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SUCCESS IN OFFSHORING OF APPLICATION DEVELOPMENT – DOES CULTURE MATTER?

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Abstract

Recently, offshoring of information systems (IS) services to external vendors has seen considerable growth. Outsourcing to vendors in foreign countries brings about unique challenges which need to be understood and managed effectively. This paper explores cultural differences in IS offshoring arrangements involving German client organizations that outsource application development activities to Indian vendors. For this purpose, a research framework is developed based on both theoretical considerations and specific empirical observations from multiple case studies. The goal is to (1) explore the nature of cultural differences in offshoring arrangements in depth and to (2) analyze the relationship between those cultural differences and offshoring success. Based on the case findings, implications and practices for the management of offshore development projects are outlined.

Keywords: Offshoring, outsourcing, cultural differences, application development.

1 INTRODUCTION

Offshore outsourcing of IT services has become a widely adopted part of many global organizations' sourcing strategies, especially in the domain of application services. While the rational behind this practice – potential economic benefits from considerably lower labor costs in offshore countries along with the availability of skilled and qualified resources (Apte & Mason, 1995) – seems quite obvious in one way, additional challenges, as compared to domestic outsourcing, need to be understood and managed effectively. Major challenges in this regard arise from cultural differences and geographical distance. Furthermore, country-specific factors such as infrastructure and security, as well as political conditions and intellectual property issues have to be taken into account (Hirschheim, George & Wong, 2004). Yet, there seems to be a lack of understanding of such challenges, as indicated by less successful offshoring projects that reported major difficulties, especially around cultural issues (Heeks, et al., 2001; Nicholson & Sahay, 2001; Vogel, 2005).

In an attempt to take a closer look at cultural differences and success in IS offshore outsourcing projects, the research in this paper focuses on the effects cultural differences have on the success in offshore outsourcing of application development. Specifically, offshore development projects involving German customer organizations and Indian vendor organizations are considered. For this purpose, a framework is developed based on both theoretical considerations and specific empirical observations from multiple case studies, explaining the relationships of cultural factors, offshoring success factors, and offshoring success. Once those relationships have been depicted, a set of implications for the management of cultural challenges in offshore outsourcing arrangements can be outlined.

2 TOWARDS AN IS OFFSHORING RESEARCH FRAMEWORK

A first step in addressing this study's research question is to identify possible constructs to be included into a research framework. Based on findings from research on domestic IS outsourcing, measures of outsourcing success and success factors in the management process of IS outsourcing will be selected (section 2.1). Furthermore, based on literature on cross-cultural issues and offshore outsourcing, cultural dimensions will be selected which lend themselves to explain cultural differences between clients and vendors in IS offshoring arrangements (section 2.2). The research framework is meant to be a *conceptual framework* rather than a set of relationships to be tested. It will guide the empirical exploration of IS offshoring on a case study basis in a second step (chapter 3) and will be refined according to the case findings in a third step (chapter 4).

2.1 Success Factors and Measures in IS Outsourcing

Realization of expectations: A variety of research has been conducted that specifically addresses success in IS outsourcing arrangements (see Dibbern, et al., 2004, pp. 69ff.). A common way to define outsourcing success is to consider the realization of initial expectations (Lacity, Willcocks & Feeny, 1996). Defining offshoring success by the *realization of initial offshoring expectations* seems feasible for this study. It allows a linkage between the measurement of offshoring success and an organization's particular reasons for offshoring, i.e. its associated expectations. As existing studies on IS offshoring indicate, the reasons for offshoring center around improving cost, getting access to skilled and qualified resources, increasing flexibility, and receiving a good quality of services (Bartenschlager, et al., 2005; Carmel & Agarwal, 2001).

Satisfaction: In addition, success will be measured by an organization's *overall satisfaction* with an offshoring arrangement (Grover, Cheon & Teng, 1996). The realization of expected outcomes has a positive influence on the overall level of satisfaction (Goles, 2001).

