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CULTURE AS A CRITICAL SUCCESS FACTOR FOR SUCCESSFUL GLOBAL PROJECT MANAGEMENT IN MULTI-NATIONAL IT SERVICE PROJECTS

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ABSTRACT

Business life in the 21st century is becoming increasingly global. The concepts of globalization apply to both large multi-national corporations and local organizations buying goods or services from other countries or contracting people globally. IT services like application development or outsourcing services are delivered as projects using global resources from different cultures. Therefore, this paper analyses whether considering cultural management as a core project management discipline positively impacts the success of globally delivered IT service projects and, thus, the business performance of project-based IT organizations.

Based on a review of existing literature, a qualitative research design is derived. Data gathered in interviews identify that cultural awareness and management of cultural differences are critical factors for international projects due to additional challenges regarding cross-cultural communication. These findings are contrasted against scholarly literature to validate findings from qualitative research.

The analysis of empirical research data as well as findings from literature are used to develop a Project Management Cultural Framework. This framework accounts for different cultures in international project teams and identifies culture and communication as core issues framed by a project management methodology, organizational systems, processes and infrastructure as well as the external environment and stakeholders. Additionally, the framework suggests that an appropriate management of inter-cultural teams poses specific challenges to project managers and organizations striving to build successful project teams.

Keywords: Project Management, Globalization, Multi-National Projects, IT Service Projects, Culture.

INTRODUCTION

In context of the ongoing globalization which manifests itself in international projects and offshore service delivery, Tomlinson [38] states that globalization is a central theme in today's business society and therefore "*cultural practices lie at the heart of globalization*". Hence, project managers face additional challenges. This

analysis seeks to identify whether the management of cultural differences is a critical success factor in international project management of Information Technology (IT) projects.

The IT service and especially the outsourcing industry is characterized by commoditized offerings, increased price awareness of customers and an intense competition among players in the marketplace. Significantly lower wages in developing countries make global re-

sources a valuable means to reduce cost for IT service vendors. However, the integration of global resources is a challenge for organizations pursuing successful project implementation in order to survive in the marketplace. IT service offerings are delivered as projects for which multinational project teams are built using global resources. These teams need to be managed appropriately to ensure successful project delivery. Therefore, this paper analyses the impact of culture on the management of global resources and seeks to identify cultural frameworks that need to be in place to allow for efficient global service delivery.

A lot of critical success factors are discussed for project management (PM) in general covering a wide range of PM knowledge areas. However, according to Henrie and Sousa-Poza [17], it appears that the PM profession's research agenda considers cultural factors to a very limited degree only. Thus, the two-fold research question is whether appropriate management of cultural differences of project team members impacts successful project delivery, i.e.

1. Does globalization enforce cultural management as a core PM discipline?
2. Can the success of international IT service projects be increased by cultural management?

According to Kliem [24] risks are not eliminated when IT development projects are outsourced to an off-shore workforce. Rather, new risks emanating from geographical and cultural differences create unique challenges in international projects. These new risks, combined with traditional risks that continue to exist, require an even stronger focus on risk management. This is a major motivation for exploring cultural aspects and their impact on PM in more detail.

The rest of the paper provides a literature review in which relevant terms for the research topic are defined, the current state of knowledge is analyzed and previous research is appraised to build a solid foundation for further analysis and research fieldwork. Based on the literature review the research methodology is presented outlining the research design. Results of the actual fieldwork are summarized and analyzed. The identified common patterns suggest preliminary answers to the research questions. Conclusions are drawn by linking back empirical results to findings from the literature review. Research results are used to develop a Project Management Cultural Framework and to eventually derive management recommendations.

THEORETICAL BACKGROUND: GLOBALIZATION IN PROJECT MANAGEMENT LITERATURE

Definition of Terms

In order to have a sound basis for further discussion, the most relevant terms *project*, *project success*, *project management* and *culture* in context of this paper are defined in the following. The term *project* is defined in numerous publications, peer-reviewed scholarly as well as non-academic PM literature. Turner [41] states that a project is “*an endeavour in which human, material and financial resources are organized in a novel way, to undertake a unique scope of work, of given specification, within constraints of cost and time, so as to achieve beneficial change defined by quantitative and qualitative objectives*”. Thus, Turner links success criteria to the definition of a project and therefore provides the basic definition of a project and project success used throughout this paper.

