

## **IT Outsourcing: Culture/Cohesion's Impact on Vendor Performance**

**Dr. Gertrude P. Pannirselvam Ph.D.\***

Associate Professor  
Department of Management and Marketing  
Campus Box: 1100  
Southern Illinois University Edwardsville  
Edwardsville IL 62026  
USA

**Dr. Mary Sue Love Ph.D.**

Associate Professor  
Department of Management and Marketing  
Campus Box: 1100  
Southern Illinois University Edwardsville  
Edwardsville IL 62026  
USA

**Dr. Ramana K. Madupalli, Ph.D.**

Assistant Professor  
Department of Management and Marketing  
Campus Box: 1100  
Southern Illinois University Edwardsville  
Edwardsville IL 62026  
USA

### **Abstract**

*Our investigation examines the increasingly important relational success dimension at the micro level of the outsourced employee. We study the impact of client and vendor organizational culture and group cohesion on the performance of vendor employees working in collocated IT teams. Surveys were distributed to IT vendor employees, focusing on employees of offshore IT service providers. The respondents were employed by vendor companies and worked at client locations. We found that vendor organizational culture has a significant and positive impact on vendor employee performance located at client sites while client organizational culture does not. We also found, that group cohesion at the client site positively impacts vendor employee performance, while group cohesion at the vendor company does not. This research contributes to the literature by providing empirical evidence of the differential impact of multiple cultural and team influences on the quality of work of collocated vendor employees.*

**Keywords**—Organizational Culture, Group Cohesion, Vendor Performance, Outsourcing/ Offshoring

### **1. Introduction**

The increased reliance on outsourcing necessitates that companies take a long range, strategic view of their management, control, and implementation of IT outsourcing. The extent of outsourcing in information technology (IT) is expected to continue to grow; in 2010 growth was projected at 5% to reach \$79 billion in the US. Similar growth rates are forecasted in the global IT services market, which was expected to reach eight hundred twenty-one billion dollars in 2010 (Eluvangal, 2010). IT outsourcing is also moving up the strategic dimension. While a large portion (30%) of companies still outsource basic IT tasks such as testing, help desk, application support and discrete development, about 55% of the companies Healy surveyed outsource more than one strategic function of IT operations (Healy, 2010). Such strategic outsourcing requires applying a long-term perspective to outsourcing decisions (Fjermestad & Saitta, 2005; Lacity, Willcocks, & Rottman, 2008) as well as to the relationship with outsourcing partners (Gonzalez, Gasco, & Llopis, 2005; Kim and Chung, 2003; Lee and Kim, 1999). The increase in the outsourcing of strategic IT functions, and the increase in offshore outsourcing has led to pressure from client firms to use multiple suppliers whose activities are better coordinated and bound to client performance needs (Oshri, Kotlarsky, Rottman, & Willcocks, 2009).

This increasing outsourcing trend has also led companies to pay more attention to the quality of outsourcing agreements with more emphasis on vendor governance, sometimes including a six month review and 'renegotiation of contracts' clause (Edgell, Meister & Stamp, 2008). More coordination of projects among multiple vendors, including vendors located overseas has become a large portion of the work performed by IT departments. Offshore outsourcing in particular presents challenges not only in coordinating work, but also in integrating personnel from multiple vendors into project teams, whether they are in dispersed work groups or collocated work groups (Lacity & Rottman, 2009). Differences in language, norms, values, and attitude require that the coordinating project manager must be trained to be culturally aware, since they not only have to make the vendor personnel welcome and comfortable, but also enable them to communicate openly. Development of such managerial skills requires firms to make investments in culture and behavioral skills training that may only pay off in the long run. The need to focus on such soft skills, especially in strategic IT outsourcing, has led researchers to identify the need to take a more organizational and cultural view of outsourcing, reflecting the changing role of a firm's IT function. To date, there have been few empirical studies that examine the impact of organizational culture on the success of these outsourced functions, on vendor performance, or on the intricacies of how these contracts work.

We investigate the impact of organizational culture and team cohesion and their effects on the self reported performance of vendor employees, primarily from foreign (offshore) outsourcing partners located at a client site. Our study responds to several trends in the current outsourcing literature. Overall, the literature suggests that changes in how organizations fulfill their IT functions are going to increase reliance on inter-company relationships (see Lowe & Locke, 2008; Scott & Wagner, 2003). Lacity, Khan, Yan and Willcocks (2010) report that most outsourcing research has been at an aggregate level; such as firm, IS function, client-vendor relationship quality, or project success, and calls for more understanding of how clients transfer knowledge and keep these relationships fresh and exciting. Haried and Ramamurthy (2009) find adaptation of both clients and vendors to differences in work cultures and attitudes improved the success of an outsourcing relationship and warn that, by ignoring relational success dimensions, the picture of outsourcing or project success is incomplete.

Our investigation examines the relational success dimension at the micro level of the outsourced employee, a small but under studied aspect of the outsourcing relationship. Lacity et al. (2010) have brought attention to the increased examination of relationship characteristics such as knowledge sharing and relationship quality and their impact on IT outcomes, although at an aggregate level. We endeavor to examine these relationship characteristics at the level they originate, in the collocated worker. We attempt to answer the basic research question, how do the organizational characteristics of vendor and client companies influence the performance of vendor employees? Given the increased demand for outsourcing and the increased responsibilities of project or site managers, our results will guide practitioner efforts to improve the coordination between vendors and client companies and provide additional insights into how the day to day management and control of multi-firm project tasks can be better aligned with an organization's strategic focus in IT outsourcing.

In the pages to follow, we first review the existing literature on outsourcing and how control mechanisms are orchestrated. In the next section, we discuss pertinent research focusing on organizational culture and team dynamics (operationalized as group cohesion) and develop hypotheses based on theoretical perspectives and empirical findings in management and information systems literature. We follow this with the discussion of the method and results based on a survey of IT vendors working at different client locations in a major metropolitan area in the US. We conclude with implications of this research for managers and future research avenues.

