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Offshore outsourcing of professional services: A transaction cost economics perspective

Lisa M. Ellram [a,*], Wendy Tate [b,1], Corey Billington [c]

[a] *Colorado State University, Department of Management, 212 Rockwell Hall, Fort Collins, CO 80523-1275, United States*
[b] *University of Tennessee, Department of Marketing and Logistics, 343 Stokely Management Center, 916 Volunteer Blvd., Knoxville, TN 37996-0001, United States*
[c] *IMD, Ch. de Bellerive 23, P.O. Box 915, CH-1001 Lausanne, Switzerland*

Abstract

This research utilizes the framework of transaction cost economics (TCE) to develop an understanding of how firms manage the costs and risks of offshore outsourcing of professional services. This research examines the perspectives of eight organizations through interviews with 10 high-ranking supply management executives. The paper first explores the rationale for offshore outsourcing among the organizations studied. Using the tenants of TCE, this paper postulates that fixed costs of establishing the relationship dominate the variable costs of day-to-day transactions, and that organizations will not offshore outsource areas where there is high perceived degree of unmanageable risk. The paper expands on themes provided by TCE and offers some lessons learned, and guidelines for managing and controlling offshore outsourced services relationships.

Keywords: Business process outsourcing; Professional services; Transaction costs; Case studies; Service purchasing; Offshoring

1. Background/introduction

Outsourcing provides a potential path to price reductions and increased flexibility, allowing firms to convert fixed costs into variable expenses, and increase their economies of scope. Studies indicate that short-term price savings continues to be a predominant reason for both offshore and domestic outsourcing (Corbett, 2005; Doig et al., 2001). Yet the ramifications of outsourcing go well beyond immediate price reduction. Outsourcing has implications for day-to-day management and performance, as well as strategic implications. Outsourcing decisions clearly affect a firm's cost structures, but may also affect the long-term competitive situation and alter the nature of risks that the firm must manage.

Offshore outsourcing presents many opportunities that are not available domestically. For example, due to low Indian labor rates, an airline was able to offshore outsource its accounts payable auditing and recover $75 million in delinquent accounts that would not have been cost-beneficial to pursue domestically (Farrell, 2004). Outsourcing can also help a company get better, more state of the art services than it could afford internally. This is a commonly stated reason for outsourcing information technology (McDougall, 2004).

Clearly, there is much more to outsourcing than simply saving money. Offshore outsourcing creates both new opportunities and often unrecognized hazards,

* Corresponding author. Tel.: +1 970 204 2719.
E-mail addresses: Lisa.Ellram@colostate.edu (L.M. Ellram), Wendy.Tate@utk.edu (W. Tate), Corey_Billington@imd.cr (C. Billington).
[1] Tel.: +1 865 974 1648.

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which may limit a firm's prospects. The long-term costs of these unanticipated consequences can greatly overshadow the potential cost savings. As such, careful consideration should be given to outsourcing decisions including all of the potential long-term consequences. It is no wonder that there has been a call for more research on offshore outsourcing of services (Roth and Menor, 2003).

The purpose of this paper is to twofold. First, it explores why firms state that they choose to offshore outsource professional services. The second issue, and primary focus of the paper, is to use the framework of transaction cost economics to develop an understanding of how firms are managing the costs and the risks of offshore outsourcing professional services. Professional services offshore outsourcing is the focus because of its rapid growth and the expectation that this trend will continue (Apte et al., 1995; Bardhan and Kroll, 2003, 2006; Roth and Menor, 2003). Professional services require unique skills and independent work effort to satisfy the organization's temporary or ongoing needs. Included are areas such as information technology, advertising, customer service, accounting and payroll. Using transaction cost economics (TCE) as the framework, it is postulated that organizations will choose the business alternative that yields the lowest total cost of running their operations. TCE provides a rich framework beyond cost, also hypothesizing that organizations will not offshore outsource areas where there is high potential risk of supplier opportunism. TCE proposes that supplier opportunism is highest when the buying firm cannot specify or does not know what it wants, and when the buying firm cannot accurately assess whether the supplier is actually keeping its commitments.

The perspectives of eight organizations were explored through interviews with 10 high-ranking supply management executives who were intimately involved in the selection, relationship execution and ongoing management of offshored and outsourced professional services suppliers. The themes provided by TCE are expanded upon and some lessons learned are presented, along with guidelines for effectively managing and controlling offshore outsourced services relationships.

2. Review of recent literature

Outsourcing is not a new topic. Often called the "make-or-buy" decision, organizations have been grappling with what to perform internally versus what to "buy" in the marketplace as long as business has existed. Outsourcing is often seen as way for organizations to reduce costs and investment, while focusing on what they do well (Doig et al., 2001). For two decades, organizations have been warned to tread carefully into the outsourcing arena, not to outsource items that are strategic, or part of their core competency (Arnold, 2000; Prahalad and Hamel, 1990; Venkatesan, 1992; Quinn and Hilmer, 1994), and to manage outsourced relationships judiciously (Williamson, 1985). More recently, authors have emphasized the need to provide better controls and monitoring of outsourced relationships (Amaral et al., 2004). Managers have also been cautioned to understand the true, long-term cost structure of what they are outsourcing; realizing that a comparison to their internal cost structure may not be valid (Doig et al., 2001). Despite the increasing number of cautions, the pull to outsource remains strong, and growing.

For purposes of this research, offshoring is defined from a U.S.-Centric perspective to include sending work to countries outside of North America. Nearshoring includes sending work from the U.S. to Canada or Mexico. Outsourcing is distinguished from retaining work in-house in that work is performed by independent parties who are not part of the firm's employee base. Here, offshore outsourcing refers specifically to using an independent supplier outside of North America. Within the realm of outsourcing, there is a range of degrees of outsourcing, as will be further detailed in Table 4.

Much of the previous literature and studies have focused on manufacturing outsourcing (e.g. McCarthy and Anagnostou, 2004; Takeishi, 2001; Ulrich and Ellison, 2005; Wu et al., 2005). Manufacturing outsourcing has been more prevalent historically, and received a great deal of attention in the late 1980s and early 1990s when there was fear that industrialized nations were compromising their long-term competitiveness by "hollowing out" their manufacturing through outsourcing. Today, the attention has shifted towards the new move to outsource services, most notably to outsource professional services to offshore locations. Offshore services outsourcing is now possible due to the advent of relatively cheap and reliable information and telecommunication technologies. Most of the discussion around professional services offshore outsourcing has been around the impact on jobs and the economy (Bardhan and Kroll, 2003; Garner, 2004; McKinsey Global Institute, 2003). However, the operating implications of professional services outsourcing may be more subtle and insidious than manufacturing outsourcing. This includes the loss of understanding of the outsourced process that allows the

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firm to fairly evaluate the price and performance of a supplier over time (Amaral et al., 2006; Takeishi, 2001). On a more strategic level, the firm may also lose the tacit knowledge that allows it to have breakthrough thinking in certain areas (Amaral et al., 2006; Fine, 1998). People and organizations learn by doing; if someone else is doing, they get the benefit of that learning which is very difficult to imitate or anticipate (Fine, 1998). With this context in mind, the next section introduces transaction cost economics as a theoretical framework for better understanding the outsourcing decision and its implications.

