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Review of the IS Offshoring Literature: The Role of Cross-Cultural Differences and Management Practices

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Abstract

There is a world-wide trend towards global cross-cultural networks of outsourcing relationships that are enabled by the extensive use of information- and communication technology (ICT). While ICT reduces national boundaries of global collaboration, cultural differences between outsourcers and vendor firms in offshore locations pose unique management challenges. This literature review analyzes the role of cultural differences between client and vendor companies and management practices in the information systems (IS) offshore outsourcing context. The analysis of the existing IS literature reveals limitations concerning prior conceptualizations of culture and cultural differences and provides ideas for future research on the effect of cultural differences as well as cultural, relationship, knowledge, and project management techniques. In particular, the existing literature can be grouped into formal and informal mechanisms as well as learning issues. Future research could adopt a more integrated and balanced perspective, taking into account formal and informal mechanisms and analyzing the interplay with learning issues.

Keywords: IS offshore outsourcing, cultural differences, management practices, literature review.

1 INTRODUCTION

Knowledge-intensive work, including information systems (IS) development, is becoming increasingly complex as organizational and national boundaries of international collaboration are disappearing (Friedman 2005). IS services are being disaggregated globally and delivered from multiple places around the world (Apte et al. 1995, Mithas et al. 2007). In this context, global IS service providers from low-cost countries such as India have built up competitive advantages (i.e., cheap and highly educated IT professionals with proficiency in English) and are continuously operating with so-called "global delivery models", providing IS-related services from different geographical sites simultaneously and at lower costs than established outsourcing providers (Oshri et al. 2007). IS offshore outsourcing providers, including TCS, Wipro, and Infosys, are now competing on a global scale with established companies such as IBM, EDS, and Accenture. While the provider landscape is changing rapidly, clients, predominantly from high-wage countries such as USA and Western Europe, continue to offshore outsource IS-related tasks with the main goal to reap the benefits from lower labor costs in offshore locations (Sahay et al. 2003).

IS offshore outsourcing has been defined as "inter-country outsourcing" or a form of outsourcing performed outside the client organization's home country (King et al. 2008). Also referred to as "global outsourcing", it can more precisely be defined as the migration of all or part of the development, maintenance and delivery of IS services to a vendor that is located in a country different from that of the client (Dibbern et al. 2004). A special form of offshore outsourcing is called "nearsourcing" or "nearshoring". It refers to global outsourcing from countries that are "closer" to the client's home country in terms of geographic, temporal, historical, political, cultural, and other types of client-vendor distance (Carmel et al. 2002). For example, typical nearshore destinations for Western European countries are Hungary, Bulgaria, and other Eastern European countries (Carmel et al. 2007).

At first sight, following this trend towards global multi-national and multi-cultural networks of outsourcing relationships that are enabled by the extensive use of information- and communication technologies, it seems as if the world is really becoming "flat" and boundaries are disappearing (Friedman 2005). However, numerous research results indicate that distance does still matter and that it poses unique challenges and risks to client offshore outsourcers (Balaji et al. 2006, Carmel, et al. 2007, Ranganathan et al. 2007). IS offshore outsourcing brings with it so-called "hidden" or "extra" costs that can offset the expected benefits (Dibbern et al. 2008). For example, IS offshore outsourcing projects bear some additional cultural risks – compared to domestic IS projects – which make them especially susceptible to failure (Rottman et al. 2004). Thus, the intercultural dimension adds severely to the complexity and risk and can "make or break an offshore project" (Gupta et al. 1999, Nicholson et al. 2001). Accordingly, one of the major drivers of "hidden" transaction costs in IS offshore outsourcing are cultural differences between client and vendor personnel. This article provides a state-of-the-art review of existing literature on the topic of cultural differences and management in IS offshore outsourcing as these are among the key research issues identified in a recent Delphi study (King, et al. 2008).

The remainder of this paper is structured as follows. In the next section, the effects of cultural differences on IS offshore outsourcing relationships are analyzed, followed by a section on management practices in this context. Thereby, techniques and mechanisms for the effective management of IS offshore outsourcing ventures are discussed. Finally, the article closes with suggestions for future research.

