Recognizing Transaction Costs Associated with Offshore Outsourcing to India through the Use of New Institutional Economics

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1. Introduction

Outsourcing is a powerful tool to help companies cut costs and increase economic efficiency; however at times it may fall short of a company's expectations. In 2002 an insurance and financial firm, Conseco Inc., planned on outsourcing a little over oneeighth of its domestic jobs, which included both customer service representatives and back-room IT work, to India to aid in cutting costs for the corporation. In less than a year the company found itself pulling out of their outsourcing endeavor. The management later said that the reason behind pulling out of India was the company's need to exercise close control over processes that directly affect their customers as well as transaction costs that were difficult to successfully manage from a distance (Conseco Inc., 2001). This is not an uncommon story among firms who have attempted to outsource part of their corporation's activities abroad in order to help reduce production costs. In a survey of 50 companies done by the MIT Sloan Management Review about 14% of outsourcing operations were deemed failures. The respondents said they entered the outsourcing agreement believing that they understood all major costs, but that in the end the costs that they had not predicted ended up halving or even canceling out the company's potential savings from outsourcing (Barthelemy 2001). Such a statistic demonstrates how outsourcing is not an easily accomplished undertaking. Much of the nation seems to be fixated on the idea that outsourcing is growing at an inexorably, stealing jobs from hard working U.S. employees while driving down wages. In reality, outsourcing poses many risks due to issues of unaccounted for or unidentifiable transaction costs, or even the instability of the foreign country iself. Outsourcing requires a great deal of planning, investigating, and maintenance of a relationship with a firm abroad. It is nowhere near to

as simple of an undertaking as producing domestically in a company's own building where contracting and monitoring are more easily carried out and controlable. In an article in *The Economist*, two consulting firms make similar observations about the risks of outsourcing. One consulting firm notices that companies are outsourcing more and more while enjoying the benefits less and less because the firms are overestimating the profitability of their outsourcing ventures by not taking into account very influential transaction costs which decrease or even outweigh the benefits. (2005). There are many ambiguities and risks involved with placing a vital part of production in the hands of an unknown firm that is on the other side of the world. Outsourcing increases the economic efficiency of a firm as long as a firm can mitigate the hidden transaction costs involved throughout the process including, information asymmetries, legal and negotiation costs, language and cultural differences, and monitoring costs. It allows for firms to cut direct costs of production, but the final outcome will depend on whether the addition of the indirect costs, as described by New Institutional Economics, will counteract the associated benefits.

2. Why India?

In comparison with other countries that commonly are the homes for outsourcing ventures, India proves to be a location where aspects such as the proficient work force make it an advantageous outsourcing destination. The first advantage everyone thinks of when it comes to outsourcing is lower labor cost. This is true, in India a call center employee's annual salary is about \$7,500 which is less than half that of the \$19,000 salary of a U.S. call center employee (PricewaterhouseCoopers, 2005). In addition to lower labor costs India also offers a highly educated and English speaking population

which can be easily utilized by an American firm. The country offers exemption from taxes on all export earnings which allows the export earnings to be deducted from the firms' tax liability and ultimately saves the firm a great deal. It is very advanced in its quality of IT work and has 45 companies that have the highest level of a common computer programming qualification rating system, the Capability Maturity Model (CMM) certification, whereas only one such firm can be found in China (World Bank, (2005). There are minor disadvantages as well, these include higher labor costs in comparison to countries such as China, Romania or the Philippines, due to a population with higher education levels. India also has higher costs and longer wait times on requirements such as obtaining permits- but these do not always apply to an outsourcing venture.

The World Bank (2005) compared India to other countries, that are part of the OECD, on procedures that are commonly carried out during an outsourcing venture. It found that the difficulty of hiring workers was relatively average in comparison to the other countries but that the regulations on firing an employee are much stricter. These were based off of the criteria of number of weeks severance must be paid, notification time, and penalties that must be paid. In terms of the rigidity of hours that the population is willing to work, India's population proved to be twice as lenient about their hours of employment which is an important factor when the business process involves contact with the U.S. due to the time difference. India proves to be a viable contestant in the world of outsourcing because of its educated population, lower wages, tax breaks, and a population that is willing to work nights.

