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Risks in offshore IT outsourcing: A service provider perspective

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KEYWORDS

Risk;
Service provider;
Client;
Outsourcing;
Relationship maturity

Summary Offshore outsourcing of Information Technology (IT) services is the prevalent practice in global businesses today. Despite the strategic advantages and cost benefits that offshore outsourcing offers, outsourcing relationships also involve risks, for both the client, as well as the service provider – a fact that is evidenced by the reported failures of such engagements. Some of the prior researches in this area have focused on identifying various types of client risks and their sources. However, the study of risks from a service provider's perspective has not received due treatment in literature. This study analyses offshore IT outsourcing risks from the perspective of service providers. A case based approach using the principles of grounded theory was used for studying the risks. Theoretical sampling was used to collect data from 5 mid-tier offshore third party service providers based in Bangalore, India. From our coding and analysis three broad categories of service provider risks emerged, namely, *macroeconomic*, *relationship specific* and *project specific*. Relationship maturity, nature of contract, nature of service or project and nature of client were identified as contextual factors which influence the degree of risk. © 2009 Elsevier Ltd. All rights reserved.

Introduction

Offshore outsourcing, popularly known as *offshoring*, is an important global strategy for most organizations today. Offshoring business functions outside the boundaries of the firm were originally envisaged as a cost based strategy. The economies of scale and scope coupled with labor arbitrage provided a convincing business case, especially for US organizations, to shift business processes to

offshore destinations like India (Ghemawat, 2007; Carmel and Agarwal, 2002). Offshore outsourcing is today growing and maturing from cost strategy perspectives to more value based partnerships. Partnership based contracts that have a network governance structure (Williamson, 1985) focus on the benefits of technology catalysis (Lee and Kim, 1999; Lee et al., 2003), which in turn strengthens resources and allows for flexibility in technology service.

The client side issues in outsourcing have been well researched. Transaction Cost Economics (TCE) (Coase, 1937; Williamson, 1985) provides a basic framework for

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understanding the client side rationale in outsourcing and also the behavioral dimensions of service providers that determine the transaction cost to clients. In addition, a wide array of theories from various perspectives, such as economic (economic efficiency and agency cost theories), strategic (resource-dependency, core competency and coordination theories) and social (political, social contract and exchange theories) have been applied to understand client side issues in outsourcing (Lee et al., 2003). These theories help in building a business case for outsourcing, predominantly from a client perspective. However, efforts in theory building that support service providers in the offshore outsourcing context have been scanty. Since the industry is still nascent and has been growing at a CAGR of 30% during 2001–2006 (NASSCOM, 2006), it is important to develop a clear conceptual understanding of service provider issues for sustaining its successful growth.

The growing opportunities in offshore outsourcing do entail a cost to clients and service providers. Outsourcing partnerships carry risks as evidenced by reported failures of such engagements (Prewitt, 2001; Andersen, 2002). The failure of an outsourcing contract affects both the clients and the service providers. In general, outsourcing contracts are designed on the basis of certain assumptions and hence carry inherent risks owing to a limited understanding about the future. As outsourcing engagements continue to evolve and become increasingly complex, their success will largely depend on understanding the risks involved, and in the deploying of effective mitigation strategies.

Offshore outsourcing in services could be classified into two major categories – IT outsourcing and Business Process Outsourcing (BPO). While the major service lines for IT outsourcing include Infrastructure Management Services (IMS), Application Development (AD) and Application Maintenance (AM); the less prevalent lines of service in outsourcing are consulting, R & D, etc. (Software, 2004; Beulen et al., 2005). BPO services consist of a number of service lines depending on the industry vertical; and can include a wide array of services starting from back end data processing and call centre operations to high valued services involving design and product development. Since offshore outsourcing risks for business processes and for technology services are vastly different, a combined study of offshoring risks would be ineffective. Hence, this study focuses only on the service provider risks aspect in offshore IT outsourcing.

Risks in offshore IT outsourcing engagements

Academic research has paid substantial attention to client side issues in IT outsourcing risks. Some early studies in this area have been anecdotal, providing management insights on IT outsourcing risks (Earl, 1996; Klepper and Jones, 1998 quoted in (Kern and Willcocks, 2001)). Following a case study method, Willcocks and Lacity (1999) analyzed IT outsourcing risks in insurance services. Further, Willcocks et al. (2000) studied the risks of IT outsourcing in the UK Defense Sector. These studies also outlined mitigation strategies for outsourcing firms. There are a few other case based studies in this area which generated insights for classification and

mitigation of IT outsourcing risks (Kern and Willcocks, 2001; Aubert et al., 2005). Kern and Willcocks (2001) developed a framework for IT outsourcing risk analysis with ‘relational due diligence’ in risk mitigation.

