handling requests for changes. This is important because the project scope directly affects the price the client pays. If the vendor underestimates the project scope and ends up in a loss situation, he is likely to be disproportionately concerned with reducing costs, and this may lead to declining service quality and additional costs for the client as well as contract inflexibility and adversarial relationships, as is often exhibited in a "winner's curse" situation (Kern, Willcocks, and van Heck, 2002). Flexibility in handling scope changes is also important because outsourcing costs can escalate significantly if the vendor exercises very tight project control and levies additional charges for every minor change.
- *Vendor obligation for clear authority structures.* Clients expect vendors to delineate clearly the decision-making rights and reporting structures in the project in terms of the roles and responsibilities of all parties involved. This is essential for clients to maintain control over

Table 15.2

Client–Vendor Psychological Contract Obligations in Information Technology Outsourcing

	Definition	Sample quotes
A. Vendor obligations		
1. Accurate project scoping	Define precisely the nature and range of services covered in the outsourcing contract and be flexible in handling vendors' requests for changes in these services.	"I think not many of them [vendors] are good at scoping. There was this contract that we awarded to this vendor, because he was the lowest bidder. But it's quite clear that he underbid on the tender. I think they were just too new to the game. They had to honor the contract, even though they ended up losing money on it. But we were concerned with the quality of work and deliverables." "A major problem we face is that vendors tend to exercise too tight control over the project scope. Any small change, they will insist on additional charges. The vendor must recognize that there will always be changes in scope during the project."
2. Clear authority structures	Delineate the decision-making rights and reporting structures in the project in terms of the roles and responsibilities of all parties involved.	"We have this contract with this vendor who, in turn, subcontracted parts of the project to two other vendors, one for hardware and another for software. I'm not sure they know what they're doing, or who's responsible for what. He (the primary vendor) seems to be having lots of trouble coordinating and integrating the services of his subcontractors."
3. Taking charge	Complete the job and solve problems independently with minimal client involvement.	"We contracted with this vendor to develop a software system for us. But he just kept coming back to us with all the problems he encountered. It was very frustrating, we felt like we're doing the job for him."
4. Effective human capital management	Assign high-quality staff to work on the project and minimize staff turnover during the project.	"We were very upset with the vendor. They had assigned a non-IS staff on their project team. We thought he would be value-adding with his other expertise but he just didn't perform." "The vendor was facing very high attrition, and many of the vendor staff resigned half-way during the project. The worst case was when the [vendor] project manager left. This affected the project schedule and quality of work, and the project ended up being delayed."
5. Effective knowledge transfer	Educate client in terms of the necessary skills, knowledge, and expertise associated with using the outsourced system or service.	"We recently contracted a vendor to develop a system that interfaces with our current financial system. It was only during the project that we realized that our own staff were not able to answer their questions about the financial system. We realized too late that the previous vendor responsible for implementing the financial system failed to transfer adequate knowledge to your staff."

Table 15.2 *(continued)*

6. Building effective interorganizational teams	Invest time and effort to foster a good working relationship between the client and vendor staffs working on the project.	"This is really a multicultural project. We have people from different backgrounds and nationalities. The vendors put in quite a bit of effort bringing the team together. They organized social activities and brown-bag lunches."
B. Client obligations		
1. Clear specifications	Understand and articulate explicitly and comprehensively the requirements for the services covered by the outsourcing project.	"There was this software development project that we were working on. The client wanted us to generate a whole list of reports, but when we asked for details, he didn't seem to know what he wanted at all! Worse, when we asked him why he needed those reports, he couldn't give us any valid business reasons, other than the fact he had always had them."
2. Prompt payment	Pay vendors on time and do not withhold payments unreasonably.	"Payment is usually not a problem for us. But sometimes, if the client is not happy with us, he will not sign off on the project deliverables, and this delays the payment process." "You have to understand this, no matter what happens, we still have to pay our staff on the first day of every month. If the client is late in his payments to us, we end up carrying his financial cost."
3. Close project monitoring	Be actively involved in overseeing the project progress and attend all project meetings and discussions regularly.	"It was so frustrating. We sent this interim report to the client manager a month ago, but until today, he still hasn't read it yet! We have to keep chasing him, because we need his approval on it before the development process can move to the next phase."
4. Dedicated project staffing	Assign key employees who possess the required skills and knowledge to work with vendor staff on the project.	"Like in this recent case, the client assigned two resource persons to work with us on the project. But whenever we approached them for help or information, they always claimed to be busy with other work, and in the end, nothing gets done! They just did not have the commitment to the project at all!"
5. Knowledge sharing	Provide information required by vendor and educate vendor with the industry and firm-specific knowledge necessary to build or operate the system.	"We had trouble getting information from them about their company. We wanted to know more . . . their culture, operating procedures, business goals, and so on. But we're quite disappointed. Usually they are quite supportive but not in this." "Many times, we also learn from our clients, the way their business runs. This helps us build up our industry expertise."
6. Project ownership	Ensure that senior management provides strong leadership, support, and commitment toward the project.	"We expect senior management to be committed to the project, be willing to pump in their resources and time to see the project through to the end." "They need to own the project. We can't make the decisions for them. They must decide and lead."