3. Basic Economic Theory behind Outsourcing

Offshore outsourcing, as it is discussed in this paper, occurs when a company purchases services from an external service provider abroad (Bhagwati et.al, 2004). In doing this, firms are attempting to reduce the costs of production by moving a part of production abroad where wage, capital, and technology costs are lower and in many cases where quality is higher. This in turn can reduce costs and allow the domestic firm to increase economic efficiency as well as providing it the opportunity to increase specialization and innovation (Domberger, 1998). Figure 1 demonstrates a cost analysis associated with the decision to make or buy (outsource) a good. This cost analysis is an economic explanation for how efficiencies can be created through the process of outsourcing. When a firm produces a good in-house (within their own plant as opposed to outsourcing) it accounts for both the fixed costs (e.g. capital) and variable costs (e.g. labor) creating a total cost curve of the price to make a good domestically (see TC Make) which is the combination of the fixed costs and variable costs that would be incurred. The costs associated with producing abroad vary only by units produced the amount of which would be designated in the outsourcing contract, and therefore to account for the associated capital and labor costs that the foreign vendor is experiencing it will increase at a greater slope, increasing at an increasing rate, than the prior because there is no benefit from economies of scale (See TC _{Buv}). The decision to outsource or not will then depend on whether the total cost to make a good or product outweighs the total cost to buy it. If the total cost to make does in fact outweigh the total cost to buy (as seen on the left hand side of the graph) then the cost of outsourcing the product is less and therefore the venture will increase production efficiency. Outsourcing in this case would increase

allocative efficiency and would allow the firm to utilize the money saved to make the domestic firm more efficient through programs of research and development or through specialization. If the opposite is true, (TC $_{\rm Buy}$ > TC $_{\rm Make}$) outsourcing would not be efficient according to this analysis, and therefore the firm should instead produce domestically (Kehal & Singh, 2006).

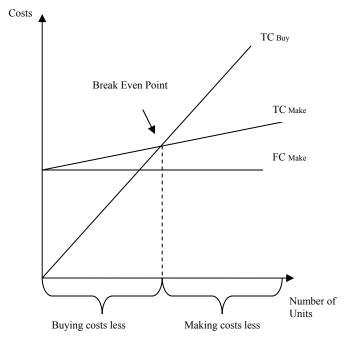


Figure 1. A Cost Analysis of Outsourcing

This cost analysis demonstrates the efficiencies that can be created by outsourcing in the form of reducing costs. However, it is a very simplified model and does not incorporate other costs that are understood through other economic institutions. The reduction in production costs illustrated by this model only incorporates the direct costs associated with production (such as capital and labor) but does not account for indirect costs that are connected with moving production out of a firm's own facilities to another country.

4. The New Institutional Economics Approach to Outsourcing

New Institutional Economics (NIE) takes into consideration the effect that the transaction costs associated with outsourcing can have on the outcome of a venture. New Institutional Economics was discussed by George Akerlof, Joseph Stiglitz and Michael Spence who eventually received the Nobel Prize in Economics in 2001 for their new approach to economic thought. In applying NIE to outsourcing we can recognize indirect costs that have not previously been accounted for using traditional economic analysis. These hidden indirect costs such as costs associated with searching for a vendor, making contractual agreements, transitioning, and monitoring are not necessarily evident at first glance. The indirect costs are caused by the differences in business practices, cultural differences, language barriers, and political and legal aspects that differ between the U.S. and the country where production is being moved, in this case India. If a company does not take into account these additional costs in their make-or-buy analysis, then their outsourcing venture may fail due to an unrealistic expectation of benefits.

