

Association for Information Systems
AIS Electronic Library (AISeL)

ECIS 2011 Proceedings

European Conference on Information Systems
(ECIS)

Summer 10-6-2011

MANAGING THE IMPACT OF
DIFFERENCES IN NATIONAL CULTURE
ON SOCIAL CAPITAL IN MULTINATIONAL
IT PROJECT TEAMS – A GERMAN
PERSPECTIVE

Alexander von Stetten

Daniel Beimborn

Tim Weitzel

Zita Reiss

Follow this and additional works at: <http://aisel.aisnet.org/ecis2011>

Recommended Citation

von Stetten, Alexander; Beimborn, Daniel; Weitzel, Tim; and Reiss, Zita, "MANAGING THE IMPACT OF DIFFERENCES IN NATIONAL CULTURE ON SOCIAL CAPITAL IN MULTINATIONAL IT PROJECT TEAMS – A GERMAN PERSPECTIVE" (2011). *ECIS 2011 Proceedings*. 73.
<http://aisel.aisnet.org/ecis2011/73>

This material is brought to you by the European Conference on Information Systems (ECIS) at AIS Electronic Library (AISeL). It has been accepted for inclusion in ECIS 2011 Proceedings by an authorized administrator of AIS Electronic Library (AISeL). For more information, please contact elibrary@aisnet.org.

MANAGING THE IMPACT OF DIFFERENCES IN NATIONAL CULTURE ON SOCIAL CAPITAL IN MULTINATIONAL IT PROJECT TEAMS – A GERMAN PERSPECTIVE

von Stetten, Alexander, University of Bamberg, Feldkirchenstr. 21, 96052 Bamberg, Germany, alexander.von-stetten@uni-bamberg.de

Beimborn, Daniel, University of Bamberg, Feldkirchenstr. 21, 96052 Bamberg, Germany, daniel.beimborn@uni-bamberg.de

Weitzel, Tim, University of Bamberg, Feldkirchenstr. 21, 96052 Bamberg, Germany, tim.weitzel@uni-bamberg.de

Reiss, Zita, University of Bamberg, Feldkirchenstr. 21, 96052 Bamberg, Germany, zita.reiss@googlemail.com

Abstract

How can management handle relationship problems arising from cultural differences in multinational IT project teams? This paper uses a social capital lens to better understand the negative impact of cultural differences in IT project teams. In contrast to many previous works we do not consider cultural differences as a whole but explore the role of the different national culture dimensions. This allows for a more detailed view on cultural differences in a team context and thus contributes to a better understanding about which dimensions of national culture drive relationship problems and which management measures can help to dampen the negative effects. Based on several exploratory cases (6 multinational IT projects in 4 companies, headquartered in Germany), the authors identify three patterns showing typical problems in team social relationships which arise from differences in particular dimensions of national culture. Pattern-specific as well as general management measures, employed to address the culture-driven negative effects, are identified as well.

Keywords: national culture, cultural differences, culture dimensions, social capital, multinational IT project teams, management measures, exploratory case studies.

1 Introduction

Social relationships within multinational teams are often burdened by cultural differences between the team members. Severe difficulties arising from such differences include conflict, mistrust, and miscommunication (Salk and Brannen, 2000). This in turn hampers the creation of social capital within the team, and thus leads to sub-optimal knowledge exchange, collaboration, and project performance. Consequently, numerous studies consider cultural differences in the context of multinational teams and propose various management actions that can be taken to overcome resulting problems in the network of relationships among team members (e.g. Carmel, 1999; Carmel and Agarwal, 2001; Earley and Mosakowski, 2000; Govindarajan and Gupta, 2001; Oshri et al., 2007; Sarker and Sarker, 2009; Walsham, 2002). However, in doing so, prior literature concentrates merely on the encompassing concept of cultural differences and remains silent about the impact of differences in *particular dimensions* of national culture. By contrast, we argue that elaborating on the specific cultural dimensions in which general cultural differences are rooted would significantly contribute to better understand and manage negative effects of such differences on intra-team relationships in multinational teams. Consequently, our research questions are:

RQ1: What are negative consequences of cultural differences on social capital in multinational IT project teams and in which *particular dimensions* of national culture are these differences rooted?

RQ2: Which management measures can be applied to handle these differences in *particular dimensions* of national culture that had been identified within RQ1?

By answering these questions, this paper covers the three waves of culture research mentioned by Leidner (2010). First, cultural differences between team members are identified, second, the identified cultural differences are explained drawing on the concept of cultural dimensions, and third, activities for managing the negative effects of these differences are proposed. However, answering culture-related research questions is always contingent on the culture(s) of the objects of empirical analysis. For this paper, we have conducted case studies in firms headquartered in Germany; therefore the answers to the research questions given by this paper solely reflect a German perspective.

The remainder of this paper is structured as follows: Section 2 forms the conceptual basis for our research model. Section 3 introduces the applied research approach before chapter 4 presents and analyzes the results. Finally, section 5 draws a conclusion.

2 Theoretical background and model development

2.1 Dimensions of (national) culture

Driven by the rising globalization in the IT industry, national culture and resulting cultural differences have received much attention in IS research for several years. Sarker et al. (2010) just recently stated that cultural differences constitute a key issue in global software development projects.