Relationship quality: The quality of the relationship between the client and the vendor was found to have a key influence on outsourcing success (Grover, Cheon & Teng, 1996; Lee & Kim, 1999). In our study, *relationship quality* will be defined as the degree of connectedness between a client and a vendor in an aim to achieve specified goals. It is influenced by the level of *trust*, which was found to be a major attribute of outsourcing relationships (Grover, Cheon & Teng, 1996; Heinzl & Sinß, 1993; Lee & Kim, 1999; Sabherwal, 1999). Existing findings suggest that higher levels of trust positively affect the quality of the relationship between the client and the vendor. The *performance of the vendor's employees* was also found to have a positive effect on the quality of the relationship (Grover, Cheon & Teng, 1996). Furthermore, the *cooperation* between the client and the vendor was found to have a positive effect on their partnership (Grover, Cheon & Teng, 1996; Kern, 1997). Lee and Kim (1999) suggest that *conflict* has a negative effect on the partnership.

2.2 Cultural Differences in IS Offshoring

The concept of *'cultural differences'* or *'cultural distance'* is a common concept which has been applied in a variety of cross-cultural research in order to assess differences between two national cultures (Shenkar, 2001, p. 519). It can be defined as "the degree to which the cultural norms in one country are different from those in another country (Manev & Stevenson, 2001, pp. 287f.). Identifying cultural differences between a client and a vendor in IS offshoring arrangements will be an important step in addressing this study's research question.

Trying to grasp the complexity of the 'cultural whole', researchers have conceptualized culture as consisting of a number of *dimensions* which at large make up the concept of culture (Lytle, et al., 1995, p. 170). From the variety of cultural dimensions which have been identified and analyzed in the literature, seven dimensions are selected which will be included in the IS offshoring research framework. The dimensions are evaluated in terms of their suitability to explain cultural variations that may affect the success factors identified in domestic outsourcing. Two dimensions – individualism and power distance – are selected based on findings from existing cross-cultural studies (Hofstede, 1980) which showed differences between Germany and India. In addition, further dimensions to be incorporated into this study's research framework are selected based on insights from research on offshoring and intercultural issues.

Individualism: In one of the most influential cross-cultural studies which was conducted by Hofstede in the 1970s, Hofstede identified four dimensions to describe national cultures (1980). *Individualism*, i.e. "the degree to which people in a country prefer to act as individuals rather than as members of groups" was found to be one of those characteristic dimensions (Hofstede, 1993, p. 89). In Hofstede's study (1983), Germany was found to be more individualist, whereas India was found to be more collectivist. Differences in individualism/collectivism are likely to have some influence on the cooperation, as a study by Earley suggests who found that individualists and collectivists *perform* differently in different group settings (1993). In another study, Doney et al. point out that differences in the degree of individualism or collectivism may hinder the process of building *trust* (1998).

Power distance: On the dimension of *power distance*, i.e. the extent to which unequal distribution of power is accepted within a society (Hofstede, 1993, p. 89), Germany and India showed the highest discrepancy in Hofstede's study (1983). In Germany, power distance was found to be quite low, whereas in India power distance was found to be rather high. Those findings are consistent with what has been observed in several studies on IS offshore outsourcing. Indian professionals were described as submissive and hierarchically oriented (Heeks, et al., 2001, p. 57; Nicholson & Sahay, 2001, p. 36). The less hierarchical client organizations were not used to the Indian organizations' rigid hierarchies, which frequently led to *conflicts* (Vogel, 2005, p. 14). Furthermore, Doney et al. propose that differences in the degree of power distance may also hinder the process of building *trust* (1998).

Activity: In offshoring arrangements between German clients and Indian vendors, some German clients have observed

that Indian co-workers tend to keep to specifications, often unreflectedly, rather than actively contributing their own ideas. Furthermore, some German clients have complained about lacking communication on behalf of their Indian vendors (Vogel, 2005, p.14). In cross-cultural literature, such behaviors are described by the degree of *activity or passivity*, i.e. the "extent to which individuals in a culture see themselves as doers (active shapers of the world) or beers (passive reactors to the world)" (Lytle, et al., 1995, p. 178). Depending on the degree of activity, different management styles are more or less effective (Triandis, 1982). If management does not account for cultural differences in activity, *conflicts* may arise or the *performance* may not be as expected.