5. Transaction Costs Associated with the Outsourcing Process

Douglass North (1993), a pioneer in research on transaction costs, defines transaction costs as the costs of specifying what is being exchanged and of enforcing the resulting agreements. He explains how in a world of zero transaction costs (as demonstrated above in the figure 1 scenario) information and the related bargaining power would not be necessary to reach an efficient outcome. Despite their universality in the real world, transaction costs are commonly overlooked and unaccounted for in economics. Williamson (1986) defined transaction costs as those associated with an economic exchange that will vary independently of the competitive market price of the goods or services exchanged, including all search, information and costs of monitoring.

Transaction costs occur in markets that fail to meet the requirements of perfect markets that have perfect information, homogeneous products, and a large number of clients (Nicholson et al., 2006). While outsourcing may offer lower costs, market imperfections may cause prohibitive levels of transaction costs and hinder market efficiency. As demonstrated in figure 2, a firm may choose to outsource if they estimate the total cost of buying the product or service from a foreign vendor (outsource) to be less than the total cost of making the product or service domestically. However, if the hidden transaction costs associated with outsourcing is not accounted for then the inequality could be wrong and losses may be incurred as opposed to profiting.

Figure 2. Modeling Make or Buy Decision with and without Transaction Costs

Without transaction costs:

Total Cost _{Make} > Total Cost _{Buy} → Outsource

 $\Delta = (\text{Total Cost }_{\text{Buy}} - \text{Total Cost }_{\text{Make}})$ \rightarrow Outsource if $\Delta \ge 0$ (Where Δ is net gain)

With transaction costs:

Total Cost _{Make} ➤ Total Cost _{Buy} + Unaccounted for Transaction Costs

Total Cost Make < Total Cost Buy + Unaccounted for Transaction Costs

 $\Delta = (\text{Total Cost}_{\text{Buy}} - \text{Total Cost}_{\text{Make}}) - \text{Transaction Costs}$

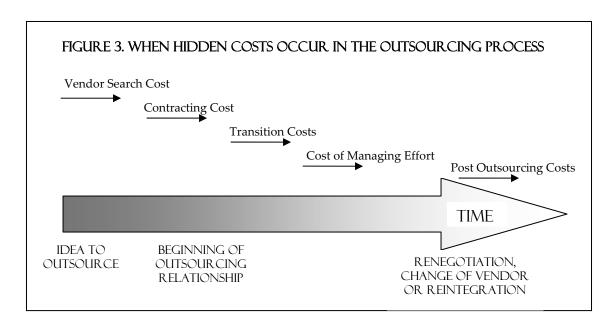
 \rightarrow Should only outsource if $\Delta \ge 0$ after transaction costs are accounted for

(Modified from Qu &Brocklehurt, 2003)

Delta (Δ) represents net gain seen from outsourcing and if this is calculated as greater than or equal to zero then an outsourcing venture should be carried out but once again transaction costs must be accounted for to allow this inequality to correctly assess

the situation. This mistake is seen often when a company is doing a cost benefit analysis to decide whether outsourcing would be profitable. An article on "The Seven Myths About Outsourcing" in *The Wall Street Journal* discusses how companies may think that outsourcing is a 'frictionless market' but there are numerous transaction costs that contradict this idea and that must be taken into account when deciding to outsource (Puranam & Srikanth, 2007).

Intuitively transaction costs are going to be higher when a buyer and seller are based in different countries. Transaction costs are a very prominent problem in the outsourcing process due to the costs of working with a country where company reputations are not well know, where business practices differ, where there are language and cultural barriers as well as governments and legal systems that are not well understood or that are unstable. Because of these differences it is difficult for companies to communicate effectively, set up standard expectations, and monitor the performance of their offshore vendor to insure that the project will be a successful and cost saving venture. In outsourcing, transaction costs are almost as significant as the production costs. The labor costs only represent 10-15% of overall offshore outsourcing costs and with as small of a difference in savings that this makes in production costs the weight of transaction costs are more important to take into account in the decision to outsource or not (Qu & Brockleherst). The transaction costs associated with outsourcing are present in all aspects of the process from the selection of a vender through to the completion of an outsourcing contract (See figure 3).



