TRANSACTIONAL COST ECONOMICS: A MODEL FOR EVALUATING THE FEASIBILITY OF OUTSOURCING IN THE SERVICES INDUSTRY

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ABSTRACT

Services based outsourcing continues to be a growing trend for US companies. At such a juncture, there is a tendency for companies to pursue this strategy without careful evaluation of the costs and risks involved. The evaluation of the cost-benefit analysis is crucial before making a decision as to whether one should outsource or not. Transactional Cost Economics (TCE) is one model that has relevant applications to both manufacturing and services based outsourcing. The findings show that the model can be used as an effective cost comparison tool between various alternatives. In terms of risk management, TCE is useful when evaluating vendors and the types of relationships that companies need to maintain with them if they wish to succeed at outsourcing.

INTRODUCTION

Global outsourcing is defined as the right mix of onshore, near-shore and offshore delivery options to achieve the optimal balance of cost, growth, risk and efficiency. Choosing where to locate operations is not a new problem and this is an area of interest to both researchers and companies alike. There are even separate theories, called Location Theories, which are addressing questions of which economic activity should be located where and why. With the spread of globalization, Internet, new technologies and logistics, choosing the location is taking new significance as managers are constantly evaluating what site is the most feasible for delivering products and services to customers at right price and quality (Kvedaravičienė 2008).

The number of service industry functions that are being off shored continues to grow at a rapid rate. Research continues to show that reducing cost remains one of the primary drivers for outsourcing, particularly offshoring, but placing too much emphasis on cost reduction usually leads to dissatisfaction because many savings are either unsustainable or never achieved. Companies that outsource services purely to cut costs are likely to set themselves up for short-term gains and long-term criticisms from upper management (Ho 2007).

Along with looking at where to outsource, a more fundamental question-whether to outsource

is often overlooked by several companies. Often companies look at cost savings from the point of view of lower wage rates or other similar eye catching indicators and ignore the total impact of outsourcing a particular function. Rather than focus on stand-alone costs, a better focus is perhaps to look at the sum cost of all the transactions and the risks involved. One such methodology is the application of Transaction Cost Economics (TCE) theory proposed by Ronald Coase in 1937 to outsourcing. Although TCE was originally applied to the manufacturing industry, we find that the model has relevant application to the services industry as well. The focus of this paper is to understand the role of TCE as a decision making tool for outsourcing in the services industry.

History of outsourcing and emerging trends:

In broad terms, outsourcing refers to the practice of contracting out specific organizational functions and activities (e.g. manufacturing, shipping, accounting, customer support, human resources, etc.) to independent external firms, rather than performing those functions in-house. In other words, outsourcing is how one firm acquires certain value-creating activities by means of entering into market-based contractual arrangements with other independent firms (Doh, 2005; Gainey & Klaas, 2003).

The Second World War provided one of the crucial ingredients for the future emergence and explosive growth of outsourcing (Clott, 2004; Palley, 2006; Prestowitz, 2005). During the decades of the 1950s and the 1960s, a number of U.S. multinationals, for instance, set up production facilities in Europe and other parts of the world. During the early years, nevertheless, outputs from such overseas production facilities were rarely shipped back for meeting the demands of the U.S. market; rather, foreign outputs were primarily intended for supplying local markets in the very countries where those production facilities were situated. However, this model of multi national company (MNC) operation began to come under considerable strain once the Japanese industry had perfected lean production systems and emerged as a serious competitive threat to the original group of multinationals (Levy 1997, 2005; Levy & Dunning, 1993; Prestowitz, 2005).

The growth and radical redesign of the MNC phenomenon in the few decades following World War II played a very important role in developing valuable organizational capabilities and techniques for the effective management, coordination and integration of technology, capital, and production methods on a global scale. Such organizational capabilities and techniques were indispensable for formulating and implementing successful outsourcing strategies under conditions of intensifying economic globalization (Prasad & Prasad 2008).

An overview of services outsourcing

Contemporary offshore outsourcing entails the extension of the said global sourcing model to services sectors as well. Outsourcing from manufacturing firms has fueled some of the service sector's rapid growth (Fixler & Siegel, 1998).

In prior years most firms constructed their own, local, processes for almost all services that needed to be accomplished. Whether it was how to pay vendors, administer payroll, or interact with customers, the dominant species of service processes were company and location specific. A physical product could be made by outside forces, as it could be measured and tested more easily. However, service processes, largely, remained idiosyncratic to individual firms or even to individuals within firms. The first step in the evolution of service process thinking was the concept of "shared services." Shared services generally refer to the centralization of back office services within a firm to a single location. The geographically dispersed units of a service firm then "shared" the services of a central facility rather than have all the services provided locally. The shared services were typically financial (general ledger, cost accounting, etc.), personnel (payroll, benefits, application processing), MIS, purchasing, and other back office services (Metters & Verma 2008).

