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A Research Framework for the Impact of Cultural Differences on IT Outsourcing

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Abstract

Contracting Global Virtual Teams as part of global IT outsourcing is currently en vogue. As might be expected when virtual team members are from different countries, cultural factors play an important role in the success of outsourcing. However, there have been very few studies that assess the effect of culture on IT outsourcing and virtual teams. This conceptual paper addresses this oversight by looking at the effect of cultural differences on IT outsourcing and virtual teams' performance. The applicable literature on outsourcing, virtual teams and culture is analyzed and a framework of offshore outsourcing success is developed. This framework includes the concept of psychic distance to better understand the phenomenon of virtual teams and outsourcing success. Adding this as a key research component provides a more realistic way of researching global virtual teams. Future directions for research based on the developed framework are also provided. By assessing the cultural differences of virtual teams in IT outsourcing, our research framework will help academics pursue this growing business phenomenon.

Keywords: Global Virtual Teams, Offshore Outsourcing, Culture, Psychic Distance

Introduction

Outsourcing has become a necessary strategy in today's competitive business environment. This movement to non-employee groups has leveraged highly on the concept of global virtual teams. For years, firms have formed virtual project teams that interact electronically in order to run their businesses (Jarvenpaa and Leidner, 1999). For example,

companies are entering into outsourcing arrangements in software development where virtual team members are located at separate geographic locations. These global virtual teams provide access to wider pools of talent and also promote internal competition, improve quality and reduce cost. However, although there is a great deal of research on outsourcing, global virtual teams, and international culture, there has been little work on integrating these three aspects of the information technology (IT) industry. Thus, the objective of this paper is to analyze the role of culture in the context of outsourcing practices and global virtual teams and to conceptualize a framework to study outsourcing from the perspective of culture. Many authors define outsourcing as a form of predetermined external provision with another enterprise for the delivery of goods and/or services that would previously have been offered in-house (Kakabadse and Kakabadse, 2000; and Lever, 1997). Others consider it to be the process of transferring the responsibility for a specific business function from an employee group to a non-employee group (Lee and Kim, 1999). Global virtual teams are defined as temporary, culturally diverse, geographically dispersed, electronically communicating work groups (Kristof, Brown, et al., 1995). Note that when virtual teams become global, this implies that they are culturally diverse and consist of globally spanning members who must think and act in concert with the diversity of the global environment (DeSanctis and Poole, 1997). Due to this need, cultural differences become a determinant in outsourcing decisions, and managing cultural differences becomes a key factor in successful outsourcing.

The importance of culture in global software development has been widely cited in the Information System (IS) literature (Coward, 2003; Hersleb and Moitra, 2001; Walsham, 2002). It has also been noted that managing virtual teams whose members are geographically and linguistically diverse is a daunting task (Ebert and Neve, 2001). Thus, cultural factors play an

important part in the success of global virtual teams for IT outsourcing. However, there have been few efforts to include the culture variable in the theoretical frameworks of outsourcing. Existing studies rarely mention cultural issues. When they do, they fail to emphasize their importance. Khan et al. (2003) argue for inclusion of cultural factors in offshore outsourcing models. This is because the development of software requires constant monitoring and a huge communication gap exists due to geographical distance between virtual teams. A similar gap exists in the present literature on virtual teams and outsourcing which we hope to fill with this study.

This paper analyzes the role of culture in the context of outsourcing practices and virtual teams. The performance of virtual teams is related to the success of IT outsourcing, especially in terms of offshore IT outsourcing (Xue et al., 2004). Therefore, research on virtual teams is likely to have a positive contribution to IS outsourcing. One of the main contributions of this paper is the inclusion of the psychic distance concept to understand the nature of cross-cultural outsourcing phenomena that employ virtual teams. This contribution is unique in the sense that it also focuses on individuals and their perceptions rather than just objective reality. In the next section, an overview of the various models for outsourcing and offshoring of IT functions is provided. The overview is followed by a review of work on culture, outsourcing and virtual teams. We then provide a preliminary conceptual framework for cross cultural studies in outsourcing. Included are research questions that will direct academics in their future research.

OUTSOURCING: MODELS AND BACKGROUND

The widespread practice of outsourcing has prompted IS researchers to study the outsourcing phenomenon from different perspectives. Most of the models and

frameworks in outsourcing have been broadly based on the concepts of core competencies, agency theory, transaction cost economics, and partnerships. An overview of the alternative theoretical models of outsourcing is provided by Cheon et al. (1995). Table 1 provides and compares the theoretical perspectives in the literature.

Table 1: A Comparison of Theoretical Perspectives.