3. Theoretical grounding

From an economic standpoint, there are certain things that should or should not be outsourced based on the relative cost and risk associated with internal versus external operations. One well established theory used to explain this phenomenon is TCE. TCE has several important premises as it relates to outsourcing, each of which is presented below. Several other studies have used TCE to better understand outsourcing decisions, lending support for the validity of TCE as a suitable lens through which to view outsourcing (Arnold, 2000; Auburt et al., 2004; Maltz, 1994; Murray and Kotabe, 1999; McCarthy and Anagnostou, 2004; Noordewier et al., 1990; Odagiri, 2003; Ulrich and Ellison, 2005; Walker and Weber, 1987). The following sections relate the TCE elements of transaction frequency, asset specificity and uncertainty to outsourcing situations. The transactions themselves take place in an environment where the players are limited by their own bounded rationality, and are subject to the possibility of opportunism by other players in the marketplace (Williamson, 1985, 1988).

3.1. Elements of TCE

The following section provides an explanation of TCE as it relates to professional services outsourcing. Based on the premises of TCE, propositions are developed regarding the transaction characteristics favorable to outsourcing.

Transaction frequency has historically been viewed as the number of transactions, where the number of transactions is a surrogate for the total cost of transactions; more transactions means higher cost (Maltz, 1994; Williamson, 1985). TCE suggests that outsourcing becomes cost prohibitive as the number of transactions increase. However, current information technology (IT) and communications systems cause the transaction costs for many services (relative to performing the tasks internally) to be dominated by the fixed set-up costs associated with the monitoring and management systems rather than the variable transaction costs associated with the ongoing management itself. Thus, the cost curve has shifted, so that fixed set-up costs outweigh the variable transaction costs in offshore outsourced professional services. Much of the transaction cost is for risk management and business controls, government reporting for Sarbanes Oxley and other requirements. This is theoretically in line with Coase's (1937) foundational work in TCE in developing a theory of the firm, where he notes that a key driver of the decision to use markets (buy) versus hierarchies (make) is the set-up and transaction cost of one alternative versus the other. While this may seem contrary to TCE's usual focus on transaction frequency, it fits well with the founding assumptions of TCE, which were simply "translated" to fit to the nature of industry cost structures at the time. Thus, due to information technology and the dominance of fixed rather than variable costs, the first proposition follows:

Proposition 1. *Firms will be more likely to offshore outsource larger volume professional service categories and find small volume categories "uneconomic".*

This proposition assumes that the firm outsources directly, not through an intermediate firm who might provide systems and controls.

Level of asset specific investment assumption presumes that the more specific assets required to support an activity, the less likely that the firm is to outsource that activity (Dyer, 1997; Masten et al., 1991; Klein et al., 1978; Williamson, 1975, 1981, 1985). Specific assets refer to assets that cannot be readily used in another application or transferred to another customer. Such activities are not good candidates for outsourcing because the firm could develop a high level of dependence on the supplier, and the supplier could then become opportunistic, raising prices, reducing service levels, or other such issues. In cases where the supplier owns the specific assets, the supplier is subjected to potentially significant risk associated with accepting the activity. Thus:

Proposition 2. *The higher the level of asset-specific investment required, the less likely the professional service category is to be offshore outsourced.*

TCE deals directly with various types of risk that a firm may encounter by classifying types of uncertainties a firm may face. There are uncertainties that come from

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the marketplace, and uncertainties that come from the firm itself.

Uncertainty in the external environment deals with the degree of volatility and unpredictability in the market place with regard to changes in availability, technology, price, key players, and any other significant disruptions to the market. Transaction cost economics posits that in highly uncertain markets, firms prefer to perform a task internally, believing that they can favorably respond to the whims of the market more readily than their suppliers (Kaufmann and Carter, in press; Vidal and Goetschalckx, 2000; Williamson, 1985).

Proposition 3. *The more volatile the supply market environment, the less likely the professional services category is to be offshore outsourced.*

There are two types of internal uncertainty that firms face: not knowing exactly what they want, and not being able to verify whether a supplier has performed as promised. Each is explained in more detail below.

Internal uncertainty in requirements implies that the organization really does not know what it wants from the process. Firms, like people, will set resources aside to cope with unplanned contingencies. In economic terms, this is bounded rationality—there are too many issues for a human to comprehend and effectively address. If a firm has a process with uncertain requirements, a firm may choose to keep a process in house because doing so retains control of unanticipated benefits and costs (Kaufmann and Carter, in press; Osborn and Baughn, 1990; Williamson, 1975, 1985).

If a firm chooses to outsource a process that has unclear requirements, it may be limiting its options or flexibility (Amaral et al., 2006). Outsourcing requires the firm to specify what is and is not part of the contract and to accurately define levels of service. There is a risk of being wrong, not getting what was required and of limiting its future alternatives. In such situations, the firm should prefer the flexibility of insourcing.

Proposition 4. *The more uncertain the firm is about its requirements, the less likely the professional services category is to be offshore outsourced.*

Uncertainty regarding performance of the contract exists where the nature of the transaction is such that the contracting parties have no assurance that the other party has actually fulfilled its obligation and performed as specified (Williamson, 1975, 1985). In such cases, a firm may be paying for something and not actually getting what it paid for. This is also referred to as a lack of observability (Narayanan and Raman, 2000). Such a situation is ripe for opportunistic supplier behavior (Williamson, 1975, 1985), also referred to as moral hazard (Narayanan and Raman, 2000; Amaral et al., 2006). Again, in such cases, the firm should prefer to reduce the non-performance risk by insourcing.

Proposition 5. *The greater the difficulty in verifying contractual performance, the less likely the professional services category is to be offshore outsourced.*

The next section briefly presents the research methodology. This is followed by a discussion of the case data.

4. Research method

The nature of this research was both exploratory and confirmatory. From a confirmatory standpoint, the researchers wanted to determine whether TCE applies to the offshore outsourcing of services, and whether TCE is still relevant, in situations where the information technology greatly reduces the variable transaction costs associated with offshore outsourcing. Second, the researchers wanted to go beyond TCE to develop an understanding of the risks associated with offshore outsourcing of professional services, as well as provide insight into how these risks are managed and should be managed. There was a desire to leave open the opportunity to explore and create new theory with explanatory and managerial value related to outsourcing professional services.

To this end, interviews were conducted with 10 high-ranking procurement professionals (Chief Procurement Officers, Directors and Managers) representing eight Fortune 500 companies regarding the outsourcing and offshoring of professional services. A set of questions was designed to collect data on the phenomenon (see Appendix A), guiding the data collection process (Eisenhardt, 1989; Yin, 2003). The primary questions were unstructured to allow the interviewees to tell the story of their experiences. There were also probes which ensured that the insights that the researchers' had regarding this phenomenon were addressed, if they did not arise during the unstructured part of the interview (Perry, 1998). All of the interviews took place via telephone or in person, with at least two members of the research team present, and were transcribed. When appropriate, company documentation was gathered and also transcribed. The data were coded using QSR NVivo. A system of categories was developed and then the text were assigned to a particular category. The

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Table 1
Companies analyzed

Name	Industry	What services are offshore outsourced	Approximate years experience
Finance1	Financial services	Call centers, IT maintenance, programming, more	15–20
Finance2	Financial services	Call centers, IT maintenance and support, more	2–3
Software	Commercial software	Call centers, more is beginning	3–5
Computer	Computer equipment	A/P; A/R, travel reimbursement	5+
Packaging	Packaging	Limited IT development	2–3
Transport	Transportation equipment manufacturer	Engineering services, back office operations, more	10+
Consumer products	Clothing and accessories	Very limited (extensive mfg)	>1
PC Hardware	Computers and peripherals	Contingent workforce, IT help desk, call centers, more	5+

interviews varied in length from 45 min to 2 h. A summary of key characteristics of the cases is provided in Table 1.