2 RESEARCH METHODOLOGY

For this state-of-the-art review article, a structured search and analysis of the existing literature on cultural issues and management practices in IS offshoring was carried out because these are among the top research issues (King, et al. 2008). Webster and Watson (2002), and Leidner and Kayworth (2006) served as general guidelines for conducting and writing a state-of-the-art literature review. Accordingly, in the first step, the following selection criteria were defined. Articles to be included in the analysis had to present an empirical analysis of cultural or management issues in IS offshoring, placing this theme at the core of the analysis. In addition, conceptual manuscripts presenting a theoretical model or perspective on cultural issues in cross-border relationships were included to broaden the author's understanding of the phenomenon at study. In the second step, the literature search was carried out and the relevant works were selected for the analysis. For the search of empirical articles on cultural issues on IS offshoring, each issue and volume of the leading IS journals was screened over a time period of 10 years (1999-2009). Samples of journals included are MIS Quarterly, Information Systems Research, Communications of the ACM, Journal of Management Information Systems, European Journal of Information Systems, Information and Organization, Journal of Information Technology, and Information Technology and People. For the selection of conceptual articles, additional search was conducted in leading journals of related fields, including Organization Science, Administrative Science Quarterly, and Academy of Management Review. To finalize the literature search, the bibliographies of the selected articles were screened for additional references. Furthermore, the social science citation index reference search database was used to find more recently published articles that cite important works. In the final step of this research, the selected articles for analysis were sorted according to key themes that were identified by reading the manuscripts carefully. The structured search and selection of relevant literature laid the basis for the subsequent analysis regarding the state-of-the-art of cultural issues and management practices in IS offshoring. Regarding management issues in IS offshoring, four themes emerged from the analysis of the collected articles that will be presented in this paper (cultural, knowledge, relationship, and project management).

3 CULTURAL DIFFERENCES IN IS OFFSHORE OUTSOURCING

3.1 The Concept of Culture and its Analysis in IS Offshore Outsourcing

One of the most frequently mentioned drivers of so-called "hidden costs" in IS offshore outsourcing are cultural differences between client and vendor (Ang et al. 2008, Dibbern, et al. 2008, Levina et al. 2008, Nicholson, et al. 2001). But what is "culture"? The concept of culture has been used to name many things, including religious beliefs, rituals, knowledge, moral values, the arts, rhetorical genres, and more (Kuper 1999). Because of its complexity and the difficulty to understand culture as a whole, it has been proposed to break up culture into its constituent parts and based on this analysis move forward with the notion of a particulate theory of culture (D'Andrade 1995, p. 247). On these grounds, culture can be conceptualized to have subjective and objective components. Subjective culture is defined as "an individual's characteristic way of perceiving the man-made part of one's environment and involves the perception of rules, norms, roles, and values" (Triandis 1972, p. 4). Objective culture, on the other hand, focuses on the legal, economic, political, religious, and educational systems (Leung et al. 2008). Concerning subjective culture, researchers have found that it plays a role at different levels, including societal, national, organizational, professional, group, and even individual identity level (Karahanna et al. 2005). But research on cultural issues in IS has focused primarily on cultural dimensions or variables at the national level of analysis (e.g., Couger 1986, Keil et al. 2000). There have also been attempts to take these cultural dimensions as a basis but measure them at the individual

level of analysis (Srite et al. 2006). However, these and other studies build upon the research conducted by Hofstede (1980), subsequently used and extended by other researchers (e.g., House et al. 2004, Kogut et al. 1988). Despite their popularity and widespread use in empirical IS research, these classifications and generalizations have been criticized for their oversimplification of the complexities involved in culture (Ford et al. 2003, Jack et al. 2008, Myers et al. 2002). Accordingly, these conceptualizations of culture are useful for capturing central tendencies and cultural differences at an abstract level. However, they do not take into account within-culture variations (Hong et al. 2001), do not acknowledge the dynamic nature of culture (Molinsky 2007, Walsham 2002), and do not focus on the individual level of analysis (Weisinger et al. 2003, Weisinger et al. 2002). Therefore, more recently IS researchers have taken new approaches to analyze cultural differences (e.g., Gregory et al. 2009).

3.2 New Approaches to Analyze Cultural Differences in IS Offshore Outsourcing

Recently, new ways of analyzing cultural differences have been developed. For example, one approach is to study culture from a social identity perspective, based on the assumption that people categorize themselves into different social groups that have a unique identity (e.g., professional group or family) and that shape individual behavior (Straub et al. 2002). Using a practice-theory lens (Bourdieu 1977), IS offshore outsourcing researchers have also made attempts to study social work practices directly to gain a better understanding of culture and its relationship with human behavior (e.g., Levina, et al. 2008). The reasoning for this analysis approach is that values, beliefs, knowledge, and rituals are conveyed by social practices which can be more readily observed and analyzed (Ortner 1984). The in-depth IS offshore outsourcing case study of Levina and Vaast (2008) shows that a practice-theory perspective on culture can be a viable alternative for culturalist theorizing in IS offshore outsourcing (Bauman 1973, Reckwitz 2005). Yet other researchers studying IS offshore outsourcing have used structuration theory (Giddens 1984) as a lens to conceptualize culture as "shared symbols, norms, and values in a social collectivity such as a country", including intra-cultural variety and change, implying that culture is a dynamic, rather than a static, concept (Walsham 2002, p. 361). By analyzing culture and cross-cultural conflict in global IT offshoring relationships, Walsham (2002) finds the possibility to negotiate culture over time through intense interaction and collaboration.