Serving as a theoretical basis for our research work, the GLOBE project defines culture as "*shared motives, values, beliefs, identities, and interpretations or meanings of significant events that result from common experiences of members of collectives and are transmitted across age generations*" (House et al., 2004, p. 57). GLOBE is a comprehensive study examining the relationship between cultural values, practices, and leadership, as well as organizational and societal effectiveness in 62 societies and was initiated in 1991 (House et al., 2004). Having extensively analyzed numerous cultural dimensions developed in prior scientific literature, the authors identified nine cultural dimensions (cf. Table 1) that were measured in terms of practices ("the way things are") and values ("the way things should be").

| | |
|------------------------------------|--|
| Uncertainty Avoidance (UA) | the extent to which members of a society strive to avoid uncertainty by relying on established social norms, rules or bureaucratic practices |
| Power Distance (PD) | the degree to which members of an organization or society expect and agree that power should be stratified and concentrated at higher levels of an organization or government |
| Institutional Collectivism (I/C 1) | the degree to which organizational and societal institutional practices encourage and reward collective distribution of resources and collective action |
| In-group Collectivism (I/C 2) | the degree to which individuals express pride, loyalty, and cohesiveness in their organization or families |
| Gender Egalitarianism (GE) | the degree to which an organization or a society minimizes gender role differences while promoting gender equality |
| Assertiveness (AS) | the degree to which individuals in organizations or societies are assertive, confrontational, and aggressive in social relationships |
| Future Orientation (FO) | the degree to which individuals in organizations or societies engage in future-oriented behaviors such as planning, investing in the future, and delaying individual or collective gratification |
| Performance Orientation (PO) | the degree to which an organization or society encourages and rewards group members for performance improvement and excellence |
| Humane Orientation (HO) | the degree to which individuals in organizations or societies encourage and reward individuals for being fair, altruistic, friendly, generous, caring, and kind to others |

Table 1. Definitions of the cultural dimensions of House et al. (2004)

2.2 Social capital

Our research objective is to analyze negative consequences of differences in particular dimensions of national culture on social relationships in multinational IT project teams. We conceptualize social relationships in a team context by drawing on the social capital concept. Although the current literature lacks agreement on a precise definition of social capital, of its measurement and its interpretation, there is a broad consensus among the researchers in different disciplines about the significance of inter-personal relationships as a resource for social action (Yang et al., 2009) and the ability of actors to secure benefits by virtue of membership in social networks or other social structures (Portes, 1998). Nahapiet and Ghoshal (1998), who provided one of the most commonly used conceptualizations of social capital in organizational research (cf. Robert Jr. et al., 2008), define it as “the sum of the actual and potential resources embedded within, available through, and derived from the network of relationships possessed by an individual or social unit” (p. 243). They specified three dimensions of social capital: the structural, the cognitive and the relational dimension.

The structural dimension is defined as “the impersonal configuration of linkages between people or units [...] [or] the overall pattern of connections between actors” (Nahapiet and Ghoshal, 1998, p. 244) and refers to the ties among actors and reflects the potential resources accruing to an individual or a group from those ties (e.g. “who knows whom” and “how do you reach him”). The cognitive dimension of social capital describes “those resources providing shared representations, interpretations, and systems of meaning among parties” (Nahapiet and Ghoshal, 1998, p. 244) and is embodied in attributes that facilitate common understanding of collective goals and proper ways of acting in a social system. In this context, shared representations, interpretations, and systems of meaning serve as a bonding system and can reduce inter-partner conflict and facilitate the negotiation and establishment of common goals (Tsai and Ghoshal, 1998). The cognitive dimension can be divided into the subcomponents shared language and codes and shared narratives. The third dimension, labeled “the relational dimension”, corresponds to “the kind of personal relationships people have developed with each other through a history of interactions” (Nahapiet and Ghoshal, 1998, p. 244) and relates to the nature and quality of relationships among people and how those relationships affect their behavior. The relational dimension of social capital can be divided into the subcomponents trust, norms, obligations and expectations, and identification.

Several works have shown the applicability of the social capital concept on the team level (e.g. Oh et al., 2004; Reagans and Zuckerman, 2001; Robert Jr. et al., 2008). Elaborating on the influence of national culture on subcomponents of social capital in a multinational team context, existing literature revealed that cultural diversity hampers the efficient development of a shared understanding as well as commonality among teammates (Carmel, 1999; DeSanctis and Poole, 1997; Vallaster, 2005). DeLone et al. (2005) quote that cultural differences based on divergent values affect team cognition encompassing shared beliefs, shared knowledge, and the development of trust in global IS

development projects. Particularly, trust building is highly influenced by differences in national culture as this process strongly depends upon the societal norms and values that guide people’s behavior and beliefs (Doney et al., 1998; Huff and Kelley, 2003). Earley and Mosakowski (2000) confirm that team identity is affected by the nationality of the team members, and Paul and Ray (2009) report a negative relationship between cultural differences and team social integration in this context.

2.3 Management measures to overcome the negative impact of cultural differences on social capital in multinational project teams

To overcome the negative effects of cultural differences on social capital, certain management practices have to be applied. Examples how management can react to problems arising from cultural differences, include cross-cultural education and training (e.g. Carmel, 1999; DeLone et al., 2005; Walsham, 2002), clearly specifying roles and coordination mechanisms (Winkler et al., 2008), setting up (periodic) face-to-face meetings (e.g. Carmel, 1999; Kotlarsky and Oshri, 2005; Oshri et al., 2007), selecting global team leaders who exhibit high levels of cultural awareness (e.g. Carmel and Agarwal, 2001; Govindarajan and Gupta, 2001; Kayworth and Leidner, 2000), language training (e.g. DeLone et al., 2005; Govindarajan and Gupta, 2001), creating a hybrid team culture (Earley and Mosakowski, 2000), or instilling a sense of cultural awareness (Kayworth and Leidner, 2000). A comprehensive range of such measures, applied to manage cross-cultural differences in IS offshoring relationships, is provided by Gregory (2010).