5. The case data

This section explores the motivation for offshore outsourcing of professional services, and examines the support provided in the case data for the research propositions provided above.

5.1. Motivation for offshore outsourcing

To gain more insight into how the desire for cost savings interacts with other issues, the study participants were asked to explain why the decision was made to offshore outsource professional services. The insights from this question are provided in Table 2 below. The benefits sought were the primary reasons that the participants identified, and did not include any additional benefits or costs that were discovered after offshore outsourcing was underway.

Consistent with the popular belief, a review of Table 2 supports the strong emphasis on price savings as the primary driver of offshore outsourcing. While two firms noted that quality parity and process improvements were required in conjunction with offshore outsourcing, seven of the eight noted cost reduction as the primary driver. Finance1 had already offshored its operations to low cost countries; outsourcing these was the next step to create a more variable cost structure. Thus, given the strong cost emphasis, TCE is a logical lens for viewing offshore outsourcing. The relationship of the case data to TCE is presented in the next sections.

5.2. Transaction frequency and asset specificity

Based on the new transaction cost model presented above, where fixed costs dominate, it is not surprising that the organizations studied focused their professional

Table 2
Offshore outsourcing drivers

Name	Benefit(s) sought	Why begin offshore outsourcing when you did?	Outsourcing style
Finance1	Flexible capacity and variable pricing based on usage	Had successfully offshored services; desire to move to a more variable cost structure	Leader
Finance2	Cost reduction	Saw others being successful and saving money	Fast follower
Software	Cost reduction with comparable quality of service	Waited for perceived ‘‘parity’’ in service quality	Quality and service parity a prerequisite
Computer	Cost reduction	Needed time to recover from first disastrous attempt at offshore outsourcing to integrate lessons learned	Fix processes before outsourcing
Packaging	Cost reduction	Waited until it seemed like many of risks of offshore outsourcing were mitigated	Use intermediary
Transport	Cost reduction, process improvement	Technology was changing; could not keep up in house	Improve while lowering costs
Consumer products	Cost reduction	Professional services are too important to offshore; want to keep outsource providers close	Don’t give up control
PC Hardware	Cost reduction	Had successfully offshore outsourced manufacturing, and outsourced services, desire to combine benefits in offshore outsourcing	Analytically model for optimal result

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services offshore outsourcing in areas with high transaction volume. In order for them to enjoy the economies of scale associated with their investment in setting up linkages and creating the systems for monitoring their offshore outsourcing suppliers, high transaction volume is necessary. Thus, Proposition 1, firms will be more likely to outsource larger volume professional service categories and find small volume categories ''uneconomic'', is supported.

Physical asset specificity was not an issue to initial outsourcing of professional services among the organizations studied due to the perception that the physical infrastructure was generic enough that it could be redeployed with relative ease. The investment in human assets was much more strategic and specific than the investment in physical assets among the firms studied. Still, the development of specific, difficult to replace knowledge did not appear to receive significant attention as a potential risk in most cases.

To illustrate the apparent disregard for specific knowledge, Software spent over 4 weeks training its offshore outsourced call center personnel to answer very specific technical questions related to its product. This specialized knowledge has a relatively high cost to develop, and cannot be recovered if the firm changes suppliers. Yet this was not a concern, or at least not a deterrent to this organization's outsourcing efforts. Similarly, most of the organizations studied had outsourced their information technology systems, handing over their physical and human resources to a third party to manage everything. Thus, Proposition 2, the higher the level of asset-specific investment required, the less likely the category is to be outsourced, is partially supported. The firms studied here are careful to avoid outsourcing of specific physical assets but do not show the same level of concern for outsourcing specific knowledge assets. This could simply be a matter of bounded rationality, and our innate limitations to deal fully with the implications complex decisions.

When asked about their anxiety over investing in developing supplier's employees and then losing the knowledge through employee turnover or switching suppliers, the case participants did not express concern. There was a general belief that they were not sharing anything so proprietary that it would compromise their firm's strategy or competitiveness. The pressure to reduce costs was so great that there was a consensus that they could afford the cost of retraining new employees, and even switching suppliers or regions of the world, if necessary.

On the other hand, six of the firms studied specifically mentioned the growing level of competition for qualified, experienced offshore suppliers. Finance1 mentioned that there were many companies newly buying services specifically in India and the Philippines, that were competing with them for assignment of experienced personnel at their outsourced service providers. Indeed, Finance2 had a stated strategy of utilizing suppliers and supplier personnel that had worked for its competitors, so that the supplier could ramp up faster. Finance2 was willing to pay a little more to have access to such assets, in the belief that the shorter learning curve would actually save money and improve supplier performance in the very near term. Thus, the cases acknowledged that general, redeployable knowledge was developed by the service suppliers in the course of their business, and that experienced suppliers were more desirable by incumbent and well as new customers. There appeared to be a ''leveling'' affect regarding the perceived risk of losing knowledge. Case participants noted that all other firms who offshore outsourced were experiencing the same cost pressure and increasing competition for the best offshore suppliers. Because they were all experiencing the same high levels of turnover at their offshore suppliers, they perceived no competitive disadvantage due to the potential loss of knowledge.

To further highlight the lack of awareness of knowledge-based assets, Finance1 did not become concerned with outsourcing some of its programming because it believed it had excellent contracts in place to protect its ownership and intellectual property. However, when it decided that it wanted to switch suppliers due to price and service issues, it realized that it was very dependent on a particular programming supplier. Over time, the organization had lost its internal knowledge to understand the program code, and even the knowledge to develop a clear statement of work to effectively re-bid the item. That was a wake-up call for Finance1 regarding its dependence on specific knowledge-based assets, Finance1 is in the process of changing its policies so that it does not simply outsource entire, complex programming tasks, but remains involved in the development of non-routine software code. Remaining actively involved in the management and control of outsourced activities is referred to as out-tasking, partitioning knowledge and tasks (Fine, 1998; Takeishi, 2001). While out-tasking is more costly, the organization has made a strategic decision that the risk of dependence and losing control outweighs the benefit of the lower price. This process of out-tasking is discussed in greater detail below in conjunction with Proposition 4.

Thus, while Proposition 2 did not receive strong support, there is some consensus from the case data and

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the literature that the organizations should be concerned about human resource asset specificity in offshore outsourcing (Amaral et al., 2006; Coase, 1937; Narayanan and Raman, 2000; Takeishi, 2002; Williamson, 1985). It is much easier to put a monetary value on specific physical assets, and recognize dependency on such assets because of the immediate, tangible nature of these assets. It is easier, and perhaps riskier to ignore the dependence upon intangible, human assets.

5.3. The risks associated with outsourcing

The researchers found that the risks associated with offshore outsourcing were a concern for everyone. This included the risk of volatility in the supply market, the risk of incomplete specifications, and the risk that the organization cannot effectively judge whether the supplier is performing on the contract, as presented below, in Table 3.

