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# The Role of Cultural Differences and Cultural Intelligence in Controlling IS Offshoring Projects: A Theoretical Model

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## ABSTRACT

Cultural differences between outsourcers and vendor firms in offshore locations pose unique management challenges. One of these challenges is to find a control strategy that fits the cultural setting. However, most of the previous research has analyzed cultural and control issues separately from one another. The objective of this paper is to bring together these two distinct research streams. The result is a conceptual model describing the relationships between cultural differences and the choice of different control modes in IS offshoring projects. Propositions are derived from organizational control and national culture theory. In particular, we introduce the concept of cultural intelligence as moderating the relationship between cultural differences and the choice of control. The resulting conceptual model developed in this paper makes important theoretical contributions to IS offshoring and serves as a basis for future empirical research.

## Keywords

IS offshoring, control theory, managerial control, cultural dimensions, cultural differences, cultural intelligence.

## INTRODUCTION

IS offshoring (ISO)—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, Goles, Hirschheim and Jayatilaka, 2004)—continues to be an important trend in the near future (King and Torkzadeh, 2008). ISO promises manifold benefits, such as cost reduction, access to highly skilled professionals, and time-to-market reduction (e.g., Rao, Poole, Raven and Lockwood, 2006). However, ISO brings with it many risks that can compromise the expected benefits (Dibbern, Winkler and Heinzl, 2008). One of the major risk factors in ISO are cultural differences between client and vendor personnel (Dibbern et al., 2008) – cultural differences can even “make or break an offshore project” (Gupta and Raval, 1999).

Thus, in order to be successful, ISO projects require that client and vendor effectively collaborate across cultural boundaries (Nicholson and Sahay, 2004). One powerful approach for effectively managing client-vendor relationships in ISO projects is exercising control (Sabherwal and Choudhury, 2006). Here, the client’s control over the vendor is a particularly important instrument to ensure project success (Choudhury and Sabherwal, 2003). However, the use of control is complicated by differences in national culture which impact the behavior and coordination of vendor employees as well as the cooperation and communication with them (Winkler, Dibbern and Heinzl, 2008). Thus, for ISO project managers it is crucial to build up high levels of cultural intelligence to better understand differences in cultural values, which in turn help selecting and executing suitable modes of control (Beck et al. 2008).

Many studies in the extant literature acknowledge the importance of cultural differences in ISO (e.g., Krishna, Sahay and Walsham, 2004; Nicholson and Sahay, 2001). In addition, because ISO “entails complex issues of geographical, cultural, and lingual differences” (Rustagi et al. 2008, p.139) there is further need for research on control in ISO. Answering this call from Rustagi et al. there is a growing body of literature focusing on control issues in the context of outsourcing and offshoring in recent years (e.g. Gopal and Gosain, 2009, Tiwana and Keil, 2010, Tiwana, 2010). However, due to the fact that the majority

of prior research has analyzed cultural and project management (control) issues separately from one another (Gregory, 2010) there is still a large gap in bringing these two issues together and investigating how cultural differences influence the choice of control in ISO projects. This is even more surprising as in a recent Delphi study “cultural differences and control practices in ISO” has been identified among the top research issues (King and Torkzadeh, 2008). In an effort to fill this gap, we (1) conduct a state-of-the-art literature review on control and culture, and (2) develop an integrated model which interlinks the findings from the literature analysis.

## **THEORETICAL BACKGROUND**

### **National Cultural Differences**

According to Schein (1985), basic assumptions are at the core of culture and represent the belief systems that individuals have toward human behavior, relationships, reality, and truth. Values reflect the underlying cultural assumptions and, thus, represent a manifestation of culture. Since values are more easily studied than basic assumptions (Schein, 1985), the majority of scholars conceptualize culture in terms of reference group value orientations (Jackson, 1995), such as value dimensions of national culture (e.g., Hofstede, 1980). Such cultural dimensions were found to be useful in modeling culture-related issues in globally distributed projects (Carmel, 1999). Accordingly, research on cultural issues in IS has focused primarily on value dimensions or variables at the national level of analysis (Keil, Tan, Wei, Saarinen, Tuunainen and Wassenaar, 2000). To be consistent with this predominant approach to studying culture in IS we adopt a value-based approach, as well. This strategy will enable us to use this rich foundation of culture theory as a framework for our subsequent analysis of the literature.