Source: Adapted from Koh, Ang, and Straub (2004).

the project and ensure proper accountability, especially in large projects that involve multiple vendors and/or subcontractors, given the difficulty of coordinating roles and responsibilities of the different parties involved.

- *Vendor obligation for taking charge.* Clients expect vendors to complete the job and solve problems independently with minimal client involvement. Clients typically view vendors as the technical experts, and thus expect vendors to be able to make quick decisions to resolve any issues that arise. Consequently, clients expect vendors to go beyond their contractual roles and take charge during the project to solve any arising problems independently in order to avoid delays to the project.
- *Vendor obligation for effective human capital management.* Clients expect vendors to assign high quality staff to work on the project and to minimize staff turnover during the project. Clients expect vendor staff to possess all the requisite skills for the project; these include technical skills, change-management and project-management skills, as well as business knowledge and industry experience. Clients also expect vendors to minimize personnel changes during the project; when changes are inevitable, vendors should provide sufficient notice and ensure prompt replacements, so that the quality of services will not be affected.
- *Vendor obligation for effective knowledge transfer.* Clients expect vendors to educate them on the necessary skills, knowledge, and expertise associated with using the outsourced system or service. Knowledge transfer is crucial for most projects, and clients expect vendors to put in place procedures such as project documentation and training programs to facilitate such knowledge transfer.
- *Vendor obligation for building effective interorganizational teams.* Clients expect vendors to invest time and effort in fostering a good working relationship between the client and vendor staffs working on the project. Clients recognize the importance of a good client–vendor relationship, and expect vendors to make special efforts to build a cohesive project team and ensure that the team can work amicably together.

Vendor managers, on the other hand, expect their client to fulfill the following obligations:

- *Client obligation for clear specifications.* Vendors expect clients to understand and articulate explicitly and comprehensively the requirements for the services covered by the project. Clear specifications are important in software projects, given the need to capture business needs and requirements accurately; however, other outsourcing contracts similarly require clear specifications to accurately define project baselines and service level agreements. Vendors expect clients to understand and articulate their business requirements and project specifications clearly, and minimize project changes and rework that will drive up the vendor's costs in the process.
- *Client obligation for prompt payment.* Vendors expect clients to pay them on time and not withhold payments unreasonably. While it is common practice for clients to link payments to project milestones, vendors expect clients not to unreasonably withhold payment to protest over other unresolved issues or dissatisfaction with the vendor, since such delayed payments can adversely affect the vendor's project finances and profitability.
- *Client obligation for close project monitoring.* Vendors expect clients to be actively involved in overseeing the project progress and to attend project meetings and discussions regularly. This is important so that issues can be identified and resolved promptly between the parties.
- *Client obligation for dedicated project staffing.* Vendors expect clients to assign key employees with the required skills and knowledge to work with their staff on the project. Vendors often lack a complete understanding of their client's requirements, and must rely on the client

employees' tacit knowledge and intimate understanding of the firm. Consequently, vendors expect clients to assign sufficient staff to the project, and ensure that they dedicate sufficient time to work on the project.