Changing the view of service processes from idiosyncratic to commodities allowed these processes to be decoupled and moved across town. Changes in technology allowed these processes to be moved across oceans. A limited amount of services offshoring occurred prior to modern telecommunications. It is believed that offshore service work started in the U.S. in the 1970s. At that time, a few firms sent large batches of paperwork that was not time sensitive to the Caribbean by ship. Round trip shipping and port time alone was 4 weeks (Wilson, 1995). Technology, however, transformed the type of work that could be done, and the response time it could be done at. Voice communication technology has changed most abruptly, so call centers provide a good example of the explosiveness and suddenness of the technological impact. In the past, it was operationally infeasible to locate a call center overseas (Frank and Cook, 1995).

Over the last decade there has been a dramatic decline in the price and increase in the capacity of computing and international telecommunications. The resulting global interconnectivity has provided North American and Western European companies with access to price cutting offshore vendors of services. The international offshore 'Information Technology Enabled Services' (ITES) sector is set to become one of the fastest growing international business sectors. (Nicholson et al, 2006) The services outsourcing phenomenon spans across a wide range of industries and activities including, but not limited to important areas such as corporate information technology (IT) functions, along with 'back-office' operations such as accounting, customer support, and so on that form part of so-called 'business process outsourcing' (BPO). Lately, there is a growing trend towards the offshoring outsourcing of accounting and finance (AF) activities. The process of AF services outsourcing is part of a wider trend towards the relocation of business processes to offshore call centers and 'back office' transaction processing centers located in India, the Philippines, China and Eastern Europe with India being the clear leader in the field (Morstead and Blount, 2003; Sahay et al., 2003; Stack and Downing, 2005).

Prior research in domains of the management of offshore outsourcing indicates that communication between the client and the offshore vendor may be problematic due to relatively poor telecommunications, cultural differences, accents and language ability. Time-zone differences accentuate these communication difficulties (Sarkar and Sahay, 2004;

Walsham, 2002). The offshore personnel may lack domain knowledge in the client's business application, and the transfer of such knowledge is hampered by distance (Cramton, 2001; Nicholson and Sahay, 2004).

To combat some of the limitations posed by services offshoring to far away countries, there is a growing interest in a new type of services outsourcing called "near-sourcing". Near-shoring involves sourcing service activities to a foreign, lower-wage country that is relatively close in terms of distance and time zone. Often, the advantage of similarities in cultural background can be availed of as well. With near-shoring, the customer generally expects to benefit from one or more of the following constructs of proximity: geographic, cultural, linguistic, economic, political or historical linkages (Kvedaravičienė 2008).

Classical economics limitations and the advent of modern economics to measure organizational costs

We have ample support to prophesize that services outsourcing will continue to grow at a rapid rate. What is lacking, however, is a careful analysis by organizations in terms of its economic feasibility. It is important to note how outsourcing flows from the free market economy model. Starting with a look at classical economics, we now delve into the seminal transaction cost economics work done by Coase and its application to services outsourcing.

"The economic problem of society," according to Friedrich Hayek, "is a problem of the utilization of knowledge not given to anyone in its totality" (1945). He argued persuasively that "the peculiar character of the problem of a rational economic order is determined precisely by the fact that the knowledge of the circumstances of which we must make use never exists in concentrated or integrated form, but solely as the dispersed bits of incomplete and frequently contradictory knowledge which all the separate individuals possess. The economic problem of society is thus not merely a problem of how to allocate 'given' resources. It is rather a problem of how to secure the best use of resources known to any of the members of society, for ends whose relative importance only these individuals know". The challenge, however, is that although the dispersion of knowledge makes decentralized decision making more attractive, it also increases the transaction costs associated with accessing and using this knowledge. This was the original contribution of Coase (1991, 1992): the identification of transaction costs as a major reason, if not the reason, for the existence of organizations. Translated at the level of a single focal organization, this problem poses a dilemma: how to reduce transaction costs within the organization while at the same time maintaining the ability to exploit local knowledge of organizational members that is so vital for effective adaptation.