Communication styles: In offshoring arrangements between German and Indian organizations, English is usually the common language in which the two parties communicate. Since English is not a native language for either of the countries, differences in language skills and language usage can cause difficulties in communication and misunderstandings (Carmel & Agarwal, 2002; Hirschheim, George & Wong, 2005; Rao, 2004). The way in which language is used frequently interplays with the way in which a culture communicates, i.e. abstractive or associative (Triandis, 1982, p. 150), high context or low context (Lytle, et al., 1995, p. 183), holistic or linear (Lytle, et al., 1995, p. 182). Differences in communication styles can lead to misunderstandings and thus hamper the *cooperation* or even cause *conflicts* in offshoring arrangements.

Criticism behavior: In offshoring arrangements, Indian professionals have been frequently characterized as 'always saying yes' (Nicholson & Sahay, 2001; Vogel, 2005). Cultures seem to differ in the way they are able to deal with critique, both when criticizing and when being criticized. Some cultures are used to *open criticism*, i.e. individuals constructively criticize work or even superiors, and they are willing to admit their own shortcomings. Other cultures rather *refrain from criticism*, i.e. they accept tasks or opinions as given, especially those of superiors. Differences in criticism behavior can lead to misunderstanding and thus interfere with the *cooperation* or even with *performance*. The dimension of criticism behavior has not been part of previous cross-cultural studies.

Time perception: Some dissatisfaction with offshore outsourcing has been reported when vendors do not keep to schedules and deadlines (Vogel, 2005, p. 15). This observation may be based on a different perception of time. In the offshoring case presented by Heeks et al., the Indian vendor emphasized deadlines rather than the time spent for a task, whereas the UK client insisted on realizing a project within a certain amount of time which was supposed to be spent on that project (2001, p. 57). Different cultures have different perceptions of time, especially in terms of timeliness (Schäffer, 2003, p. 190). Such differences in time perception can cause *conflicts* in offshoring arrangements.

IS designer values: Kumar and Bjorn-Andersen found that the process of IS development is influenced by the underlying values of the IS designers (1990). IS designer values are shaped by the developer's individual background, i.e. socialization and education, his personal context, i.e. his organizational and societal environment, the chosen IS development methodology, i.e. prescribed development guidelines and standards, and the control and reward structure of an organization (Kumar & Bjorn-Andersen, 1990, pp. 529f.). These values can be technical, economical, or socio-political in nature. Differences in IS designer values may cause disruption or affect *performance* when expectations towards certain standards are not met.

2.3   Research Framework

Now that offshoring success has been defined and determinants of offshoring success as well as cultural dimensions have been selected, the constructs can be assembled to an IS offshoring research framework. It is important to note that the framework serves as a *conceptual framework* that guides our research (Kubicek, 1977); we do not intend to test specific relationships between selected variables. The framework shall foster our understanding of the factors that may be influenced by cultural differences. As such, this initial framework depicts those success factors that were found to affect success in previous studies on IS outsourcing. The construct 'relationship quality' will thus be used to explain variances in 'outcome', i.e. realization of expectations. Overall 'satisfaction' will vary with the realization of expected outcomes (Goles, 2001).

In a next step, the selected cultural dimensions will be included into the research framework. Differences on these cultural dimensions are proposed to affect the model of offshoring success. At this point, however, propositions about specific relationships between cultural differences on a dimension and the constructs in the offshoring model will not be stated. As Eisenhardt points out, researchers pursuing a case study approach "should avoid thinking about specific relationships between variables and theories as much as possible, especially at the outset of the process" (1989, p. 536). Differences on the cultural dimensions will thus be subsumed to a construct labeled 'cultural differences'. Once empirical data has been gathered and analyzed, the IS offshoring framework will possibly be refined to include the relevant cultural dimensions. The IS offshoring research framework is shown in figure 1.
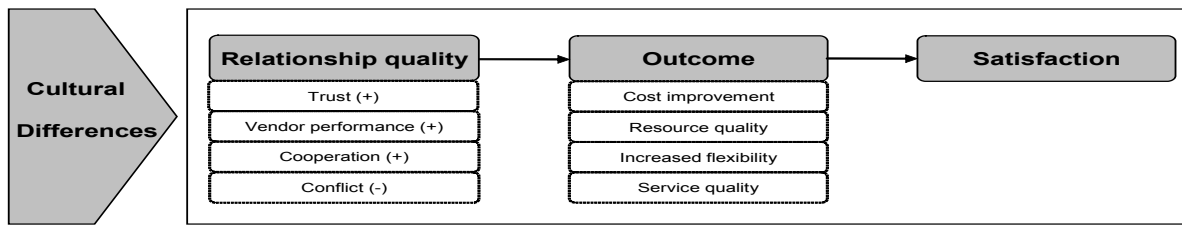
Figure 1.   IS offshoring research framework