The above presented conceptualizations of cultural differences show certain similarities and trends. Particularly, they are in line with recent calls for alternative approaches to analyze culture no longer based on sets of values but rather in relation to action (Earley 2006). Accordingly, the conceptualizations emphasize reciprocal action as their key respective underlying concept, also for reflecting the dynamic and situational nature of culture. This is also consistent with recent suggestions from anthropologists to search for a new way of understanding culture by analyzing its relationship to action, or human practice (Kuper 1999, Ortner 1984). In summary, while we are still seeing studies in IS offshore outsourcing using a national-level and static conceptualization of culture (e.g., Dibbern, et al. 2008), IS researchers in this domain are continuously looking for new and innovative forms of conceptualizing and analyzing cultural differences, which can be a guide for future researchers (e.g., Levina, et al. 2008, Walsham 2002). In the following, we analyze the role of cultural differences in IS offshore outsourcing relationships.

3.3 The Role of Cultural Differences in IS Offshore Outsourcing Relationships

Cultural differences between client and vendor have effects on various dimensions of the IS offshore outsourcing relationship, including trust, conflict, communication, coordination, and cooperation (King, et al. 2008). In an in-depth case study, Nicholson and Sahay (2001) showed how sub-culture dynamics and conflicts eroded the relationship between client employees who had developed the original system, client management staff, and the Indian programmers. These findings are supported by a further case study of cross-cultural conflicts involving the offshore outsourcing of software

development work to India (Walsham 2002). Conflicts in this context evolve due to cultural differences. For example, Indians are said to prefer accommodation rather than conflict and focus on face-saving (Dibbern, et al. 2008, Nicholson, et al. 2001). This results in „yes" saying behavior and the tendency of Indians to avoid disagreement. However, the reason for this behavior is interpreted differently, leading to inconsistencies in the literature. Nicholson and Sahay (2001) deliver two possible reasons, one being the Indian caste system and the other being a strong willingness of Indian programmers to deliver results whatever the time and effort is required. Dibbern et al. (2008) on the other hand interpret this behavior mainly as a result of hierarchy issues and power distance in the Indian culture. This means that Indians are more willing to accept direction from superiors, as well as onshore staff and give importance to hierarchical authority (Dibbern, et al. 2008, Krishna et al. 2004, Levina, et al. 2008).

Besides the above mentioned differences in subjective culture that can create communication problems and conflicts, there are also differences in objective culture that have an effect on IS offshore outsourcing relationships, including economic differences between Western world client countries and offshore countries such as India and China (Levina, et al. 2008, Metiu 2006, Nakatsu et al. 2009). The study conducted by Levina and Vaast (2008) shows that differences in access to economic resources such as staff, salaries and money, and basic infrastructure, can create social boundaries and status differences, inhibiting collaboration effectiveness. Cultural differences not only have a direct effect on the client-vendor relationship by creating conflicts and hindering smooth collaboration, they also have a negative effect on the transfer of information and knowledge between client and vendor. For successful IS offshore outsourcing, clients need to transfer knowledge, including business, functional, and client-specific knowledge to the offshore vendor (Dibbern, et al. 2008). However, cultural differences hinder the effective transfer and sharing of knowledge. A lack of knowledge transfer and sharing has been found to be a major obstacle for successful IS offshore outsourcing (David et al. 2008, Dibbern, et al. 2008, Gupta, et al. 1999, Kliem 2004, Leonardi et al. 2008).

In summary, the literature shows that subjective and objective cultural differences between client and vendor have mostly a negative impact on IS offshore outsourcing relationships. However, prior research has not dealt with the interplay between different subjective and objective cultural elements, as well as non-cultural aspects (including geographic distance) and assessed the relative importance of each dimension.

4 MANAGEMENT PRACTICES FOR IS OFFSHORE OUTSOURCING

4.1   Cultural Management

Regarding the managing or negotiating of cultural differences, several studies provide empirical evidence that cross-cultural learning and adaptation from both client and vendor staff can lead to some form of "negotiated" culture in IS offshore outsourcing project teams (Brannen et al. 2000). Negotiated culture can be defined as the sum of compromises and innovations that are negotiated around those differences in behaviors and expectations that are problematic in a given cross-cultural setting (Brannen, et al. 2000, p. 478). This has also been referred to as "managed" culture (Krishna, et al. 2004) or "workplace culture" (David, et al. 2008) and the findings are consistent with further empirical studies on this issue (Nicholson et al. 2004, Walsham 2002). Accordingly, adaptation and learning can lead to improved cross-cultural understanding and help mitigate the risks of cultural differences. Further studies in this context talk about achieving common values and creating common understanding and support the above mentioned findings regarding the emergence of negotiated culture. Vlaar et al. (2008) talk about acts of sense-giving, sense-demanding, and sense-breaking to create "common ground" (i.e., a shared understanding) among client and vendor project members. The authors go even further with their analysis and suggest that additional value is co-created, leading to