3 Research approach

Prior literature shows that cultural differences have an impact on social capital and that this impact is – to a certain degree – manageable. However, usually these studies talk about cultural differences in general but do not amplify the cultural dimensions in which the cultural differences are rooted. To address this lack, we did an exploratory case study analysis. This analysis was guided by a baseline model (cf. Figure 1) which explicated possible relationships between (differences in) all dimensions of national culture and the three dimensions of social capital and which also takes into account the impact which different management measures have on those relationships. First, our exploratory case study approach intends to reduce this baseline model to those relationships between culture dimensions and social capital dimensions that could *indeed* be explored in our interviews (i.e., answer to RQ1). Second, it is our goal to identify those management measures that reduce or dampen those negative effects of cultural differences on social capital which were uncovered in the first step of the analysis (i.e., answer to RQ2)¹.

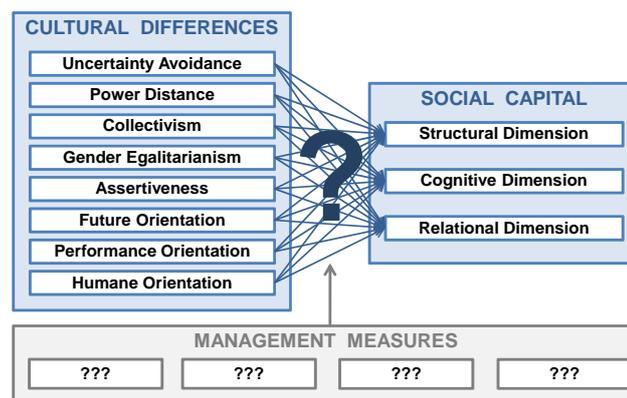


Figure 1. Baseline model

¹ Since Figure 1 looks like a causal model, we want to clarify that we follow a purely exploratory approach. This baseline model does not reflect a derived theory to be tested but serves as the starting point of our exploratory case analysis.

Kaplan and Duchon (1988, p. 15) assert that case studies provide “a source of well grounded, rich descriptions and explanations of processes occurring in local contexts” making them well suited for investigating emergent phenomena. In line with Kaplan and Duchon (1988), Yin (2009) points out that case studies are ideally suited when “how” or “why” research questions are posed, when the investigator has limited control over events and boundaries of a contemporary, complex social phenomenon (i.e. cultural differences and social capital) within its real-life context (i.e. multinational IT project teams), and when the phenomenon and the context in which it is investigated are unclear or closely related. Challenges of understanding the relationships between the particular dimensions of national culture and the dimensions of social capital within multinational IT project teams as well as the critical question how to manage this relationship meet these criteria.

Since “theory building from multiple cases typically yields more robust, generalizable, and testable theory than single-case research” (Eisenhardt and Graebner, 2007, p. 27), we adopted a multiple-case study design within this research work. Two case selection criteria were applied. First, the chosen IT project team had to consist of members from at least two different nationalities. Second, we chose cases with both successful and unsuccessful projects because Flyvbjerg (2006) and Eisenhardt (1989) recommend maximum variation cases and extreme situations to be appropriate to obtain information about the significance of various circumstances. We collected data from six different IT projects by interviewing 8 key informants (with one of them comparing two of the projects). The projects belong to four companies from different industries, and the companies as well as the project teams vary in size. The subsequent tables summarize context information about the case study partner firms, the investigated projects, and the interviewees. The IT projects ranged from software development to replacement and roll-out of ERP systems.

| | Company A | Company B | Company C | Company D |
|------------------|--------------|--|---------------|------------|
| Industry | Construction | Manufacturer of specialized technical components | IT | Consulting |
| Turnover | 1-5 bn € | < 1 bn € | 5-15 bn € | > 15 bn € |
| Employees | 5,000-10,000 | < 5,000 | 10,000-50,000 | > 50,000 |

Table 2. Case study partner firms (no exact numbers given to ensure the firms’ anonymity)

| | Project 1 (Company A) | Project 2 (Company B) | Project 3 (Company C) | Project 4 (Company C) | Project 5 (Company C) | Project 6 (Company D) |
|------------------------------------|--|--|--|---|---|--|
| project type | replacement of legacy ERP system by ERP standard software in a plant in the Czech Republic | replacement of legacy ERP system by ERP standard software in a plant in the Czech Republic | ongoing software dev. project with release cycles of 3 months | ongoing software dev. project with release cycles of 6 months | software development project | software development project for client firm (finance industry) |
| initiator | German parent company | German sister company | - | - | - | - |
| geographically distributed? | team distributed between Germany and the Czech Republic | team distributed between Germany and the Czech Republic | team distributed betw. Germany and India (since summer 2008) | team distributed between Canada and India | team distributed between Germany and India | team distributed between Switzerland and India |
| team configuration | 15 team members (9 Czechs, 6 Germans) | 23-29 team members (16-22 Czechs, 7 Germans) | 10 team members (5 Indian, 5 German) | about 50 team members, organized in 5 sub-teams; 4 sub-teams located in Canada (members from various countries); 1 sub-team located in India (consisting of 10 Indian team members) | 4 team members (3 Indian, 1 German) | 62 team members, organized in several sub-teams in Switzerland (in total consisting of 17 Swiss consultants from Company D, 30 Swiss employees of the client company, and 1 German project manager) and one sub-team in India (consisting of 14 Indians) |
| project start | beginning of 2008 | April 2007 | project start: 1998; start of staff distribution: summer 2008 | beginning of 2007 | summer 2009 | November 2009 |
| project success | project still in progress; time delays | project successfully (in time) completed in March 2008 | project still in progress; distribution of the project was stopped by the end of 2008; relocation on-site back to Germany due to time and quality problems | project still in progress | project successfully (in time) completed in spring 2010 | project still in progress; project completion planned in 2011 |