Theoretical Perspective	Level of Analysis	Independent variables	Cultural Factors	Dependent variable	Results	Authors
Transaction Cost Theory	<u>Organizational</u> (Org)	advantage, Transaction cost, Financial slack, Firm size			Production cost advantage is the strongest factor followed by transaction cost	<u>Ang & Straub</u> (1998)
Transaction Cost Theory	Org.	Transaction costs	<u>None</u>	Decision to outsource	Not enough evidence to support that <u>transaction cost theory</u> can predict IS <u>outsourcing</u> decision	<u>Lacity & Willcocks</u> (1996)
Incomplete contracts and <u>Transaction cost theory</u>	Org.	Asset specificity, Uncertainty, Potential no. of vendors, Tacit IT knowledge, IS processes influence, Sales	None	Decision to outsource	Incompleteness of contracts, IT organizational contexts and may be equally <u>important</u> for decisions to outsource	Nam et al. (1996)
Core competencies and <u>Transaction cost theory</u>	Org.	Financial motivation and Strategic motivation	None	Decision to outsource	Both the determinants are important for outsourcing decision	<u>McLellan, Marcolin & Beamish</u> 1995
<u>Resource-based and Resource dependence theories</u>	Org.	Actual and desired levels of strategic resource performance, Strategic orientation	None	Decision to outsource	Discrepancy in IS resource performance is associated with the strategic decision to outsource IS functions	<u>Teng, Cheon and Grover</u> (1995)
Partnership, Resource dependence and <u>Transaction cost theories</u>	Org.	Extent of outsourcing, Service quality and Partnership	None	Outsourcing success	Asset specificity, service quality and partnerships are both relevant and important for outsourcing <u>success</u>	<u>Grover, Cheon and Teng</u> (1996)
Partnership	Org.	Determinants of partnership quality, Partnership quality	Cultural similarity as <u>contextual factor</u>	Outsourcing success	Partnership quality that is related to outsourcing success	Lee and Kim (1999)
Psychological contract perspective	Individual /Org.	Psychological contracts	None	Outsourcing success	Psychological contract exists between customers and <u>suppliers</u> , which needs to be fulfilled for <u>outsourcing</u> success	<u>Koh, Ang and Straub</u> (2004)

Of the existing frameworks, partnership seems to be the least rigorously defined of all relationships (Hancox and Hackney, 2000). Apart from outsourcing literature on partnerships, none of the other frameworks consider cultural factor in outsourcing decisions. Although the partnership perspective of outsourcing mentions cultural factors, it is only included as a contextual variable (Lee and Kim, 1999). A stronger conceptualization of cultural factors is lacking in outsourcing research.

Transaction Costs

Transaction Cost Economics (TCE) offers a useful framework for understanding the conditions under which outsourcing is likely to benefit organizations. Many researchers have used it to study the IT sourcing decision (Ang and Straub, 1998; Lacity and Willcocks, 1996). TCE argues that a company chooses to source either internally or via the market, based on relative production costs and co-ordination or transaction costs (Williamson, 1979). Transaction costs are determined by several factors that include asset specificity, transaction frequency and uncertainty. Although many studies have applied TCE to IT (Lacity and Willcocks, 1996), none of them have included cultural factors into the mix.

Incomplete Contracts and the Theory of the Firm

The theory of transaction cost economics (TCE) was originally formulated to address the "make or buy" choice. The theory of incomplete contracts (IC) has intellectual roots in TCE (Hart and Moore, 1988); IC focuses on property rights and the issues that arise when contracts are incomplete. The property rights approach and TCE do recognize the limited information processing capabilities of human beings (i.e. bounded rationality), opportunistic behavior, and

hold-up problems. It is also important, however, to examine how the existing environmental context and processes influence outsourcing decisions. For example, powerful internal (i.e. IT) departments may oppose any move to outsource certain activities. Similarly, large firms may simply be inertial to any outsourcing opportunity. Of course, it could be argued that the culture of the firm and its operating environment can impact these issues.

Economies of Scale

A major influence impacting on the outsourcing of products and/or services is the consideration of scale and costs (Kakabadse and Kakabadse, 2000). Mass production is presumed to reduce average costs by allocating fixed costs over more units of output and by receiving volume discounts on inputs. Likewise, labor specialization is presumed to reduce costs by allowing workers to focus on tasks at which they are most adept. In addition to mass production and labor specialization, the learning curve further lowers the costs. However, economies of scale will decline where idiosyncratic practices require asset specific investments, thus reducing the cost advantage. Certainly, it is possible that these idiosyncratic practices are culturally based.