Building on the definition of projects and project success, the Association for Project Management (APM) [1] defines *Project Management* as the discipline of successfully managing projects. The Project Management Institute (PMI) [32] further details this as “*the application of knowledge, skills, tools and techniques to project activities to meet project requirements*”. While further definitions of the term *Project Management* include various aspects such as the ‘Iron Triangle’ of cost, quality and time by Atkinson [2], the definition provided by the PMI is the most general one and is therefore used within this paper.

The definition of culture is widely discussed in literature. Due to its intangible nature and existing cultural differences, it is difficult to create an agreed, widely accepted definition. Bertalanffy [4] summarizes that the definition of culture and the underlying concepts is a matter of dispute and refers to a study by Kroeber and Kluckhohn [26] discussing approximately 160 different definitions of culture without suggesting a definitive one. Thus, the definition of culture chosen within this paper is one that can be applied to project management: Schein [35] defines that “*culture is the way in which a group of people solves problems and reconciles dilemmas*”. Applying this definition to PM means that the project and all related project activities are the problems and dilemmas to be resolved. The group of people solving these problems are project managers, other team members, customers and stakeholders.

Project Management Approaches and Methodologies

One of the most well-known project management frameworks is the *Guide to the Project Management Body of Knowledge* (PMBOK® Guide) published by the professional institute PMI [32]. It states that projects are composed of processes in five process groups which are categorized into nine knowledge areas. However, cultural management is not explicitly mentioned. As a foundational reference, PMI concentrates on knowledge sufficiently generalized so that it can be applied to any project. It does not explicitly pay attention to emerging trends in PM like globalization or the use of global resources. More specifically, it does not include culture as a central element of e.g. human resource management or communications management but rather as a social and organizational environmental factor. However, the PMBOK® Guide recognizes that a need for knowledge area extensions might result from differences in cultural norms confirming a need for further research.

As another professional institute the Association for Project Management (APM) also published a *Body of Knowledge* [1]. In a less process-oriented way than PMI, it includes tools and techniques as well as the social and ecological environment and people factors. However, the only reference to culture states that the cultural background of team members need to be considered without any further elaboration. Therefore, similar to PMI, the APM Body of Knowledge does not address specifics for PM in context of globalization and does not consider cultural management as a core PM discipline necessary for project success.

Further analysis of project management literature shows that there is a dispute between systematic functional project management approaches as advocated by Kerzner [23] and the relevance of human factors and customer focus as advocated by Turner & Peymai [42] or Whitty [44]. Whitty encourages a so-called memetic perspective on PM criticizing the traditional PM approach followed by professional institutions to replicate itself with the existing body of knowledge although these notions might be wrong. He therefore pursues an examination of traditional PM research in a new way by adhering to traditional best practices on the one hand and by extending the PM body of knowledge with new or emerging trends and challenges on the other hand. One of these challenges he mentions is the globalization.

Globalization and Project Management

Globalization impacts PM approaches and provokes the need for project teams to cope with the chal-

lenges resulting from an ever more dynamic environment of international projects. Gurung and Prater [13] suggest that internal advantages of the ongoing globalization in IT service projects for project-based organizations are access to a wider pool of talent, potential cost reductions by cheaper labor in developing countries, the enforcement of internal competition and possible quality improvements. External advantages for customers are follow-the-sun development and extended service times.

One of the challenges that applies to PM results from the fact that project teams are geographically dispersed with team members working from separate locations. Townsend et al. [39] describe these so-called *virtual teams* as teams consisting of geographically and / or organizationally dispersed members who employ telecommunication and information technology to achieve their goals. To address this challenge Bell & Kozlowski [3] propose a typology of virtual teams discussing characteristics that distinguish virtual teams from conventional ones: They identify *spatial distance* on the one hand and *information, data and personal communication* on the other. According to Bell & Kozlowski, the lack of personal contact constrains performance management and team development as primary leadership functions. While they consider boundary spanning of virtual teams across functions, organizations and cultures as a salient challenge, their framework does not provide information on how to actually manage these issues.

Dinsmore & Benitez Codas [8] suggest that globalization influences all kinds of projects which also applies to IT projects with services being outsourced to developing countries with a high skill base and low labor rates. They argue that it is crucial to enable efficient communication and understanding between project team members from different cultural contexts as this might make the difference between success and failure in international projects.