- *Client obligation for knowledge sharing.* Vendors expect clients to provide any information required and to educate them with the industry- and firm-specific knowledge necessary to build or operate the system. Vendors need to learn the details of the client's business processes and applications, especially in software projects where a keen knowledge of the specific context of the organization's business processes is required. Such learning also helps vendors to build up industry expertise.
- *Client obligation for project ownership.* Vendors expect client senior management to provide strong leadership, support, and commitment toward the project. Vendors expect clients to have a strong sense of psychological ownership of the project, and to treat the project as their own. Otherwise, clients may wrongly think that they are outsourcing all their problems, thus leaving the vendor to resolve all issues that arise.

In sum, the concept of a psychological contract draws our attention to the fact that not all promises are incorporated into a typical legal written contract. Ambiguous promises are more likely to lead to perceived breaches of a psychological contract. Therefore, the more firms work toward clarifying mutual promises and making these obligations explicit, the greater the likelihood of success in IT outsourcing. Further, the psychological contract's emphasis on mutual obligations between the parties highlights the duality of the outsourcing relationship. This addresses the dire need for outsourcing research to move beyond its dominant focus on the client perspective (Dibbern et al., 2004) to provide a balanced view that incorporates the views of both parties involved.

RELATIONSHIP BETWEEN HIERARCHICAL AND PSYCHOLOGICAL CONTRACTUAL ELEMENTS

While we have discussed the hierarchical and psychological contractual elements separately in the sections above, in reality, the ideas and concepts of both overlap. Table 15.3 shows how the two are related to each other.

Some clear overlaps exist—for example, client obligation for close project monitoring is similar to the hierarchical element of standard operating procedures; and vendor obligation for clear authority structures is similar to the hierarchical element of command structures and authority system. Other psychological contract obligations are partially reflected in the hierarchical elements. For example, vendor obligation for effective human capital management reflects a client's expectation that the vendor will assign high-quality staff to work on the project and to minimize staff turnover during the project. The client can try to address this by designating key vendor personnel on the project (e.g., the project manager), and requiring explicit approvals for key personnel changes—both of these reflect the hierarchical element of command structures and authority systems. However, this alone is insufficient to ensure high-quality staff (the client will not be able to designate *all* of the vendor staff assigned to the project or to effectively evaluate the quality of their skills ex ante) or low turnover in the first place. The same applies to client obligation for dedicated project staffing. Similarly, while clear specifications and accurate project scoping are crucial client and vendor obligations, in reality, these cannot be easily captured in the contract. Rather, command structures and authority systems can be used to minimize the effects of uncertainty in project specifications and scoping (e.g., through authority for price adjustments

Table 15.3

Relationship Between Hierarchical and Psychological Contractual Elements in Information Technology Outsourcing

Psychological contractual elements	Hierarchical elements (1) Command structures and authority systems	(2) Rule-based incentive systems	(3) Standard operating procedures	(4) Non–market-based pricing systems	(5) Informal dispute resolution mechanisms
Client obligations for:					
Clear specifications	X			X	
Prompt payment	X				
Close project monitoring			X		
Dedicated project staffing	X				
Knowledge sharing					
Project ownership					
Vendor obligations for:					
Accurate project scoping	X			X	
Clear authority structures	X				
Taking charge					
Effective human capital management	X				
Effective knowledge transfer					
Building effective interorganizational teams					