Core Competences Maximization and Strategic Sourcing

Companies need to understand the source of competitive advantage before they can achieve the competitive advantage. Activities that cannot deliver such advantages logically can be described as complementary services. These services could be acquired from an outside contractor, especially one that can provide competitive advantage and is willing to share this advantage, often through open-book or transparent pricing, with the outsourcing company.

Researchers mention that companies enter into outsourcing agreements to satisfy one or more of the following objectives (Kakabadse and Kakabadse, 2000; Lever, 1997): achieve delivery and reliability improvements (i.e. customer service); improve R&D and products cycle time; improve products quality; increase market share; become more flexible while reacting to market conditions; acquire better access to technological innovation; obtain access to highly skilled staff; establish presence in a foreign market; use resources that are not available internally; reduce the overall amount of specialized skills and knowledge needed for operations; and reduce production costs.

Noteworthy to mention, several papers show that many of these objectives, such as better service, often cannot be obtained with outsourced services (Park and Kim, 2005; Kim et al., 2005). They argue that the pursuit of cost savings may result in the loss of service quality. A recent example is GE. It outsourced its technical support services to India based on cost advantage and the service teams there being able to speak English. However, this service proved unsuccessful. The problem was mainly attributed to the Indian customer service representatives (CSR) not being familiar with products such as microwaves. GE discovered that the use of such a product was not part of the culture and therefore the CSRs were not familiar with the product. This unfamiliarity translated in low support quality to the American consumers.

Partnership

In terms of IT and outsourcing, partnership tends to be a less rigorously defined framework than other theories. Klepper (1995) states that conceptualization of partnership in IT research has been mainly non-theoretical. In fact, there is no single commonly recognized theory of partnership. This is probably due to the fact that each partnership agreement has its own

practical arrangements. The focus is most often on issues such as trust, comfort, understanding, shared values, good personal relations and good communication (McFarlan and Nolan, 1995; McLellan et al., 1995).

When it comes to partnerships, researchers have found that cultural compatibility is vital (e.g. Willcocks and Fitzgerald, 1994). Shared values and objectives also impact all stages of the partnership development process (Klepper, 1995; Hancox and Hackney, 2000). Thus, if companies are from fundamentally different nations and cultures, then IT partnerships, and by extension, global virtual teams, become increasingly difficult to manage successfully.

Apparently, the initial decision to outsource is not the only decision that can be impacted by cultural factors. The process model of outsourcing as described by Ilie and Parikh (2004) has different stages in the process: decision to outsource; vendor selection; outsourcing contract; implementation; operations/relationship, evaluation; decision to renew. Cultural factors play a significant role in the decision to renew the outsourcing contract as compared to the initial decision to outsource. When a company first decides to outsource, the decision is mainly driven by cost considerations. Once the company faces problems related to cultural differences, then the company may take action to solve the issues. In some cases they may decide not to renew the contract. Thus, managing outsourcing relationships may be one of the most important elements in the success of outsourcing phenomenon.

CHALLENGES AND APPROACHES IN MANAGING OUTSOURCING RELATIONSHIPS

Outsourcing has evolved from the traditional single vendor arrangement to an arrangement where multiple vendors are contracted to satisfy IT needs of a company. Thus,

managing outsourcing relationships is becoming increasingly complex. Contracts have moved from a focus on cost savings to include value-based outsourcing, equity-based outsourcing, and business process outsourcing.

Although the trend in outsourcing has been growing, there are many less successful stories. According to a study conducted by Lacity and Willcocks (1998), there seems to be a gap between expected and actual benefits from outsourcing relationships. The hidden costs in outsourcing contracts seem to be the biggest problem. Lacity and Willcocks (1998) reported that in their study of 40 US and European companies, there were hidden costs in almost every supplier-written contract, some of which added to a substantial amount. Some studies suggest that the drawbacks of outsourcing outweigh the benefits accrued from outsourcing relationships. Numerous problems have been reported in outsourcing relationships, from underestimation of the time and skills needed for effectively managing outsourcing contracts to unsatisfactory delivery of services, uncooperative vendor behavior, and higher than expected costs (Kakabadse and Kakabadse, 2002). However, the existing research on outsourcing relationships overlooks the cultural differences between the vendor and the client, although it has been found that outsourcing success depends upon the quality of that relationship (Kem, 1997). The quality of any relationship would definitely depend on the compatibility of the partners. This compatibility is derived from many factors, including their cultural background. Coward (2003) describes important factors or drivers that influence outsourcing decisions. Cost savings is the major driver. Personal connections, a US presence, and skilled labor pools are secondary drivers. Other factors that play an important role in global outsourcing decisions include:

- culture and language
- time differences

- the presence of western business practices.