Firm level risks in IT outsourcing have also been studied using strategic theories. As per the theory of core competence, the outsourcing of key IT services outside of a firm’s boundaries could lead to depletion of strategic resources leading to loss of competence (Prahalad and Hamel, 1990), in addition to loss of control and flexibility. Therefore, based on the choices made, offshoring decisions on issues like IT service lines, location, partners, number of partners, contract type, etc., result in differing degrees of risks (Graf and Mudambi, 2005; Ge et al., 2004; Pandey and Bansal, 2003).

The economic theories that are most relevant to the study of IT outsourcing risks are Transaction Cost Economics (TCE) and Agency Theory (Williamson, 1985; Eisenhardt, 1989a). Based on the assumptions of bounded rationality and opportunism, prior research has identified shirking, poaching, and renegotiation as opportunistic vendor behavior (Clemons and Hitt, 1997; Aron et al., 2005). Shirking involves deliberate underperformance by the service provider, who still claims the full payment for the task as if the task has been performed according to contractual terms. The possibility of shirking exists because the behavior of the service provider cannot be monitored all the time and also because contracts are signed on the basis of limited available information and as such cannot cover all contingencies and future behaviors. Poaching is the illegitimate effort to make extra revenue by misusing the client’s critical business data. It may involve breach of trust that is detrimental to client’s business. This is a serious challenge in the context of offshore outsourcing where legal frameworks for data security and Intellectual Property Rights (IPR) are not well defined in the service provider’s country. A service provider may also outsmart the client by knowing the client’s IT services better than the client, thereby leading to a dependence asymmetry that is in favor of the service provider. This increases the bargaining power of the service provider which may in turn lead to demand of more money for the same work.

Service provider’s risks in IT outsourcing engagements

Academic research analyzing the issue of IT outsourcing from a service provider perspective has been scarce. We survey some prior work related to service providers here, though not all of them directly relate to risks. The empirical study of Harter et al. (2000) showed that process maturity of service provider firms reduces the cycle time and effort in software product development. This finding provides an additional incentive for the service providers to attain process maturity level certifications such as CMM; which in turn will be a value addition to the firm by increasing its attractiveness for clients seeking prospective offshore vendors (Davenport, 2005). Levina and Ross (2003) closely examined the role and value of a vendor (in this paper, *service provider’s*) in a long application management outsourcing engagement and found that the vendor was enticed to share

the value with the client through formal and informal relationship management structures, thus providing the insight that risk mitigation depends on relationship management.

Where outsourcing of application development is concerned, Gopal et al. (2003) identified the following determinants of risk: size of the project, requirements uncertainty, project type, human resources (training), client MIS experience, client experience with outsourcing, project importance, client reputation, future business, client size, competition (client), competition (vendor), number of prior projects and contract type (fixed price or time and materials). Mathew (2006) developed a fuzzy framework for risk assessment which could be applied to assess risk of clients as well as service providers. This work identifies key risk indicators in IT outsourcing and maps them to an output risk category through a fuzzy inference engine. The study of Hazel (2006) from a vendor perspective identified overoptimistic schedules and budgets and inflated client expectations as critically important for both vendors and clients considering outsourcing engagement. Both of these risks arise from the vendor's desire to win business in a highly competitive marketplace.

Therefore, as is evident from the survey of literature, the service provider perspective in IT outsourcing literature is very limited. Although some papers take a view of service providers in IT outsourcing, they do not address service provider risks in offshore IT outsourcing context. Gopal et al. (2003) discuss risk factors for an application development outsourcing but a project level and not at the service provider firm level. While there could be some overlap of risk factors between the two; those have not been the focus of the study and are incidental. Much of the IT risk related research to date has centered on identifying risks that can threaten in-house software development projects (Schmidt et al., 2001). Hazel (2006) has looked into service provider risks in IT outsourcing engagements, but the scope of the risks is limited only to IT projects. Besides the project related risks, recent research suggests that there are some unique risks for clients of outsourced projects arising from possible difficulties in controlling the vendor involvement (Choudhury and Sabherwal, 2003), and in managing working relationships between vendor and client (Natovich, 2003; Russell and Chatterjee, 2003). Following this view, we believe that IT outsourcing engagements between clients and service providers are broader than transactions at a specific projects level. As organizations increasingly utilize outsourced solutions for their systems needs, understanding sources of risks due to these reasons becomes paramount.

The contribution of this study is in identifying the key risks that an IT service provider faces in an offshore IT outsourcing engagement. Various categories of risk factors have been analyzed and the interaction amongst the risk categories has been examined because all these issues have a serious impact on the risk mitigation strategies discussed in the concluding section.