Table 3. Case study projects

A team of two researchers (same persons in all interviews) conducted eight semi-structured interviews (cf. Table 4) following the recommendations from Myers and Newman (2007). Each interview lasted between one and two hours and was recorded and fully transcribed. Regarding 3 projects, we were able to get two perspectives from different managers involved.

| | Mr. A | Mr. B | Mr. C | Mr. D | Mr. E | Mr. F | Mr. G | Mr. H |
|--|--|--|--|---------------------|--|---------------------|---|--|
| interview | face-to-face | face-to-face | face-to-face | face-to-face | telephone | face-to-face | face-to-face | telephone |
| company | A | A | B | C | C | C | C | D |
| project | 1 | 1 | 2 | 3 | 4 | 5 | 3 & 5 | 6 |
| nationality | German | German | German | German | German | German | German | German |
| job location | Germany | Germany | Germany | Germany | Canada (since 2005) | Germany | Germany | Switzerland |
| job title | head of department for international business | member of department for international business | team manager sales, logistics, and international information management | software developer | quality program engineer/ software developer | software developer | software development manager | senior technology architect |
| role within the project | advisory activity within the project | project manager (German side) | manager of sub-project (sales order process) | project team member | project team member with coordination function | project team member | manager of several project teams including projects 3 and 5 | overall project manager |
| intercultural experience before the project | broad experience; several job-related trips to several foreign countries | broad experience; several job-related trips to several foreign countries | broad experience; several job-related trips to several foreign countries | no experience | broad experience; several job-related trips to several foreign countries | no experience | broad experience; several job-related trips to India | broad experience; several job-related trips to several foreign countries |

Table 4. Interviewees

Within the data analysis, we applied both qualitative and quantitative methods of transcript analysis. However, consistent with Yin (2009), the primary purpose of conducting this case study is to create theory by exploration from qualitative content analysis. Thus, quantitative data analysis (i.e., frequency analysis) merely served to further substantiate and to illustrate the results gathered from the qualitative data analysis. Data analysis was conducted by using MAXQDA (www.maxqda.com). Qualitative data analysis occurred by systematically structuring the transcribed material into categories and to generate hypotheses (Brodbeck et al., 2007; Kohlbacher, 2005). Quantitative data analysis was carried out by frequency analysis (Brodbeck et al., 2007; Kohlbacher, 2005).

Cultural differences and social capital were coded based on the cultural dimensions of House (2004) and on the conceptualization of social capital according to Nahapiet and Ghoshal (1998). With the first goal being to explore the impact of cultural differences on social capital, relationship categories were created, linking differences in cultural dimensions to the components of social capital. Further, inductive category development (open coding) was applied to extract management measures – fitting to the context of our research model – from the interviews (Brodbeck et al., 2007). Within a feedback loop between the researchers, the identified measures were revised and checked with respect to their reliability. Eventually, they were categorized in higher-order categories.

4 Results

Projects 1 and 2 face cultural differences between team members from the Czech Republic and Germany while projects 3 to 6 consist of team members from India and various western nations (mostly Germany, Switzerland, and Canada). These different settings provided two different groups of results which are treated separately in the following. Thereby, all of our results are limited to a German perspective as we only had German interview partners.

Elaborating on projects 3 to 6, our five German interviewees reported almost the same typical characteristics of Indian colleagues which resulted in relationship problems within the team. Summarizing the interviews, we identified two India-specific patterns with regard to negative effects of cultural differences on subcomponents of social capital and pattern-specific as well as general management measures that were employed to address such effects (cf. Figure 2). These two patterns, displayed in Figure 2, result from reducing the baseline model (cf. Figure 1) to *all* relationships uncovered from analyzing the Indian-German IT project teams. We did not identify any other relationships between culture dimensions and social capital dimensions in these cases.

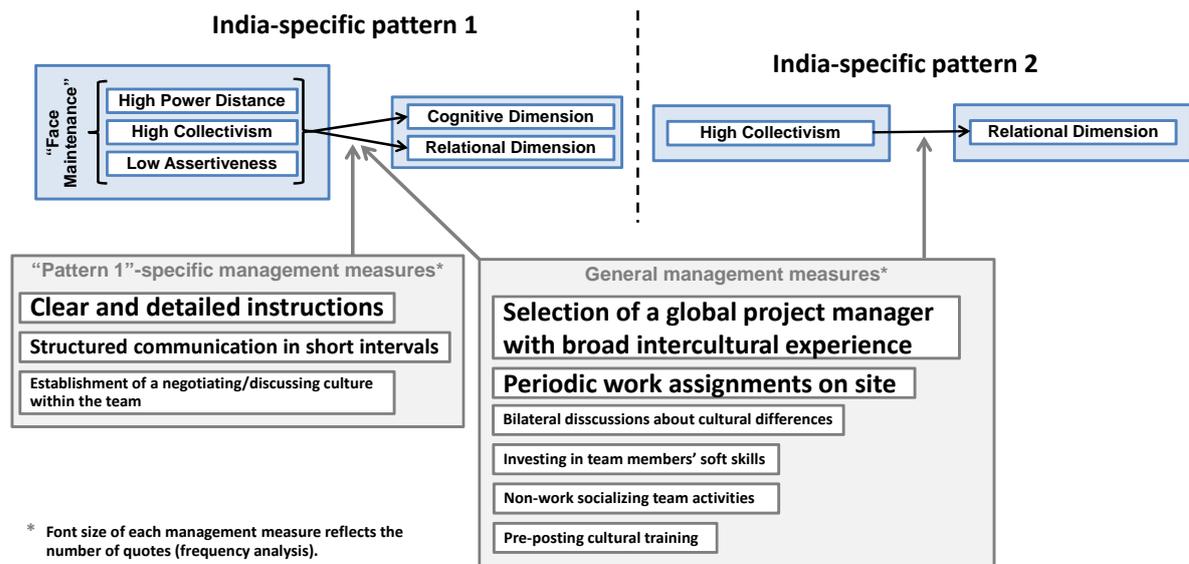


Figure 2. Identified relationships between culture differences and social capital (India-specific)