Cultural differences may be reflected in differences in communications, work ethics, and approaches to problem solving among virtual teams. Culture may create significant differences in IT outsourcing, i.e. the user interfaces in computer programming may have different appearances in different societies. Local culture may also impact the way call center representatives greet and receive the customer calls. A collaborative culture that includes trust and openness between outsourcing partners is important for outsourcing success. To bridge cultural gaps, companies may offer cultural training, cultural awareness initiatives and team-building workshops as part of any global virtual group structure.

Language differences among virtual teams in terms of accents, style, and lingo can impact the outsourcing of IT functions. For functions such as call service centers, where the representatives have to constantly interact with customers, it is important that they are able to communicate fluently in the preferred language. Furthermore, the vocabulary size of a specific language may control how precisely or bluntly ideas are articulated and problems finessed. Blunt, inarticulate statements can cause misunderstandings and animosity between virtual team members.

Time differences may affect service depending on the country and location. Time differences pose both advantages and disadvantages. On one hand it may add more working hours to a development team. On the other hand, it may add problems in coordinating meetings between executives in different countries.

In terms of western business practices, the key issues are intellectual property rights and the ability to control business decisions. The perceptions of intellectual property rights among companies or countries can affect the selection of outsourcing partners. For example, some

companies are hesitant to outsource to Chinese firms because China does not enforce intellectual property rights. The ability to control business decisions can also impact the decision to outsource. If there is a perception of a greater need to control, then local outsourcing may be chosen over offshore outsourcing.

A company may proceed through various approaches when it decides to outsource its IT operations to a foreign location. These approaches include the use of foreign subsidiaries, foreign acquisitions, offshore development centers, joint ventures or alliances and foreign contracting (Carmel and Agarwal, 2001). These arrangements can be mixed with part of the work being done in domestic countries. A difference in cultures between that of the center and the foreign entity may pose problems for global software teams. Carmel and Agarwal (2001) describe four approaches to alleviate any cultural distance-bridgehead, internalization of foreign entity, cultural liaison and language.

- In a bridgehead arrangement, cultural distance is reduced by having virtual teams with 75% of personnel work offshore and 25% work onshore. The onshore workers who are more experienced and culturally similar gather customer requirements and pass it on to the offshore programmers.
- The approach of contracting virtual teams is one of the most popular outsourcing models. However, many larger corporations are internalizing their global software development, thereby reducing the cultural distance.
- The third approach uses a cultural liaison. This liaison bridges any cultural gaps within virtual team members of the global software development teams.
- The fourth approach concentrates on reducing the language barrier between the virtual team members. This is done by providing language training to improve communication.

There is no 'one-fit-model ' that will suit the needs of all companies. Many issues have to be balanced. A report by Silicon Valley Outsourcing summarizes the factors that affect the selection of a particular model as follows: the trade-off between the desired cost savings and the degree of operational risk contributed by the offshore facility; degree of control and desired cultural alignment with the offshore facility; degree of flexibility and scalability required; and required speed of execution (Silicon Valley Outsourcing Report, 2004).

DIRECTIONS FROM RESEARCH ON VIRTUAL TEAMS

The use of virtual teams is increasing in the context of offshore IT outsourcing since the globalization of business has led organizations to cross national boundaries in pursuit of economic benefits. Therefore we are optimistic that research on virtual teams will offer important guidance for research on IS outsourcing. Hersleb and Moitra (2001) remark that a great deal of attention has been focused on understanding the factors that enable virtual teams to operate successfully across geographic and cultural boundaries. For example, the literature on virtual teams shows that temporal coordination and conflict management are important factors for the performance of virtual teams (Montoya-Weiss et al., 2001). Although virtual teams provide access to the best resources available in the global market, their success lies in managing the cultural differences inherent therein. A study of multicultural virtual teams by Guindi and Kamel (2003) indicated that a strong and flexible corporate culture can help multicultural teams transform their differences into valuable assets by reducing their cultural conflicts. To a greater extent, the ability of firms to meet the challenges of operating virtual teams by managing the interplay between cultural issues and the impact of distance on conflict resolution is crucial for outsourcing success. Therefore, the success of offshore IT outsourcing is closely related to a

virtual team's performance since the outsourcing partners operate remotely. Xue et al. (2004) believe that research on virtual team performance will positively contribute to IT outsourcing.