Data and methodology

The case study method adopted in this research followed an inductive approach to theory building based on grounded

theory (Glaser and Strauss, 1967; Strauss and Corbin, 1990) which has been used by prior researchers in IS area (Orlikowski, 1993; Levina and Ross, 2003; Allan, 2003). Applying grounded theory practice, we iteratively collected and analyzed data for building a substantive theory of the phenomenon under investigation. The initial concepts that emerged in one organizational context were first elaborated and then qualified in the others. Data collection, coding, and analysis proceeded iteratively (Glaser and Strauss, 1967). While the early stages of research were quite open-ended, the later stages were guided by the emerging concepts, and hence have more structured interview protocols. IT outsourcing is a contemporary phenomenon with a relatively nascent history. Further, no formal theories addressing service provider side risks in offshore IT outsourcing exist in literature which further supports our choice of the methodology (Yin, 1994; Eisenhardt, 1989b).

Site selection

We commenced the research process by interviewing 6 senior managers of an organization called Scamon¹. Since our goal was to understand the risks perceived by offshore service providers, we needed a case wherein, the service provider (i) offered extensive access to their senior managers, (ii) has been in the outsourced IT services business for at least 10 years, and (iii) has been involved in contracts that have been active long enough (i.e., minimum 3 years) to experience all kinds of risks. Scamon satisfied all the above criteria; hence we chose this as the first case site.

The research method required iterative collection of data till theoretical saturation was attained. To facilitate this iteration and comparison, we collected data from 4 additional case sites; all of them selected on the basis of the above mentioned criteria. A list of the organizations and the number of interviews conducted in them are summarized in Table 1 below:

Data sources

The data collection involved in-depth unstructured and semi structured interviews with the senior management of the service provider organizations. We chose interview participants from senior level and midlevel management based on their prior experience with foreign clients in offshore outsourcing contracts and project management. Between June and November 2006 we conducted 15 interviews with 5 mid-sized offshore third-party IT service providers located in Bangalore. The designations of the people interviewed were as follows: CEO/Chairman, Senior Vice President, Assistant Vice President (Operations), Executive Vice President (Global Delivery and Operations), Vice President-Quality, General Manager, and Project Manager. All the interviews were audio recorded and later transcribed. All the companies had clients in North America and Europe with the major service focus being application development and maintenance.

Theoretical sampling was used in the data collection process to gradually build concepts. We also sought contract documents from service providers with business sensitive

¹ The service provider's company name is disguised.

Table 1 Total number of interviews.

Site Numbers	Name of the organization ^a	Number of interviews conducted
Case Site 1	Scamon	6
Case Site 2	Doakene	3
Case Site 3	NAPS	3
Case Site 4	TM	2
Case Site 5	Atonsa	1
	Total	15

^a All names of organizations are disguised.

data like client names and deal size camouflaged. Some service providers were reluctant to share contract documents with us. Templates of master services agreements were shared by one service provider. Another service provider demonstrated to us their process of monitoring contract performance with the help of power point slides, which helped us note down key aspects of operational risk in IT outsourcing and type and contents of Service Level Agreements (SLAs) for various service lines. We also did a content analysis of the contract documents given to us in order to build risk categories. These sources of data were used for triangulation of data collected through interviews.

Data analysis

A semantic analysis of the transcribed interviews helped us to develop concepts of service provider risks followed by axial coding to develop categories (Strauss and Corbin, 1990). Data analysis was done within each case site, as well as across sites, to detect similarities and compare differences, if any. Within Scamon (the first site), the iterative approach of data collection, coding and analysis was more open ended than in the subsequent sites. The concepts and categories generated from the first case site were used to guide the subsequent field studies. Data from the second case site were first sorted into the initial concepts generated by Scamon's data. However, it was seen that the initial concepts generated by the first case site did not accommodate some of the findings of the second case site. Thus, additional concepts had to be included on the basis of data from subsequent case sites and this was continued for a new case till no new concepts or categories emerged. For example, as is evident from the table in the Appendix, Atonsa did not generate any additional concepts, and therefore, we came to the conclusion that all categories of risk had been covered by the first four case sites.

It was observed that the order of recall of risk factors differed in respondents at different positions in the organization. In all the case sites, we began by interviewing the senior-most executives like Chairman, CEO, and Senior VP and then interviewed Project Managers. The risks perceived by the senior executives often had impacts beyond specific ongoing projects. The risks perceived by the Project Managers or other middle level managers responsible for operations were those that impacted only the delivery of specific projects. Some of the risks of those kind mentioned

included requirements gathering, manpower attrition, client expectations, knowledge transfer etc.