5.1 The Vendor Search and Selection Process

The selection process for the seller requires the buyer to take on a substantial amount of screening costs and personnel effort to overcome information asymmetries associated with choosing an outsourcing vendor. There are major information barriers, in that most of the time the firm does not have enough knowledge about vendors to make an informed decision. Most of the knowledge accessible to American firms is not necessarily trustworthy. Vendors who are efficient and produce high quality work have incentives to disclose this information, however vendors who are less qualified lack the incentive to be truthful (Stiglitz, 2001). Normally a firm would act in a risk adverse manner and choose the more capable vendor but if information is being withheld there is no way for the firm to ensure making such a decision. Akerlof's Market for Lemons Model can be applied to a firm's situation in assessing an outsourcing firm. This model explains that it is difficult for an employer (the firm) to make a rational decision about hiring an employee (a vendor) when there is not enough information to distinguish between the employees with good qualifications and bad (Akerlof, 1970).

In the world today technological advances have aided in closing this information gap by creating more connections between U.S. firms and the Indian vendors. Today any firm or individual can visit outsource2india.com and read about vendors who are willing to do any sort of business process outsourcing you could dream of, however information from a third party such as this may still be skewed. It is difficult to know what websites are a viable source of information on the true reputation of an Indian vendor or if the website is just giving their name and acting as a paid advertiser. To get a less biased view of a vendor a firm could go by word of mouth of a fellow outsourcer or could visit and inspect the vendors previous work, it's business processes and its employees which has the potential to be very costly.

A survey done by the MITSloan Management Review on the hidden costs of outsourcing found that many enterprises underestimate the expense required to identify and evaluate suitable vendors and to select a finalist (Barthelemy, 2001). The search and selection process is not necessarily a good place for a firm to cut costs because it may later create additional costs for the buyer. Time and money that are utilized early in the process may help deter later problems such as bypassing the need to renegotiate the contract or to constantly monitor the vendor.

5.2 Contracting Between the Domestic Firm and the Vendor

Creating a contractual relationship between a firm and a foreign vendor includes the costs of negotiating, writing, monitoring, and enforcing the contract. These costs are due to the need to search for information about the reliability of the vendor to fulfill the contract and not have to deal with possible contingencies later on. In more detail, these costs include negotiation, (if in person, the cost of travel for the firm representative and

for their legal representative) legal advice, set up of arbitration, and designing safeguards and guarantees against misuse of the agreement (Carmel & Nicholson, 2005). The act of contracting across international legal regimes has high threshold costs because of differing cultural, language and legal practices.

The costs of creating a contractual agreement are relatively similar regardless of the size of the project which leaves smaller contracts spending a greater percentage of their total outsourcing costs than large contracts have to and size should therefore be taken into consideration. Such things as enforcing contractual clauses and penalties are more difficult across different regulatory or judicial environments (Carmel & Nicholson, 2005). At times contracts will not be enforced in favor of the American firm due to instability in the foreign country's legal system. Spencer (2005) found that in offshore outsourcing ventures the proportions of contracts that are enforced depend on the quality of the legal system in the given country.