3   EMPIRICAL EXPLORATION

In order to gain empirical insights into the field of offshore application development, six case studies were conducted between August and October 2005. For the purpose of data gathering, a total of nine project managers and senior IS managers from five German companies were interviewed to describe their experiences with six specific offshore development projects with Indian vendors. The companies belonged to various industry sectors: transportation, tele-communication, and financial services. The respective company representatives were interviewed in an open one-hour interview which was based on a semi-structured interview guideline that included several questions about each phase of the offshoring process (decision and implementation). The participants were also requested to describe specific conflict situations and situation during the cooperation in which they had to handle cultural differences. In addition, the interviewees were asked to evaluate the offshoring projects with regard to the different success measures on a scale between 0% and 100%.

The interviews were tape-recorded, transcribed, coded, and structured using the software NVivo. In order to become familiar with the individual cases, the interview data was processed for each case. Based on the transcripts and some general information from the companies' websites, case write-ups and case profiles containing the qualitative data were made. A brief overview of the cases is given in table 2.

Case	LOGIS1	TELE1	INSUR1	BANK1	BANK2	FINANCE1
Sector	Transportation	Tele-communication	Financial services	Financial services	Financial services	Financial services
Interviewees	Project manager	Senior IS manager	Project manager	Project manager, Senior IS manager	Project manager, Senior IS manager	2 senior IS managers

Table 1.   Case overview

Based on the individual case findings, a cross-case analysis was conducted. Patterns were searched throughout the cases and similarities and differences were discussed in an attempt to refine the research framework and derive theoretical and practical implications from the findings. The findings are presented in the following section.

4   FINDINGS

4.1   Success

The offshore development projects were perceived as successful in the majority of the cases. Overall *satisfaction* with offshoring in terms of the developed application, the relationship, the performance of the vendor, and the project as a whole was rated very high (80-100%) Initial expectations about cost improvement, increased flexibility and service quality were also fulfilled to a large extent (80-100%). While there was almost no variation in the perception of success *between* the different projects, certain success factors varied *within* the cases in the course of time. As it will be shown in the following section, cultural differences between the client and the vendor caused some recurring problems in the relationship between the client and the vendor that had to be dealt with as the projects proceeded in order to ensure a successful cooperation.

(1) In what ways do the cultural dimensions relate to the culture and conflict themes which were identified in the cases?

All of the companies studied observed some cultural differences during the cooperation with their offshore vendors. In the following, several cultural and conflict themes will be presented. Grand themes, i.e. themes which appeared throughout a number of cases, as well as individual themes, i.e. themes which were identified only in one individual case, will be pointed out. The cultural themes will be linked to the cultural dimensions identified in section 2.2.

Grand theme 1: The Indian professionals have difficulty in saying no

One theme which appeared in the majority of the cases is that the Indian team members were perceived to have difficulty in saying no. When asked if they had fully understood a problem or instructions they were given, the Indian staff showed a tendency of simply saying yes. They also tried to please their clients by committing to every demand they received.

"They have difficulty in saying no, they have a hard time saying 'I haven't understood' or 'I want to ask further questions'." (LOGIS1, project manager)

"It turned out to be a real problem in the course of the project that the Indian professionals like to nod – which doesn't necessarily imply 'yes'." (INSUR1, project manager)

"In India, people have a certain service attitude, they have a very hard time to say no, they have a hard time delivering bad news. This can be fatal in a software development environment." (FINANCE1, senior IS manager)

Cultural explanation: When asked by their German contractors if they were able to complete or had understood a task, the Indian professionals always tried to please their contractors. Obviously, the Indian professionals perceived a certain distance, i.e. *power distance*, between themselves and their German clients, i.e. superiors. Nicholson and Sahay made similar observations in the case of a British software company outsourcing to India (2001, p. 36). Also, the Indian co-workers seemed less *open towards criticism*, which explains their preference to work things out by themselves rather than admitting problems to their superiors.