Virtual teams are functional teams that rely on technology-mediated communication while crossing several different boundaries. These boundaries are mostly related to geography, time and organization (Martins et al., 2004). The locational boundary refers to physical dispersion of virtual team members. They may be working at different geographic locations or different workplaces at the same geographic location. The relational boundary refers to the relational networks and affiliations of the virtual team members. The temporal boundary includes lifecycle and synchronicity. Lifecycle relates to the duration of the virtual team while synchronicity refers to the timing and interaction of team members on the group's task. Dube and Pare (2001) list potential problems and challenges faced by global virtual teams. They report that the cultural diversity of global teams, although providing potential richness to the team, may also pose an enormous challenge in terms of managing them. Martins et al. (2004) provide an inputs-processes-outcomes (IPO) model of virtual team performance. The inputs of the virtual team consist of team size, knowledge, technology, task and composition. Processes determine how virtual teams achieve their outcomes and include planning, action and interpersonal issues.

Trust is an important element in interpersonal processes that has a great bearing on virtual team outcomes. An absence of trust can lead to disruption of flow of information among virtual team members, which can lead to coordination problems and conflicts. Jarvenpaa and Leidner (1999) examined how trust is developed in virtual teams. Their findings indicated that trust was positively related to virtual team productivity. They reported that trust in virtual teams prevents geographical distance from becoming a psychological barrier among team members. The virtual team outcomes may be affective as well as performance related. For example, satisfaction of

team members was found to be dependent on the nature of the task and on team composition (Cappel & Windsor, 2000). In terms of performance, more time was required to accomplish tasks in virtual team interactions than face to face (Cappel & Windsor, 2000). Task type, time and social context are also described as moderators between virtual team interaction and outcomes (Martins et al., 2004).

CULTURAL ISSUES AND OUTSOURCING

Although India, Ireland, and Israel remain the three main destinations for offshore IT destinations, other nations are also competing in the global outsourcing economy. Russia, the Philippines, and China are making huge gains in this area. The increasing breadth of offshore destinations includes Hungary, Romania, Ukraine, Brazil, Chile, Canada, Mexico, and the Caribbean islands. As the number of offshore locations increase, management will have to make offshore outsourcing decisions based on cultural issues as well as traditional factors.

Cultural distance between countries is a widely used construct in international business, where it is applied to international joint ventures, entry mode choice, and the performance of foreign investment affiliates (Shenkar, 2001). Most of the cross cultural research in IS has adopted Hofstede's (1980) theory of national culture (Teng et al., 2000). However, there are limitations to Hofstede's definition of national cultures. For example, even though a vendor company may operate in a foreign culture, it does not necessarily mean that the national culture index suggested by Hofstede will correspond to the culture of a particular company. The presence of subcultures within a country poses a threat to the applicability of Hofstede's national culture construct. Such measures are rather crude and too simplistic a measure for studying cultural differences in IS research. Straub et al. (2002) recommends Social Identity Theory as a

new perspective for cultural studies. Social Identity Theory, developed by Turner et al. (1979) helps to understand the psychological basis of inter group discrimination, which has been used in global virtual group research (Jarvenpaa and Leidner, 1999). Others, such as Tajfel (1979) attempted to identify the minimal conditions that would lead members of one group to discriminate in favor of the 'ingroup' to which they belong and against another 'outgroup.'

PSYCHIC DISTANCE

The concept of "psychic distance" has been extensively used in the international business literature. The basic concept is that when companies decide to internationalize they will begin in countries that are psychically close before expanding into more psychically distant countries (Johanson and Wiedersheim-Paul, 1975). What is psychic distance? Hallen and Wiedersheim-Paul (1984) viewed psychic distance as the difference in perceptions between buyer and seller regarding their needs or offers. According to Kogut and Singh (1988), psychic distance as the degree to which a firm is uncertain about a foreign market. They found that the greater cultural distance between the investing firm and the country of entry prompts the investing firm to choose a joint venture to reduce its uncertainty during the internationalization process. The essence of psychic distance can be understood by analyzing its elements. Psyche refers to the mind, while distance implies a degree of difference. In other words, it is the mind's processing, in terms of perception and understanding, of cultural and business differences that forms the basis of psychic distance (Evans et al., 2000). Therefore, psychic distance refers to the degree of similarity or difference in terms of cultural factors.

An extensive review of the theoretical and managerial implications of psychic distance has been provided by Stottinger and Schlegelmilch (1998). They point out that the results from

studies that have tried to find the relationship between psychic distance and organizational performance have been a mixed bag. Li and Guisinger (1991) found a negative relationship between cultural distance and organizational performance. The paradoxical nature of psychic distance was shown by Evans and Mavondo (2002). They found that psychic distance explained a significant proportion of the variance in financial performance and strategic effectiveness. However, the disaggregation of the construct substantially increased its explanatory power and demonstrated a positive relationship with organizational performance. Although the findings do not support a negative relationship, the results of a study by Stottinger and Schlegelmilch (1988) indicated that perceived distances between countries are still substantial. The unclear nature of psychic distance was evidenced by the fact that psychic distance was not the only factor that was significant in explaining the performance of international retailers. Furthermore, O'Grady and Lane (1996) discovered that the strategic decision making process and certain managerial characteristics are key intervening variables that help explain the relationship between psychic distance and organizational performance.