## ***2. Literature Background –Outsourcing Relationships***

Four streams of research contribute to our understanding of the strategic role of outsourcing and the impact of culture, and we examine them next. The first stream of research suggests offshore outsourcing arrangements as a method to alleviate the impact of the cultural distance between outsourcing partners and the clients. One way is to have bridgehead teams located in client countries. These teams consist of more experienced members who are involved in customer liaison and sales (Krishna, Sahay & Walsham, 2004). Carmel and Agarwal (2001) suggest that the bridgehead teams that work onsite consist of 25 % of the vendor personnel assigned to the project while 75 % of the personnel work in offshore teams. This onsite-offshore model enables work to be performed around the clock resulting in the "24-hour knowledge factory" (Espinosa, Cummings, Wilson, & Pearce, 2003; Seshasai & Gupta, 2009).

The onsite vendor team members perform the important function of transferring the knowledge and work details to the offshore members as well as dealing with any issues directly with the client (Mattarelli & Gupta, 2009). Due to the larger role that onsite teams fulfill, employees with more technical and cultural experience are chosen to be on these teams (Carmel & Agarwal, 2001). In a similar vein, Laplante, Costello, Singh, Bindiganavile, and Landon (2004) suggest a three-tier model where about 30 % of the work performed by the vendor should occur on-site, 10% of which is under close client supervision and 20 % under normal supervision; the remaining 70 % of the project should be performed off-site. This arrangement provides the client with better monitoring of the project. As Ang (1994) points out, when customers choose to keep hardware and personnel at their site they feel they have more control over the resources and the outcomes. Clients and vendors could also have cultural liaisons to help reduce the cultural distance between partners (Carmel & Agarwal, 2001). Lacity & Rottman (2009) suggest investing adequate resources in project management offices to provide administrative support such as getting visas and important cultural training for project managers embarking on outsourcing projects. This stream addresses cultural gaps between organizations by focusing on how projects are organized and training for project managers who oversee IT projects.

A second stream of research studies the impact of cultural differences on client vendor relationships and outsourcing success. With a larger portion of IT being done by cross-cultural teams, researchers have recognized the importance of considering a relational based view to studying IT projects and their success (Lee & Kim 1999, Gregory, Prifling, & Beck, 2009). Based on interviews of thirty-four managers, Saunders, Gebelt, and Hu (1997) conclude that companies that take a partnership approach, rather than a supplier view of the outsourcing vendor report higher satisfaction with the outsourcing outcomes. A partnership approach addresses the limitation of supplier contracts and focuses on building long-term, mutually beneficial relationships between contracting organizations. Lee and Kim's (1999) study of 74 outsourcing relationships support this view, finding that partnership quality is a significant driver of IT outsourcing success. They identify cultural similarity between the partners of the outsourcing arrangements as a significant correlate to partnership quality.

Kim and Chung (2003) use relational exchange theory to develop and test a model of outsourcing success. Their results lead to the conclusion that using a supplier governance structure that emphasizes a cooperative long-term focus leads to an increase in outsourcing success. Gottschalk and Solli-Saether (2006) develop a multi-perspective model of outsourcing success to suggest that organizations need to develop in-house expertise in developing and maintaining alliances (partnership theory). Applying relational exchange theory, they suggest that organizations have to work towards developing a common set of cultural norms that are relevant to both the client and vendor. Gurung and Prater (2006) model outsourcing success as impacted by national cultural difference, psychic distance (to include organizational as well as individual differences), and relationship quality. They propose that large differences in national and organizational culture leads to lower success in outsourcing. Developing team structures that support a warmer relationship and cohesion would positively affect outsourcing success. Rai, Maruping, and Venkatesh (2009) apply the relational exchange view to study cultural differences between the client and vendor firm, concluding that differences in cultural norms impact project cost overruns and client satisfaction. In sum, this second stream of research takes a relational view of IT outsourcing and points to ways to develop and nurture long-term alliances with outsourcing partners.

While the above two streams address cultural and team differences at the macro, organizational levels, the next two streams of research study the interaction between client and vendor teams at the micro task, inter-team, and individual levels of interaction. The third stream of research focuses on dynamics between onsite and offshore teams as well as between collocated client and vendor teams as they work together towards the same goal. Metiu (2006) studied vendor and client teams that were distributed and collocated at different stages of the project. Her analysis points to the role of not just geographical distance, but also cultural distance (resulting in stereo typing) as well as status differences (as a result of resource ownership by the client) in leading to less than satisfactory performance. Mattarelli and Gupta (2009) studied the interaction between eight globally distributed teams to assess the impact of status differences between onsite and offshore vendor teams. They conclude the quality of interaction of the client with the onsite teams as well as the presence of liaisons (either formal or informal) are important in mitigating the difference in status. Vlaar, Fenema, and Tiwari (2008) focus on understanding the socio-cognitive tasks between the onsite and offsite subgroups that help each group to improve their understanding of the work. Their study points to the importance of the onsite group members in fostering a better understanding of the client's business function, client needs, technology use, and technical details.

Communication between the subgroups help both groups reach a congruent understanding through feedback loops that include confirmation of understanding as well as questioning of assumptions. Based on their study of large scale IT outsourcing by one organization to captive centers and offshore vendors, Levina and Vaast (2008) conclude that the use of common practices helps client and vendor employees overcome differences based on organizational and national boundaries. Gregory et al. (2009) analyze the case of outsourcing the conversion of a legacy system for a German client using interviews of client and vendor employees from India who worked together for about five years. They conclude that the application of cognitive and motivational dimensions of cultural intelligence leads to behavioral adaptation that results in a negotiated culture between the two sets of employees. This stream of research identifies how groups and individuals negotiate common ground to overcome organizational and status differences over time and points to ways in which understanding of organizational culture and individual and group behaviors could be used to improve the outcomes of daily tasks and decisions.

The fourth stream of literature considers differences in culture and team behavior in the light of control mechanisms for outsourced IT work. Kirsch's (1997) analysis of two cases of internal information systems development (ISD) projects led to the identification of a mix of control mechanisms used – outcome, behavioral, clan, and self-control. Outcome and behavioral control mechanisms are applied when outcomes are measurable (such as specific targets) or behaviors are observable (such as appropriate task or interaction behaviors). Clan control is exercised mainly when outcomes are not easily measurable or behaviors are not observable. Clan control is exercised through the creation of common values and norms through a socialization process, with rewards for adhering to the norms and sanctions (informal) for not adhering to the norms.