Categories of service provider risks

"There is one set of risks, which impacts delivery of what we promise; there is another set which impacts sustenance of this delivery."

(Senior VP, Scamon)

Our research revealed that there are three broad categories of risks – *project specific, relationship specific, and macroeconomic* (Table 2). As mentioned earlier, the risks perceived by the Project Managers or other middle level managers responsible for operations were those that impact the delivery of specific projects. Senior executives identified risks which have impacts beyond specific projects – some of these risks were external to both the service provider and its client organizations – e.g., taxes, subsidies, currency fluctuations; while other risk factors were concerned with either the client or the service provider organizations e.g., mergers and acquisitions at the client end, change in CEO of client organization, etc. In Table 2, the offshore risk factors column highlights the risks to service providers due to offshoring.

Project specific risks emerge mainly due to factors affecting the project delivery. These risks have been dealt with in prior literature (Boehm and Ross, 1989; Barki et al., 1993) and are common in outsourcing contracts. As outlined in Table 2, this category covers risks due to (mis)management of schedule and budget, client expectations, requirements capture, knowledge transfer and staffing. Schedule and budget management risks emerge from uncertainties about resources and requirements. Time and cost over-runs may occur due to ambiguity in defining the requirements, undue client expectations regarding productivity, inadequate effort estimation processes of the service provider, rising people costs in long duration projects, and attrition of employees at the service provider end. The risk related to requirements gathering is sometimes due to implicit client expectations. Besides ambiguity resulting in scope creep, other issues with requirements gathering are – understanding the complexity of the requirement based on client's description and subjectivity involved in the requirements e.g., in a user interface driven application, the client expectations with respect to the look and feel may not be obvious at an effort estimation stage. Ambiguities in requirements capture may alter the scope of the project and thus affect schedules and budget. Reluctance on the part of the client employees in sharing context related information at the beginning of a project poses considerable risk for the service provider in offshore projects. Staffing is yet another factor in project specific risks which involves uncertainty about availability of human resources for a project. This results from the attrition of employees due to demand in the job market – the longer the duration of the project, the greater the risk due to attrition. One of the greatest challenges in maintenance projects is that of manpower retention because employees start disliking their jobs because of its monotonous nature. Understanding of implicit client expectations by the service provider's manpower also poses

Table 2 Risk categories in offshore IT outsourcing.

Category of Risk	General risk factors	Offshore risk factors	Quote
Project Specific Risks	<ul style="list-style-type: none"> • <i>Schedule and budget management</i>: Uncertainties with respect to time and money which adversely affect the delivery of a project. • <i>Client expectations</i>: Poor management of client's expectations during the course of a project • <i>Requirements capture</i>: Ambiguity in requirements gathering which may alter project scope and therefore, adversely affect the service provider. • <i>Staffing</i>: Uncertainty about availability of human resources for a project. 	<ul style="list-style-type: none"> • <i>Knowledge transfer</i>: Underlying concepts in this category show that offshore projects have higher risks for service providers in requirements capture due to barriers of distance and culture. Resistance to knowledge transfer by the employees' of the foreign client is an important risk factor, especially when offshoring involves downsizing. 	<ul style="list-style-type: none"> • <i>Knowledge transfer</i>: "It depends who we are (i.e. the service provider) taking this over from - another vendor or from the existing teams in the client organization. In case of the former, there could be the risk of stone-wall-ing by the previous vendor. In case of the latter, it would be dependent on the security of the client team's jobs." (Project Manager, TM) • "Client expectations with respect to people are a very big risk for service providers. Due to long association, (especially in maintenance projects) the client sometimes becomes used to one person and insists on that person being allotted to him always. The service provider is not allowed to change that person. The concerned individual, in-turn, finds the task monotonous and would like to change roles. All this adds to the staffing risks of the service provider." (General Manager, Doakene)
Relationship Specific Risks	<ul style="list-style-type: none"> • <i>Changes in client's corporate structure</i>: Corporate changes at the client end which adversely affect service provider's long term relationship with the client. • <i>Asset specificity</i>: The risk of getting locked-in with a client after having invested in client-specific assets. • <i>Client experience in offshoring</i>: Engaging with an inexperienced client with respect to offshore outsourcing. 	<ul style="list-style-type: none"> • <i>Client culture</i>: The organizational / regional culture may lead to a rigid mindset regarding outsourcing relationships. The respondent at TM cited that clients of countries such as Japan, where the manufacturing tradition is strong, treat IT outsourcing relationships in more transactional mode, i.e. pay the fees and get the service. This approach results in risks for the offshore service providers, as the knowledge industry requires a more collaborative approach for service delivery. • <i>Client size</i>: Bigger size of the client firm provides higher bargaining power to it, which adversely impacts the service provider. 	<ul style="list-style-type: none"> • <i>Client Culture</i>: "The Asia-Pacific belt clients do not accept collective requirements gathering on a T&M mode. The vendor decisions are still largely based on the lowest bid. Clients are over-cautious regarding agreements, try to cover everything under the original functionality and would not easily sign a 'change request'. They have an attitude of haggling with service providers". (Vice President, TM)
Macroeconomic Risks		<ul style="list-style-type: none"> • <i>Exchange rate fluctuations</i>: These risks arise completely out of offshore context of outsourcing where international differences in currency rates affect the profits of service provider. • <i>Government policy</i>: Change in government policies to offshoring that adversely affect vendor's business in the client country. 	<ul style="list-style-type: none"> • "We had not done currency pegging in the first year. However, subsequently we worked it into the Master Services Agreement, which we update every year." (Senior VP, Scamon)