Psychic distance should not be mistaken with cultural distance. The distinction between cultural and psychic distance can be made on the basis of the way they are operationalized. Hofstede's (1980) measure of national culture is widely used for cultural distance. On the other hand, psychic distance is operationalized in terms of differences in language, business practices, political and legal systems, education, economic development, marketing infrastructure, industry structure and culture (Evans et al., 2000). In their model of psychic distance, Hallen and Wiedersheim-Paul (1984) mention cultural affinity, trust, and experience as determinants. The model implies that psychic distance is formed by the combination of these determinants at the national, organizational, and individual level (Swift, 1999). The impact of culture on psychic

distance is at the national level, which implies the presence of differences in national cultures. Trust features at the organizational level since it is an important element in the long-term relationships (Swift, 1999). Experience is influential at the individual level since it shapes the perceptions and attitudes of managers. This in turn will affect behavior toward buyers or suppliers. O'Grady and Lane (1996) proposed the addition of business factors, such as legal and competitive environments, as the determinants of psychic distance in addition to cultural factors.

In this paper, we include psychic distance as one of the factors influencing offshore outsourcing decisions. The conceptualization of psychic distance will follow the suggestion of O'Grady and Lane (1996). They define psychic distance as comprising of legal, social, and competitive environments as well as culture, trust, and the experience of the managers making the outsourcing decision. It should be noted that there are distinct difficulties in studying cultural issues in group dynamics. For example, outsourcing and virtual teams promise flexibility, responsiveness, lower costs and improved resource utilization. These advantages allow companies to adapt quickly to changing global environments (Snow et al., 1996). However, the issues brought up by O'Grady and Lane (1996) also have difficulties attached to them. For example, cultural problems within societies and groups can include low individual commitment, role overload and ambiguity, absenteeism and social loafing. These are difficult issues to address from a management perspective as well as from a theory development perspective. However a step has to be taken towards the proper conceptualization of the construct and development of the measures. Our attempt should be viewed as a positive advancement toward the relevant cause of cross-cultural studies in IT.

CONCEPTUAL FRAMEWORK

In this section, a framework for managing offshore outsourcing is developed. The framework is based on the survey of the literature and its analysis. This integrated view of offshore outsourcing is shown in figure 1. Research propositions are also offered to explain the components and their relationships and to provide insights for further research.