Kirsch, Sambamurthy, Ko, and Purvis (2002) studied the application of this portfolio of control in the case of outsourced projects using 77 projects. They found when behaviors are observable (such as in the case of onsite vendor employees), clan control is exercised among cases where the client's knowledge of the software development process is low. Such would be the case when a client outsources IT development for business processes due to lack of IT expertise in house. Choudhury and Sabherwal (2003) examined how the portfolio of controls develops over time based on encounters in outsourced IT projects. They found that clan control is harder to exercise in outsourced projects due to the differences in norms and beliefs between client and vendor employees and require specific triggers, such as strategic alliance. This stream of research points to how understanding of differences in attitude towards team culture and behaviors, technical expertise and technology use between the employees of two partnering organizations could be used to develop more effective controls in project management.

Both the macro and micro study of outsourced IT work recognize the fact that cultural difference, both national as well as organizational, impacts interaction between client and vendor teams. These four streams also point to fact that the performance of the onsite vendor employees is important to the successful completion of the IT work. The onsite vendor teams are the communication bridges to help the distal teams understand the client's functional as well as technical needs and to help the client teams make sense of the work submitted by the distal teams. However, little empirical work has been undertaken to understand the differential impact of multiple cultural and team influences on the quality of the work of these vendor employees at the individual level. This study aims to address this gap by examining the influences of organizational and team culture of both partners (client and vendor) within the outsourcing relationship. The proposed model is presented in *Figure 1*.

### **Insert Figure 1: Conceptual Model And Hypotheses**

In the next section, we discuss pertinent research focusing on organizational culture and team dynamics and develop hypotheses based on theoretical perspectives and empirical findings in management and information systems literature.

## **3. Theoretical Framework**

### **3.1 Organizational Culture**

Organizational culture comprises the beliefs, values, assumptions, and practices that are consistent through the organization (Deal & Kennedy, 1982). This sets the standards for how customers and employees are viewed and for how decisions are made in an organization.

Deshpande and Webster (1989: 4) define organizational culture as “the pattern of shared values and beliefs that help individuals understand organizational functioning and thus provide them with norms for behavior in the organization.” In an earlier study Schein (1985) also defined organizational culture in a similar manner, as the pattern of basic, valid assumptions that govern the way new members are taught to think, feel, and understand in the organization. These patterns and assumptions operate on multiple levels within the organization. The first level at which culture operates is the level of artifacts, or the visible manifestations of the organization (Davis, 1984; Ott, 1989). Whether it is the company's logo or other rites, stories or rituals, this is the first level that at which an employee begins to understand what it means to work for a specific company. The next level at which culture operates regards the organization's espoused values (Schein, 1985). These allow individuals to understand what the organization professes to believe. However, the deepest level of culture is the basic underlying assumptions (Schein, 1985). These are the deeply held beliefs, often unconscious, that guide the organization's actions.

Organizational culture also serves four basic functions for the organization. First, organizational culture provides members a sense of identity, increasing commitment to the organization and motivation (Louis, 1980). Second, culture helps employees make sense of organizational events (Ravasi & Schultz, 2006). Third, culture reinforces the values within an organization. Finally, it serves as a control mechanism to guide employee behavior (Ouchi, 1981).

Every organization has a unique culture that is formed by a set of norms commonly accepted by its members (Chatterjee, Lubatkin, Schweiger, & Weber, 1992; Louis 1980; Schein 1985). This unique organizational culture is attributed to many outcomes at both the organizational and employee level. At the organizational level, culture is one source of sustainable competitive advantage (Barney, 1986). For individual employees, organizational culture is thought to work through shaping beliefs about the organization and its goals, thus providing direction for behavior (Deshpande & Webster, 1989; Schein, 1985). A strong and supportive organizational culture has been found to be related to decreased role ambiguity, increased job satisfaction, organizational commitment (Barnes, Jackson, Hutt, & Kumar, 2006; Bridges, 2003). Through these behavioral norms and influences and increased commitment, organizational culture provides outcomes such as productivity, effectiveness, and organizational performance (Deal & Kennedy, 1982; Denison & Mishra, 1995; Deshpande & Webster, 1989; Ouchi, 1981). Balthazard, Cooke, and Potter (2006), using data from over 60,000 respondents, found that organizational culture was positively associated with product quality, commitment, adaptability, workplace quality and reduced turnover.

In the outsourcing literature, many studies have examined the impact of national culture, and a handful of studies have examined the impact of organizational culture, on project success (see Goles & Chin, 2005; Gregory et al., 2009; Gurung & Prater, 2006; Krishna et al., 2004; Pothukuchi, Damanpour, Choi, Chen, & Park, 2002; Rai et al., 2009 to name a few). Further, while many researchers have studied the fit between two organization's cultures either during a merger (Chatterjee et al., 1992) or the impact of competing cultures within a single organization (Gregory, 1983), there is a paucity of research into the impact of multiple cultures on a vendor employees in collocated IT team at a client site (Felton, 2005). And at the individual level, the vendor employee is being influenced by two separate organizational cultures. Our first set of hypotheses examines how these cultural influences impact individual performance.