superior performance of distributed workers. In a similar direction, Levina and Vaast (2008) report from their offshoring case study that status boundaries resulting from economic, socio-cultural, and other types of differences may be renegotiated and that common understanding is thereby created. Another IS study supporting this stream of research findings adopts a structuration theory perspective and suggests that culture is dynamic in nature and is constantly changed through processes of structuration and human agency (Walsham 2002). Accordingly, socio-cultural differences can be overcome through individuals that learn and engage in adaptation behaviors (or develop cultural intelligence), thereby shaping and changing the common cultural structures that surround and influence the involved project members' behavior. While prior research on this topic has produced interesting and mostly consistent results, there is a lack of studies at the individual level of analysis, including the learning and adaptation processes needed to develop some kind of "negotiated culture" (Weisinger, et al. 2003, Weisinger, et al. 2002).

Besides stimulating cross-cultural learning and adaptation (e.g., through cultural training workshops), managers can also use relational or trust-based mechanisms to facilitate communication, coordination, and cooperation in the client-vendor relationship. Cultural management mechanisms (e.g., cultural workshops) and relationship or project management mechanisms (e.g., joint meetings, boundary spanning) complement each other and must be given equal emphasis for the effective management of IS offshore outsourcing operations.

4.2 Relationship Management

There is an increasing body of knowledge on the effective management of IS offshore outsourcing relationships that goes beyond the direct management of cultural differences. For example, some studies report about the use of common systems, processes, and technology to achieve some stability and control in client-vendor work coordination, thereby mitigating the risks of failed knowledge transfer and communication due to cultural differences (Heeks et al. 2001, Imsland et al. 2005, Kotlarsky et al. 2008, Krishna, et al. 2004, Mao et al. 2008). Other studies report about the importance of managing expectations and trust, trying to avoid unrealistic expectations and communicating clearly requirements and obligations (Gupta, et al. 1999, Heeks, et al. 2001, Levina, et al. 2008, Mao, et al. 2008, Sabherwal 1999, Vlaar, et al. 2008). A more frequently mentioned issue is that of enabling communication by organizing regular face-to-face meetings and offshore site visits (Kotlarsky et al. 2005, Kotlarsky, et al. 2008, Rottman 2008). Thereby, offshore site visits can be seen as an active cultural training mechanism to develop cultural intelligence (Earley et al. 2003). On the other hand, it also stimulates the transfer of information and creates transparency for the effective control of offshore implementation activities. A key success factor in this context is the use of so-called boundary spanning capabilities. For example, Levina and Vaast (2008) find empirical evidence in their study that client program managers frequently acted as "straddlers" and helped renegotiate status boundaries between client onshore and vendor offshore staff. These "straddlers" have also been named "liason", "offshore middlemen", and "brokers" in the past literature, but the findings across these studies are consistent (Carmel et al. 2001, Gupta, et al. 1999, Heeks, et al. 2001, Kelly et al. 2007, Kotlarsky, et al. 2008, Krishna, et al. 2004, Levina, et al. 2008, Mahnke et al. 2008, Nicholson, et al. 2004, Rottman et al. 2004). Accordingly, these boundary spanners are key to successfully "building a bridge" between dispersed client and vendor project team members, helping to overcome the risks of client-vendor distance (cultural differences, geographic distance, etc.) and building up stable and long-term client-vendor relationships. A question that arises from this literature review is to what extent cultural management (e.g., developing cultural intelligence) and relationship management (e.g., boundary spanning) in the context of IS offshore outsourcing are similar or different from one another. Clearly, "bridging" the boundaries between client and vendor teams via communication techniques is similar to the notion of "renegotiating" status differences and overcoming cultural differences. On the other hand, boundary spanning goes beyond cross-cultural learning and adaptation and also includes bridging the boundaries that result from other types of client-vendor distance, including for example geographic distance.

4.3   Knowledge Management

As mentioned above, cultural differences can also pose challenges for information transfer and the effective sharing of knowledge between client and vendor. Several empirical studies in IS offshore outsourcing have analyzed knowledge transfer, sharing, and integration issues which play a crucial role for IS offshore outsourcing success. A recent study of a large automobile manufacturer pursuing an offshore sourcing strategy demonstrates how the joint use of "transformational technologies" such as computer-aided design (CAD), as well as the creation of joint work practices (e.g., monitoring progress, fixing returns) facilitates the knowledge transfer between onsite coordinators and offshore vendors (Leonardi, et al. 2008). However, most studies focus their analysis on the behavioral issues of knowledge transfer and ignore the technological artifact in their analysis. Nicholson and Sahay (2004) in this context discuss the role of "embedded knowledge" in IS offshore outsourcing and the implications for knowledge transfer. This kind of knowledge "resides in organizing principles, routines and standard operating procedures" and is non-migratory in nature (Nicholson, et al. 2004, p. 330). Their study further shows that non-migratory knowledge is embedded at three different levels – cognitive, organizational and societal – which poses additional challenges for knowledge transfer. However, the empirical material provides evidence for the possibilities of disembedding this knowledge and thereby facilitating the knowledge transfer. One important mechanism for the successful knowledge transfer in this context is the development of shared cultural understanding, demonstrating the close interrelatedness between the topic of facilitating knowledge sharing on the one hand and developing a "negotiated" culture or shared understanding on the other hand in the context of IS offshore outsourcing (Nicholson, et al. 2004).