and project change), and non–market-based pricing systems (e.g., cost-plus contracts) may be employed where such uncertainty is expected to be high.
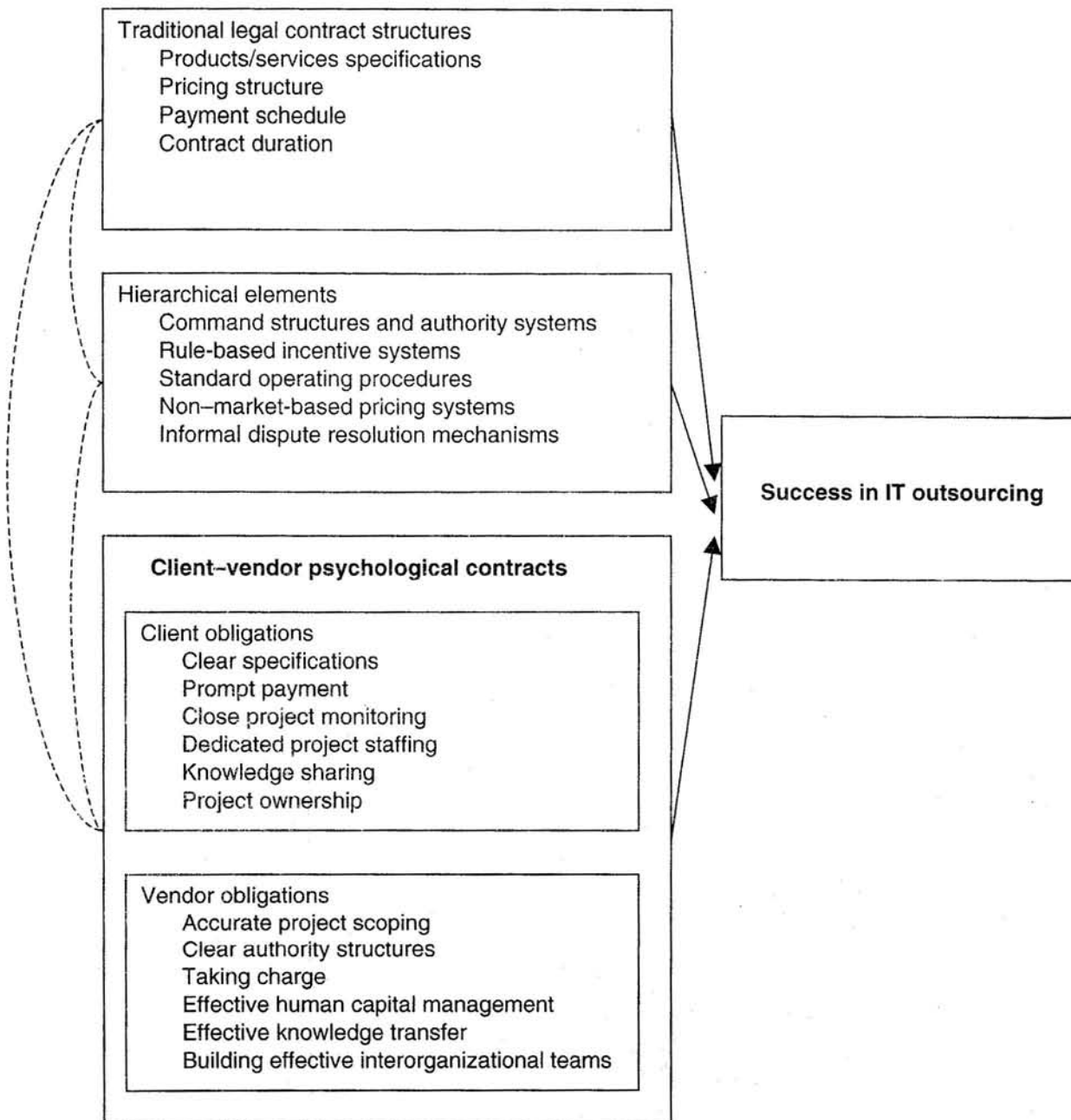
In sum, while there are some overlaps between the psychological contract obligations and the hierarchical elements, the two are not synonymous. Table 15.3 highlights the fact that not all psychological contract obligations are reflected in the hierarchical elements, and vice versa. For example, the hierarchical element "dispute resolution mechanism" is missing from the list of psychological contract obligations. This may reflect, in part, the parties' emphasis on the relationship (e.g., vendor obligation on building effective interorganizational teams) and, therefore, their reluctance to recognize the likelihood that disputes will arise. Further, the hierarchical elements reflect primarily the client's perspective only. This can be attributed to its roots in transaction costs economics, with its emphasis on controls to safeguard against opportunism and contractual hazards. As such, the hierarchical elements are designed to "achieve purposes of dealing with uncertainties that rational *clients* will often want to deal with" (Stinchcombe, 1990, 232; emphasis added). The vendor's perspective is grossly missing in this framework. The psychological contract perspective, with its emphasis on mutuality, provides a balanced view of both parties to the contract.

In summary, we believe that the hierarchical and psychological contractual elements complement each other, and successful outsourcing management requires an integrative framework that incorporates both these elements to the legal elements in contract structures.