Outsourced employees have familiarity with two organizational cultures, the culture of their parent, or employing, company, and the culture of the client company where they are currently located. Even though they are located at the client site, they are full time employees of the parent company. As such, they have a familiarity with the artifacts, espoused values and underlying assumptions of their parent concern that they may not have with their client's organizational culture. In addition, while the employee is at the client location, their loyalties are with, and their remuneration is received, from the parent. As such, we propose that the culture of the parent company will have the strongest impact on employee performance. Therefore, we offer the following hypotheses:

**Hypothesis 1: A positive organizational culture of the parent company will positively impact the performance of an employee located at a client site.**

**Hypothesis 2: A positive organizational culture of the client company will have little or no impact on the performance of the vendor employee located at the client site.**

### 3.2 Group Cohesion

While we propose that the vendor company's culture will have the strongest impact on vendor employee performance, we expect a different set of influences at the level of the working group. Espinosa, Slaughter, Kraut, and Herbsleb (2007) found, in a study of software development teams, that team familiarity enhances team performance, especially when tasks are challenging. Tompkins and Cheney (1985) developed the concept of 'concertive' control. Barker (1993) defines it as such: "This form represents a key shift in the locus of control from management to the workers themselves, who collaborate to develop the means of their own control". Indeed, Barker (1993: 411) found that employees in self managed teams at a small manufacturing company developed norms of behavior that were even stronger than the company's norms of behavior. Others have looked at control and its impact at the group level (Piccoli, Powell, & Ives, 2004). An important way in which this control is enacted and individuals are influenced by group members is through cohesion.

Cohesion represents the strength of the bonds between different members in a group (Forsyth, 1999). The cohesiveness in groups is attributed to improved outcome performance from the group (Evans & Dion, 1989). Group cohesion is also associated with improved levels of communication (Wech, Mossholder, Steel, & Bennett, 1998) and higher problem solving capabilities of group members (Rempel & Fisher, 1997). Higher levels of group cohesion are also associated with greater perceived psychological safety within the group and this in turn promotes increased trust (Albrecht & Hall, 1991). Lowe and Locke (2008) studied the impact of ERP implementation systems and concluded that even though the implementation strengthened the organization system, the employees tended to trust individual and local decisions more than the system. Hansen (1999) found that those who had strong social ties experienced greater cognitive ease in transferring knowledge.

Wong (2004) examined the differential impact of group learning based on whether the learning was facilitated by members of the immediate work group (local) or individuals outside the work group (distal). She found that cohesion significantly impacted local learning and by extension, one can conclude performance. The respondents in our study interact with teams both locally located at the client site and distally located at their employer's (vendor) site. We propose that vendor employees located in client teams that are highly cohesive will have higher performance. Conversely, we propose that even though the level of cohesion in their distally located parent firm may be high, it will not significantly impact their individual performance.

**Hypothesis 3: Higher levels of group cohesion at the client company will positively impact the performance of vendor employees located at client sites.**

**Hypothesis 4: Higher levels of group cohesion at the parent company will have no effect on the performance of vendor employees located at parent sites.**

## 4. Methodology

### 4.1 Data Collection

We tested our hypotheses by surveying IT employees who work at client locations and are employed by vendor companies. The Project Manager Networking Group on [www.linkedin.com](http://www.linkedin.com), with more than 100,000 members was used to reach the Information Technology (IT) project managers in a major metropolitan area in the US. IT project managers of different companies with offices in the metropolitan area were provided the link with a request to distribute the survey to the employees of offshore vendors working at their locations. All the responses were collected in a time frame of 25 days, thus eliminating the possibility of temporal differences in responses. A majority of the respondents completed the survey in about 7 minutes. Fifty-six responses were eliminated since these responses were completed in unusually short or long durations. Sixteen responses from personnel of the customer companies were eliminated. An additional nineteen responses from duplicate home IP addresses were eliminated. As a result of these checks, a total of 294 usable responses were used for analysis.

*Table 1* provides the characteristics of the respondents. About 71 % of the respondents were employed by companies that were based outside the US (example Infosys). The remaining 29 %, worked for companies that were headquartered in the US, but with operations based outside the US (example Cognizant). The average length of contractor experience with the customer company was 1.84 years and about 3 projects.

### Insert Table 1: Sample Characteristics

## 4.2 Measures

The scale items used for this research were adapted to the context under study from well-established measures. Adapting the existing scales to the context is widely deemed acceptable (see, for example: Mackenzie, Podsakoff, & Rich, 2001). Organizational culture was assessed using three items from Issac, Rajendran, and Anantharaman (2004). Group social cohesion was measured using three items from Zaccaro and Lowe (1988). Employee performance is measured using a three-item scale from Babin and Boles (1998). Seven-point Likert-type instruments were used for all scales where responses ranged from 'strongly disagree' to 'strongly agree.' The independent variables, organizational culture and social cohesion, were measured by asking respondents to answer the questions for both client and parent companies.

## 4.3 Measurement Model Results

The measurement model was analyzed by conducting confirmatory factor analysis (CFA) using LISREL 8.80. The resulting measurement model showed adequate fit, with a chi-square of 194.12 with 71 degrees of freedom ( $p < .00$ ), SRMR = .056, CFI = .96 and RMSEA = .077. All items exhibited high loadings on their predefined factors, showing convergent validity (Anderson & Gerbing, 1988). The resultant average variance extracted (AVE), ranging from 0.61 to 0.78, and CR values, ranging from 0.71 to 0.80, further support the threshold limits for convergent validity of the measurement model (Fornell & Larcker, 1981). The test for discriminant validity in the measurement model requires that all constructs are distinct and the items of each construct load exclusively on the underlying construct. According to the method suggested by Fornell and Larcker (1981), the scale constructs achieved discriminant validity in the final measurement model. All items, except one at 0.69, exceeded the threshold factor loading of 0.70 and did not cross load on multiple constructs. Finally, for each construct, discriminant validity exists if the square root of the AVE of a particular construct is greater than the correlation between that construct and all other constructs (Fornell & Larcker, 1981). All constructs passed this test as shown in *Table 2*.

### Insert Table 2: Discriminant Validity: AVE and Construct Correlations

With self-reported data and with all construct variables being measured through the same survey instrument; the potential for common method bias is a concern (Podsakoff, Mackenzie, Lee, & Podsakoff, 2003). To address this concern, the measures for the independent variables preceded those of the dependent variables in the survey (Salancik & Pfeffer, 1977). Further, post hoc analysis using Harmon's one-factor test was performed on the primary constructs (Podsakoff & Organ, 1986). The results from the test indicate that common method bias is not an issue as the un-rotated principal components factor analysis shows multiple factors with the largest explaining less than 36% of the variance.