Cultural aspects in context of globalization

Trompenaars and Hampden-Turner [40] distinguish cultural patterns on three different levels, namely on *national*, *organizational* and *professional* level. While this classification is useful to define different cultural contexts, it does not reflect the fact that in multi-national, multi-functional organizations, the organizational culture spans across the boundaries of national and / or professional cultures. Trompenaars and Hampden-Turner confirm this view by emphasizing that the internationalization of business enforces more cultural awareness. Our research solely concentrates on national cultures. We therefore let professional and organizational culture be constants for the purpose of our research.

Professional culture in this paper refers to the PM profession whose culture is coined by the PMI Code of Professional Conduct [31] in which basic principles for Certified Project Management Professionals (PMP) including a common language and behavioral responsibilities are defined. A similar set of behavioral characteristics is provided by APM [1] in their Body of Knowledge. With respect to organizational culture referring to cultural patterns within corporate boundaries, several authors [11], [7], [16] distinguish different types of organizational culture each of which can be more or less suitable in different environmental or even cultural contexts. To minimize reciprocal effects our research is narrowed to one globally present IT service provider.

Focusing research on *national cultures*, Garrison [10] suggests his Iceberg Model as a framework for analyzing national cultures. The three basic sectors *bedrock*, *work systems* and *behaviors* are analyzed to identify cultural differences: To get a full picture, he proposes to answer a questionnaire for each of these sectors asking for the cultural differences that international management teams need to be aware of. The weighted average scores obtained from the answers to the questionnaires are plotted on the Triangle Model. This gives an indication of whether the national culture under investigation is considered as individualistic or corporatist, materialistic or communitarian and corresponds to an open or closed culture.

Hofstede [19] analyses cultural factors in a survey among IBM employees in 50 countries. As this empirical study on *Dimensions of National Culture* is constrained to IBM as a single organization, possible influences from different organizational cultures are diminished as far as possible. Therefore, focus is clearly on values and on variations of values between different nations. Hofstede derives four dimensions at business-cultural level: *Power Distance*, *Individualism and Collectivism*, *Masculinity and Femininity* as well as *Uncertainty Avoidance*. Building on these dimensions, Hofstede outlines cultural maps of the major groups of countries with similar cultural patterns and shows that doing business in another part of the world can be fundamentally different from doing business locally.

Adding to Hofstede's work, Hampden-Turner and Trompenaars [15] define seven variables they consider culturally relevant to the creation of wealth. These variables (e.g. universalism vs. particularism, individualism vs. communitarianism or attitudes to time and environment) are distinct from Hofstede's cultural dimensions. Both studies, the *Dimensions of National Culture* by Hofstede and the *Seven Cultures of Capitalism* by Hampden-Turner and Trompenaars, lead to the conclusion that different nations have distinct values rooted in their cul-

ture. These values result in a tendency to handle problems in different ways specific to each culture.

The *Compass Model* suggested by Hall [14] aims at determining cultural styles of behavior with the two dimensions *assertiveness* and *responsiveness*. The resulting matrix represents four distinct cultural styles which are relative to the centre of the compass and thus relative to the personal attitude and perception of the beholder. The dimension *assertiveness* refers to the extent a culture is directive and forceful. *Responsiveness* relates to the extent cultural behaviors are perceived as being emotionally expressed. Highly responsive business cultures focus on emotions rather than facts and thus tend to be very likable.

Cultural Management of International Projects

Evaristo and van Fenema [9] recognize that "*emerging trends are changing the way projects are organized and managed, creating new challenges in project management research and practice*". Among others, emerging trends are globalization and internationalization combined with advanced communication and conferencing technologies. These factors enable and even enforce virtual projects including teams working in internationally dispersed locations and even separate organizations. Evaristo and van Fenema [9] therefore provide a model of different PM typologies which classifies projects corresponding to the dimensions *number of projects* and *number of sites* involved. While possible project typologies are discussed, consequences and implications remain open questions for further research.