In the first pattern (left) cultural differences are rooted in a combination of relatively higher Power Distance, higher Collectivism, and lower Assertiveness of Indian team members compared to their German respectively western colleagues. These three dimensions and their characteristics on the Indian side were highly interdependent. Thus, we were not able to analyze each dimension's impact on social capital separately and therefore treated them as a combined concept. This combination of high Power Distance, high Collectivism, and low Assertiveness results in a certain code of conduct on the Indian side, which was observed repeatedly by our interviewees. Typical characteristics of this code of conduct include a tendency to say yes, to express oneself in an indirect and concealing way, and to avoid criticism. Referring to Ting-Toomey and Cole (1990), this observation can be labeled as "Face Maintenance". Pointing in the same direction, House et al. (2004, p. 131) bring "Face Saving" into relation with avoiding negatives and being indirect and evasive. Investigating the impact of the characteristics of these three cultural dimensions in a joint manner seems to be appropriate against the chosen theoretical background as the observed traits cannot be clearly assigned to only one cultural dimension when following the GLOBE study (House et al., 2004). For instance, indirect communication indicates both low Assertiveness (House et al., 2004, p. 405) and high Collectivism (House et al., 2004, pp. 452, 454). Furthermore, Dibbern et al. (2008, p. 358) bring up Power Distance in the same context by claiming that *"the high level of power distance in India [is] reflected in certain behaviors [...] such as a high level of conformism (tendency to say yes)"*. With regard to social capital, we identified a negative impact of "Face Maintenance" on the cognitive and most of all on the relational dimension. In contrast, we did not identify any relationship between "Face Maintenance" and the structural dimension of social capital.

Elaborating on the relational dimension, trust was the subcomponent which has repeatedly been reported to be negatively affected by "Face Maintenance". The interview partners D to H had more or less difficulties to trust their Indian colleagues for quality reasons as they never asked for assistance even if they had serious trouble when accomplishing work and because they would not raise concerns against anything or admit to be not able to fulfill a given task. For instance, Mr. D mentioned: *"You cannot rely on each spoken word. If you ask them something like 'Are you able to do this?' they will always reply 'Yes' no matter if they are able or if they are not. [...] When it then comes to a milestone or a deadline, we discovered too often that they had not been able to handle their workload"*. Mr. H takes a similar line: *"If they are not able to fulfill a task, they usually won't ask another colleague even if they are pretty sure that one of their colleagues knows how to fulfill this particular task. They will try on their own again and again even if they go round in circles. [...] I am always a bit skeptical concerning the results"*. With regard to the contrary direction, all our (German) interview partners D

to H felt that the Indian colleagues trusted them. However, this trust is highly vulnerable when it comes to criticism: *“In their culture, criticism is never expressed openly and directly. If you do so, they won’t complain or anything alike but become even quieter as they already are. [...] Their confidence in the person criticizing will decline. [...] If you want to criticize them you have to be very cautious because we seem offensive to them quite fast”* (Mr. F).

Concerning the cognitive dimension of social capital, creating a shared understanding between Indian team members and their foreign colleagues is problematical due to the Indians’ indirect and convoluted enunciation: *“Sometimes, words spoken by an Indian colleague don’t mean the same what we understand by these words. [...] You have to realize that ‘Yes’ could mean anything. It could actually mean ‘Yes’ or it could mean ‘No’ or ‘Maybe’ or anything else. [...] Building up a common understanding of what a spoken word really means is difficult”* (Mr. E). Another example is given by Mr. F: *“You have to learn to interpret what they say. For instance, if it exceptionally happens at one point that an Indian colleague remarks something about a very small issue concerning the task to be accomplished, it means that he has absolutely no idea about how to accomplish this task and that it will never be accomplished in time”*.

To overcome the abovementioned difficulties particularly arising from “Face Maintenance”, companies employed certain specific management measures. In this context, giving clear and detailed instructions was most frequently mentioned and also most emphasized within the interviews (highlighted by larger font size in Figure 2). A typical statement has been given by Mr. H who explains that *“[the Indian colleagues] require highly detailed and perfectly clear instructions as they would not inquire if something is ambiguous”*. Further on, it is suggested to introduce structured communication in short intervals: *“Regular meetings in short intervals - if possible in a daily rhythm – enhance transparency and thus trust on our side as they give us the opportunity to check the work progress and address possible issues promptly”* (Mr. F). Within those meetings, interviewees underline that monologues of the German team members are not very helpful. Everything is about real discussions all team members participate in. To achieve this, an open and discussion oriented culture has to be established: *“The first thing is, not to give them the opportunity to answer with ‘Yes’ or ‘No’. To get a real discussion started you have to ask something like ‘What has changed since our last conversation?’ or ‘What do you think about the progress against the background of the next milestone?”* (Mr. F). Another advice is given by Mr. G who underlined *“to over and over again encourage and ask them to give their own opinion. However, this will not result in an Indian colleague saying anything alike ‘No, it is not possible’, but at least an expression of opinions like ‘Yes, but...’ is realistic. [...] However, it is definitely not our goal to have Indian colleagues behaving like Germans. But if both sides approach each other a little bit, different interpretations and systems of meaning are better understood, and misunderstandings become less likely”*.