4.4   Project Management

Turning our discussion to the use of project management techniques and mechanisms in IS offshore outsourcing projects, Dibbern et al. (2008) believe that there is already a lot of research out there on this topic (Carmel, et al. 2001, Gopal et al. 2003, Heeks, et al. 2001, Kliem 2004, Krishna, et al. 2004, Nicholson, et al. 2001). However, there are limitations. An empirical study in the Indian software industry finds that vendor firms bring in the critical project management skills that they acquire across various client relationships (Ethiraj et al. 2005). However, vendor firms often lack the necessary project management skills and client firms need to engage more intensively in this issue to mitigate the risks of IS offshore outsourcing. Recent research results indicate that IS offshore outsourcing projects can be best managed by client firms through a combination of cultural and project management techniques, both formal and informal (Beck et al. 2008). Further research by Rottman and others show an extensive list of possible offshore project management techniques that can mitigate the risks, including the use of pilot projects before implementation, leveraging of proprietary CMMI certification to close the process gap with the vendor, stimulation of frequent face-to-face contact between client and vendor personnel, and others (Rottman 2006, Rottman, et al. 2004, Rottman et al. 2008). However, we lack a theory of IS project management in the context of IS offshore outsourcing (King, et al. 2008).

In summary, whereas the majority of prior research has analyzed cultural, relationship, knowledge, or project management issues separately from one another, there is a lack of research adopting a more integrated perspective. The identified studies can be broadly categorized into three groups. The first group deals with formal management approaches. For example, the literature on project management in the context of IS offshore outsourcing has dealt mainly with formal techniques and mechanisms such as controlling the quality of deliverables and extensive testing of software deliverables. On the other hand, informal management approaches and mechanisms are dealt with extensively in the second group, including for example many studies that deal with relationship management issues. However, there are few studies taking a balanced and integrated perspective and studying the interplay between formal project risk management on the one hand and informal relationship, cultural, and knowledge management on the other hand. Finally, the third group deals with issues that are closely related to

learning. This includes cross-cultural learning and adaptation and learning about business, functional, and client-specific knowledge. Hence, what we can learn from this literature review is that the management studies related to cultural, knowledge, relationship, and project management can be categorized into formal and informal management approaches, complemented by issues of learning (about cultural issues as well as business, functional, and client-specific knowledge). The implication for future research is that IS offshoring researchers analyzing management and governance issues should include learning issues into their analysis besides considering formal and informal management issues. Studies adopting a longitudinal research design may be of particular value in this context as they can analyze learning over time in an IS offshoring project or relationship and what interrelationships occur with formal and informal management techniques.

5   SUMMARY AND OUTLOOK

This article presented an overview over the existing literature on IS offshore outsourcing, with a particular emphasis on cultural differences as well as management practices to overcome the challenges involved in IS offshore outsourcing ventures. Concerning the effect of cultural differences, previous research in IS offshore outsourcing has mainly focused on subjective cultural differences at the national level of analysis. As this analysis shows, objective culture also plays an important role and should be included in future research. Besides differentiating between subjective and objective culture, IS researchers should also analyze cultural differences at different levels of analysis. Prior research has shown that culture is a dynamic concept that expresses itself at various levels, including the individual level. Therefore, using identity theory (Stryker et al. 2000) or social identity theory (Tajfel et al. 1985) seems to be an opportunity for future cross-cultural research in IS offshore outsourcing. Another promising approach is to build upon the research conducted by Walsham (2002), who adopts a structuration theory perspective (Giddens 1984), or Levina (2008), who is among the first researchers in IS offshore outsourcing to adopt a practice theory perspectice (Bourdieu 1977). All of these approaches and potentially others are useful for advancing with our understanding of cultural issues in IS offshore outsourcing.

Regarding effective management practices, this literature review reveals an interesting finding. The overwhelming part of exploratory studies has shown the importance of informal, cultural, or trust-based management mechanisms as opposed to formal mechanisms for the management of IS offshore outsourcing relationships. Prior research on domestic IS outsourcing has shown the importance of formal mechanisms and economic theories, including agency and transaction cost theory, have provided useful insights for the effective management of IS outsourcing relationships (Dibbern, et al. 2004). While formal and contractual mechanisms continue to play an important role for managing IS offshore outsourcing relationships, because they lay the structural basis for a trust-based working relationship to develop, this review has shown the particular importance of informal mechanisms in the offshore context. The reason might be the increased socio-cultural complexity that is involved in offshore as opposed to domestic outsourcing. The implication for future research is that traditional economic theories, such as transaction costs theory (Williamson 1985, Williamson 1975), might not deliver the insights that we need to fully understand IS offshore outsourcing. Therefore, future research could use sociological theories such as the social embeddedness perspective (Granovetter 1985, Uzzi 1997) to advance with our understanding concerning the informal, relational, cultural, or trust-based management mechanisms needed in the IS offshore outsourcing context.