Based on this values approach, cultural differences refer to the extent to which the members of two distinct groups differ on one or more cultural dimensions, i.e., their shared values, norms, beliefs and assumptions that help them organize and structure the world (Roberts and Wasti, 2002). These shared norms and values serve as generally accepted patterns of behavior and thus influence the behavior of the members of a social group (Murdock, 1940). Accordingly, culturally affected behavioral differences may be observed when members of two distinct cultural groups (such as client and vendor personnel from different countries) work together, as is the case in ISO (Dibbern et al., 2008).

### **Cultural Intelligence**

Research on cross-cultural interaction at the individual level highlights the importance of learning how to cope with cultural differences and adapting to new cultural settings (Raghuram, 2006). Individuals with high cultural intelligence, i.e., a person’s capability to be effective across cultural settings (Kok-Yee and Earley, 2006), are able to determine the culture-specific elements of behavior and adapt themselves to this behavior (Earley and Mosakowski, 2004). Findings from studies in this context (e.g., Krishna et al., 2004; Nicholson and Sahay, 2004) suggest that developing cultural intelligence through cross-cultural adaption and learning helps to mitigate the risks of cultural differences, and even leads to superior performance of the project members (Vlaar, van Fenema and Tiwari, 2008).

### **Managerial Control**

According to Jaworski (1988) and Ouchi (1979), control refers to any attempt to motivate individuals to behave in a manner consistent with organizational objectives. This view of control is rooted in organization and agency theories, and implies that the controller is taking some action in order to regulate or adjust the behavior of the controllee (Kirsch, 1996). Accordingly, a control situation typically involves an individual exercising control (controller) and a target of control (controllee) (Kirsch, 2004).

Organizational control theory posits that four main modes of control may be used in managing economic activity—behavior, outcome, clan, and self-control (Ouchi, 1979; Eisenhardt, 1985). Behavior and outcome control are classified as formal control modes (Eisenhardt, 1985; Ouchi, 1979). In behavior control, the controller seeks to influence the process to achieve the desired outputs by explicitly prescribing specific rules and procedures, monitoring their implementation, and rewarding the controllee based on the extent to which the implementation complies with them (Kirsch, 1996). In outcome control, only the outputs (both interim and final) are measured and evaluated. Here, the controller specifies the parameters of the desired outcome and rewards the controllee based on the observed outcome (Eisenhardt, 1985; Kirsch, 1997). Clan and self-control are classified as informal control modes. Clan control refers to mechanisms that minimize the differences in objectives (Eisenhardt, 1985) by “promulgating common values, beliefs, and philosophy within [...] a group of individuals” (Kirsch, 1997, p. 217). Self-control is a function of intrinsic motivation (Manz, Mossholder and Luthans, 1987) as well as individual standards and objectives (Jaworski, 1988).

Controllers often use the four control modes in combination, creating a portfolio of control (Kirsch, 1997). Within a portfolio, each control mode can itself be implemented through multiple control mechanisms (Kirsch, 1997). The choice of controls is influenced by different factors in the project, stakeholder, and global contexts (Kirsch, 1997, 2004). Factors related to the global context include priority differences among stakeholders from different countries, as well as geographic, time zone, and cultural differences.