Another limitation is that classical economics does not devote much attention to the theory of the firm. The business enterprise is seen as a production function, which operates, as a "black box". The existence and scope of the firm are taken for granted. This is so because classical economic theory assumes away most transactional difficulties: uncertainty is low or nonexistent, and prices convey all the relevant information to the contracting parties. Transaction costs are negligible, and the decentralization of decisions through market

relations achieves an efficient allocation of resources. Modern organizational economics, starting with Coase (1937), recognizes the prevalence and the theoretical importance of modeling transaction costs. These refer to the cost of organizing information, coordinating behavior, safeguarding the interests of the transacting parties, monitoring the transactions, inducing the appropriate behavior adjustments, etc. (Aubert et al, 1996).

It should be noted that from a cost perspective, off-shoring is deeply interrelated with the make or buy decision, as sourcing decisions in general have their origins in make or buy alternatives (Culliton, 1942). The question of whether processes of a company should be supplied by external providers or should be maintained in-house, is in turn related to the core competencies concept (Prahalad & Hamel, 1990; Quinn & Hilmer, 1994). This means that in general a company will tend to outsource functions that are not their core competencies.

The TCE Model

A unique method that can be used to evaluate options in terms of costs and risks of outsourcing is by using the transactional cost analysis model, which is also commonly known as transactional cost economics (TCE).

As mentioned previously, the service sector has been growing at a more rapid rate than the goods sector. Studies of this phenomenon have focused on its underlying causes and the aggregate implications for economic growth (Baumol, 1967; Baumol et al. 1985). More specifically, the working hypothesis is that productivity growth in services is lower than that in manufacturing because services are labor intensive and resistant to technological change (Fixler & Siegel, 1998). Thus, a lack of standardized processes leads to transaction cost analyses that are quite different from the manufacturing sector.

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; Aubert 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). 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 outsourcing areas where there is high potential risk of vendor opportunism. Thus, TCE serves as both a model for cost analysis and risk management.

Trampel (2004) offers a breakdown of transaction costs. Transaction costs consist of search and information costs, negotiation and agreement costs, surveillance and implementation costs as well as termination costs. Search and information costs arise when searching for a suitable partner with whom the company can establish an outsourcing relationship. These can occur in direct form as expenses or indirectly in the establishment of organized markets such as trade fairs. Communication costs between potential partners also contribute to this block of costs. Negotiation and agreement costs arise due to the expenses incurred when negotiating a

contract in terms of price, venue, number of employees needed, working hours etc. This in turn depends for the most part on the competition and structure of the provider market. While implementation costs are the bulk of the initial costs needed to set up the required infrastructure, train the employees and implement systems, surveillance costs involves costs associated with ways to monitor and control performance. Termination costs arise when ending a contract. A major part of termination costs occur when consulting a legal advisor. The crucial factor in this case is the respective legal system of the country involved and availability of lawyers who are familiar with the legal system of more than one country. Presumably, the need to seek out legal advice and information is lower in near-shore rather than in unfamiliar offshore destinations. Moreover, in emerging countries, costs can result from delays caused by bringing conflicts before a court. The key factor of a successful contract is not the contract per se but the context and the cultural framework in which it is being realized.

Concerning services outsourcing, as clients' partly give up control over the activities outsourced to vendors, there is potential for transaction costs and an increase in control problems. TCE elements most applicable to outsourcing are transaction frequency, asset specificity and uncertainty to outsourcing situations with the limitation that 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). We now look at each of these three factors in some detail:

a) Transaction frequency

Probably the factor that has undergone the most dramatic change is the reversal in correlation between transaction frequency and transaction costs. 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 offshoring outsourced professional services.

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.

b) Asset specificity

Level of asset specific investment assumption presumes that the more specific assets that are

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 vendor, and the vendor could then become opportunistic, raising prices, reducing service levels, or other such issues. In cases where the vendor owns the specific assets, the vendor is subjected to potentially significant risk associated with accepting the activity.

c) Environmental Uncertainty

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 vendors can (Kaufmann and Carter, 2006; Vidal and Goetschalckx, 2000; Williamson, 1985). This is more so the case today as we deal with high levels of environmental uncertainty in many nations. Many countries lack the economic and political stability that one is traditionally accustomed to in the US and other western countries. Often the temptation of cost savings leads companies to not evaluate the potential costs and risks of environmental uncertainty prior to making an outsourcing decision. It is not surprising then that a large number outsourcing projects end in failure whereby the companies often have to bring back the operations to the country of origin. This in turn can add to significant costs both in terms of the time and money wasted on the outsourcing project. These costs include those of training and hiring host country nationals and reinvestment in related infrastructure costs. As the world continues to become filled with uncertainty, decision-making should be further scrutinized not only in terms of where to outsource but also what functions to outsource.