In addition to enhancing the analysis of cross-cultural issues as well as adopting sociological as opposed to economic theoretical perspectives in IS offshore outsourcing, future researchers should take into account the importance of learning processes when studying formal and informal management techniques, including the development of cross-cultural understanding as well as building up the necessary business, functional, and client-specific knowledge. Regarding the management literature in IS offshore outsourcing, the studies can be mainly grouped into formal, informal, and

learning factors. However, the group of studies dealing with learning issues has been by and large kept separate from the studies that focus on formal or informal management techniques. Future researchers could adopt a more integrated and balanced perspective and analyze the interplay between formal and informal management approaches and learning processes. There is clear evidence from this literature review that learning plays a vital role for successfully managing IS offshore outsourcing ventures and this has to be considered when designing a balanced mix of formal and informal management techniques.

References

Ang, S. and Inkpen, A. C. (2008). Cultural Intelligence and Offshore Outsourcing Success: A Framework of Firm-Level Intercultural Capability. Decision Sciences, 39(3), 337-358.

Apte, U. M. and Mason, R. O. (1995). Global Disaggregation of Information-Intensive Services. Management Science, 41(7), 1250-1262.

Balaji, S. and Ranganathan, C. (2006). Exploring the Key Capabilities for Offshore IS Sourcing. Proceedings of the 27th International Conference on Information Systems.

Bauman, Z. (1973). Culture as Praxis. Routledge and Kegan Paul, London.

Beck, R., Gregory, R. and Prifling, M. (2008). Cultural Intelligence and Project Management Interplay in IT Offshore Outsourcing Projects. Proceedings of the 29th International Conference on Information Systems.

Bourdieu, P. (1977). Outline of a Theory of Practice. Cambridge University Press, Cambridge.

Brannen, M. Y. and Salk, J. (2000). Partnering across borders: Negotiating organizational culture in a German-Japanese joint venture. Human Relations, 53(4), 451-487.

Carmel, E. and Abbott, P. (2007). Why 'Nearshore' Means That Distance Matters. Communications of the ACM, 50(10), 40-46.

Carmel, E. and Agarwal, R. (2002). The Maturation of Offshore Sourcing of Information Technology Work. MIS Quarterly Executive, 1(2), 65-78.

Carmel, E. and Agarwal, R. (2001). Tactical Approaches for Alleviating Distance in Global Software Development. IEEE Software, 18(2), 22-29.

Couger, J. D. (1986). Effect of Cultural Differences on Motivation of Analysts and Programmers: Singapore vs. the United States. MIS Quarterly, 10(2), 189-196.

D'Andrade, R. (1995). The Development of Cognitive Anthropology. Cambridge University Press, Cambridge.

David, C. G., Chand, D., Newell, S. and Resende-Santos, J. (2008). Integrated Collaboration Across Distributed Sites: The Perils of Process and the Promise of Practice. Journal of Information Technology, 23(1), 44-54.

Dibbern, J., Goles, T., Hirschheim, R. and Jayatilaka, B. (2004). Information Systems Outsourcing: A Survey and Analysis of the Literature. The DATA BASE for Advances in Information Systems, 35(4), 6-102.

Dibbern, J., Winkler, J. and Heinzl, A. (2008). Explaining Variations in Client Extra Costs Between Software Projects Offshored to India. MIS Quarterly, 32(2), 333-366.

Earley, C. P. (2006). Leading Cultural Research in the Future: A Matter of Paradigms and Taste. Journal of International Business Studies, 37(6), 922-931.

Earley, C. P. and Ang, S. (2003). Cultural Intelligence - Individual Interactions Across Cultures. Stanford University Press, Stanford, UK.

Ethiraj, S. K., Kale, P., Krishnan, M. S. and Singh, J. V. (2005). Where Do Capabilities Come From and How Do They Matter? A Study in the Software Services Industry. Strategic Management Journal, 26(1), 25-45.

Ford, D. P., Connelly, C. E. and Meister, D. B. (2003). Information Systems Research and Hofstede's Culture's Consequences: An Uneasy and Incomplete Partnership. IEEE Transactions on Engineering Management, 50(1), 8-25.

Friedman, T. L. (2005). The World is Flat: A Brief History of the Twenty-first Century. Farrar, Straus and Giroux, New York, USA.

Giddens, A. (1984). The Constitution of Society : Outline of the Theory of Structuration. University of California Press, Berkeley.