5.3.1. Market volatility risk

In regard to the risk of market volatility, all of the organizations studied focused on outsourcing areas where they perceived a low market risk. For example, Finance2 characterized itself as a fast follower, explaining, ''We let other companies go in first and see how it works. If they are successful, we follow them quickly.'' All of the firms studied were very cognizant of market risk, such as political risk, currency risk, and related factors. Thus, there is support for Proposition 3, the more volatile the supply market environment, the less likely the professional services category is to be offshore outsourced. This was especially true when there is a higher than desirable perceived business continuity risk associated with outsourcing a purchase. For example, when outsourcing its call centers, Finance2 kept half of its outsourced call centers nearshore in U.S. and Canada, rather than putting them all offshore in India. It was not a performance issue; it was a conscious decision to pay more to buffer the business risk of an interruption in service support due to the possibility of war between India and Pakistan.

5.3.2. Risk of incomplete specifications

The risk of incomplete specifications or statements of work was a risk that companies had some difficulty in dealing with. The best solutions involved developing more complete specifications when feasible. For example, Software knew what it wanted in terms of performance, but had not formalized its wants in performance specifications in the past. The strategy has

Table 3
Risk associated with offshoring

Type of risk	Description	How firms adapt to the risk
Market volatility risk	The firms in this research focused on outsourcing services with low market risk	• Follow others that are considered leaders • Be cognizant of market risk, political risk and currency risk • Retain services both domestically and internally
Risk of incomplete specifications	The contracts between the partners are lacking in specification, or specifications need constant updating and changes	• Develop more complete specifications, add and improve existing contracts by integrating ''lessons learned'' • Complete long-term contracts • Develop strategic, trusting and cooperative relationships • Use out-tasking and/or retain management
Inability to measure performance	Geographic and cultural differences make measurement of supplier performance difficult however, total cost and the value proposition is still being met	• Develop measurable specifications • Use random customer satisfaction surveys • Use of internal consultants and benchmarking • Develop trusting and cooperative relationships
Other risks	Considers risks specific to the offshore relationship: over-commit, under-deliver; language barriers and lack of understanding of U.S. customer needs	• Additional training, monitoring and evaluation • Over-specification of contracts • Ignore risk because the cost difference is so low the organizations can absorb the additional risk

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been to add, and improve specifications in the call center offshore outsourcing contract as needed.

In cases where the market was changing quickly, as in IT, very long, complete contracts, combined with long-term relationships (trust) was a technique to lower the real or perceived transaction costs by organizations such as Finance1, Software, PC Hardware and Consumer. Packaging also used an intermediary to buffer its risk in dealing with Indian IT outsourcing. There was no way to determine whether these formalized approaches yielded measurable results, but it made the buying firms feel more secure.

Another approach to dealing with the risk of incomplete specifications was to retain much more hands-on control through using out-tasking rather than complete business process outsourcing as the form of governance. This reduces some of the savings and represents a hybrid between market and hierarchy. This type of approach took several forms among the organizations studied. The first type, used extensively by Consumer, and to some extent by PC Hardware, was out-tasking specific activities where the person worked along side internal employees almost like an employee of the outsourcing firm. Most, but not all of the activity by these companies in this arena was onshore, since most of their professional staff was located in the United States. The professional services managed this way tended to be isolated activities that could easily be parsed out, such as web page development, and contract development. This approach was fairly seamless. In this case, the firm is procuring contingent labor which has a market price and normally much lower risk. The firm keeps control of the work processes, is continually inspecting, and retains the tacit knowledge of the activity.

The second type of approach was out-tasking processes, but retaining overall management and knowledge of the work. This was done by Finance1 and Transport when there was a bigger project, like software development. In this case the firm is procuring a much higher ratio of contingent labor, as it has the outsourcer perform most of the work, under the supervision of firm employees, who are usually co-located with the offshore provider. This allows the organization to have oversight of the processes and continual inspection, thereby retaining the tacit knowledge. This is a hybrid approach. The organization uses the market mechanism to establish pricing (Williamson, 1985), and its internal ''authority'' or hierarchy to maintain control and mitigate risk. It is an attempt to get the best of outsourcing and internal production. Takeishi (2002) refers to this as partitioning knowledge. His research found that successful automotive firms retain knowledge of overall system architecture. Component knowledge is also very important in developing the best options for new products. Likewise, it appears that that the firms studied here were in the process of learning the importance of retaining overall process knowledge.

The third type of approach was for the buying organization to mitigate risk through building trusting and cooperative relationships. This works best where there is a mutual dependence. For example, when Finance1 or Finance2 cannot determine the best solution for outsourcing its internal IT operations, they may rely upon the supplier to provide the right answer. If, perchance, they later discover that the supplier did not act in their best interest, the trust and relationship may be damaged, and the governance structure modified.

Finance1 began outsourcing its IT support services very carefully, with an objective of outsourcing only routine activities, such as maintenance and some very basic coding. Over time, one of its suppliers, with whose service it was very satisfied, began to complain that it was having problems with employee turnover and job satisfaction because its employees were not challenged. The employees were educated professionals who longed for more challenging tasks, such as writing original code. Because of its good performance and very low prices, Finance1 gave the supplier more basic coding work, which eventually evolved into complex work. After Finance1 became very dependent on the supplier, the supplier began to raise prices, reduce its service level, and behave opportunistically. Finance1 had a very difficult time changing suppliers, because the supplier had developed some important software, which Finance1 did not understand. Finance1 was eventually able to move away from the supplier by developing replacement software at substantial cost. It resolved that it would not allow itself to become so dependent on a supplier again. Future contracts of a similar nature would either be out-tasked with involve active hands-on management by Finance1 employees, or such tasks would not be outsourced. Again, this was a knowledge partitioning approach as used by some successful manufacturing firms, retaining knowledge while allowing the supplier to perform specific tasks (Takeishi, 2002).

Overall, Proposition 4, the more uncertain the firm is about its requirements, the less likely the professional services category is to be offshore outsourced, is supported with some modification. More specifically, organizations will endeavor to reduce the risk and

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uncertainty in their requirements before engaging in outsourcing, which may also lower the transaction costs in terms of monitoring and day-to-day management. While this approach might lower the risk that the supplier behaves opportunistically, it will not lower the risk that the organization maybe unable to determine whether the supplier is behaving opportunistically.

5.3.3. Risk of inability to measure performance

The third type of risk, the inability to determine whether the supplier meets contractual expectations was also dealt with in numerous ways. As noted above, if the inability to measure performance is due to incomplete or immeasurable specifications, or poor measurement systems, this is resolved by developing better specifications and measurements (Narayanan and Raman, 2000; Amaral et al., 2006). This solution was possible in cases like call centers, where companies such as Finance1 and Software indicated that they learned how to better specify and measure contractual performance overtime. A first step in understanding the potential value leakages for Software, PC Hardware and Consumer was an audit of contract compliance in terms of price actually paid for promised services items versus prices charged for services rendered.

Most of the organizations studied here also noted that they used customer satisfaction surveys as another way to validate performance. For offshore outsourced services such as IT provided internally to the firm, Finance1, Finance2 and PC Hardware polled internal customers, and in some cases tied supplier compensation to internal customer satisfaction ratings. In other cases, results from such surveys became the basis for discussion and improvements. The firms who outsourced call centers, such as Finance1, Finance2 and Software, also used external customer satisfaction to gauge call center operator performance, both through random polling and monitoring calls. Verifying that outsourcer performance meets expectations was found to be critical for reducing opportunistic performance behavior.

In information technology outsourcing, where technology and services are changing constantly, it was common for the organizations studied, such as Finance1, Finance2, PC Hardware and Packaging to use external consultants to benchmark services and testing. Finance1 and Software also tested the market for call center providers by investigating other suppliers, perhaps even asking for proposals, if a market existed.