Grand theme 2: Skill sets differ between Indian and German IS employees

Differing skill sets and a lack of know-how was another common theme which was found in four of the cases studied. The Indian professionals seemed to lack business know-how which German programmers usually possess due to their education and experience. Some of the Indian team members were also lacking experience in the field. Perceptions of quality seemed to differ, and the methodologies applied did not meet the expectations of the clients.

"On the working level – development, testing, etc. – you have to give very precise specifications. And they will do exactly as prescribed. But if you don't say 'you should also consider this or that', if you don't specify in a clear way – that's why you encounter a lot of problems in a software development projects, because they are not able to relate to the whole." (TELE1, senior IS manager)

"What I really perceive as a problem is that they have a different understanding of quality. [...] We were certainly aware of the fact that, at a price of €120,000.00, €130,000.00, we wouldn't get a product that can be enhanced or further developed. But they were not so sure about this. [...] They said, 'yes, we can easily build upon this software, it is clustered, we have classes' and whatsoever. And then we had the source code checked by our own IT people, and they said 'this is the famous spaghetti code, you cannot re-use any of this." (INSUR1, project manager)

Cultural explanation: The nature of the skill sets and the know-how of IS employees and the way in which those skills are used in IS work is partly associated with underlying technical and economical values of IS development, i.e. *IS designer values*. Apparently, the German IS employees placed a different emphasis on certain development issues, e.g. the employment of flexible development standards or the importance of relating to the business. Moreover, the Indian employees had a different way of applying their skills and knowledge to the given tasks. While in the majority of the cases studied the German employees were perceived to be more *active*, the Indian team members were described as rather passive reactors to pre-specified tasks and methodologies.

Grand theme 3: Indian and German IS employees differ in criticism behavior

From the cases studied, another common theme concerning the cooperation with Indian vendors can be identified. In three cases, management found that the Indian team members, in contrast to the German staff, were much more sensitive towards criticism.

"How to criticize Indians is definitely an issue. When I say something, it often involves personal critique. For example, if I reprimand my German team or if I address an issue which didn't work out the way it should have, then I am very direct in telling the team members in order to show them what went wrong. And I think that's the way you have to do it in Germany, so they will understand for sure. You cannot act like this to somebody from Asia. You can't, you must not simply blame someone from Asia and tell him it was his mistake. You have to advise him in a very polite way and explain the mistake to him, but you also have to give him a chance to

keep his face. [...] You have to find a way to convey criticism." (BANK1, project manager)

Cultural explanation: Differences in the *openness towards criticism* were shown in the cases on two different levels. On the one hand, Indians were found to be more sensitive towards criticism, i.e. they took criticism in a personal way. On the other hand, the Indian team members' tendency to actively voice task-related criticism was rather low. Those attitudes towards criticism are associated with social values which significantly shape organizational behavior. As Sinha and Sinha have observed, Indian professionals place high value in personal relationships and rather accommodate than confront each other (1990, p. 709).

Individual themes: In INSUR1, the Indian professionals showed the tendency to repeat statements throughout hierarchical levels. A plausible explanation for this behavior is that a high degree of *power distance* prevailed in the vendor organization in INSUR1. The client, in contrast, was not used to such behavior, since at the client organization the level of power distance was rather low. In INSUR1, the Indian professionals also provided an excessive amount of documentation, which was not appreciated by the German client. This differing perception of good documentation can be associated with differences in the underlying *IS designer values*. In BANK1, the German project manager had to realize that the open team meetings which he intended were not appreciated by the Indian team members. The differing preferences can be explained by the different levels of *activity* which prevailed in the client and in the vendor organization, i.e. the client's employees were more active and the vendor's employees were perceived as more passive. Another explanation is that the Indians were comfortable with a higher level of *power distance* and thus preferred to get instructions from their superiors.

As shown above, the cultural themes we identified from the cases related to four of the cultural dimensions presented in section 2.2: power distance, IS designer values, activity, and criticism behavior. For the remaining dimensions (individualism, communication styles, and time perception) we were not able to find evidence of cultural differences in the cases.