In outsourcing a contract may not be able to ensure the ease and success of a venture but there are measures that can be taken to improve the possibility. The CIO of a U.S. energy company learned the hard way that a contract may not protect their company from a failed outsourcing endeavor. Two years after their initial contract had been signed the business costs increased by almost one-half as well as the failure to meet the performance objectives. The company discovered that it was due to the contract being too open to interpretation. The contract did not precisely define the expected performance quotas of the Indian vendor but also did not elude to allowing flexibility in quotas either. Having flexibility imbedded in an outsourcing contract is necessary- there are many differences between domestic and offshore production- but there is still no

room for omitting clauses or having vague ones (Barthelemy 2001). The need for having flexibility in a contract is also discussed by a PricewaterhouseCoopers report (a consultant for companies who outsource) on business process outsourcing in India. They discussed how having flexibility built into the contract will aide in reducing costs of renegotiation later on. Renegotiation is not necessarily a negative though because it may be what is necessary in minimizing long term costs by salvaging the current relationship with a vendor (PricewaterhouseCoopers, 2005). Strong contractual agreements are a good foundation for a successful outsourcing project but the next task is to ensure the vendor will uphold its promise and produce efficiently to the specified wants of the firm.

5.3 Transitioning the Vendor

Analyzing the cost of transitioning the vendor into the previous role of a domestic firm may seem simple and straightforward but in many cases companies don't realize how much they are spending on a transition until it's complete. The transition period is the time that it takes for the vendor to know as much about the process as the internal department. This process usually requires the internal employees to spend their time helping the vendor which will cost the employer on both ends (labor of the vendor and labor of the domestic employees) (McIvor, 2005). In this case time is the varying factor that firms tend to miscalculate in their cost estimations. Transitioning is not necessarily an easy task due to the language, cultural, and educational barriers that the domestic employees are usually not prepared or trained to deal with. Even once a transition period is completed it is difficult to pick apart the costs that were actually involved because so many people and variables are involved. The MITsloan survey found that most managers could only report the transition time (70% of which were over ten months) period and not

the actual costs. The transition is necessary to educate the vendor on what quality of work the firm is expecting but this does not ensure that the vendor will uphold these standards or meet the specifications of the contract and therefore a firm must be able to continually have a presence in the offshore production.

5.4 Managing the Long-Distance Relationship

It can be intuitively understood that it is more difficult and costly to manage a long distance relationship between an American firm and a foreign vendor. The managing aspect of an outsourcing venture are comprised of the costs of monitoring, settling disputes, renegotiation & bargaining, arbitration & litigation, and may even go as far to include the loss of the entire investment if the firm-vendor relationship encounters irreconcilable differences (Carmel & Nicholson, 2005). For example, a World Bank report (2005) found that in India (as compared to the U.S.) there is a longer procedure associated with completing a lawsuit, and that there are also higher court and attorney fees that together will usually cost around 40% of the debt value. Costs such as this-associated with renegotiation and litigation- can potentially be avoided by a firm better managing a vendor. Unless an American firm consistently visits its Indian counterpart, which is very costly, it is difficult for the firm to control the business decisions made by the foreign vendor.

The outsourcing contract should include requirements for both process (what should be completed on a daily basis) and outcome (whether the vendor is meeting overall performance goals) however a contract is not enough to ensure that the activities of the vendor are up to par with the firms policies. A PricewaterhouseCoopers outsourcing advisory board reviewed the venture of a telecom company who was outsourcing a call

center to India. They found that the vendor had overall compliance with the original outsourcing agreement and a strong foundation for providing internal controls supporting completeness and accuracy of data. Despite this positive review and the vendors' compliance with their contractual measurements on production, PricewaterhouseCoopers found that there was a limited managerial review of employee time submissions as well as weak controls over the closing of charge codes (Horowitz 2006). Both of these issues would not have necessarily been included in a contract or even considered to be an issue by an American firm because issues such as the time worked by an employee and the safety of a customers payment information is so strongly regulated by domestic standards, but overlooking such actions puts the American firm at risk. A vendor may be meeting the production requirements found in their contractual agreement but they may not be meeting their full productivity potential and may not be upholding the ideals and reputation of the American firm.