Gopal, A., Sivaramakrishnan, K., Krishnan, M. S. and Mukhopadhyay, T. (2003). Contracts in Offshore Software Development: An Empirical Analysis. Management Science, 49(12), 1671-1683.

Granovetter, M. (1985). Economic Action and Social Structure: The Problem of Embeddedness. The American Journal of Sociology, 91(3), 481-510.

Gregory, R., Prifling, M. and Beck, R. (2009). The Role of Cultural Intelligence for the Emergence of Negotiated Culture in IT Offshore Outsourcing Projects. Information Technology and People, 22(3), 223 - 241.

Gupta, U. and Raval, V. (1999). Critical Success Factors for Anchoring Offshore Projects. Information Strategy, 15(2), 21-27.

Heeks, R., Krishna, S., Nicholson, B. and Sahay, S. (2001). Synching or Sinking: Global Software Outsourcing Relationships. IEEE Software, 18(2), 54-60.

Hofstede, G. (1980). Culture's Consequences. Sage, Beverly Hills, CA.

Hong, Y.-y. and Chiu, C.-y. (2001). Toward a Paradigm Shift: From Cross-Cultural Differences in Social Cognition to Social-Cognitive Mediation of Cultural Differences. Social Cognition, 19(3), 181-196.

House, R., Hanges, P., Javidan, M., Dorfman, O. and Gupta, V. (2004). Culture, Leadership, and Organizations. Sage Publications, Thousand Oaks, USA.

Imsland, V. and Sahay, S. (2005). 'Negotiating Knowledge': The Case of a Russian-Norwegian Software Outsourcing Project. Scandinavian Journal of Information Systems, 17(1), 101-130.

Jack, G. A., Calás, M. B., Nkomo, S. M. and Peltonen, T. (2008). Critique and International Management: An Uneasy Relationship? Academy of Management Review, 33(4), 870-884.

Karahanna, E., Evaristo, J. R. and Srite, M. (2005). Levels of culture and individual behavior: An integrative perspective. Journal of Global Information Management, 13(2), 1-20.

Keil, M., Tan, B. C. Y., Wei, K. K., Saarinen, T., Tuunainen, V. K. and Wassenaar, A. (2000). A Cross-Cultural Study on Escalation of Commitment Behavior in Software Projects. MIS Quarterly, 24(2), 299-325.

Kelly, S., Noonan, C. and Sé, M. Ó. (2007). Producing Comfort: Risk, Anxiety and Trust in the Development of an IS Offshoring Relationship. Proceedings of the 28th International Conference on Information Systems, 1-19.

King, W. R. and Torkzadeh, G. (2008). Information Systems Offshoring: Research Status and Issues. MIS Quarterly, 32(2), 205-225.

Kliem, R. (2004). Managing the Risks of Offshore IT Development Projects. Information Systems Management, 21(3), 22-27.

Kogut, B. and Singh, H. (1988). The Effect of National Culture on the Choice of Entry Mode. Journal of International Business Studies, 19(3), 411-432.

Kotlarsky, J. and Oshri, I. (2005). Social ties, knowledge sharing and successful collaboration in globally distributed system development projects. European Journal of Information Systems, 14(1), 37-48.

Kotlarsky, J., van Fenema, P. C. and Willcocks, L. P. (2008). Developing a knowledge-based perspective on coordination: The case of global software projects. Information & Management, 45(2), 96-108.

Krishna, S., Sahay, S. and Walsham, G. (2004). Managing Cross-Cultural Issues in Global Software Outsourcing. Communications of the ACM, 47(4), 62-66.

Kuper, A. (1999). Culture: The Anthropologists' Account. Harvard University Press, Cambridge.

Leidner, D. E. and Kayworth, T. (2006). Review: A Review of Culture in Information Systems Research: Toward a Theory of Information Technology Culture Conflict. MIS Quarterly, 30(2), 357-399.

Leonardi, P. M. and Bailey, D. E. (2008). Transformational Technologies and the Creation of New Work Practices: Making Implicit Knowledge Explicit in Task-Based Offshoring. MIS Quarterly, 32(2), 411-436.

Leung, K. and Ang, S. (2008). Culture, organizations and institutions: An integrative review. Cambridge University Press, New York.

Levina, N. and Vaast, E. (2008). Innovating or Doing as Told? Status Differences and Overlapping Boundaries in Offshore Collaboration MIS Quarterly, 32(2), 307-332.

Mahnke, V., Wareham, J. and Bjorn-Andersen, N. (2008). Offshore Middlemen: Transnational Intermediation in Technology Sourcing. Journal of Information Technology, 23(1), 18-30.

Mao, J.-Y., Lee, J.-N. and Deng, C.-P. (2008). Vendors' Perspectives on Trust and Control in Offshore Information Systems Outsourcing. Information & Management, 45(7), 482-492.