## 4.4 Hypotheses Results

The proposed conceptual model was tested using multiple regression analysis through SPSS 19.0. Organizational culture and group social cohesion at the client and parent companies were entered together as independent variables with employee performance as the dependent variable. The results indicate that the overall model is significant with the four independent variables explaining 22.7% of the variance in employee performance. The standardized path coefficients of the individual relationships are provided in *Table 3*. The results indicate strong support for hypothesis 1 ( $\beta = 0.39$ ,  $t = 4.59$ ,  $p < 0.05$ ). This indicates that parent company's organizational culture has a significant positive effect on the performance of the employee at the client location. The insignificant result of the relationship between the client company's organizational culture and employee performance ( $\beta = -0.01$ ,  $t = -1.24$ ,  $p = 0.90$ ) provides support for hypothesis 2. Thus, it can be concluded that the organizational culture at the client company did not impact vendor employee performance at the client site.

### Insert Table 3: Hypotheses Results

The relationship between the client company's group cohesion and employee performance is significantly positive ( $\beta = 0.32$ ,  $t = 4.85$ ,  $p < 0.05$ ). This result provides support for hypothesis 3, which posits that group social cohesion at the client company location will positively impact vendor employee performance. The relationship between parent company's group cohesion and employee performance is found to be not significant ( $\beta = -0.11$ ,  $t = -1.42$ ,  $p = 0.16$ ). Thus hypothesis 4 is supported indicating the group cohesion at the parent company does not impact the employee vendor performance at the client site.

## 5. Conclusions and Implications

Most ISD work is now performed through coordination between globally distributed teams. Further, these teams are becoming more cross-cultural and cross-organizational leading to differences in attitudes, behaviors, and work practices. Past research has studied these impacts from an aggregate inter-organizational relationship level focusing on project success (Kim & Chung, 2003; Lacity & Rottman, 2009). Studies at the individual level have focused on how cross-organizational teams adapt and negotiate status differences and boundaries to complete the work (Gregory et al., 2009; Levina & Vaast, 2008; Metiu, 2006). This research provides empirical evidence for the importance of managing both cultural and team differences in IT outsourcing, as they influence worker performance in distinct ways.

In sum, our study examined both client and vendor organizational culture and investigated their differential impact at the individual level. Next, we investigated the impact of both client and vendor group cohesion and its influence on individual performance. These are important first steps in teasing apart the difficult and varied influences on the performance of employees collocated at client sites. We found, as predicted, that both parent and client companies impact employee performance. Parent company's organizational culture was significantly related to employee performance and the client company's group cohesion was also found to relate to employee performance. These findings provide important implications for future research and for practice. Past researchers have pointed to the importance of the performance on on-site vendor employees to IT project success. This study's look at the relational effects on performance has implications for vendor selection and training, management of collocated teams, and the role of client project managers. But, before we get to these implications it is important to highlight some limitations of our study.

This study was a cross-sectional field study with data collected at one point in time, so we cannot determine causality. However, it appears unlikely that employee performance would lead to a stronger vendor organizational culture or stronger client group cohesion. Also, as pointed out by past research (example Metiu, 2006) when employees work at a location for a long time, a greater appreciation of each other's work develops and cooperation increases. The mean tenure for our respondents with the client organization is 2.89 years, yet 80 % of the respondents have a tenure of less than 2 years at their client locations. As such, our data limits our ability to study the impact of the length of association with a client organization on performance. Future research should replicate our findings in a longitudinal setting as well as in a wider geographical area. This would allow investigators to examine causality as well as any impact of tenure with a client work group on the strength of these relationships.

Common method variance is always a concern with the use of self-report survey data. Yet, our results remained robust amidst our efforts to unearth method effects. Future research should gather independent reports of employee performance to strengthen the implications and generalization of our preliminary findings.

While our study is a first step toward understanding the many and wide-ranging impacts on employee performance for vendor employees, there are several important implications for IT outsourcing. The identification of the importance of parent (vendor) organizational culture on the on-site employee performance has implications for vendor selection and training of employees of all partners. The results from this study reinforce the importance of considering organizational culture in IT outsourcing (Lacity et al., 2008). Past research shows that common organizational culture traits leads to better relationship quality between partners, and as discussed earlier, better relationship quality leads to better project outcomes (Lee & Kim, 1999).

The results from our survey indicate one of the mechanisms through which shared values impact relationship quality and project outcomes – vendor employee performance. Since vendor employee performance is influenced by the parent organizational culture, the results highlight the importance of training project managers on the influence of organizational culture on behavior and outcomes. The results also suggest specific training about the organizational culture of the partners for all employees who participate in the project. Such training would help reduce misconceptions about vendor employees' abilities and behavior (example: Metiu, 2006) that lead to less than desirable project outcomes. As Haried and Ramamurthy (2009) show through the study of 6 matched cases of client and vendor projects using collocated teams; while cultural differences were observed, they were manageable through proper training. Our findings also have implications for project contract negotiation, and control.

As Levina and Vaast (2008) show, organizational boundaries can be managed through the creation of common / joint practices. Negotiated common practices at the contracting phase could then mitigate some of the effects of cultural differences. Designing project control systems that consider ways to encourage common values and norms through clan control could further reduce the impact of cultural differences.

The results from this study also point to the importance of team interactions between client and vendor employees. As Metiu (2006) shows, status differences between client and vendor employees could lead to the lack of effective interaction even when they are collocated. This study shows lack of effective team interaction leads to reduced levels of performance. But more importantly, such poor interaction or acceptance could lead to the loss of valuable knowledge and to less than satisfactory project outcomes. One way to ensure desired task outcomes would be designing effective controls in the project management and implementation phases. However, a more effective approach may be to find way to ensure and encourage greater team cohesion between employees of the partner organizations. Some degree of control and participation in the selection of vendor employees who will be members of collocated and distal teams could be negotiated in the contract phase. Such selection should be based on evaluation of the adaptability of the employees to different team cultures. Development of team cohesion would require attention be given to designing project tasks to encourage interaction and knowledge sharing between client and vendor employees. Also, an initial focus in building project teams should include training and exercises to help employees know and understand each others' cultures, attitudes, competencies, and limitations as well as build team spirit by identifying common purpose in the work to be done.