(2) In what ways do cultural differences affect success?

The German client and the Indian vendor organizations showed general differences on the cultural dimensions which were attributed to the grand and individual themes described above (power distance, IS designer values, criticism behavior, and activity). From the case situations it can be inferred that cultural differences can affect the factors preliminary to offshoring success, i.e. the relationship quality (trust, vendor performance, cooperation, and conflict). Examples from the cases will be used to illustrate this point.

Cultural differences can decrease performance. Differences in power distance and IS designer values can affect the performance in IS offshoring arrangements.

"We realized rather late that the Indians do indeed have difficulty in saying no. They tend to take things and believe they will succeed, and they try really hard to achieve. But sometimes they fail. And such problems come up relatively late." (Example (power distance) from TELE1, senior IS manager)

"What I learned during the past years is that the Indian colleagues - or at least what I know from our vendor - the company may have a lot of know-how, they may have a CMM certificate, they may be a big company with processes in place. However, they are not always able to apply their know-how to a specific project, for that the Indian team benefits from this know-how. I would have expected them to bring in a methodology of how to test software, to have processes, documentation, and templates. But what we got was plain text documents, and the methodology they used was really chaotic in the beginning." (Example (IS designer values) from BANK2, project manager)

Cultural differences can hamper cooperation. Differences in power distance and activity can affect the cooperation between the client and the vendor. This is illustrated by a situation in the case of BANK1, where open team meetings as intended by the project manager were not appreciated by all of the Indian team members.

"Once a week we have a team meeting with all team members - onsite coordinators, offshore project managers, and the entire team. In fact, they don't like this that much, they don't like things to be that open. With the Indians, structures are very hierarchical, which means that the project manager passes on information to the team. I do not want this, I want all the members of the development team to be equally informed." (Example (power distance and activity) from BANK1, project manager)

Cultural differences can cause conflicts and decrease trust. Differences in criticism behavior and in power distance

can lead to conflicts and decrease trust.

"We had two members in our team who were very experienced and also very direct. It occurred that colleagues from our vendor asked the same questions two or three times. Our people got tired of giving the same answers again and again, and they were a bit harsh in telling the Indians. The Indians saw this as an insult. This wouldn't have been a problem, but as a result, the Indians hardly asked questions which was really a problem." (Example (criticism behavior) from BANK2, project manager)

"At one point, a conflict occurred and even escalated - as I said, the hierarchical structure, which implied that they repeated everything their subordinate had just said – when they started doing this on the phone. Which made us tell them 'you can talk to yourselves, it is enough if one of you talks to us', because time really was too precious to keep listening to those repetitions. Then they were a bit insulted, and we had no telephone conferences for a while." (Example (power distance) from INSUR1, project manager)

(3) What management practices contribute to the success of offshore outsourcing and in what ways do those practices help in addressing cultural differences?

Despite some problems and conflicts in the cooperation between the client and the vendor, the companies in the cases studied were able to conduct successful offshoring projects, as the success ratings indicate. Three major management themes appeared in the cases which enabled the companies to successfully increase performance and address cultural differences in the cooperation, (a) a clear definition of roles and mechanisms, (b) strong leadership, and (c) managing culture.

(a) Clear definition of roles and mechanisms. A structured management approach seems very important for the coordination of the offshoring arrangement. All of the companies in the cases studied had certain roles (e.g. project manager) and mechanisms (e.g. telephone conferences) in place which coordinated the day-to-day cooperation and accounted for incidents, e.g. conflicts.

"What we have learned is that you need clear contact persons on different organizational levels and with different functions. [...] This evolved over time. It wasn't clear from the beginning which roles we would have to establish." (TELE1, senior IS manager)

(b) Strong leadership. Based on the case findings, strong leadership seems to be key in managing the offshoring arrangement. The case of BANK2 provides an example in which the client tried to manage the offshoring arrangement in a more independent way. However, the project manager soon came to realize that strong management and guidance of the Indian team members was essential for the project to succeed. As the project manager explains:

"I had to lead them - contrary to my initial expectation that they would have the know-how, that I would be more of an observer to the project. [...] Eventually, we decided to adopt more control and tell them what we expected. A lot more than we had initially thought.".