A different tactic mentioned in relation to software development used by Finance1 was to bring an activity back in-house, at least partially, to improve monitoring and control (out-tasking). Of course, the longer something has been outsourced, the more difficult this will be as much of the tacit and operational knowledge will be lost. To reduce the risk further, some of the organizations studied such as Consumer, retained a large internal management group to oversee and interface with the third parties performing outsourced activities. This approach was common in internal IT outsourcing, used by Consumer, Finance1, Finance2, and PC Hardware. Thus, if a firm invests enough, it can address many of the risk and tacit knowledge issues. It is important for firms to include these risk management costs in their economic analysis of whether to outsource. In addition, several firms such as Consumer, Finance1, and Software noted the importance of maintaining good relationships, and adding a dissolution or termination clause in the contract.

Just as Proposition 4, there is partial support for Proposition 5, the greater the difficulty in verifying contractual performance, the less likely that a professional service category is offshore outsourced. Organizations responded to performance uncertainty through a variety of measures to reduce or better manage the ambiguity.

In summary, firms' that offshore outsource create uncertainty and increase the risk to the firm. The firms in this study recognized much of the uncertainty and tried to manage and reduce it. In analyzing the viability of outsourcing and offshore outsourcing, an organization should always consider total cost, including the costs associated with managing or reducing risk.

5.3.4. Other risks in offshore outsourcing

There are a number of other risks related to cultural differences that arise when offshore outsourcing. Several organizations noted an unwillingness of offshore suppliers to admit they cannot perform the required tasks. For example, Computer noted that suppliers may accept a contract knowing that they lack capabilities to meet the specified needs, hoping they can learn quickly. Likewise, firms may place a very initial bid on jobs to gain experience in a particular category of service. However, the supplier's learning process can be very painful for the buying firm. This may lead to an organization to in-source items because they were offshore outsourced in error.

There are also additional costs incurred because of the differences in cultures, especially with regard to the customer-facing offshore tasks. Significant barriers in language and slang usage, and lack of an understanding of the organization's values may require extensive training and monitoring to ensure that the needs of the

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customers and the buying firm are being met. The monitoring must be in place on the supplier's side as part of the contractual agreement, and on the buyer's side to ensure that the supplier is reporting accurately.

Further, because it is so inexpensive to do business in offshore locations, there is a tendency to over-specify the contracts as noted by Finance1, Software and Computer. This gives the supplier limited opportunity to use its expertise to improve processes. The organizations might have better success by establishing expectations for performance and allowing the offshore company some flexibility in the way it meets those expectations.

Several of the organizations studied, including Finance1, Finance2, Computer and PC Hardware expressed a belief that price in some countries is so low that they can afford to absorb some extra risk. However, these same firms noted that wage rates in some popular regions for professional services outsourcing, such as India, are increasing at 15–20% per year (Kher, 2005; Yamamoto, 2004). Once wage rates have normalized globally, the risk issues will become more apparent and unjustifiable. The focus today seems to be more on performance risk and less on the long-term risks resulting from losing tacit knowledge. These long-term risks are likely much larger than estimated. Today, the price of ignoring risk is perceived as low.

5.4. Summary: matching the characteristics of outsourcing to the outsourcing type

Based on the case study data, Fig. 1 shows a continuum of the range of governance structures observed for offshore outsourcing professional services. One end is anchored by "doing things internally," while the other is anchored by "complete business process outsourcing." Between these extremes, everything from using temporary labor to managing the outsourced provider's supply base through buy-sell processes was observed; Table 4 lists some of the characteristics that define each of these methods of governing services. This table uses data from the case studies to prescribe which types of service characteristics are best suited for which type of relationship. Notice that the characteristics do not necessary follow a continuum. For example, the level of asset investment is very high with in-house operations, then drops significantly if using temporary labor. It then rises with out-tasking and drops significantly with business process outsourcing.

Two scenarios are provided to illustrate the application of Table 4. First, the design of core next-generation technology for a leading-edge high technology firm would probably be best suited for in-house control, perhaps using limited, very specialized temporary labor or contractors to perform specific tasks. This is something over which the firm does not want to lose control. Business process outsourcing would be the worst choice for such a scenario. In the case of programming for application software, the organization would like to retain some control and knowledge so it is not dependent on the supplier. Out-tasking might be a good alternative, because the organization retains management of the process and some of the knowledge, while permitting the offshore outsourcer to perform much of the actual code development. Because the organization is involved in the day-to-day activity, it can also monitor and measure progress closely, even though it is a difficult task to measure.

If a firm is going to offshore outsource call centers, the right type of outsourcing arrangement depends upon how clearly the organization can specify and measure outcomes. For example, if it is setting up a call center to process incoming orders and is able to clearly define and measure the performance of the call center, it might be best to use business process outsourcing so it can turn the whole process over to a third party while minimizing its investment.

5.4.1. What happens if the company cannot or does not properly control the risk?

Whenever a firm outsources services it should expect to have significant potential for overpayment and under servicing. Transference of responsibility for control to the supplier, and reliance on investments made by service providers have been shown to be insufficient to control costs (Amaral et al., 2004, 2006). For example,

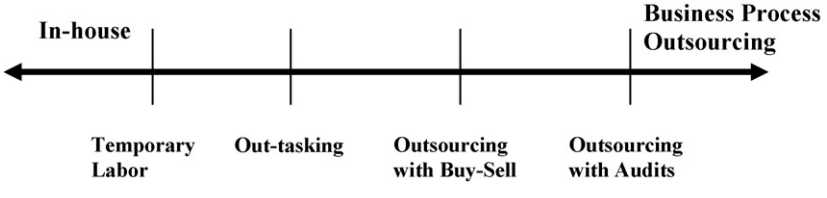

Fig. 1. Insource/outsource continuum.

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Table 4
Ideal characteristics suited to outsourcing types

Characteristic	In-house	Temporary labor	Out-tasking	Outsourcing with buy–sell	Outsourcing with audits	BPO
Degree of control over process	Highest	High	Med–High	Medium	Med–Low	Lowest
Level of trust required	High	Med–Low	Medium	Med–Low	Med–High	Highest
Strategic importance of task	Med–High	Low–High	Med–High	Medium	Medium	Med–Low
Level of investment in assets by buying firm	Highest	Low	Medium	Medium	Med–Low	Lowest
Risk if unclear specifications	Lowest	Low	Med–Low	Medium	Med–High	Highest
Risk if unable to measure performance	Lowest	Low	Med–Low	Medium	Med–High	Highest
Risk if market is volatile	Med–low	Low	Med–Low	Medium	Medium	Highest

Finance1 used two offshore outsourced service providers for call centers. It had a policy of routing the calls to the agent with the longest idle times. One of the suppliers hired more agents to sit idle thereby receiving all of the calls. The agent that was acting opportunistically actually benefited more. This was not the way the system was designed to work. This research suggests that organizations must have their own controls, even if they have outsourced the management of the offshore supplier. The cost of relying on the service provider's controls is potentially quite high. Without a good initial assessment of risk, and good management controls in place, there are many problems that can and do occur (Amaral et al., 2004, 2006; Narayanan and Raman, 2000). First, there is a risk that the organization will pay too much. As shown above in the case studies, when organizations do not pay close attention to provider's services and invoicing, they pay too much.