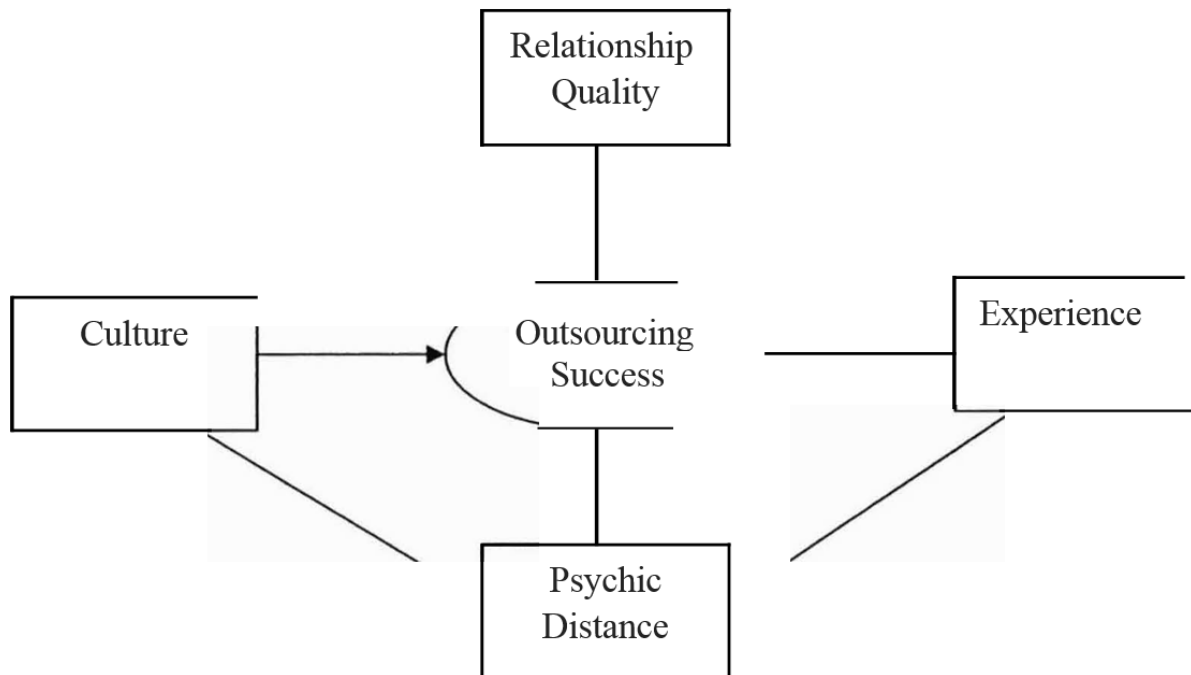


Figure 1: A Framework of offshore outsourcing success

Outsourcing success can be viewed in many ways. From the perspective of the client company, one can see it as the satisfaction gained from the outsourcing relationship. Lee and Kim (1999) view outsourcing success as the level of fitness between the customer's requirements and the outsourcing outcomes. They describe the determinants of partnership quality as trust, benefit and risk sharing, business understanding and commitment. All of these were found to significantly impact the success of any outsourcing project. Another view is that successful outsourcing can best be assessed in terms of attainment of strategic benefits, economic benefits

and technological benefits (Grover et al., 1996). Strategic benefits refer to advantages received by focusing on core competencies and outsourcing the routine IT activities. Economic benefits result when a firm enjoys lower costs due to the economies of scale obtained by the service providers. Technological benefits relate to the ability of a firm to avoid the risk of technological obsolescence. The outcome of the outsourcing relationship determines whether the company will discontinue or continue the outsourcing contract. As one might expect, the success of any outsourcing decision may be limited by various factors. For example, if the quality of service deteriorates, the company may decide to discontinue the contract in spite of any cost savings. These hidden issues and costs in the contract can provide a pitfall for the client company (Barthelemy, 2001). On the other hand, a good fit between the client's requirements and successive outcomes is expected to result in outsourcing success. Thus, our first proposition is:

Proposition 1: The better the quality of the relationship between the client and the vendor, the higher the likelihood of outsourcing success.

In practice, there are four dimensions of long term relationships or partnerships that are relevant (Grover et al., 1996) to outsourcing. These dimensions are communication, trust, cooperation and satisfaction. These can apply not only to outsourcing partners but also to virtual team members involved in the outsourcing project. In addition, these dimensions of relationship may apply at both organizational and individual levels. Past IS literature shows that trust has a positive relationship on the performance of virtual teams (Jarvenpaa and Leidner, 1999). However, Jarvenpaa et al. (2004) suggests that the role of trust in virtual teams is highly specific to the situation. Therefore, in order to ensure outsourcing success by employing virtual teams, a

proper team structure should be considered.

Proposition 2: The warmer the relationship between virtual team members (fostered by high degrees of communication, trust and cooperation) the greater the level of outsourcing success.

The experience construct is defined as the level of experience of both the client and vendor in managing IT outsourcing relationships (Beulen and Ribbers, 2003). Companies with greater experience in outsourcing will have developed methods to improve those contractual relationships. The experience of outsourcing partners can be better understood with reference to the resource-based view of the firm. According to this view, the conditions of firm resource heterogeneity and firm resource immobility are linked to sustained competitive advantage. Firm resource heterogeneity refers to the resources of a firm and the way these resources are dispersed. Firm resource immobility refers to the inability of firms to borrow resources from other firms (Barney, 1991). Mata, Fuerst and Barney (1995) suggest that IT managerial skills are likely to be a source of sustained competitive advantage. Thus in terms of outsourcing contracts, while dealing with cultural and relationship issues, one must remember that many IT managerial capabilities are valuable, scarce and difficult to imitate. However, once they are developed, they can significantly enhance outsourcing success. In addition, the organizational and individual capabilities in handling cultural diversity and building relationships can be developed through experience over the years. Such capabilities can impact outsourcing success and potentially confer sustained competitive advantage.

In addition, the amount of outsourcing experience will have positive consequences on the quality of relationship between the outsourcing partners. Partnership research has found that

clients who view IT as a core competency are also more likely to be happy with their outsourcing arrangements. This is probably because they negotiated from a substantial knowledge base (Saunders et al., 1997). In addition, if there are cultural differences, these companies may have already taken measures such as cultural awareness training to attenuate the effect of these issues. Finally, clients may also be more comfortable if they already know the vendor and have an experiential history with them (e.g. Rao et al., 1996). Thus, we believe that the greater the experience level in both the parties, the less room there is for misrepresentation or opportunistic behavior. This leads to a higher level of outsourcing success.

Proposition 3: The more experienced the outsourcing partners are, the better the quality of relationship between them.