One central aspect about leadership which was found in the cases was the provision of detailed documentation. This guided the vendor in the development activities and ensured better performance. As the senior IS manager of TELE1 points out:

"At the level of work you have to provide very detailed specifications for the developers, testers, etc. And they will perform very accurately. But if you don't say 'please do this and that' and if you don't specify this clearly, then you will encounter problems in software development, because they are not able to relate to the project as a whole.".

(c) Managing culture. An active management of cultural issues which usually caused some problems was found to be a successful way of addressing cultural differences. This helped the companies to dampen the negative effects of cultural differences and thus improve performance, cooperation, and trust, and reduce conflicts between the client and the vendor.

Cultural differences were successfully addressed in two different ways. One way was two integrate the Indian culture, whereas another way involved an accommodation of different cultures and management styles. In either way, learning about the Indians' culture, working behaviors, and values was considered to be of great importance.

Integrate culture: One way of addressing cultural differences which was pursued in one of the cases was to actively

manage the team through setting clear rules for the cooperation. For example, the project manager in LOGIS1 highly emphasized that the Indian team members asked questions instead of simply saying yes. The project manager made clear what his expectations were and the team members learned how they were supposed to behave.

"Once they have been here for about a month, they should know how to behave. I really emphasize on this. You have to talk to the people a lot." (LOGIS1, project manager)

Accommodate cultures and management styles: Another way of addressing cultural differences which was pursued in two of the cases was to recognize cultural differences and to adjust management styles accordingly. For example, the project manager in BANK1 came to realize that the Indian team members preferred to be instructed by their superiors rather than participating in open team meetings. As a result, the project manager agreed on less open team meetings.

"Now I leave it to the Indian colleagues. Previously, I insisted that everyone participated in the meeting. But I have come to accept that when a colleague says that it does not make sense to involve everyone because half of the team members are not interested, then I agree that they resolve things within the team." (BANK1, project manager)

Learn about culture: In the cases studied, getting to know and learning about the Indian co-workers' cultural traits and working behaviors proved essential to be able to successfully manage the offshoring arrangement. Most of those issues were relatively subtle and required dedicated managers to get personally involved. Learning about cultural differences involves a lot of personal interaction and communication with the Indian team members. Yet, just as cultural management, cultural learning is something which should be actively promoted by the company.

"If you have no experience in working with Indian colleagues, then you easily 'put your foot in your mouth'. That's the way it is, you simply don't have the experience. This is why intercultural training is very, very important. I think the Indian colleagues did have intercultural training, they take this very seriously. I think we underestimate this. We might be an international company - but not everyone gets along with Indian colleagues. There are really huge differences. That's why you simply have to know how they are and how they think. Then you are able to get along." (BANK1, project manager)

4.3   Refinement of the Research Framework

Now that cultural constructs and relationships between cultural differences and offshoring success factors have been identified based on the case findings, the IS offshoring framework can be refined to include cultural differences (figure 3).

The cultural constructs which have been found to play a role in offshoring – power distance, IS designer values, criticism behavior, and activity – are subsumed as 'cultural differences'. In the framework, the relationships between cultural differences and offshoring success factors are portrayed according to the findings in section 4.2: cultural differences can decrease performance, hamper cooperation, cause conflicts and decrease trust. Apart from those relationships, managerial practices have been identified which may dampen or balance the negative effects of cultural differences: strong leadership and an active management of culture. Cultural differences indirectly affect offshoring success, while leadership and management of culture moderate the relationships between cultural differences and offshoring success factors.
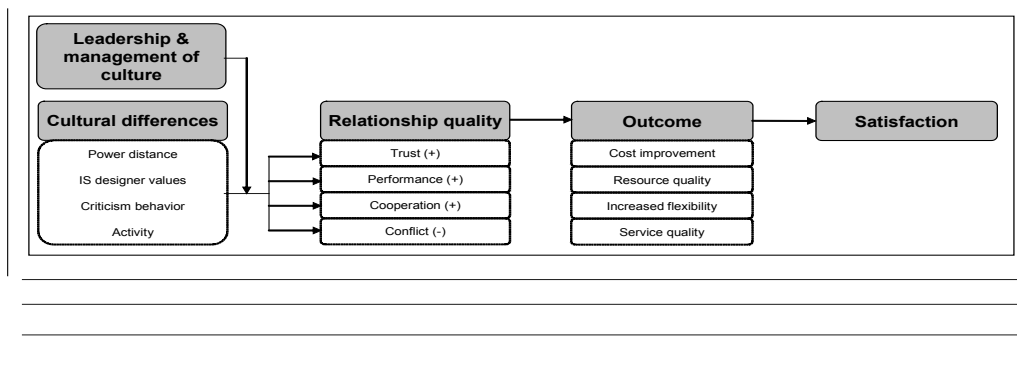