Second, by not fully recognizing the risk of loss of tacit knowledge, the organization may become dependent on a supplier (Fine, 1998; Venkatesan, 1992). It can be held hostage because it cannot adequately assess alternative sources of supply, as was the case with Finance1. The organization has also lost the ability to perform the task internally. The firm may over pay and be underserved, or pay for a higher level of service than is needed. In the most extreme case, because the supplier now knows some aspects of the business better than the original firm, the supplier may forward integrate and become a competitor (Fine, 1998).

An internal risk that may occur is that the firm becomes dependent on a supplier because the supplier ingratiates itself with internal customers. When this occurs, the item becomes a "protected category" and the supplier is "protected" or "favored" by the organization's consumers of service. In such cases, the supply management (SM) function may find itself outside of the purchasing loop once again, not involved in key decisions, because internal customers believe the item or supplier relationship is too important. Finance1, PC Hardware and Software all experienced this when SM tried to become involved in professional services purchasing initially. This is another way that the organization may find itself overly dependent on its service suppliers.

Another internally based risk is the risk of inadvertently letting the supplier do more and more, due to the organization's lack of clarity regarding what it wants and the outsourcing boundaries. Over time, the supplier may step into strategic/IP areas, and this self-induced risk jumps dramatically. This is particularly deleterious because of the gradual nature of increased responsibility, such change often occurs without a commensurate increase in controls. As explained above, Finance1 had this type of experience with one of its offshore, outsourced IT providers.

From a business perspective, there are also the traditional types of risk that organizations face, associated with changes in business cycles. If the organization has not put controls in place to deal with shortages, price increases, and other sources of supply interruption, the cost of these occurrences will be very high. Regardless, the costs of such contingency plans should be considered as part of the total cost of outsourcing and offshore outsourcing.

Yet another risk is the supplier making changes to processes, technologies, and procedures without properly informing the buying firm. This creates problems with tracking, monitoring and may actually have an adverse affect on the results. Effective change controls and processes to make changes have to be in place.

When making an outsourcing decision, the future is not known with certainty. But by committing to a specific path, for example outsourcing programming, the firm has limited its future possibilities for developing the code internally. Perhaps organizations

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should be more concerned with SATISFICING versus OPTIMIZING when making outsourcing decisions, or any decision under uncertainty (Rosenhead et al., 1972). The focus would then be on which decisions, if made today, will leave open the greatest number of future possibilities, while still reducing total costs, or improving achievement of other outcomes. This is particularly relevant if the organization has a number of non-cost oriented goals. In an uncertain world, there are advantages to keeping one's options open.

6. Conclusions

This research has both managerial and theoretical implications. From a managerial standpoint, the organizations studied had varying degrees of experience in offshore outsourcing professional services. Some had been doing this extensively for over 20 years, while others had just begun to engage in such outsourcing over the last several years. They all had lessons learned along the way to improve their processes and decision making and many of these lessons are mentioned above and summarized below. The bottom line is that organizations should carefully consider, understand, and reduce the risk of offshore outsourcing of services, and that offshore outsourcing of services creates a different set of risks and a need for very different business controls than offshore outsourcing direct materials. From a theoretical standpoint, transaction cost theory provides insights into the professional services best suited for offshore outsourcing, the risks associated with offshore outsourcing professional services, and how to effectively mitigate the risk.

6.1. Managerial implications

First, clear specifications and performance measures should be established before outsourcing, to reduce the risks of non-performance and dependency. The repeated message was "don't offshore outsource something if you don't know what that service should cost." To determine this, clear specifications and statements of work are required. Among the firms studied, most of the initial dissatisfaction with offshore outsourcing services had to do with the lack of clear requirements and measurements. As these improved, so did the satisfaction.

Related to this, when outsourcing risks are adequately addressed, the cost and complexity of managing outsourcing is high, and should not be underestimated. Most of the companies studied admitted that they did underestimate the cost and effort initially, but have improved with experience. One of the costs that an organization should recognize is that it must be able to measure supplier performance versus expectations. The cost of managing the complexity and buffering the risks should be included in the outsourcing decision making process. This is a transaction cost that firms tend to ignore, because it is not visible until after the offshore outsourced relationship has been established.

Without a good management/monitoring system, the risk of losing control is high. While the costs of controls are high, the perceived and realized savings were even higher, so that several of the organizations studied were not concerned about effectively managing the costs of controlling their offshore outsourced suppliers. As a result, in some cases, these companies put excessive controls in place. For Finance1, Finance2 and to a lesser extent Software, this included having dedicated employees in completely separated facilities for employees who supported them, and purchasing separate computer and telephone systems. These policies were more stringent for offshore outsourcing than with onshore or nearshore outsourcing. Higher costs translate into lower savings. While cost savings is initially a driver for offshore outsourcing in many cases, performance is also important and will take on greater weight over time as wages and risks normalize globally. It is likely that organizations will revisit their excessive control measures. Thus, while they appeared to have good controls in terms of security and segregating their operations, these firms did not necessarily have good controls when it came to some of the value leakages mentioned above. Interestingly, the companies studied here expressed confidence that as costs rise in one area of the world, other lower-cost producers will develop elsewhere.

Two general patterns were observed in offshore outsourcing. For example, Finance2, Consumer and Packaging began slowly, and then accelerated with each success. Companies with greater longevity in offshore outsourcing followed a pattern of going a bit too far in outsourcing, and pulling back some activities internally. Finance1, Computer, Transport, Software and PC Hardware all demonstrated this behavior. Most of the organizations studied did not have advance plans to mitigate risks when they discovered that they had offshore outsourced some tasks in error, and needed to pull task back in house. Some, such as Finance1 and Transport experienced costly and painful transitions when moving from complete business process outsourcing to a more controlled, out-tasking environment. However, the general lessons learned within a company were applied to other outsourcing situations so that mistakes did not have to be repeated.

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6.2. Theoretical implications

From a theoretical standpoint, the transaction cost lens does a reasonably good job of explaining when and how firms offshore outsource services. This paper makes a contribution to TCE theory by referring back to Coase's (1937) original work and restating the TCE premise that high transactions volumes are associated with insourcing. With the changing cost structures in today's economies, where non-physical, service-oriented exchanges may have low transaction costs due to information technology, the assumption that a high level of transactions equates to a high level of costs is not valid. The spirit of transaction cost theory is to consider the factors that make something more expensive to outsource or perform internally. Unlike offshore outsourcing of materials, offshore outsourcing of services does not have high variable transaction costs such as transportation, handling and inventory charges. Because the administrative and set-up costs for offshore outsourcing of services, such as supplier selection, training, monitoring systems, and other information linkages have a high upfront fixed cost, low transactions volumes are unattractive. Due to the fixed nature of these costs, the per unit cost allocation actually goes down and the number of transactions increases. Our data confirm that this pattern holds true for offshore services outsourcing.

The case findings also support Williamson's (1985) proposition that organizations avoid offshore outsourcing services in volatile environment. However, this research found only partial support for the TCE premise that organizations are less likely to offshore outsource services with high asset specificity. While the firms studied did not offshore outsource services with high physical asset specificity, they did outsource services where high levels of human asset specificity were developed. Perhaps knowledge specificity was discounted because the human knowledge and expertise were being developed as workers gained knowledge of the outsourced work. Firms did not seem to view this learning as critical. The nature of the offshore outsourced work involved proprietary data, but not intellectual property. Williamson (1981) warns that knowledge gained in a learning-by-doing mode ought to fall under a governance structure that will protect the beneficiary of that knowledge should the relationship somehow become severed. It appears that more research is needed to fully understand the factors at play here.