In international teams there are several national cultures present which results in the project team being a heterogeneous rather than a homogenous group. In previous analysis culture has been identified as a potential reason for project failure. This is especially true for systematic and codified PM practices developed in Western cultures applied to projects in developing countries in different cultural contexts [29]. Therefore, Henrie and Sousa-Poza [17] point out the relevance of culture. In their culture related literature review Henrie and Sousa-Poza analyze leading peer-reviewed PM journals and recently published PM books with a focus on culture within the PM discipline. The key findings drawn from that analysis are

- Cultural knowledge and awareness is significant for PM professionals.
- Empirical research on culture and PM continues to be limited.

With respect to this analysis, PM publications seem to focus more on a systematic approach leveraging

tools, techniques and processes rather than culture. A reason for this might be the widely-accepted definition of PM provided by PMI which concentrates on the application of knowledge, skills, tools and techniques. This perception is confirmed by Kloppenborg and Opfer [25] who conducted a literature review of English PM research publications from the 1960s to the 1990s. This review states that during the 1970s, research concentrated on the development and use of automated project management software, in the 1980s researchers focused on design to cost and in the 1990s research projects moved on to analyze human resource aspects. As human resource aspects inherently deal with cultural issues, a possible implication would be that in the 2000s PM literature moves on to analyze culture. However, Henrie and Sousa-Poza [17] observe that only little empirical research covers this topic.

Similarly, Gurung and Prater [13] analyzed the impact of culture on IT outsourcing. They state that culture is an important factor for successful global virtual teams while *“there have been few efforts to include the culture variable in the theoretical frameworks of outsourcing”* [13]. Being specialized on IT outsourcing the study discusses a theoretical framework of outsourcing, rather than PM in general. However, with outsourcing typically being delivered as a project, the relevance of culture and underlying concepts are likely to be valid in a general PM context as well. Particularly interesting is the statement that outsourcing success depends on the quality of the relationship between vendor and customer which in turn is influenced by culture, but that current research neglects these cultural differences. Similar findings exist for PM research which, however, does not purely concentrate on the relationship between vendor and customer but also includes managing the internal project teams and subcontracted third party providers.

Jennex and Adalakun [22] performed research on success factors for offshore information systems development. Their exploratory study focusing on startup offshore development companies identifies six critical success factors from five factor groups: *People Factors, Technical Infrastructure, Client Interface, Business Infrastructure and Regulatory Interface*. Not surprisingly, the list of success factors includes general and technological skills. Two further factors cannot be influenced by PM, namely intellectual property protection and the telecommunication infrastructure. The remaining factors are having a knowledgeable client and trust. According to Palvia and Vemuri [30] a trusting relationship between clients and offshore providers is related to recognizing culture, local regulations and language.

Within this context Kliem [24] identifies risks of offshore IT development projects categorized as financial, technical, managerial, behavioral and legal risks. Building

and maintaining trust is one of the key challenges identified for international projects. The resulting risk is that certain nationalities may find it difficult to work with others leading to border tensions between two or more countries. This refers to team building and overcoming cultural differences. Kliem [24] points out that the challenge of crossing multiple boundaries not only results from tangible obstacles, such as legal or regulatory requirements but also from implicit obstacles such as cultural habits and interactions. An inability to manage cultural differences often leads to issues in context of other inter-related challenges such as collaboration and maintaining trust [24].

Adding to that, Raval [33] discusses that culture and language must not negatively influence the project. This view is confirmed by Javidan et al. [21] stating that hardly any organization will be immune to the effects of globalization. Their Global Leadership and Organizational Behaviour Effectiveness (GLOBE) research program is concerned with providing a cross-cultural integrated theory of the relationship between culture and societal, organizational, and leadership effectiveness [20]. GLOBE is a research project among a world-wide team of scholars who developed nine dimensions to distinguish one country's culture from another. Ten culture clusters are identified in which countries share certain characteristics that impact the leadership effectiveness and the attitude towards leadership in line management positions. Providing valuable information on cross-cultural management on a behavioral level, the GLOBE findings are designed for global executives rather than project managers.

Summary of the Current State of Knowledge

Key issues emanating from literature are that the ongoing globalization impacts business and PM. Culture and the management of cultural differences are recognized as key influencing factors for virtual project teams. Crossing national boundaries implies the need to overcome tangible and intangible obstacles where one of the implicit obstacles is culture [24]. Thus, cultural knowledge and awareness are significant for PM professionals [17].