a threat to the latter, as billing for these kinds of resources becomes an issue when clients insist on flat rate billing for manpower resources.

As observed from the above discussion, offshore projects accentuate the existing risks in schedule and budget, client expectations, requirements capture and staffing. This is largely because offshore projects involve increased cultural and geographical distance between two or more countries. The

risk due to knowledge transfer is mainly due to the offshore context. This risk can be mitigated largely by improving communication with the client. Periodic updates on various project parameters increases service provider transparency and assures client support in situations of project crisis.

Relationship specific risks for service providers arise from differences in culture, changes in corporate structure, and the client's opportunistic behavior. This risk gets

compounded by geographical and cultural distances in the offshore context. Change in the client's corporate structure is a source of risk to the service provider. In 2 of the 5 companies interviewed, the software product companies that had outsourced work to Indian service providers got acquired by larger IT organizations. This resulted in a big change in the client's decision making structure, and hence, uncertainty for the service provider with respect to continuation and or the nature of the outsourcing relationship with the client. One of the organizations had also faced risks due to CEO change in the client organization. The new incumbent was skeptical about offshore outsourcing, and this created uncertainty for the service provider. Client size is another risk factor in relationship specific risks. Bigger clients cause higher risks as they have more power over the relatively smaller service providers. Usually, larger client organizations provide deals of higher value. Due to this power asymmetry, they sometimes arm-twist service providers by changing the scope of the projects, renegotiating terms, etc. Larger clients usually have more bureaucratic processes which pose a challenge for service providers when it comes to seeking additional information/clarification regarding the project or with respect to payment/collection. Inexperienced clients pose a threat to service providers as the client organization may not be equipped with formal and robust processes e.g. for requirements gathering, SLA monitoring, etc., to support outsourcing, and might affect the nature of the relationship between the client and the service provider.

Further, in service provider-client relationships, asset specificity leading to client lock-in could happen in two scenarios:

- When the investment is extremely client specific, and hence cannot be used for any other client. However, service providers cover up for these cases by insisting that the client must pay or share investments in such assets.
- When the investment is fairly generic, but the service provider has been unable to find more than one customer for the asset – In such cases, a service provider should make any such investment as a strategic decision to begin a particular service line; and take up all allied efforts of business development. Any one of these investment decisions could be very risky for the service provider.

Macroeconomic risks occur due to exchange rate fluctuations and changes in government policies. Service providers' earnings from an outsourcing deal are largely based on labor arbitrage, which in turn, is based on the currency exchange rate in the service provider's country. If the value of this currency appreciates, then the service provider loses money. The fluctuations in the currency rates depend on the relative growth in the economies of the client's and service provider's countries; hence, they are beyond the control of the concerned organizations. Service providers often mitigate this risk by resorting to hedging. The change in the policies of the client's or service provider's national government could also adversely affect the economic performance of outsourcing engagements. For example, the service provider's national government may decide to introduce new taxes or do away with certain subsidies; or the new incumbent in the client's national government may take a negative stance towards offshore outsourcing. This cate-

gory of risks is entirely offshore project specific and is due to changes in the macroeconomic environment of either the client's or the service provider's countries.

Interaction among categories of service provider risks

It was observed that there is considerable interplay among individual project specific risk factors and almost all of them affected the schedule and the budget of the project. There is however, very limited interplay amongst the relationship-specific risk factors. The general relationship-specific risk factors (Table 2) get accentuated in case of offshore projects. The risks due to cultural differences and lack of experience in offshoring are specific to offshore projects alone.

Besides the various constituents of risk categories, the responses also threw some light on the interaction among the various categories of risks. The *project specific risks* and *relationship specific risks* can be represented in concentric circles (Figure 1), as there is a strong interaction between the two. This came through in the following interview statement:

"There is a Master Services Agreement which is signed first with a particular client. Once the Master's Services Agreement is in place, the various projects are executed based on individual work orders."