The ways to mitigate the effect of differences in organizational and team culture through vendor selection, training, design of project tasks and controls all point to the strategic focus needed when a firm seeks partners for IT outsourcing. They also point to the need to be cognizant of the changing role of project managers. In order to ensure success in IT outsourcing, it is essential that the management of IT projects go further than artifact development to more effective management of partner relationships, people, and teams. Project managers must be trained to take into consideration the impact of the cultural differences on project task outcomes. The results from this study show that investments in such training pay off in the near term through improved vendor employee performance and, most likely, pay off in the long-term through improved commitment between partners as a result of improved employee performance.

## **References**

- Albrecht, T.L. & Hall, B. (1991). Relational and Content Differences Between Elites and Outsiders in Innovation Networks. *Human Communication Research*, 17(4), 535-561.
- Anderson, J. C. & Gerbing, D. W. (1988). Structural equation modeling in practice: a review and recommended two-step approach. *Psychological Bulletin*, 103(3), 3-411.
- Ang S. (1994). Towards conceptual clarity of outsourcing. In B. C. Glasson, I. T. Hawryskiewyca, B. A. Underwood, & R. A. Weber (Eds.), *Proceedings of the IFIP TC8 Open Conference in Business Process Re-engineering* (pp. 131-141). North-Holland, Amsterdam.
- Babin J. B. & Boles, J. S. (1998). Employee behavior in a service environment: a model and test of potential differences between men and women. *Journal of Marketing*, 62(2), 77-91.
- Balthazard, P.A., Cooke, R. A., & Potter, R. E. (2006). Dysfunctional culture, dysfunctional organization; Capturing the behavioral norms that form organizational culture and drive performance. *Journal of Managerial Psychology*, 21(8), 709-732.
- Barker, J. R. (1993). Tightening the iron cage: Concertive control in self-managing teams. *Administrative Science Quarterly*, 38 3, pp. 408-437.
- Barnes, J. W., Jackson, D. W. JR, Hutt, M. D., & Kumar, A. (2006). The role of culture strength in shaping sales force outcomes. *The Journal of Personal Selling & Sales Management*, 26 3, pp. 255-270.
- Barney, Jay B. (1986). Organizational culture: can it be a source of sustained competitive advantage? . *The Academy of Management Review*, 11(3), 656-665.
- Bridges, B. (2003). Hong Kong and Japan: commerce, culture and contention. *The China Quarterly*, 17(6), 1052-1067.
- Carmel, E. & Agarwal, R. (2001). Tactical approaches for alleviating distance in global software development. *IEEE Software*, 18(2), 22-29.
- Chatterjee, S., Lubatkin, M., Schweiger, O., & Weber, Y. (1992). Cultural differences and shareholder value in related mergers: linking equity and human capital. *Strategic Management Journal*, 13(5), 319-334.

- Choudhury, V. & Sabherwal, R. (2003). Portfolios of control in outsourced software development projects. *Information Systems Research*, 14(3), 291-314.
- Davis, S. M. (1984). *Managing Corporate Culture*. Cambridge: Ballinger.
- Deal, T. E. & Kennedy, A. A. (1982). *Corporate cultures: the rites and rituals of corporate life*, Reading, MA: Addison-Wesley.
- Denison, D. R. & Mishra, A. K. (1995). Toward a theory of organizational culture and effectiveness. *Organization Science*, 6(2), 204-223.
- Deshpande, R & Webster F. E. JR (1989). Organizational culture and marketing: defining the research. *Journal of Marketing*, 53(1), 3-15.
- Edgell, J., Meister, G. E., & Stamp, N. (2008). Global sourcing trends in 2008. *Strategic Outsourcing: an International Journal*, 1(2), 173-180.
- Eluvangal, S. (2010, April 13). IT outsourcing by US to hit \$79 billion this year: Gartner predicts 5.7% growth in global IT services. *DNA: Daily News & Analysis*.
- Espinosa, J. A., Cummings, J. N., Wilson, J. M., & Pearce, B. M. (2003). "Team boundary issues across multiple global firms. *Journal of Management Information Systems*, 19(4), 157- 190.
- Espinosa, J. A., Slaughter, S. A., Kraut, R. E., & Herbsleb, J. D. (2007). Familiarity, complexity, and team performance in geographically distributed software development. *Organization Science*, 18(4), 613-633.
- Evans C. R. & Dion, K. L. (1989). Group cohesion and performance: A meta-analysis. *Small Group Research*, 22(2), 175-186.
- Felton, J. D. (2005). *Outsourcing Information Technology: How Culture and Attitude Affect Client-Vendor Relationships*. (Unpublished doctoral dissertation, Walden University, Minneapolis, MN).
- Fjermestad, J. & Saitta, J. A. (2005). A strategic framework for IT outsourcing: a review of the literature and the development of a success factor model. *Journal of Information Technology Case and Application Research*, 7(3), 42-60.
- Fornell, C. & Larcker, D. F. (1981). Structural equation models with unobservable variables and measurement error: algebra and statistics. *Journal of Marketing Research*, 18(3), 382-388.
- Forsyth, D.R. (1999). *Group Dynamics* (3<sup>rd</sup> ed.), Belmont, CA: Wadsworth Publishing Company.
- Gonzalez, R., Gasco, J., & Llopis, J. (2005). Information systems outsourcing success factors: a review and some results. *Information Management and Computer Security*, 13(5), 399-418.
- Gottschalk, P. & Solli-Saether, H. (2006). Maturity model for IT outsourcing relationships. *Industrial Management + Data Systems*, 106(1/2), 200-212.
- Gregory, K. L. (1983). Native-view paradigms: multiple cultures and culture conflicts in organizations. *Administrative Science Quarterly*, 28(3), 359-377.
- Gregory, R., Prifling, M., & Beck, B. (2009). The role of cultural intelligence for the emergence of negotiated culture in IT offshore outsourcing projects. *Information Technology & People*, 22(3), 223-241.
- Goles, T. & Chin, W. W. (2005). Information systems outsourcing relationship factors: detailed conceptualization and initial evidence. *Database for Advances in Information Systems*, 36(4), 47-67.
- Gurung, A. & Prater, E. (2006). A research framework for the impact of cultural differences on IT outsourcing. *Journal of Global Information Technology Management*, 9(1), 24-43.
- Hansen, M. T. (1999). The search-transfer problem: the role of weak ties in sharing knowledge across organization subunits. *Administrative Science Quarterly*, 44(1), 82-112.
- Hariad, P. & Ramamurthy, K. (2009) "Evaluating the success in international sourcing of information technology projects: the need for a relational client-vendor approach. *Project Management Journal*, 40(3), 56-71.
- Healey, M. (2010, April). How cloud computing changes IT outsourcing. *InformationWeek*. Retrieved from <http://www.informationweek.com>
- Issac, G., Rajendran, C., & Anantharaman, R.N. (2004). A holistic framework for TQM in the software industry: a confirmatory factor analysis approach. *The Quality Management Journal*, 11 (3), 35-60.
- Kim, S. & Chung, Y. (2003). Critical success factors for IS outsourcing implementation from an inter-organizational relationship perspective. *The Journal of Computer Information Systems*, 43(4), 81-90.
- Kirsch, L. J. (1997) "Portfolios of control modes and IS project management. *Information Systems Research*, 8(3), 215-239.
- Kirsch, L. J. Sambamurthy, V., Ko, D., & Purvis, R. L. (2002). Controlling information systems development projects: the view from the client. *Management Science*, 48(4), 484-498.
- Krishna, S., Sahay, S., & Walsham, G. (2004). Managing cross-cultural issues in global software outsourcing. *Association for Computing Machinery. Communications of the ACM*, 47(4), 62-66.