EXPANDING THE VIEW OF IT CONTRACTUAL ELEMENTS

Figure 15.1 summarizes our conceptual framework. We propose that outsourcing research needs to move beyond the emphasis on legal contract structures in order to understand the wider role of the contract

Figure 15.1   Expanded View of Contractual Elements in Information Technology (IT) Outsourcing

Traditional legal contract structures
  Products/services specifications
  Pricing structure
  Payment schedule
  Contract duration

Hierarchical elements
  Command structures and authority systems
  Rule-based incentive systems
  Standard operating procedures
  Non–market-based pricing systems
  Informal dispute resolution mechanisms

Success in IT outsourcing

Client–vendor psychological contracts

Client obligations
  Clear specifications
  Prompt payment
  Close project monitoring
  Dedicated project staffing
  Knowledge sharing
  Project ownership

Vendor obligations
  Accurate project scoping
  Clear authority structures
  Taking charge
  Effective human capital management
  Effective knowledge transfer
  Building effective interorganizational teams

as a governance mechanism in the day-to-day interactions between the parties. This requires an integrative perspective that incorporates the written contract as well as the hierarchical and psychological contractual elements. We strongly advocate that firms should make these hierarchical and psychological contractual elements explicit and incorporate them into the contract, as far as possible.

From a research perspective, our stream of work represents only the beginning of a journey toward understanding the critical role hierarchical and psychological contractual elements play in determining success in IT outsourcing. First, we urge more research into understanding the fundamental nature of hierarchical and psychological contractual elements as it applies to new forms of outsourcing. With the changing landscape of IT outsourcing, it would be interesting to explore how the model applies to newer forms of outsourcing, such as ASPs, BPOs, and offshore

outsourcing contracts. Research could examine underlying differences in the alternative forms of outsourcing, and the corresponding differences in managerial governance mechanisms required.

Second, research could explore how the different hierarchical and psychological contractual elements complement each other. We believe that more work should be done to understand how the different hierarchical and psychological contractual elements can be configured together—that is, how to design effective "bundles" of elements to ensure comprehensiveness combined with efficiency in embedding managerial governance mechanisms in IT outsourcing contracts.

Third, recall that we used transaction cost and psychological contracting theoretical frameworks to develop the hierarchical and psychological elements as managerial governance mechanisms. However, each hierarchical and psychological element in itself requires further theoretical and empirical scrutiny. For example, on the psychological obligation for knowledge transfer, future research could leverage on the wider body of knowledge on knowledge-transfer and learning, to determine how they can be applied to designing more managerial governance mechanisms in IT outsourcing as it pertains to knowledge-transfer between the client and the vendor. Similarly, research could draw on organizational behavior concepts such as psychological ownership (Pierce, Kostova, and Dirks, 2001) for conceptual grounding in understanding the determinants of stronger project ownership on the part of clients for IT outsourcing contracts.

Finally, we believe that research should examine how IT contracts evolve over time. Contracts, being legal documents, do not change easily. Contract renegotiations and revisions are often lengthy and expensive endeavors. As such, contract changes tend to be only incremental over time, and firms usually make adjustments in their subsequent contracts only after they have experienced persistent actual problems during the course of the interactions (Mayer and Argyres, 2004). While the written contract is an ex ante device (Dekker, 2004) and often hard to revise ex post, the parties need to continually adapt and fine-tune the organizational governance mechanisms as they interact with each other. Further, the psychological contract is not a static concept, and research has shown that the parties' perceptions of obligations change over time (Robinson, Kraatz, and Rousseau, 1994). More work is needed to understand how the different contractual elements evolve over time and gain knowledge about the antecedents to and consequences of such changes.

CONCLUSION

In this chapter, we propose an expanded conceptual framework of the elements that will be necessary for successful outsourcing. We suggest additional managerial governance mechanisms in the form of hierarchical and psychological contractual elements to complement existing legal contract structures that have formed the primary focus of IT outsourcing. Hierarchical elements emulate the social structures underlying hierarchical governance mechanisms and provide a useful means to address limitations of market exchanges. The psychological contract, representing the client's and vendor's beliefs and expectations about their mutual obligations in outsourcing, governs the prescribed roles and behaviors of parties to the IT outsourcing contract. Our intent is to encourage more research that will focus on managerial governance mechanisms beyond the traditional legal contract structures in our quest toward enhancing our understanding and management of IT outsourcing.

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