Use of TCE to evaluate alternatives: A cost and risk analysis perspective

We can easily imagine a continuum of the range of governance structures observed for 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 to outsourcing part of departmental function such as hourly worker payroll is observed (Ellram et al., 2008). The gist here is that companies are not faced with just two options. The entire business needs to be looked at carefully and the potential benefits of outsourcing activities at each step evaluated before making a decision.

Managing business risk:

From a business risk perspective, there is always the traditional type of risk that organization faces due changes in business cycles. This is systemic and there is not much a company can

do to avoid this type of risk as is evident based on the current economic downturn. However, this does not mean that an organization cannot plan for such events and mitigate the outcome. Along with this, an organization always faces specific risks based on its supply chain. If the organization does 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. The costs associated with contingency plans should be considered a part of the total cost of outsourcing and offshore outsourcing. TCE estimates therefore should include these above variables.

While making an outsourcing decision, the future is not known with certainty. Hence, the outcome of our decision can always be favorable or unfavorable based on factors outside of our control. To lower risk, organizations 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.

Our focus here is on the vendor one ultimately chooses, which becomes the most important strategic partner and without whom successful outsourcing, by definition becomes impossible. Some fundamental ways in which TCE enables cost and risk analysis is through looking at setting specifics targets for vendors that can measured unambiguously, preventing overpayment to vendors and managing the risk relationships with vendors. There are three main ways that TCE can help evaluate costs and reduce risks issues that arise due to vendor relationships and these are elucidated as follows:

1) Specificity and Measurability of Outcomes from Vendors

The right type of outsourcing arrangement depends on 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. The company here would ask for a quantitative breakdown of every cost involved with this type of outsourcing from various potential vendors. This also allows them to have written estimates that can be used to evaluate various vendors in terms of cost. Using formalized contracts based on the estimates and negotiations is another outcome whereby the company can clearly mention what it needs to achieve and how it plans to go about evaluating the progress of the outsourced project. The use of negotiation and agreement costs through TCE requires the vendors to agree upon performance measurement standards prior to outsourcing taking place. It acts as a control mechanism for monitoring performance at a later date, thus increasing the accountability of the vendor through a formalized process.

2) Prevention of overpayment and under servicing from vendors

Whenever a firm out sources a service it runs significant risk regarding overpayment and not

receiving the adequate amount of benefit (under-servicing). A big reason is the fact that the company is not very familiar with the cost structures of the country where the project is outsourced. Often, the savings seem so dramatic that quality issues are almost forgotten. Transference of responsibility for control to the vendor, and reliance on investments made by service providers have been shown to be insufficient to control costs (Amaral et al., 2004, 2006). 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). Cost estimates must be screened with some rigor, which is achievable by using TCE. Thus, the use of TCE as a vendor evaluation tool is helpful in ensuring that the firm is getting a good return on their investment and reducing the possibility of over payment.

3) Ensuring longevity by managing vendor relationships

This aspect focuses on the possibility of a vendor becoming a competitor. By not fully recognizing the risk of loss of tacit knowledge, the organization may become dependent on a vendor (Fine, 1998; Venkatesan, 1992). It can be held hostage because it cannot adequately assess alternative sources of supply. In the most extreme case, because the vendor now knows some aspects of the business better than the original firm, the vendor may forward integrate and become a competitor (Fine, 1998).

An internal risk that may occur is that the firm becomes dependent on a vendor because the vendor ingratiates itself with internal customers. In such cases, the supply management function may find itself outside of the purchasing loop once again, not involved in key decisions, but because internal customers believe the item or vendor relationship is too important. Another internally based risk is the risk of inadvertently letting the vendor do more and more, due to the organization's lack of clarity regarding what it wants and the outsourcing boundaries. Over time, the vendor may step into strategic areas, and this self-induced risk jumps dramatically. This is a prime example of the use of TCE as a risk management tool by its focus on surveillance costs. The main point here is that TCE allows us to think about these issues before hand, analyze the possibility of their occurrence and then estimate the costs involved to set up control systems to prevent such occurrences. One can see how such costs could be easily ignored in a traditional cost analysis.

Limitations of TCE and the invisible costs in services outsourcing:

Even though a services oriented firm may use the TCE model, it should always be aware of the potential other costs that might remain uncaptured by the model. A large reason for this is that these costs are invisible and specific to a firm, thereby not lending themselves as being predictable through any model.

The TCE model goes beyond the traditional approach of service off shoring decisions, which are traditionally made based on visible costs, notably labor costs. For example, the hourly cost of a customer contact center worker is estimated to be U.S. \$ 13–15 in China, U.S. \$ 13–18 in

India and the Philippines, and U.S. \$ 25–32 in the Czech Republic (Fluss, 2004). These costs are dramatically lower than the estimated U.S. \$ 30–60 for a similar worker in the United States. Service and knowledge work is highly labor-intensive, so from a pure cost perspective, it would seem to make sense to outsource as much of this knowledge work as possible to offshore sites where labor is less expensive than in the United States or other industrialized countries.