This first India-specific pattern, revealing the negative effect of “Face Maintenance” on the relational and the cognitive dimension of social capital has been confirmed implicitly by each of our German interviewees D to H. They claimed that it is of utmost importance to manage the negative consequences of what we labeled “Face Maintenance”.

The second identified India-specific pattern was also raised by each of our German interview partners. However, it has been rated as less important compared to the first pattern. It is about the negative influence of relatively higher Collectivism of Indians as compared to Germans on the relational dimension of social capital. In this context, high Collectivism on the Indian side means a very strong relationship to the wider family circle. Such a strong relationship for instance results in Indian team members travelling thousands of kilometers overnight in case of (not even seriously) illness of a more or less closely related family member and staying there until the ill relative feels better, completely neglecting any urgent project deadline or something alike. As a consequence, some distrust exists on the German side if important deadlines or milestones are imminent since it is always possible that an Indian team member stays away from work some days without prior warning because of any family reason. Mr. H comments on this issue as follows: *“If there is any problem in the wider family, they are gone. From one day to the next. They say they need a four week time out or so and then they just leave.”*

[...] As a consequence, skepticism on our side is rising the closer a deadline comes. [...] Yes, possibly this could also result in declining confidence on our side". However, our German interview partners did not report any management measures that had been employed especially with regard to this second pattern. One possible reason for this is given by Mr. H: "In my view there is nothing you can do. [...] You have to learn to get used to it". Learning how to deal with such cultural differences between German and Indian colleagues implies to become more familiar with the other culture. This again is indispensable for any kind of cultural management which always pursues the objective to manage cultural differences and not to reduce them. To create such a comprehensive awareness of the other culture and to better understand it, companies employ several general management measures beside the pattern-specific ones which were presented before. Two of these general measures were mentioned by each interviewee and deemed absolutely crucial. The first is to select a global project manager with broad intercultural experience who takes a mediating role and operates as a global bridgehead; the second are periodic (if possible bidirectional) work assignments on site. Such assignments enable to gain insight in the colleagues' foreign culture and clearly contribute to better understanding each other. The interview partners emphasize that – for a certain time – on-site employment in India and vice versa is indispensable regardless of the costs. Further measures that were less frequently mentioned and considered reasonable include the investment in team members' soft skills (to be able to better react to unpredictable situations or behavior), intercultural training, bilateral discussions about cultural differences within the team (in group or in confidence), and non-work socializing team activities during on-site visits.

After having presented the India-specific results of our exploratory case study, we dwell on the Czech-specific results (cf. Figure 3) gained within the three interviews (projects 1 and 2) with members of the Czech-German IT project teams. Extracting links from culture dimensions to social capital dimensions (cf. Figure 1) from these three interviews resulted in Figure 3. Other relationships than the ones displayed here could not be identified by the researchers.

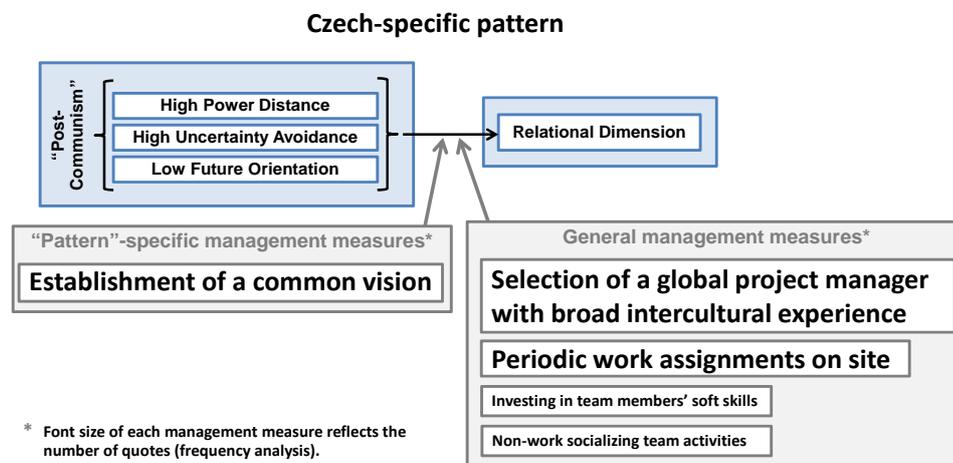


Figure 3. Identified relationships between culture differences and social capital (Czech-specific)

In general, our German interview partners (Mr. A, Mr. B, and Mr. C) reported cultural differences between Czech and German team members but also underlined that those differences are in most cases not big enough to cause serious problems within the team. However, they indicated negative effects of a characteristic we labeled “Post-Communism”. This concept can be described by a combination of high Power Distance, high Uncertainty Avoidance, and low Future Orientation. Indicating high Power Distance and high Uncertainty Avoidance, Mr. A mentions: “In the Czech Republic, everything is very formal. Nothing will happen without the signature of the superior. Everything needs to be signed or at least stamped. [...] Documents which are signed by an apprentice here in Germany have to be signed by an executive in the Czech Republic”. Low Future Orientation is evidenced by lacking acceptance of certain projects: “Most of the Czech team members didn’t see the necessity of a system change. They wanted to keep the old system. [...] As they didn’t consider the system implementation as necessary

they became very passive. [...] Individual initiative was rare” (Mr. C). However, not surprising, the interviewees stated “Post-Communism” being apparent only at older Czech colleagues, who had witnessed the respective political system, but not at the younger ones. Consequently, “Post-Communism” has a negative impact on the relationships not only between German and Czech team members but also between old and young Czechs. Building trust was hindered by the older Czech team members’ rejection of the project respectively by their general resistance to change and by continuous time delays which again were caused by the much more distinct formality on the Czech side as compared to the German side. Moreover, the older Czechs’ resistance to change impeded the creation of shared norms and objectives. To respond to this specific difficulty, the German interviewees emphasized the importance to establish a common vision within the project team – and if this is not accomplished – to even draw staffing consequences: “Every team member should be involved in the project from the very beginning, be aware of the project objectives and agree to them. [...] If someone in the team does absolutely not agree with the project s/he has to be removed from the team. Otherwise serious problems are to be expected. We experienced exactly such a case. A Czech member did not agree to the necessity of the project and constantly put obstacles into the way. Eventually, he was removed from the team. From that point, the project ran smoothly” (Mr. B).