TCE also supports that firms are less likely to offshore outsource items when they are unsure of the requirements or when they cannot determine whether the supplier actually performed as agreed to in the contract. There was partial support for both of these premises. While firms do offshore outsource professional services in both of those cases, they acknowledge the risk and try to reduce it. In some cases, due to bounded rationality, the buying organizations are not aware of the potential risk until a problem arises, such as they are overcharged, or they are treated opportunistically by a supplier. In such cases, the firms tend to react quickly to try to mitigate current and future risk. However, by looking at potential offshore, outsourced professional services through the lens of TCE, these firms might be able to avoid risk altogether, by better anticipating risk and using the proper governance structure for the situation, as illustrated in Table 3.

6.3. Limitations and future research

This research is limited by the perspective of high-ranking supply management professional. Even high-ranking supply management personnel often do not have the final say in the decision to offshore outsource professional services. The perspective of supplier managers with direct responsibility for offshored suppliers may provide a different perspective. It would also be beneficial to gain the perspectives of general managers or other key decision makers involved in outsourcing services. However, the focus of this research is on the ongoing management, success, and failure of offshore outsourced relationships. In that regard, supply management is often the most qualified party to comment, because they generally have a high degree of involvement and management responsibility for offshore outsourced professional services relationships.

An additional limitation of this study is that it focused only on offshore outsourcing, without simultaneously comparing it to in-house offshoring or domestic outsourcing. While the participants indicated that the savings are greater and the risks higher with outsourced offshoring, it would be interesting to compare the specific adaptive behaviors used in domestic versus offshore outsourcing, and offshoring versus outsourced offshoring.

The adaptive risk behaviors demonstrated by the firms studied indicates that there is much learning and change that occurs in the process of outsourcing services. There is substantial opportunity for future research into these adaptive behavior patterns as well as the implications of adaptive behavior for the applicability of TCE to services outsourcing. Using a

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knowledge-based theoretical lens to view services may also be relevant here. The knowledge-based view has been considered as a lens for the creation of services (Grant, 1996; Linderman et al., 2004; Nonaka, 1994; Ordonez de Pablos, 2004; Oliveira et al., 2003), as well as for determining the segregation of tasks between the buying and supplying firms (Takeishi, 2001, 2002). This view may also apply to services offshore outsourcing in a variety of ways. For example, the knowledge and skills associated with the complex activity of determining which services to offshore outsource, where, to whom and how to structure the relationship may be an important source of competitive advantage that should be properly managed within the firm. This may be one of those learn-by-doing skills identified by Williamson and Ouchi (1981) that the firm should protect, just like any type of intellectual property.

Similarly, the skills associated with managing offshore outsourced services may be an important learned asset. The case studies indicate that there is much learning in this arena. The learning also seems to apply in terms of the manner in which organizations learn to manage and reduce the risks of offshore services outsourcing. One of the issues here is how much of this learning is tacit versus explicit knowledge. As Grant (1996) found, it is not the loss or gain of explicit knowledge that creates difficult competitive issues for the firm, it is the loss of tacit knowledge. Likewise, Takeishi (2002) notes that the effective management of knowledge by the manufacturing firm in its relationships with its suppliers may be a source of competitive advantage.

Taking this one step farther, the organizations that offshore outsource these professional services must ask themselves: are we outsourcing tacit knowledge, which is difficult to recreate and transfer, or are we outsourcing explicit knowledge, or capacity? Initially, all the organizations studied believed they were doing the latter. As the relationship progressed, it became clear that some were really outsourcing the former, paying their suppliers to become more powerful and competitive, often at their own expense.

Clearly, there are many interesting and exciting areas of research opportunity in the offshore outsourcing of professional services. This research contains a broad perspective of offshore outsourcing. Future research is needed that takes a more in-depth look at this phenomenon. This globalization of professional services is as a developing phenomenon not a passing trend. Organizations need to be successful with their offshoring efforts, both reducing costs and safeguarding the company from risk. Organizational leaders have both the possibility and the desire to learn and gain experience in offshore outsourcing. Researchers have the opportunity to be at the forefront of this developing phenomenon and allowing their insights and experience to help make the transition to a global services economy a successful one.

Appendix A. Questionnaire

1. Do you outsource any professional services? If yes, please describe. If not, go to Q13.
2. In what geographical region is the outsourced service located/conducted?
3. Why was that location(s) chosen?
4. Are you familiar with why the decision was made to outsource each of these services? Could you please explain?
5. For each of the outsourced services that we are focusing on, please answer:
   a. Do you have a relatively high volume of transactions with this supplier? At what level of transactions would you expect that it would no longer be worth it to the supplier, or to you, to outsource?
   b. Are there unique assets or investments required by the supplier to support your service? Please consider both physical resources and training. Are these significant versus the total cost of the service?
   c. Is the supplier developing intellectual property in any way? If so, how do you manage the ownership of that IP?
   d. Is there a great deal of uncertainty in the market place associated with the item that you are purchasing, for example, is technology changing rapidly, do the levels of supply and demand shift rapidly with limited predictability, or are there other types of market risks?
   e. From a compliance perspective, how easy is it to verify that the supply is doing what it says it is doing in line with its contractual obligation to you: can you measure performance inputs and outcomes?
6. Could you please describe the extent of the outsourcing:
   a. Is this a turnkey operation?
   b. How much internal control and management do you retain?
   c. Do you retain any of these capabilities in house? Which capabilities, and why?
   d. What are the benefits you seek by retaining some capabilities in house?

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7. Have you been satisfied with the results of your outsourcing? Please explain the aspects that you have been satisfied with and dissatisfied with.
8. If you have retained some operations internally, how satisfied are you with the performance of the internal versus the external function?
9. In addition to outsourcing, have you offshored any professional services (where offshoring is defined as moving an operation from your home country to another country).
10. For these services, do you also retain some capabilities domestically? Please explain.
11. Do you know why the decision to offshore was made versus:
    a. Retaining all domestically.
    b. Outsourcing overseas.
12. For each of the offshored services that we are focusing on, please answer: (see Q5 a–e above).End

    For organizations that do not outsource:

13. If you don't outsource any professional services, could you please explain to the best of your knowledge, why not?
    a. Is that decision revisited frequently?
    b. Do you expect this to change? Why or why not?
14. As opposed to outsourcing, have you offshored any professional services (where offshoring is defined as moving an operation from your home country to another country)? If no, go to Q18.
15. For these services, do you also retain some capabilities domestically? Please explain.
16. Do you know why the decision to offshore was made versus:
    a. Retaining all domestically.
    b. Outsourcing overseas.
17. For each of the offshored services that we are focusing on, please answer: (see Q5 a–e above).

    For organizations that do not outsource OR offshore:

18. If don't offshore any professional services, could you please explain to the best of your knowledge, why not?
    a. Is that decision revisited frequently?
    b. Do you expect this to change? Why or why not?

References

Amaral, J., Billington, C., Tsay, A., 2004. Outsourcing production without losing control. Supply Chain Management Review (November–December), 44–52.

Amaral, J., Billington, C., Tsay, A., 2006. Safeguarding the promise of production outsourcing. Interfaces 36 (3), 220–233.

Apte, U., Mason, M., Richard, O., 1995. Global disaggregation of information-intensive services. Management Science 41 (7), 1250–1263.