Figure 2.   Refined IS offshoring framework including the effects of culture

5   IMPLICATIONS

5.1   Theoretical Implications

The case findings demonstrate that *culture does matter* in IS offshore outsourcing arrangements. Cultural differences between the client and the vendor are observable on a number of dimensions, e.g. power distance, IS designer values,

criticism behavior, and activity, as the findings from the cases indicate. Such differences can negatively affect factors preliminary to offshoring success, i.e. relationship quality (in terms of trust, performance, cooperation, and conflict).

Another important finding with regard to culture is that cultural differences in IS offshoring arrangements can be *successfully managed*, i.e. certain managerial practices adopt a moderating role and thus balance negative effects of cultural differences. As such, the role of management is an integral part of a successful offshoring venture. The managerial practices which have successfully addressed cultural differences center around the provision of strong leadership and an active management of culture.

Furthermore, the case findings indicate that a lot of managerial effort, i.e. an establishment of roles and mechanisms, providing personal leadership and documentation, is necessary for IS offshoring arrangements to succeed. From a theoretical point of view, this managerial effort is associated with additional *production costs* (e.g. costs for documentation and specifying requirements) and additional *transaction costs* (e.g. costs for conflict resolution and team coordination) which are incurred in the course of an offshoring project. In the calculation of cost savings achieved – one of the main goals in offshore outsourcing – these costs need to be included.

5.2 Implications for Management

The role of management has been found to be essential for conducting successful offshoring projects. From the case findings, a number of best practices emerged of how to successfully manage IS offshoring arrangements:

(1) Establish a structure including roles and mechanisms for the management of the offshoring arrangement. Good organization provides the basis for successful management of offshoring arrangements. Clear roles and dedicated contact persons, e.g. project managers and coordinators, should be selected, and management mechanisms, such as steering committees and regular meetings, should be implemented for coordination and control.

(2) Nominate a dedicated project manager who provides strong leadership within the project team. A dedicated project manager is able to integrate team members from different countries. As a central person of contact, a dedicated project manager gets deep insights into the working processes and gets to know the team members' capabilities. If necessary, he or she can exercise direct coordination and control.

(3) Learn about the specific cultural traits of the offshore vendor's team members. Creating an understanding for specific cultural traits of the offshore vendor's team members is important in offshore outsourcing arrangements, since such an awareness can prevent misunderstandings in the cooperation between the different cultures. An awareness of specific cultural traits can be raised by a lot of communication with the offshore vendor's team members. Another way to actively spur cultural awareness is to provide cultural training for employees.

(4) Recognize cultural differences and actively balance them. Companies should aim at recognizing cultural differences early in the cooperation with an offshore vendor. If not actively managed, cultural differences can decrease performance, hamper cooperation, decrease trust, and lead to conflicts. Management, however, can balance those cultural differences by tactics of integration and accommodation and even benefit from specific cultural traits, such as the Indian professionals' high willingness to perform.

6 CONCLUSION

As in the face of internationalization the IS offshoring trend is likely to continue (Schaaf & Weber, 2005), it will become increasingly important to recognize, to understand and to be able to manage cultural differences between client and vendor organizations. This study has shown ways to identify relevant cultural differences, and it has presented a framework which illustrates how cultural differences interfere with success in IS offshoring arrangements. As such, the framework provides an important starting point for incorporating the construct of culture into IS research. Furthermore, this study has identified best practices which can guide companies to successfully manage cultural differences. Future research is encouraged to further investigate cultural differences in various forms of IS offshoring arrangements. There is clearly a need to enhance the understanding of unique features in offshore outsourcing. This study has been seeking to make a contribution.

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