With regard to further general management measures that had been employed within projects 1 and 2, results are comparable with the India-specific results. The highest importance is again assigned to the selection of a global project manager with broad intercultural experience and to periodic (if possible bidirectional) work assignments on-site. Moreover, the interview partners recommended non-work socializing team activities and to invest in team members’ soft skills.

5 Conclusion

This work contributes to research on multicultural teams by presenting three typical patterns revealing how differences in particular dimensions of national culture have a negative impact on team-internal social capital and thus affect project performance. Within two of these patterns, we identified certain cultural dimensions to be closely interrelated resulting in two concepts labeled “Face Maintenance” (India-specific) and “Post-Communism” (Czech-specific) which negatively affect social capital in multinational teams. Within the third pattern (India-specific), high Collectivism solely was found to negatively influence the relational dimension of social capital. In addition, we presented sets of situation-specific and general management measures which had been employed to better deal with culture-driven negative consequences.

However, we cannot claim our results to be exhaustive. Of course, other cultural dimensions than the ones identified are imaginable to negatively affect social capital within multicultural teams as well. Further, with regard to our results revealing a negative impact of “Face Maintenance” on trust, we have to remark that trust in this context rather means trust in the output quality than trust among persons. Consequently, it is questionable if trust in the sense of social capital is fitting here; nevertheless, there is interdependence and overlap between trust into a person and trust into his/her actions and deliverables. Further, our results are limited to cultural differences between the Czech Republic and Germany on the one hand and between India and Germany (and other western countries) on the other; and we observed only the German perspective since we had only German interview partners. As Dibbern et al. (2008) as well as Gregory et al. (2009) showed, there can be strongly diverging perceptions of cultural characteristics being an issue or not if you ask the different sides. Another potential issue refers to the question whether the observed negative consequences on social relationships within the multinational teams are indeed a result of the cultural *differences* between the two sides (e.g. German and Indian team members) or of the characteristics of the cultural dimensions per se (e.g. high Power Distance, high Collectivism, and low Assertiveness respectively “Face Maintenance” in India). Unfortunately, we are not able to provide a data-driven answer to this question as we only had German interview partners. Interviews with Indian team members would have been necessary to investigate if “Face Maintenance” might cause the same problems in a purely Indian

team as it does between Indians and Germans in a multinational team. We believe that “Face Maintenance” leads to some problems in a purely Indian team as well. But, however, these problems will not be as critical as in multinational teams because Indians know “how to play the game” around “Face Maintenance” since it is an integral part of their culture. In contrast, people from Western cultures will be faced with much larger problems from our point of view because they naturally do not know how to deal with such “foreign” phenomena like “Face Maintenance”.

In our future research, we will conduct further interviews with team members from India and Eastern Europe to better conceptualize and elaborate on “Face Maintenance” and “Post-Communism”. By uncovering the relationships between both national cultural differences and social capital *in terms of particular dimensions*, research can deliver more in-depth and better structured insights to the relevance of cultural differences and how to manage them in order to achieve superior project performance.

References

- Brodbeck, F.C., Chhokar, J.S., and House, R.J. (2007). *Culture and Leadership across the World: The Globe Book of in-Depth Studies of 25 Societies*. Lawrence Erlbaum Associates, Mahwah.
- Carmel, E. (1999). *Global Software Teams: Collaborating across Borders and Time Zones*. Prentice Hall PTR, Upper Saddle River (NJ).
- Carmel, E. and Agarwal, R. (2001). Tactical Approaches for Alleviating Distance in Global Software Development. *IEEE Software*, 18 (2), 22-29.
- DeLone, W., Espinosa, J.A., Lee, G., and Carmel, E. (2005). Bridging Global Boundaries for Is Project Success. 38th Hawaii International Conference on System Sciences, Waikoloa (HI).
- DeSanctis, G. and Poole, M.S. (1997). Transitions in Teamwork in New Organizational Forms. *Advances in Group Processes*, 14, 157-176.
- 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.
- Doney, P.M., Cannon, J.P., and Mullen, M.R. (1998). Understanding the Influence of National Culture on the Development of Trust. *Academy of Management Review*, 23 (3), 601-620.
- Earley, P.C. and Mosakowski, E. (2000). Creating Hybrid Team Cultures: An Empirical Test of Transnational Team Functioning. *Academy of Management Journal*, 43 (1), 26-49.
- Eisenhardt, K.M. (1989). Building Theories from Case Study Research. *Academy of Management Review*, 14 (4), 532-550.
- Eisenhardt, K.M. and Graebner, M.E. (2007). Theory Building from Cases: Opportunities and Challenges. *Academy of Management Journal*, 50 (1), 25-32.
- Flyvbjerg, B. (2006). Five Misunderstandings About Case Study Research. *Qualitative Inquiry*, 12 (2), 219-245.
- Govindarajan, V. and Gupta, A.K. (2001). Building an Effective Global Business Team. *MIT Sloan Management Review*, 42 (2), 63-71.
- Gregory, R.W., Prifling, M., and Beck, R. (2009). The role of cultural intelligence for the emergence of negotiated culture in IT offshore outsourcing projects. *IT & People*, 22 (3), 223-241.
- Gregory, R.W. (2010). Review of the IS Offshoring Literature: The Role of Cross-Cultural Differences and Management Practices. In: *Proceedings of the 18th European Conference on Information Systems*, Pretoria, South Africa.
- Hofstede, G. (1980). *Culture's Consequences: International Differences in Work-Related Values*. 1. print. Sage Publications, Beverly Hills (CA).
- House, R.J., Hanges, P.J., Javidan, M., Dorfman, P.W., and Gupta, V. (2004). *Culture, Leadership, and Organizations: The Globe Study of 62 Societies*. Sage Publications, Thousand Oaks (CA).
- Huff, L. and Kelley, L. (2003). Levels of Organizational Trust in Individualist Versus Collectivist Societies: A Seven-Nation Study. *Organization Science*, 14 (1), 81-90.
- Kaplan, B. and Duchon, D. (1988). Combining Qualitative and Quantitative Methods in Information Systems Research: A Case Study. *MIS Quarterly*, 12 (4), 571-586.