Arnold, U., 2000. New dimensions of outsourcing: a combination of transaction cost economics and the core competencies concept. European Journal of Purchasing & Supply Management 6 (1), 23–29.

Auburt, B.A., Rivard, S., Michel, P., 2004. A transaction cost model of IT outsourcing. Information Management 41 (7), 921–931.

Bardhan, A.D., Kroll, C.A., 2006. Competiveness and an emerging sector: the Russian software industry and its global linkages. Industry and Innovation 13 (1), 65–95.

Bardhan, A.D., Kroll, C.A., 2003. The new wave of outsourcing. Fisher Center for Real Estate Quarterly Report. http://repositories.cdlib.org/cgi/viewcontent.cgi?article=1025&context=iber/fcreue (accessed: June 15, 2006).

Coase, R.H., 1937. The nature of the firm. Economica 4, 386–405.

Corbett, M.F., 2005. Trends to watch 2005. Fortune, March 21, p. B12.

Doig, S., Ritter, R., Speckhals, K., Woolson, D., 2001. Has outsourcing gone too far? McKinsey Quarterly 4, 25–37.

Dyer, J., 1997. Effective interfirm collaboration: how firms minimize transaction costs and maximize transaction value. Strategic Management Journal 18 (August (7)), 535–556.

Eisenhardt, K., 1989. Building theories from case study research. Academy of Management Review 14 (4), 532–550.

Farrell, D., 2004. Beyond offshoring: assessing your company's global potential. Harvard Business Review December, 1–11.

Fine, C., 1998. Clockspeed. Perseus Press, Boston.

Garner, C.A., 2004. Offshoring in the service sector: economic impact and policy issues. Economic Review–Federal Reserve Bank of Kansas City, Third Quarter 89 (3), 5–38.

Grant, R.M., 1996. Toward a knowledge-based theory of the firm. Strategic Management Journal 17 (Winter), 109–122 (special issue).

Kaufmann, L., Carter, C. International supply relationships—determinants of non-financial performance. Journal of Operations Management, in press.

Kher, A. 2005. Labor arbitrage is the clock ticking? Retrieved from Global Outsouring.org at http://www.globaloutsourcing.org/content/Business/2005/105120501.asp on 12/15/2005.

Klein, B., Crawford, R., Alchian, A., 1978. Vertical integration, appropriable rents, and the competitive contracting process. Journal of Law & Economics 21 (October), 297–326.

Linderman, K., Schroeder, R., Zaheer, S., Leidtke, C., Choo, A., 2004. Integrating quality management with knowledge creation processes. Journal of Operations Management 22 (6), 589–607.

Maltz, A., 1994. Outsourcing the warehousing function: economic and strategic considerations. Logistics and Transportation Review 30 (3), 245–266.

Masten, S., Meehan, J., Snyder, E., 1991. The costs of organization. Journal of Law, Economics & Organization 7, 1–25.

McCarthy, I., Anagnostou, A., 2004. The impact of outsourcing on the transaction costs and boundaries of manufacturing. International Journal of Production Economics 88 (1), 61–71.

McDougall, P., 2004. Outsourcers fall short. Information Week 44–50.

McKinsey Global Institute, 2003. Offshoring: is it a win–win game? August.

Murray, J., Kotabe, M., 1999. Sourcing strategies of U.S. services firms: a modified transaction cost analysis. Strategic Management Journal 20 (9), 791–809.

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Narayanan, V.G., Raman, A., 2000. Aligning incentives for supply chain efficiency. Harvard Business School, Note 9-600-110. Retrieved from http://harvardbusinessonline.hbsp.harvard.edu/b01/en/common/viewFileNavBean.jhtml?_requestid=36333, on 12/13/2005.

Nonaka, I., 1994. A dynamic theory of organizational knowledge creation. Organization Science 5 (1), 14–37.

Noordewier, T., John, G., Nevin, J., 1990. Performance outcomes of purchasing arrangements in industrial buyer–vendor relationship. Journal of Marketing 54 (5), 80–93.

Odagiri, H., 2003. Transaction costs and capabilities as determinants of the R&D boundaries of the firm: a case study of the ten largest pharmaceutical firms in Japan. Managerial and Decision Economics 24 (23), 187–211.

Oliveira, P.A., Roth, A.V., Conley, M.V., Voss, C., 2003. Knowledge assets in global service strategy. In: Gibson, D.V., Stolp, C., Conceicao, Heitor, M.V. (Eds.), Systems and Policies for the Global Learning Economy. Praeger Publishers, Westport, CT.

Ordonez de Pablos, P., 2004. Knowledge flow transfers in multinational corporations: knowledge properties and implications for management. Journal of Knowledge Management 8 (6), 105–116.

Osborn, R., Baughn, C., 1990. Forms of interorganizational governance for multinational alliances. Academy of Management Journal 33 (3), 503–520.

Prahalad, K., Hamel, G., 1990. The core competence of the corporation. Harvard Business Review 68 (3), 79–90.

Quinn, J., Hilmer, F., 1994. Strategic outsourcing. Sloan Management Review 35 (3), 43–55.

Rosenhead, J., Elton, M., Gupta, S., 1972. Robustness and optimality as criteria for strategic decisions. Operational Research Quarterly 23 (4), 413–431.

Roth, A., Menor, L., 2003. Insights into services research: a research agenda. Production and Operations Management 12 (Summer (2)), 145–164.

Takeishi, A., 2001. Bridging inter- and intra-firm boundaries: management of supplier development in automobile product development. Strategic Management Journal 22 (5), 403–433.

Takeishi, A., 2002. Knowledge partitioning in the interfirm division of labor: the case of automotive product development. Organization Science 13 (3), 321–338.

Ulrich, K.T., Ellison, D.J., 2005. Beyond make–buy: internalization and integration of design and production. Production and Operations Management 14 (3), 315–331.

Venkatesan, R., 1992. Strategic sourcing: to make or not to make? Harvard Business Review 70 (6), 8–107.

Vidal, C.J., Goetschalckx, M., 2000. Modeling the effect of uncertainties on global logistics systems. Journal of Business Logistics 21 (1), 95–120.

Walker, G., Weber, D., 1987. Supplier competition, uncertainty, and make-or-buy decisions. The Academy of Management Journal 30 (3), 589–596.

Williamson, O.E., 1975. Markets and Hierarchies: Analysis and Antitrust Implications. Free Press, New York, NY.

Williamson, O.E., 1985. The Economic Institutions of Capitalism. The Free Press, New York.

Williamson, O.E., 1988. The logic of economic organization. Journal of Law, Economics & Organization 4 (1), 65–93.

Williamson, O.E., Ouchi, W., 1981. The markets and hierarchies and visible hand perspectives. In: Van de Ven, A., Joyce, W. (Eds.), Perspectives on Organizational Design and Behavior. Wiley, New York, pp. 347–370.

Wu, F., Li, H.Z., Chu, L.K., Sculli, D., 2005. An outsourcing decision model for sustaining long-term performance. International Journal of Production Research 43 (12), 2513–2535.

Yamamoto, M., 2004. Will India price itself out of the offshore market? Retrieved from CNET News.com at http://news.com.-com/Will+India+price+itself+out+of+offshore+market/2100-1022_3-5180589.html on 12/16/2005.

Yin, R.K., 2003. Case Study Research—Design and Methods, third ed. SAGE Publications, London.