(Senior VP, Scamon)

The above arrangement of Master Service Agreement and work order was consistent across all the 5 service providers. This signifies that relationship specific risks have an impact on project specific risks and vice versa. The *macroeconomic risks*, however, have no bearing on the other two risk categories (Figure 1).

The effect of contextual factors on service provider risks

The degree of project specific and relationship specific risks faced by the service provider could be moderated by contextual factors like *nature of contract*, *nature of service or project*, *nature of client*, and *relationship maturity* (Appendix) as shown in Figure 2. The contextual factors, however, have no bearing on the macroeconomic risks as the latter are external to the focal organization (Figure 2).

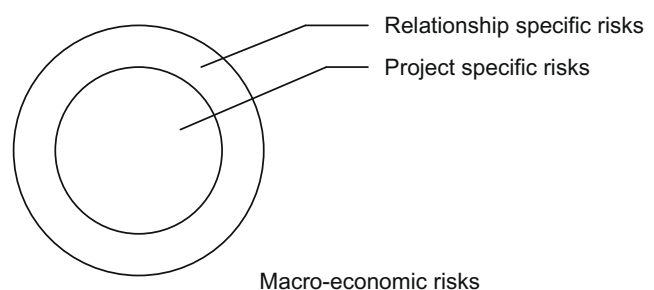


Figure 1 Categories and interactions of service provider risks.

The duration of contract and the type of contract affect the degree of service provider risks. Longer term contracts face more relationship specific risks than the shorter ones. The cost of resources, esp. people resources, increases over time and hence affects the service provider adversely. Also, time and material contracts (i.e., resource contracts) face lower risks than the fixed price ones; the latter are greatly affected by project specific risks e.g. change in scope of project, staffing issues etc.

Certain attributes of the service or project also determine the level of risk faced by the service provider. For example, the risks in application development projects are different from the risks in software maintenance, or infrastructure management projects. Within application development, project specific risks are lower if the client is a software product company vis-à-vis a service organization. Similarly, in outsourced product development work, the relationship specific risks vary depending on whether the service provider has to take on the client's team as its own employees or not. Short duration projects lead to more stringent delivery conditions, more overheads, less flexibility and difficulties to manage; in other words, project specific risks for such projects become high.

The nature of the client also has an impact on service provider risks. The following remark is an example:

"It is more risky to work with first time outsourcers than the experienced ones".

(Executive Vice President, TM)

Moreover, service providers face a different set of risks when working with large client organizations vis-à-vis small organizations. Large client organizations would generally have their systems in place and hence service providers might find it easier to get information from them rather than from the smaller clients, where processes are not so streamlined; hence, project specific risks with large clients would be low; while, as discussed earlier, client size may increase relationship specific risks due to greater power on the service provider.

It also emerged from the interviews that the engagement between IT clients and offshore service providers follows a continuum – from a 'transaction-type' engagement to that of a 'partnership' based one. The transaction type engage-

ment refers to the fee-for-service contract as outlined by Lacity and Willcocks (1998). The service provider just provides the service sought by the client for a fee, which has been pre-negotiated and is not concerned with the returns and risks incurred in the project. The 'partnership' engagement, on the other hand, refers to a combined ownership of a project by both the client and the service provider. Along with the client, the service provider also becomes a party to the returns and risks of the project, and both of them work towards a common goal. The various offshore outsourcing engagements are located somewhere on this continuum. The more matured a relationship, the closer it gets to a partnership kind of engagement; while a first time relationship, is often more transaction based. We define this dimension of IT outsourcing as *relationship maturity*. A more matured relationship between client and service provider will provide space for handling mistakes, there will be more tolerance towards failures and in the sharing of the impact of risks, while both work towards fulfilling mutually beneficial long term goals.

Discussion

The degree of risk faced by any specific service provider organization may vary depending on its service-lines, nature of clients, nature of contracts, and relationship maturity with client organizations. While there has been prior research regarding project specific risks to some extent (Boehm and Ross, 1989; Barki et al., 1993), the risks affecting repeat assignments from existing clients, otherwise considered as the relationship between a client and a service provider, emerged as a different category.

The macroeconomic risk factors are external to both the client and the service provider organizations; hence the level of macroeconomic risks does not vary with any of the contextual factors. However, the level of risk due to project specific and relationship specific risk categories varies with the contextual factors. Figure 3 captures one aspect of this variation. *Task complexity* (on the y-axis) is a function of the nature of client, the service, and contract; and *relationship maturity* (on the x-axis) is based on transactional or collaborative dealings between the client and the service provider.