- Lacity, M. C., Willcocks, L. P., & Rottman J. W. (2008). Global outsourcing of back office services: lessons, trends, and enduring challenges. *Strategic Outsourcing: an International Journal*, 1(1), 13-34.
- Lacity, M. C. & Rottman, J. W. (2009). Effects of offshore outsourcing of information technology work on client project management. *Strategic Outsourcing: an International Journal*, 2(1), 4-26.
- Lacity M. C., Khan S., Yan A., & Willcocks L. (2010). A review of the IT outsourcing empirical literature and future research directions. *Journal of Information Technology Special Issue: 25th Anniversary Edition* [serial online], 25(4), 395-433.
- Laplante, P. A., Costello, T., Singh, P., Bindiganavile, S., & Landon, M. (2004). The who, what, why, where, and when of IT outsourcing. *IT Professional Magazine*, 6(1), 19-23.
- Lee, J. N. & Y. G. Kim. (1999). Effect of partnership quality on IS outsourcing: conceptual framework and empirical validation. *Journal of Management Information Systems*, 15(4), 29-61.
- Levina, N. & Vaast, E. (2008). Innovating or doing as told? Status differences and overlapping boundaries in offshore collaboration. *MIS Quarterly*, 32(2), 307-332.
- Lowe, A. & Locke, J. (2008). Enterprise resource planning and the post bureaucratic organization: 'formalization' as trust in the system versus 'solidarity' as trust in individuals. *Information Technology & People*, 21(4), 375-400.
- Louis, M. R. (1980). Surprise and sense making: What newcomers experience in entering unfamiliar organizational settings. *Administrative Science Quarterly*, 25(2), 209-264.
- Mackenzie, S. B., Podsakoff, P. M., & Rich, G. A. (2001). Transformational and transactional leadership and salesperson performance. *Academy of Marketing Science Journal*, 29(2), 115-134.
- Mattarelli, E. & Gupta, A. (2009). Offshore-on-site subgroup dynamics in globally distributed teams. *Information Technology & People*, 22(3), 242-269.
- Metiu, A. (2006). Owning the code: status closure in distributed groups. *Organization Science*, 17(4), 418-435,526.
- Oshri, I., Kotlarsky, J., Rottman, J.W., & Willcocks, L. L. (2009). Global sourcing: recent trends and issues. *Information Technology & People*, 22(3), 192-200.
- Ott, J. S. (1989). *The Organizational Culture Perspective*. Chicago: Dorsey.
- Ouchi, W. G. (1981). Organizational paradigms: a commentary on Japanese management and theory Z organizations. *Organizational Dynamics*, 9(4), 36-43.
- Piccoli, G., Powell, A., & Ives, B. (2004). Virtual teams: team control structure, work processes, and team effectiveness. *Information Technology & People*, 17(4), 359-379.
- Podsakoff, P. M. & Organ, D. (1986). Self-reports in organizational research: Problems and prospects. *Journal of Management*, 12(4), 531-544.
- Podsakoff, P. M., Mackenzie, S. B., Lee, J., & Podsakoff, N. P. (2003). Common method biases in behavioral research: A critical review of the literature and recommended remedies. *Journal of Applied Psychology*, 88(5), 879-903.
- Pothukuchi, V., Damanpour, F., Choi, J., Chen, C. C., & Park, S. H. (2002). National and organizational culture differences and international joint venture performance. *Journal of International Business Studies*, 33(2), 243-265.
- Rai, A., Maruping, L., & Venkatesh, V. (2009). Offshore information systems project success: the role of social embeddedness and cultural characteristics. *MIS Quarterly*, 33(3), 617-641, A1-A7.
- Ravasi, D. & Schultz, M. (2006). Responding to organizational identity threats: Exploring the role of organizational culture. *Academy of Management Journal*, 49(3), 433-458.
- Rempel, M. W. & Fisher, R. J. (1997). Perceived threat, cohesion, and group problem solving in intergroup conflict. *International Journal of Conflict Management*, 8(3), 216-235.
- Salancik, G. R. & Pfeffer, J. (1977). An examination of need satisfaction models of job attitudes. *Administrative Science Quarterly*, 22(3), 427-456.
- Saunders, C., Gebelt, M., & Hu, Q. (1997). Achieving success in information systems outsourcing. *California Management Review*, 39(2), 63-79.
- Schein, E. H. (1985). *Organizational Culture and Leadership*. San Francisco: Jossey-Bass.
- Scott, S.V. & Wagner, E.L. (2003). Networks, negotiations, and new times: the implementation of enterprise resource planning into an academic administration. *Information and Organization*, 13, 285-313.
- Seshasai, S. & Gupta, A. (2009). 24-hour knowledge factory paradigm and its role in it collaborations in organizations. *Journal of Information Technology Case and Application Research*, 11(4), 11-29.