## RESEARCH METHODOLOGY

The relationship between cultural differences and the choice of control is still not well understood (Kirsch, 2004). In order to gain a better understanding of this relationship, we conducted a structured search and analysis of the extant literature on cultural issues and control in ISO. Leidner and Kayworth (2006), and Webster and Watson (2002) served as general guidelines for conducting a state-of-the-art literature review. In a first step, we solely selected empirical studies where cultural or control issues in ISO were significant themes. This strategy was adopted in order to avoid having an unmanageable sample of articles with limited value. In the second step, the literature search was carried out and the relevant works were selected for the analysis. For the search of relevant articles, we focused on the top international IS journals based on the “senior scholars’ basket” (AIS, 2010), and other renowned and niche IS journals. Because of the newness of our research topic, we also included major IS conferences (e.g., ICIS) in our review. To ensure that our bibliography was as inclusive as possible, we also considered top management journals, such as *Academy of Management Journal*. For the search of empirical articles, each issue and volume of the selected journals and conferences was screened over a time period of 15 years (1995-2010). Additionally, the social science citation index reference search database was used to find more recently published articles that cite relevant works. Finally, the bibliographies of the selected articles were reviewed for additional references.

The selected articles were also screened on key themes regarding cultural differences and control. The identified culture and control themes were then linked to generally accepted cultural value dimensions (e.g., Hofstede, 1980) and control modes (e.g., Kirsch, 1997), respectively. The cultural themes we identified from the literature relate to four cultural dimensions: *power distance*, *individualism/collectivism*, *uncertainty avoidance* (Hofstede, 1980), and *mono-/polychronic time perception* (Hall and Hall, 1990). Regarding organizational control, three control modes emerged from the analysis of the collected articles: *behavior*, *outcome*, and *clan control*. Apparently, self-control plays a less important role in this context. One explanation might be that this control mode is considered less of a strategic management tool as it is difficult to accurately assess and influence (Gopal and Gosain, 2009).

First, three general findings emerged from the literature review: (1) outcome control seems to be more frequently used than behavior control for tackling problems arising from cross-cultural differences (Prifling, Gregory and Beck, 2008), (2) specific control mechanisms seem to be added when cultural differences become evident (Kirsch, 2004), and (3) informal controls may help to bridge cultural differences (Tractinsky and Jarvenpaa, 1995). Second, based on the literature review and the identification of cultural value dimensions and control modes explained above, we developed the following propositions.

## MODEL DEVELOPMENT AND PROPOSITIONS

### Individualism/Collectivism

Individualism is defined as the extent to which people prefer to act as individuals rather than as members of groups (Hofstede, 2001). In individualist cultures, ties between individuals are loose and personal time/accomplishments are valued. Individualists keep their own and their organization’s interests and goals in line because they expect personal reward and recognition (Trompenaars, 1994). In contrast, collectivist cultures find people integrated into strong, cohesive groups, and group goals/interests are more important than individual desires (Triandis, Bontempo, Villareal, Asai and Lucca, 1988).

This concept stipulates the formation of in-group/out-group behavior (Hui and Triandis, 1986). Chen, Peng and Saporito (2002) suggest that collectivists distinguish between those they are personally related to (in-group) and those they are not (out-group). Different levels of individualism/collectivism between controller and controllee may cause in-group/out-group behavior. In ISO projects, the client and the vendor may represent two separate in-groups. This means that a process of convergence is required to form a collective (clan) of two distinct (in-)groups (Dibbern et al., 2008). In-group/out-group behavior may also hinder the development of trust (Huang and Ocker, 2006), which is important as it is a prerequisite for project success (Sabherwal, 1999). In order to restore trust between project members and ultimately increase project success, clan control mechanisms like face-to-face meetings may be used (Damian and Zowghi, 2003). More evidence can be drawn from Kirsch’s (2004) study on the dynamics of control. Here, it was reported that the (collectivist) Asian controllees rejected

the (individualist) U.S. client manager's control style. These problems in control transfer may be interpreted as a result of the in-group/out-group effect. The controller addressed this issue by implementing clan control. This suggests:

*Proposition 1: The higher the differences in collectivism the greater the exercise of clan control.*

### **Power Distance**

Power distance is defined as the extent to which the less powerful members within a group or society expect and accept that power is distributed unequally (Hofstede, 1980). In low power distance cultures, subordinates participate more in decision making, prefer a consultative relationship, and are likely to contradict their superiors (Hofstede, 1991). In contrast, in high power distance cultures, superiors make decisions without consultation; subordinates feel less comfortable in debating and contradicting, and expect to be told what to do (Hofstede, 1991).