Along with the large number of unexpected visible costs, such as labor turnover rate, transporting employees to work and the cost of updating infrastructure, which can be captured by advanced models such as the TCE, Weidenbaum (2005), introduces the notion of invisible costs. These refer to the costs that are not always apparent to firms making the decision to provide services from offshore locations. These costs may be categorized as: (1) invisible costs associated with reduced customer service quality and (2) invisible costs due to ineffectiveness (taking longer time and expending more effort to do the same amount of work correctly). However, offshore processes do not all incur invisible costs to the same extent. In addition, the invisible costs depend on the particular country selected for services off-shoring. When the service process is non-standardized, requires complex judgment and has reciprocal interdependence among steps and sequences, the reliability and assurance of service quality are at risk. Performing the promised service dependably and accurately is hard to maintain when the service process cannot be standardized. When customers perceive inconsistencies in the quality of service delivery, they may question service providers' knowledge and their ability to provide high quality service. Complex service offerings coupled with non-standardized service process contributes to high interaction intensity. As a result, invisible costs associated with ineffectiveness and lack of service quality increase as interaction intensity becomes high. In addressing invisible costs, research shows the prominent role of culture. Workers are influenced not only by national cultures, but also by organizational and professional cultures. For example, Zhao (2006) has pointed out that multinational firms may take action to counter adverse effects of the institutional environment. Firms that are able to develop effective organizational cultures may be able to counter some of the effects of cultural distance, and may experience fewer "invisible costs." However, invisible costs are an area of increasing prominence. As the services outsourcing industry is becoming more mature and more data is available, the magnitude and importance of these costs are slowly being better understood.

Conclusion

The economies of the developing world are rapidly evolving from manufacturing to services based. The options that a company has are to perform the task in house or resort to outsourcing. In principle, all functions that do not require physical contact are service industry based outsourcing candidates. Therefore, typical offshore services such as information technology (IT) and other Business Process Off shoring (BPOs) continue to grow.

Several companies often suffer from the false assumption that outsourcing is always beneficial and cost effective, and do not hesitate to jump on the band-wagon. This fallacy is due a lack of a careful evaluation of the actual costs involved with each option. Transaction Cost Economics (TCE) is an effective tool to evaluate whether outsourcing is a beneficial

option. The spirit of the transaction cost economics theory is to consider several factors and come up with a total cost which is obtained from combining the costs that are like to arise due to each transaction. Unlike offshore outsourcing of manufacturing, 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 vendor selection, training, monitoring systems, and other information linkages have a high upfront fixed cost, low transaction 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. Furthermore, high levels of asset specificity and environmental uncertainty leads to firms wanting to perform the task internally and not outsource it due to perceived higher risk.

As previously discussed, perhaps the simplest advantage of the theory is that its applications forces one to think about all cost and risk implications prior to engaging in any form of outsourcing. Following the TCE model implies that firms are thinking of the different types of transaction costs that are relevant in today's business environment and the related risks. The TCE model recommends that general business risks arising due to economic cycles, pricing problems and shortages be included as variables.

More specifically, the model has useful applications in terms of managing vendor relationships. An important focus of organizations should be to recognize that it must be able to measure vendor performance versus expectations. TCE stresses the importance of having outcomes that are both specific and easily measurable. It also recommends being attentive to what the job being outsourced actually costs in the new location can lead companies to avoid overpayment.

Furthermore, TCE helps us avoid vendor risk in terms of the vendor becoming a competitor and/or vendor transgression into strategic areas of the parent firm. The cost of managing the complexity and buffering the risks associated with vendors 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. The TCE model recommends that firms avoid overdependence on a vendor and have clearly defined roles for them. Strong internal controls are recommended to prevent vendors from gaining too much customer knowledge and consequently becoming a competitor to the firm.

In summary, when outsourcing risks are adequately addressed, one realizes that the costs and complexities of managing outsourcing are high and should not be underestimated. TCE thus provides us insights into the different types of costs and risks involved offshore outsourcing, and is a tool for accounting for all the costs prior to the do or buy decision while mitigating the risk. Thus, the dual application of the TCE model in terms of decision making/selection and risk management makes it a powerful tool that merits extensive use in the services based outsourcing industry. At the same time, careful consideration should be paid to the invisible costs, which are increasingly becoming an important part of the mix as firms continue to evaluate their outsourcing options in the twenty first century.

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