A lack of management and constant communication by the firm can allow for the vendor to act in an opportunistic manner. The distance between the client and outsourcer accentuates the possibility for undisclosed 'behind the scenes' improvisations and unseen 3rd party subcontracting (Carmel & Nicholson, 2005). Indian vendors have the opportunity to act in ways that benefit themselves as opposed to always acting in the best interest of the firm. An example of this is when an Indian outsourcing company opportunistically moves their best staff from its currently contracted firm's project to a newly adopted project whose contract is for a greater amount of money. A U.S. based technology firm contracted with an Indian vendor that was certified at the highest level to do IT work (CMM level 5). Two years into the project the vendor began having trouble

meeting the mutually agreed upon specifications. It was found to be due to a change in the project staff from employees that met the firms certification to employees that were of a lower certified level than the vendor had implied would be working on the project. Not only was the staff of a lower level but there was not enough supervision and scrutiny of their work which was shown through a lower quality of work. To help solve this problem the manager began to travel to India on a regular basis and when he was not able to be there he introduced twice daily calls to monitor their progress (Carmel & Nicholson, 2005). These high levels of control proved to be very time consuming and costly for the client who had not anticipated this as being a necessary measure, however his actions were able to rehabilitate the project.

In many cases examinations and monitoring are either impractical or too costly but may help in understanding certain aspects of the vendor's business processes but ambiguities will still remain (Stiglitz, 2001). In foreign countries guarantees can be made in the contract but with no one to monitor and regulate the production and ensure that goals are being met it may not occur and there may not be a way to place those costs on the seller (Akerlof, 1970). When outsourcing, it is important to take into account the legal and governmental environment of the country. In the U.S. there are institutions designed to ensure productivity and efficiency, but in the underdeveloped countries where outsourcing normally occurs institutions are not present to govern the behaviors of businesses and their employees. Akerlof (1970) discusses how there is evidence of the necessity of institutions in these locations. He argues that there is more quality variation in underdeveloped countries than in developed countries and therefore emphasizing the need for quality control and institutional regulations to keep production efficient.

Although this is a monitoring system that would protect buyers from discrepancies in their production abroad, most of the time foreign governments are not willing to implement or oversee such monitoring systems because it is costly and hard to uphold the ethical standards of such an establishment. Fraud, error and failure are possible contingencies that may damage a firm's business venture because the differences in infrastructural and legal institutions raise issues of business security where no Indian law currently exists (Nicholson et al., 2006). The lack of monitoring institutions within countries like India the only option for help with a problematic outsourcing venture requires turning to the country's government and legal systems, which may not offer much support or may be costly.

5.5 Behind the Scene Costs

In addition to the costs that have to do directly with the outsourcing process there are also other issues that should be considered that have the potential to influence costs. Firstly, the stability of the chosen country to outsource to is a necessary factor to account for. Uncertain political and economic stability within a country could lead to a firm needing to re-internalize the activity. India has been close to war with Pakistan on multiple occasions, most recently in 2002 and an issue such as this could be devastating to an outsourcing venture (World Bank, 2005).

Secondly, the size of the firm looking to outsource must be considered because the costs of outsourcing could more easily outweigh the potential savings. There will be higher search costs due to the firms' limited staff and the opportunity cost associated with them not concentrating on internal work. The costs of transition and monitoring are much larger when placed in relative terms to the size of the transaction. The costs of

communication are larger because the firm has less capital to cover travel costs and usually won't have access to technologies such as video conferencing that larger firms would (Carmel & Nicholson, 2005).

5.6 The Aftermath

Even after an outsourcing venture is completed there are further costs associated with the business decision of whether to outsource again or not and with whom. The firm will either end up negotiating another contract with the same venture if the firm was satisfied, finding another vendor if the firm was not satisfied with the relationship, or the act of re-internalizing the factor of production to the domestic office once again. If a positive relationship was made with the vendor then the firm should be able to reduce the costs associated with any of these situations. A successful outsourcing venture will usually lead to a long term business relationship that stemmed from minimizing and accounting for transaction costs and decreasing information asymmetries through better communication and monitoring systems.