The importance of power distance for the management of ISO projects has already been emphasized in various studies (e.g., Krishna et al., 2004; Nicholson and Sahay, 2001). In a number of studies on ISO (e.g., Beck, Gregory and Prifling, 2008; Dibbern et al., 2008; Prifling et al., 2008; Winkler et al., 2008) it was found that clients affected by problems arising from differences in power distance often increase their specification efforts regarding rules and procedures, and intensify the evaluation of output quality and timing. These are indications that formal controls are used when differences in power distance emerge. ISO client managers also seem to lay more emphasis on building up close interpersonal working relationships with the vendor project members when differences in power distance surface (Beck et al., 2008). This suggests that clan control mechanisms (e.g., rituals, ceremonies, and socialization) are used to alleviate differences in power distance. Therefore we suggest:

*Proposition 2: The higher the differences in power distance the greater the exercise of behavior control (a) and/or outcome control (b) and/or clan control (c).*

### **Uncertainty Avoidance**

Uncertainty avoidance describes the extent to which the members of a culture feel threatened by uncertain or unknown situations. Individuals with low uncertainty avoidance believe that problems can be solved without formal rules (Hofstede, 1980). They do not seem to be dependent on experts, favor a less structured environment, and prefer rules only in situations of absolute necessity (Hofstede, 1991). In contrast, individuals with high uncertainty avoidance prefer rule orientation and employment stability, and exhibit stress when trying to explain, mitigate and minimize the uncertainty that is inherent to life (Srite and Karahanna, 2006).

Different levels of uncertainty avoidance may trigger increased communication efforts (i.e., higher frequency in question-feedback-reassurance loops). On the one hand, a controllee high in uncertainty avoidance is expected to seek close communication with the controller, pose questions, and ask for feedback, making it easier for the controller to reveal the controllee's actual work behavior. On the other hand, a controller with high levels of uncertainty avoidance will exercise tighter control to feel secure, thereby improving her/his understanding of appropriate behaviors. The understanding and observability of behavior is in turn crucial for introducing behavior controls (Kirsch, 1996, 1997). In addition, findings from two recent studies (Beck et al., 2008; Prifling et al., 2008) suggest that tight controlling and testing in general, as well as formal control mechanisms in particular seem to be exercised when differences in uncertainty avoidance become evident. This suggests:

*Proposition 3: The higher the differences in uncertainty avoidance the greater the exercise of behavior control (a) and/or outcome control (b).*

### **Mono-/Polychronic Time Perception**

This dimension distinguishes between monochronic and polychronic time perception (Hall and Hall, 1990). In polychronic cultures, people are involved in many different activities with different people at the same time (Hall and Hall, 1990). They view time commitment only as an objective to achieve when possible, and make changes to plans when needed; getting to know their counterparts and building a relationship is more important than adhering to a preset schedule (Hall and Hall, 1990). In contrast, monochronic individuals do only one thing at a time, and take time and deadlines seriously (Hall and Hall, 1990). For them, time is structured, linear, and sequential (Trompenaars, 1994). They set agendas for meetings, stick to time plans, and schedule negotiations in ways that create psychological pressure in order to arrive at a decision by a certain date (Hall and Hall, 1990).