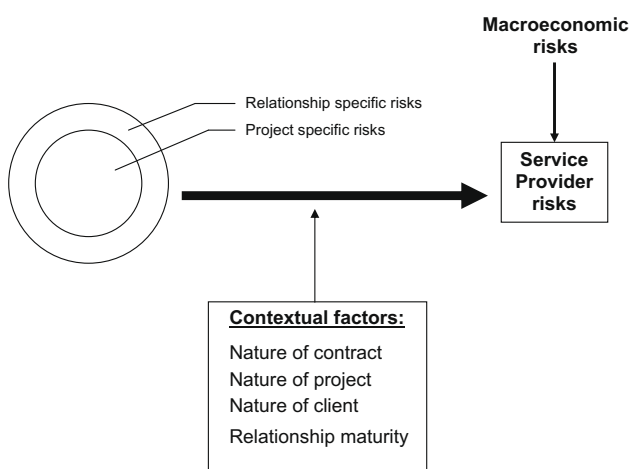


Figure 2 Contextual factors in service provider risks.

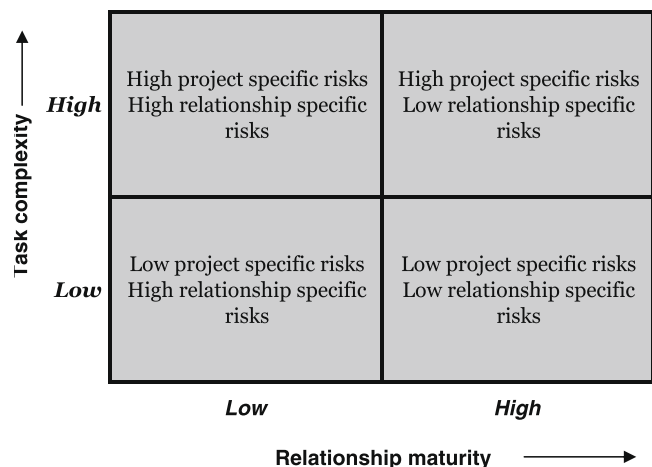


Figure 3 Service provider risks distribution based on task and relationship attributes.

It is quite obvious that highly complex projects with low maturity of relationship pose the highest risks to the service provider whereas low task complexity and high relationship maturity would entail the lowest risks. New relationships involving relatively simple project requirements carry low project risks, but relationship specific risks involving cultural differences and subsequent transition costs are high during this phase, resulting in high relationship specific risks. However, even complex projects entail low relationship specific risks when the relationship maturity is high as risks and benefit sharing characterize such relationships.

Managerial implications

Understanding the categories of risks and their contents covered in this research has important managerial implications as a vendor's risk mitigation plan must largely be based on such important premises. Practicing managers in service provider firms could draw insights from the findings in this research to develop their risk mitigation plans. Anecdotal evidence during the interviews revealed that the relationship-specific risks assumed the highest priority for service providers, as they perceive huge benefits in having a mature relationship with the client. The mitigation of this category of risks involves strategies for developing a collaborative work culture with clients. Our interviews revealed that the service providers try to convince the client for a collaborative requirements gathering phase. This phase is either billed to the client on time and material basis, or there are times when the service provider bears this cost. During this phase, both the client and the service provider discuss about meeting business customer's (client's customers) needs. Here, both the client and the service provider tend to operate more on a partnership mode than on a transaction-specific one. This serves as a very important risk mitigation strategy when the task complexity is high, and also helps in steering the engagement towards high relationship maturity.

In order to take care of relationship-specific risks due to client culture and low client experience in offshoring, service providers sometimes educate the client in the processes of outsourcing so as to develop a deep level of involvement with the customer. Educating the customer has resulted in greater relationship maturity in an outsourcing engagement. One of the service providers we interviewed said, *"The highest level of risk management is done through educating the customer regarding outsourcing processes, issues and challenges."*

Elaborate data collection and proactive analysis at project, client, domain, and industry levels help the service providers to be better geared for situations including crises and exigencies. Such up-to-date awareness of the business environment could sometimes help manage relationships too. Once a Scamon representative could handle a project team attrition issue with the client by showing them how Scamon was at par with the industry attrition rates. Attention to details about historic data also helps service providers to ask the right questions during SLA negotiations. During the interviews, the TM representative told us that they had made the following condition with the client – *"If you do not have past data to support the adherence of SLAs you are setting, then we cannot commit to such SLAs."* Analysis of project trends in the industry and past

projects with specific clients, help the service providers to build domain and technology competencies. This helps them to leverage transaction-specific contracts and convert them to partnership engagements, thereby, reducing their risks and/or increasing the relationship maturity.