Metiu, A. (2006). Owning the Code: Status Closure in Distributed Groups. Organization Science, 17(4), 418-435.

Mithas, S. and Whitaker, J. (2007). Is the World Flat or Spiky? Information Intensity, Skills, and Global Service Disaggregation. Information Systems Research, 18(3), 237-259.

Molinsky, A. (2007). Cross-Cultural Code Switching: The Psychological Challenges of Adapting Behavior in Foreign Cultural Interactions. Academy of Management Review, 32(2), 622-640.

Myers, M. D. and Tan, F. B. (2002). Beyond Models of National Culture in Information Systems Research. Journal of Global Information Management, 10(2).

Nakatsu, R. T. and Iacovou, C. L. (2009). A Comparative Study of Important Risk Factors Involved in Offshore and Domestic Outsourcing of Software Development Projects: A Two-Panel Delphi Study. Information & Management, 46(1), 57-68.

Nicholson, B. and Sahay, S. (2004). Embedded Knowledge and Offshore Software Development. Information and Organization, 14(4), 329-365.

Nicholson, B. and Sahay, S. (2001). Some Political and Cultural Issues in the Globalisation of Software Development: Case Experience from Britain and India. Information and Organization, 11(1), 25-43.

Ortner, S. B. (1984). Theory in Anthropology since the Sixties. Comparative Studies in Society and History, 26(1), 126-166.

Oshri, I., Kotlarsky, J. and Willcocks, L. (2007). Managing Dispersed Expertise in IT Offshore Outsourcing: Lessons from Tata Consultancy Services. MIS Quarterly Executive, 6(2), 53-65.

Ranganathan, C. and Balaji, S. (2007). Critical Capabilities for Offshore Outsourcing of Information Systems. MIS Quarterly Executive, 6(3), 147-164.

Reckwitz, A. (2005). Toward a Theory of Social Practices: A Development in Culturalist Theorizing. European Journal of Social Theory, 5(2), 245-265.

Rottman, J. (2008). Successful Knowledge Transfer within Offshore Supplier Networks: A Case Study Exploring Social Capital in Strategic Alliances. Journal of Information Technology, 23(1), 31-43.

Rottman, J. (2006). Successfully Outsourcing Embedded Software Development. IEEE Software, 39(1), 55-61.

Rottman, J. and Lacity, M. (2004). Twenty Practices for Offshore Outsourcing. MIS Quarterly Executive, 3(3), 117-130.

Rottman, J. and Lacity, M. (2008). A US Client's Learning from Outsourcing IT Work Offshore. Information Systems Frontiers, 10(2), 259-275.

Rottman, J. and Lacity, M. C. (2004). Twenty practices for offshore outsourcing. MIS Quarterly Executive, 3(3), 117-130.

Sabherwal, R. (1999). The Role of Trust in Outsourced IS Development Projects. Communications of the ACM, 42(2), 80-86.

Sahay, S., Nicholson, B. and Krishna, S. (2003). Global IT Outsourcing: Software Development across Borders. Cambridge University Press, Cambridge, UK.

Srite, M. and Karahanna, E. (2006). The Role of Espoused National Cultural in Technology Acceptance. MIS Quarterly, 30(3), 679-704.

Straub, D., Loch, K., Evaristo, R., Karahanna, E. and Srite, M. (2002). Toward a Theory-based Measurement of Culture. Journal of Global Information Management, 10(1), 13-23.

Stryker, S. and Burke, P. (2000). The Past, Present, and Future of an Identity Theory. Social Psychology Quarterly, 63(4), 284-297.

Tajfel, H. and Turner, J. (1985). The Social Identity Theory of Intergroup Behavior. Nelson Hall, Chicago.

Triandis, H. C. (1972). The analysis of subjective culture. John Wiley, New York.

Uzzi, B. (1997). Social Structure and Competition in Interfirm Networks: The Paradox of Embeddedness. Administrative Science Quarterley, 42(1), 35-67.

Vlaar, P. W. L., van Fenema, P. C. and 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.

Walsham, G. (2002). Cross-Cultural Software Production and Use: A Structurational Analysis. MIS Quarterly, 26(4), 359-380.

Webster, J. and Watson, R. T. (2002). Analyzing the Past to Prepare for the Future: Writing A Literature Review. MIS Quarterly, 26(2), xiii-xxiii.

Weisinger, J. Y. and Trauth, E. M. (2003). The Importance of Situating Culture in Cross-Cultural IT Management. IEEE Transactions on Engineering Management, 50(1), 26-30.

Weisinger, J. Y. and Trauth, E. M. (2002). Situating Culture in the Global Information Sector. Information Technology & People, 15(4), 306-320.

Williamson, O. E. (1985). The Economic Institutions of Capitalism: Firms, Markets, and Relational Contracting. Free Press, New York.

Williamson, O. E. (1975). Markets and Hierarchies: Analysis and Anti-Trust Implications. Free Press, New York.