Beck et al. (2008) suggest that the so called “cascading deadline approach” (i.e., monitoring project progress by setting multiple deadlines for the same deliverable and splitting up deliverables into manageable sub-tasks)—typically associated with behavior control—is effective when differences in time orientation emerge. This proposes:

*Proposition 4: The higher the differences in time perception the greater the exercise of behavior control.*

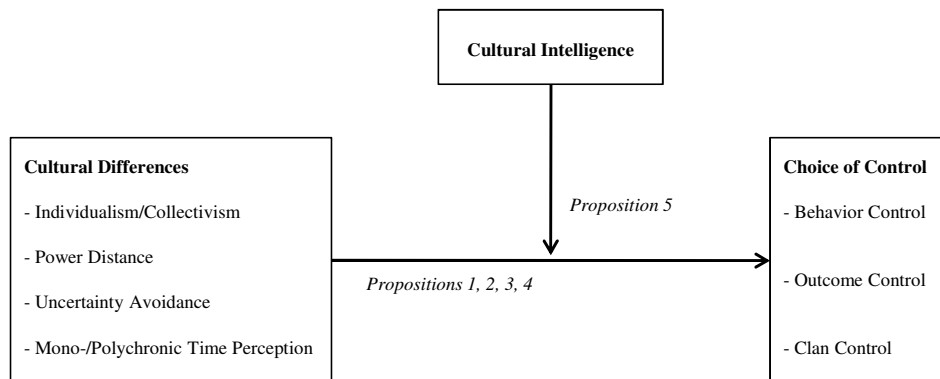
**Cultural Intelligence as Moderator**

Formal controls are mainly driven by the client project manager’s cultural intelligence (Beck et al., 2008). Accordingly, high levels of cultural intelligence might lead to a better understanding of the controllee’s cultural values and enable the controller to better select and execute suitable modes of control (Beck et al., 2008). Additionally, it was found that boundary spanning—which initiates the development of cultural intelligence (Earley and Ang, 2003)—plays a significant role in exercising control more effectively in ISO projects (Gopal and Gosain, 2009). We therefore suggest that the controller’s choice of controls, which is affected by differences in the controller and controllee’s culture is moderated through the ability of cross-cultural adaption based on cultural intelligence.

*Proposition 5: Cultural intelligence moderates the relationship between cultural differences and the choice of controls.*

**DISCUSSION AND CONCLUSION**

In this study, we analyzed the extant literature and propose a model to explain the relationships between national cultural differences, cultural intelligence, and the choice of control modes in an ISO context. Our model advances two findings that describe the relationships between these variables: (1) cultural differences influence the choice of controls (Kirsch, 2004), and (2), the development of cultural intelligence drives controls (Beck et al., 2008) and influences their effectiveness (Gopal and Gosain, 2009). In our theoretical model depicted in Figure 1, we propose that differences in cultural values between the controller and controllee may influence the controller’s selection of different control modes. In particular, we argue that cultural intelligence and the choice of controls are intertwined with each other in that a controller with high cultural intelligence takes into account the cultural setting when selecting appropriate controls. Thus, the controller’s cultural intelligence is expected to moderate the extent to which cultural differences affect the selection of controls.



**Figure 1. Theoretical Model**

There are several limitations to be taken into account. First, it should be kept in mind that there might be additional cultural value dimensions not conceptualized in this study that may be suitable to reflect national cultural differences (e.g., Hofstede’s masculinity dimension). Second, the dimensional view of culture is only one perspective from which cultural differences can be analyzed. There are other concepts, such as the social identity perspective (Straub, Loch, Evaristo, Karahanna and Srite, 2002) which may also be viable for this purpose. Third, the concept of cultural differences is very complex and thus difficult to cover in all its facets. Accordingly, our theoretical model derived from the extant literature is a first step to shed some light on these issues, and finally, so far, no empirical data was available to evaluate the proposed relationships. We thus recommend conducting further empirical work. Qualitative data can be used to further refine the propositions proposed in this paper; a quantitative approach could be used to test the resulting conceptual model.

Beyond our theoretical contributions and despite the limitations, this study also offers practical contributions. The analysis of the literature resulted in a set of propositions that allows organizations to envision the influence of particular cultural value differences on the selection of different control modes. Thus, the developed propositions may help project managers to find a suitable control strategy that fits the specific cultural setting and identify problems related to cultural differences earlier than was possible before. Finally, this study offers some evidence that the development of cultural intelligence may moderate the impact of cultural differences on control.

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