Transparency and adequate communication regarding the project helps in the management of project-specific issues, as well as relationships. Even in the case of mergers and acquisitions at the client end, transparency and communication have helped build rapport with key decision makers, who carry the goodwill into the changed organizational setup.

Project specific risks need to be managed not only from a project deliverable perspective, but also because of their implications on the relationship. Collaborative requirement gathering, maintaining buffer resources, involving the client in offshore resource recruitment, service provider process standardization and certification are some measures adopted by service providers to mitigate project specific risks. As mentioned earlier, currency pegging is used by service providers for the mitigation of macroeconomic risks like exchange rate fluctuations. Banks in the service provider's country cover currency pegging done by service provider organizations, and they in turn cover themselves through reinsurance. All other macroeconomic risks are covered through risk calculations done in the business plan at the service provider end.

Conclusion

This research attempted to identify the risks faced by service providers in IT outsourcing. There are three categories of risks that are faced by the offshore service providers, namely: (i) Project specific risks, (ii) Relationship specific risks, and (iii) Macroeconomic risks. There is close link between project specific and relationship specific risks – a bad relationship between the client and service provider will affect the project at hand; similarly, bad execution of a project could lead to a poor relationship and hence hamper additional assignments from the same client. However, there is no such connection between macroeconomic risks and the other two risk categories. The study also revealed that the level of project specific and relationship specific risks for any particular service provider depends on contextual factors like the nature of the client, service, contract, and relationship maturity with the concerned client. The interviews conducted during data collection also threw light on risk mitigation strategies that are adopted by service providers. Further study in this area can focus on understanding the exact relationship between these variables and develop models for service provider risks. These models may be mapped to various risk mitigation strategies.

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Appendix

Coding and Analysis of Interviews

S.I.	Categories	Concepts	Interview Statements	Case Site
1	Macroeconomic risks	Government policy and regulatory environment	Uncertainty about Govt regulations Service tax changes Absence of liability insurance firms in India US start up firms today ought to have an India/China plan	Case 1 Case 1 Case 2 Case 3
		Exchange rate	Currency pegging Currency fluctuations	Case 1 Case 1
2	Relationship specific risks	Changes in client's corporate structure	Client's mergers & acquisitions CEO/top management changes	Case 1 Case 1
		Client's experience in offshore outsourcing	Client's experience in outsourcing matters	Case 3
		Client culture	More problems with first time outsourcers as clients	Case 4
		Asset specificity	APAC countries' have rigid manufacturing mindset Negotiates with client for sharing investments involved in specific projects	Case 4 Case 3
		Client size	Client pays for specific assets Bigger clients have better outsourcing processes Smaller clients accept/request contract documents/SLAs from service providers	Case 4 Case 3 Case 3
3	Project specific risks	Schedule and Budget Management	Measuring productivity of knowledge worker in T and M contracts difficult No response from client Collections is an issue Client requires different expertise at the same billing rate Scope creep has a bearing on the budget 10% of the scope creep is deliberate	Case 1 Case 2 Case 1 Case 2 Case 3 Case 3
		Staffing	SPs attrition rate negatively affects coordination Ramp up pauses challenge Keep shadow resources ready	Case 2 Case 1 Case 1
		Requirements Capture	Client's attrition affects initial training on the existing product/service Scope creeps due to difference in interpretation of requirements. Scope creep is a common feature Complexity of a Maintenance Request Dynamic flash - we did not realize that it would be such a big development challenge	Case 1 Case 3 Case 4 Case 4 Case 2
		Knowledge transfer	We absorb client's core people Resistance in knowledge transfer Loss of employment due to downsizing affects knowledge transfer	Case 1 Case 1 Case 1
		Client expectations management	We manage external processes well - we manage client expectations by better communication and transparency	Case 3
		Testing	Acceptance testing issues – conditions not clearly spelt out Test bed not ready at the client end	Case 4 Case 3
4	Relationship Maturity		The relationships are moving from a typical supplier one to a more involved and participative one 2-step proposal – detailed proposal with a team onsite Partnering with the client to come up with the requirements We share common goals with clients (software product companies). We share the risk of our clients	Case 4 Case 3 Case 4 Case 3 Case 4
5	Nature of contract		Lower risks in T and M Fixed Price bids are very difficult. We have lost money many times also.	Case 1 Case 3
6	Nature of service		Requirements in user interface based applications are more difficult to estimate. For e.g. Flash to be dynamic Software product based projects have clearer requirements. Software product companies are easier to work with than business service organisations	Case 2 Case 2 Case 3
7	Nature of client		It is risky to work with first time outsourcers Big clients have their processes in place	Case 4 Case 1

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