Proposition 4: The greater the experience of the outsourcing partners, the greater the likelihood of outsourcing success.

The culture construct in our framework encompasses both national and organizational cultures. There are several ways to define culture. Culture at its most basic level can be defined as shared symbols, norms, and values in a social organization (Walsham, 2002). In addition, Hall and Hall (1990) define culture as a system for creating, storing, and processing information. National culture refers to deeply set values that are shared by the members of a nation. According to Hofstede (1980), culture is "the collective programming of the mind which distinguishes the members of one group from another." For this study, we will view culture as defined by Hill (1997), "a system of values and norms that are shared among a group of people

and that when taken together constitute a design for living." Organizational culture defines the behavior and attitudes of the organization's members. As viewed by Smircich (1983), organizational culture provides more proximal cues for its members' behavior than national culture since it provides members with an organizational identity and facilitates collective commitment. As evident in the international business literature, there seems to be a negative relation between inter-organizational performance and differences in cultures. Barkema et al. (1996), in their study of foreign ventures, found that performance was negatively related with the cultural distance between the home and host country. Therefore, we propose that cultural differences will affect outsourcing success. We also believe that cultural differences due to issues such as language barriers will negatively impact the quality of the outsourcing relationship.

Proposition 5: The greater the difference in national cultures of the outsourcing partners, the lesser the likelihood of outsourcing success.

Proposition 6: The greater the difference in the organizational cultures of outsourcing partners, the lesser the likelihood of outsourcing success.

Proposition 7: The greater the difference in national and organizational cultures, the lower the quality of relationship in outsourcing partners.

Research in international business has provided mixed results about the relationship between organizational performance and psychic distance. In spite of contradicting results, psychic distance is still seen as a relevant concept (Stottinger and Schlegelmilch, 1998). The

results of the Stottinger study indicated that perceived distances between countries are still substantial. However, we also believe that the degree of experience in international outsourcing and global virtual teams will help mitigate the effects of psychic distance since it is expected that the outsourcing partners will take measures to reduce any cultural differences. In addition, as the length of the outsourcing relationship increases, learning factors also begin to help manage the process.

Proposition 8: The greater the difference in national and organizational cultures between outsourcing partners, the greater the psychic distance between them.

Proposition 9: A greater psychic distance as perceived by outsourcing partners reduces the likelihood of outsourcing success.

Proposition J O: Higher levels of international experience reduce the psychic distance between outsourcing partners.

IMPLICATIONS AND CONCLUSIONS

As companies adopt various offshore models, global virtual teams in software development are becoming more common. As might be expected, cultural factors that affect virtual team members are one of the important determinants for the success of any project. The objectives of this paper were twofold:

- review the literature on cultural differences in outsourcing practices and virtual teams

- provide a conceptual framework for cross-cultural studies in outsourcing.

This paper identifies a new framework to investigate cultural differences in IT outsourcing relationships. Previously, most IS cross-cultural studies focused on the concept of national culture. By including the concept of psychic distance, we provide a more comprehensive framework of study.

Various future research streams emanate from our proposed model. Case studies of global teams can assess the cross-cultural effects in virtual software development teams. The cultural impact in virtual teams is a socially complex phenomenon encompassing national, organizational and individual cultures, and in-depth case studies can illuminate all these issues. The proposed model can be further enhanced by including aspects of industry culture. Since different industries are recognized to have different mindsets, they are also possible areas of research. Any insight into cultural knowledge at the industry level can shed light on the overall framework.

Empirical studies can also validate various propositions of this framework. Thus another research stream might be analyzing the link between outsourcing success and sustained competitive advantage by taking the perspective of the resource-based view of the firm. Research may also study the impact of virtual teams' performance on the respective team members' organizational cultures. While working in a virtual team, the members are bound to be affected by the other team members' interacting values, beliefs, assumptions and symbols, some of which they will carry back to their own organizations once the virtual teams are dismantled. Other streams of research include knowledge transfer in global virtual teams, the role of training in virtual teams, and specific task types which may be more suitable for global virtual teams.

This framework also has direct implications for management practitioners. Managers, in assessing their own careers, have been aware of national cultural differences as well as organizational issues within firms. However, our framework shows that they must also address issues of cultural distinctions attributed to sub-groups and individuals when managing the members of virtual teams. Understanding the different mindsets and cultures of virtual team members will help managers improve the performance of the team.

The most important contribution of this framework is the recognition that virtual software teams operate in a dynamic environment of national boundaries, organizational practices and individual preferences which are impacted by the determinants of cultural affinity, trust and experience. We believe that this framework, along with the outlined research propositions, will provide a roadmap for IS research on cross-cultural impacts.

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