Tompkins, P. K. & Cheney, G. (1985). Communication and unobtrusive control in contemporary organizations. In R. D. McPhee & P. K. Tompkins (Eds.), *Communication: Traditional Themes and New Directions* (pp. 179-210). Newbury Park, CA: Sage.

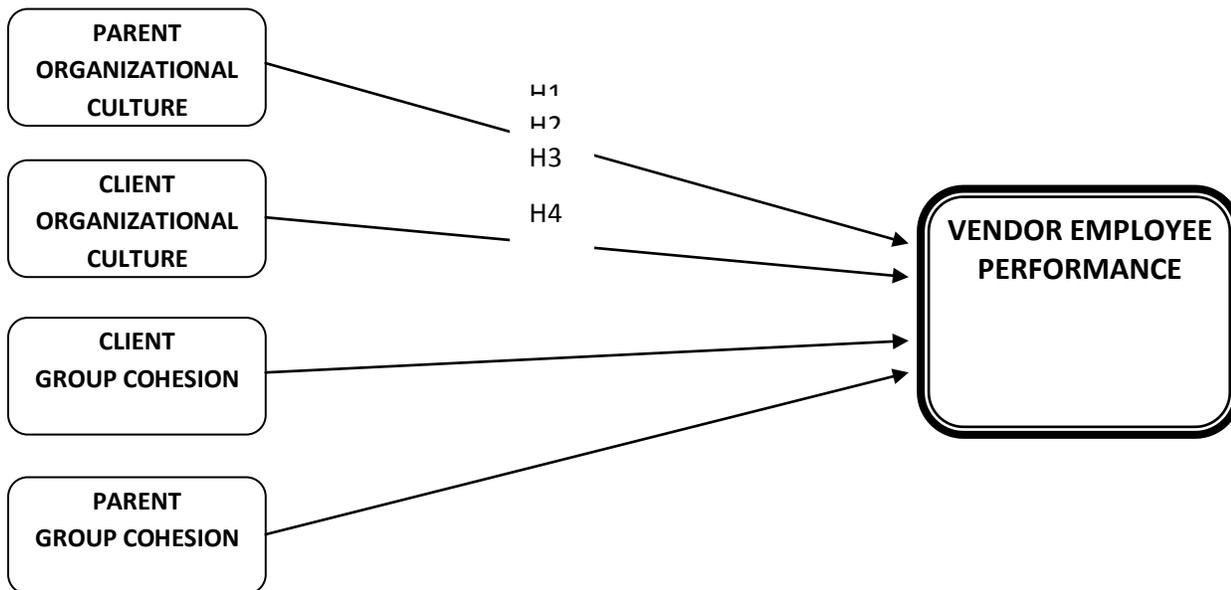
Vlaar, P., Fenema, P., & Tiwari, V. (2008). Cocreating understanding and value in distributed work: how members of onsite and offshore vendor teams give, make, demand, and break sense. *MIS Quarterly*, 32(2), 227-255.

Wech, B.A., Mossholder, K.W., Steel, R.P., & Bennett, N. (1998). Does work group cohesiveness affect individuals' performance and organizational commitment? *Small Group Research*, 29(4), 472-494.

Wong, S. S. (2004). Distal and local group learning: performance trade-offs and tensions. *Organization Science*, 15(6), 645-656.

Zaccaro, S. J. & Lowe, C. A. (1988). Cohesiveness and performance on an additive task; evidence for multidimensionality. *Journal of Social Psychology*, 128(4), 547-558.

**Figure 1: Conceptual Model and Hypotheses**



**Table 1: Sample Characteristics**

<ul style="list-style-type: none"> <li>• Sample size: 294</li> <li>• 71.4 % of respondent worked for companies based outside the US</li> <li>• 29 years is the average age of the respondents</li> <li>• 61.7 % have a graduate degree</li> <li>• 46.3 % have had education outside their country of birth</li> </ul>
<ul style="list-style-type: none"> <li>• Association with the client</li> </ul> <p><i>Tenure with the client company (Mean: 1.89 years)</i></p> <p>0.1 to 2 years                      80%</p> <p>More than 2 years                20%</p>
<ul style="list-style-type: none"> <li>• Association with the vendor</li> </ul> <p><i>Tenure with the vendor company (Mean: 3.13 years)</i></p> <p>0.1 to 3 years                      63.7%</p> <p>More than 3 years                36.3%</p>

**Table 2: Discriminant Validity: AVE and Construct Correlations**

	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
Organizational Culture_Parent (1)	<b>0.80</b>				
Organizational Culture_Client (2)	0.44	<b>0.81</b>			
Group Cohesion_Parent (3)	0.69	0.28	<b>0.88</b>		
Group Cohesion_Client (4)	0.15	0.55	0.09	<b>0.79</b>	
Employee Performance (5)	0.35	0.31	0.12	0.38	<b>0.78</b>

\*Square root (AVE) on the diagonal and construct correlations below the diagonal.

\*AVE: Average Variance Extracted

**Table 3: Hypotheses Results**

<b>HYPOTHESIS</b>	<b>t-value</b>	<b><math>\beta</math></b>	<b>p-value</b>	<b>Result</b>
H1 – Parent Organizational Culture → Vendor Employee Performance	4.59	0.39	<0.00	Supported
H2 – Client Organizational Culture → Vendor Employee Performance	-1.24	-0.01	=0.90	Supported
H3 – Client Group Social Cohesion → Vendor Employee Performance	4.85	0.32	<0.00	Supported
H4 – Parent Group Social Cohesion → Vendor Employee Performance	-1.42	-0.11	=0.16	Supported