- Kayworth, T.R. and Leidner, D.E. (2000). The Global Virtual Manager: A Prescription for Success. *European Management Journal*, 18 (2), 183-194.
- Kluckhohn, F.R. and Strodtbeck, F.L. (1961). *Variations in Value Orientations*. Row, Peterson and Co., Evanston (IL).
- Kohlbacher, F. (2005). The Use of Qualitative Content Analysis in Case Study Research. *Qualitative Social Research*, 7 (1), 1-23.
- Kotlarsky, J. and Oshri, I. (2005). Social Ties, Knowledge Sharing and Successful Collaboration in Globally Distributed System Development Projects. *European Journal of IS*, 14 (1), 37-48.
- Leidner, D.E. (2010). Globalization, Culture, and Information: Towards Global Knowledge Transparency. *Journal of Strategic Information Systems*, 19 (2), 69-77.
- McClelland, D.C. (1961). *The Achieving Society*. D. Van Nostrand, Princeton (NJ).
- Myers, M.D. and Newman, M. (2007). The Qualitative Interview in IS Research: Examining the Craft. *Information and Organization*, 17 (1), 2-26.
- Nahapiet, J. and Ghoshal, S. (1998). Social Capital, Intellectual Capital and the Organizational Advantage. *Academy of Management Review*, 23 (2), 242-266.
- Oh, H., Chung, M., and Labianca, G. (2004). Group Social Capital and Group Effectiveness: The Role of Informal Socializing Ties. *Academy of Management Journal*, 47 (6), 860-875.
- Oshri, I., Kotlarsky, J., and Willcocks, L.P. (2007). Global Software Development: Exploring Socialization and Face-to-Face Meetings in Distributed Strategic Projects. *Journal of Strategic Information Systems*, 16 (1), 25-49.
- Paul, S. and Ray, S. (2009). Cultural Diversity, Perception of Work Atmosphere, and Task Conflict in Collaboration Technology Supported Global Virtual Teams: Findings from a Laboratory Experiment. In: *Proceedings of the 42nd Hawaii International Conference on System Sciences*, Waikoloa (HI).
- Portes, A. (1998). Social Capital: Its Origins and Applications in Modern Sociology. *Annual Review of Sociology*, 24 (1), 1-24.
- Reagans, R. and Zuckerman, E.W. (2001). Networks, Diversity, and Productivity: The Social Capital of Corporate R&D Teams. *Organization Science*, 12 (4), 502-517.
- Robert Jr., L.P., Dennis, A.R., and Ahuja, M.K. (2008). Social Capital and Knowledge Integration in Digitally Enabled Teams. *Information Systems Research*, 19 (3), 314-334.
- Salk, J.E. and Brannen, M.Y. (2000). National Culture, Networks, and Individual Influence in a Multinational Management Team. *Academy of Management Journal*, 43 (2), 191-202.
- Sarker, S. and Sarker, S. (2009). Exploring Agility in Distributed Information Systems Development Teams: An Interpretive Study in an Offshoring Context. *Info. Sys. Research* 20 (3), 440-461.
- Sarker, S., Sarker, S., and Jana, D. (2010). The Impact of the Nature of Globally Distributed Work Arrangement on Work-Life Conflict and Valence: The Indian Gsd Professionals' Perspective. *European Journal of Information Systems*, 19 (2), 209-222.
- Ting-Toomey, S. and Cole, M. (1990). Intergroup Diplomatic Communication: A Face-Negotiation Perspective. In *Communicating for Peace: Diplomacy and Negotiation* (F. Korzeny and S. Ting-Toomey Eds.), Sage Publications, Newbury Park (CA).
- Tsai, W. and Ghoshal, S. (1998). Social Capital and Value Creation: The Role of Intrafirm Networks. *Academy of Management Journal*, 41 (4),
- Vallaster, C. (2005). Cultural Diversity and Its Impact on Social Interactive Processes: Implications from an Empirical Study. *International Journal of Cross Cultural Management*, 5 (2), 139-163.
- Walsham, G. (2002). Cross-Cultural Software Production and Use: A Structural Analysis. *MIS Quarterly*, 26 (4), 359-380.
- Winkler, J.K., Dibbern, J., and Heinzl, A. (2008). The Impact of Cultural Differences in Offshore Outsourcing - Case Study Results from German-Indian Application Development Projects. *Information Systems Frontiers*, 10 (2), 243-258.
- Yang, S., Lee, H., and Kurnia, S. (2009). Social Capital in Information and Communications Technology Research: Past, Present, and Future. *Communications of the AIS*, 25 183-220.
- Yin, R.K. (2009). *Case Study Research: Design and Methods*. 4th ed. SAGE, Thousand Oaks.