6. Conclusion

A New Institutional Economics analysis of the outsourcing process aides in identifying the transaction costs that previously may not have been understood by an American firm. This paper argues that, as is found in outsourcing, operating across different institutional contexts such as the U.S. and India, exacerbates the causes of transaction costs in terms of heightened levels of uncertainty, information asymmetries, and the potential for the vendor to act in an opportunistic manor. These causes which are discussed throughout the paper are summarized below along with their associated consequences (Table 1).

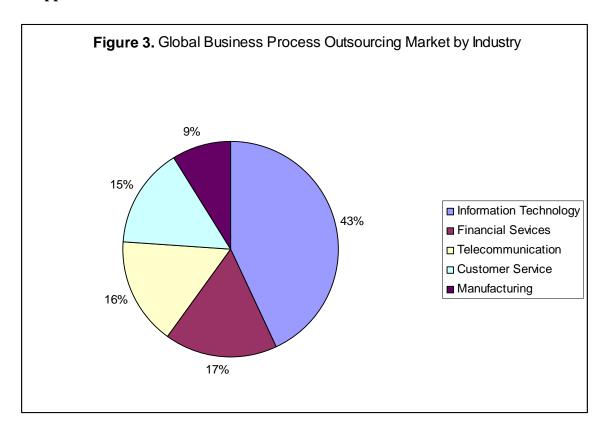
Table 1. Summary Table of Transaction Costs Associated with Outsourcing

Process Divisions	Associated Transaction Costs	Causes / Comments	Consequences
Search	- Screening Costs- Information Asymmetries	- Firms cannot make rational decisions without full information - Vendors lack incentives to disclose full information	- High costs of screening to avoid hiring an inefficient or untrustworthy vendor - Cutting costs in this area may create higher costs later on (Control costs)
Contracting	Negotiation costs (Travel)Foreign Legal Costs	Language and cultural barriersDiffering legal systems	- Higher negotiation and legal costs due to the time it takes to break barriers and due to longer average legal processes in India
Transition	- Travel Costs - Labor Costs (Domestic employees and Vendor)	- Unpredictable necessary time period -Requires labor of domestic firms and vendors -Language and cultural differences	- Opportunity costs of having domestic workers abroad, lowers domestic productivity
Control	- Monitoring -Renegotiation & Bargaining - Legal Costs	- Distance: Difficult for firm to monitor closely or cheaply - Longer procedure to renegotiate - Must deal with foreign legal system if contract is not upheld -Standards of business differ – lack of institutional standards in India	- Increased direct travel costs -Vendor has potential to act in an opportunistic manor - Increased opportunity cost if travel to India is frequently required - Major losses if contract is not upheld (40% of reciprocated benefit will be lost to legal costs) -Possible Decreased communication costs via internet enabled mechanisms
Post Outsource	- Legal Costs	Negotiate a new contractIncur search costs again	- Transaction costs lowered if stay with same vendor - Transaction costs

- Search Costs	- Move the facet of	incurred if switch vendors
	production back to the	- Transaction costs of
- Re-	domestic firm, may	reintegration if production
internalizing	require hiring, training or	moved back to U.S.
	capital expenditure (new	
	office/expand office)	

Transaction costs are prevalent in outsourcing and unfortunately in many cases even if understood they cannot necessarily be controlled for. Acknowledging transaction costs has the potential to save an outsourcing venture that may have otherwise failed. Ignorance of these costs has the potential to lead firms to be over-optimistic about the outcome of a venture. The indirect transaction costs may outweigh the production cost benefits. Prior outsourcing research has shown that it is common to find that firms fail on their first or second trial which leads to the firm giving up, learning from the experience and attempting again or being successful in subsequent attempts. Success stems from experience or in the language of transaction costs, 'economies of experience' (Carmel & Nicholson, 2005). Once a firm understands where to look for hidden transaction costs throughout the outsourcing process they will be better prepared on how to account for and minimize those costs and end up with a successful venture.

7. Appendix A



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