The current state of research regarding PM in general and with a special focus on international PM as reviewed above shows that there currently is little analysis with respect to cultural influences. According to Henrie and Sousa-Poza [17], *“project team culture is a research area where little data and information is available”*. However, they state that negative or positive impact is high. Similarly, Gurung and Prater [13] state that *“although there is a great deal of research on outsourcing, global virtual teams, and international culture, there has been little work on integrating these three aspects of the*

Information Technology industry". Therefore, our research addresses this research gap.

RESEARCH DESIGN

The purpose of our research is to explore the influence of culture on international projects, the relevance of cultural awareness and whether management of cultural differences positively impacts success of international projects.

Research Focus

As PM in general is a broad field, the focus is narrowed down along two dimensions. The type of projects to focus research on is the first dimension. In context of this paper IT service projects are analyzed. The second dimension is the impact of cultural management on project success.

Considering the first dimension, the IT service industry is increasingly characterized by commoditization, increased price awareness of customers and, resulting from that, an intense competition on price in the marketplace. Due to significantly lower wages in developing countries, the use of global resources is seen as a valuable means to reduce the cost base for IT service vendors. However, the integration of global resources poses heavy challenges. IT service offerings are delivered as projects for which teams are staffed using global resources. These virtual teams need to be managed appropriately to ensure project success.

With respect to the second dimension focusing on the impact of cultural management, this paper concentrates on the impact of *national cultures* on international PM. To minimize influences of the two remaining types of culture, the professional culture is confined to that of the PM profession. The *organizational* culture is narrowed by conducting research solely within one globally present IT service provider.

Research Approach

Our research approach corresponds to interpretivism. Only little knowledge seems to exist regarding the research question which is confirmed by Henrie and Sousa-Poza [17] who state that project team culture is an under-researched area. While a lot of literature, theoretical frameworks and methodologies exist considering PM and culture separately, the combination of these in context of globalization appears to be under-researched.

Thus, a deeper understanding with respect to the impact of cultural management in international PM needs to be developed and our research aims at exploring a new social reality trying to understand the big picture and indi-

vidual interpretations. According to Burrell and Morgan [5] this is aligned to an interpretivist approach. Based on this reasoning, our exploratory research design follows an inductive approach with a qualitative research method gathering data about the issue of analysis, iteratively exploring deeper into details in order to finally understand the subjective reality as it is interpreted by the individual.

Within our qualitative exploratory research approach we employ semi-structured expert interviews as a data collection technique using a questionnaire with open-ended questions to motivate the interview candidate to share his or her experience on the key topics as well as probing questions to check answers for consistency and to identify potential contradictions. Semi-structured interviews allow exploring into more detail throughout the interview depending on the expertise and experience of the interview candidate and the discussion flow. The experts are encouraged to provide environmental information enabling to obtain a more holistic view of the topic under research. The interview-option seems to be the most appropriate option to gather data and understand the experts' views, issues, pain points and gaps as well as the impact of culture regarding IT service projects in an international context.

To draw conclusions and give recommendations data are iteratively collected in interviews which are then transcribed, reduced and displayed. Aligned to Miles and Huberman [28] this is done by coding the interview transcripts, noticing common patterns, clustering and categorizing results, comparing and contrasting findings as well as noting relations between common patterns. As our research questions explicitly ask for the impact of culture on the success of international PM we further analyzed the interview results with respect to the two main research aspects of International PM and cultural management.

Interview Structure

The interviews conducted are based on a questionnaire consisting of open-ended, probing and multiple choice questions. These questions are categorized into four sections collecting demographic data and asking more detailed questions that are based on the literature review. The questionnaire deals with general PM issues that apply to local projects with domestic resources and then elaborates on international projects and cultural specifics. This approach is aligned to the literature review that first focused on more general PM literature as provided by PM professional institutes such as APM or PMI, then reviewed literature concentrating on challenges resulting from the emerging globalization and internationalization of PM and finally moved on to analyze literature

dealing with culture itself as well as the impact of culture on international PM.

The first section of the interview questionnaire asks for demographic information. It aims to obtain the expert's job role and experience as well as the nationalities and cultures the expert dealt with in previous and current project work.

The second section deals with general PM issues and focuses on domestic projects. It tries to find out about the expert's perspective on PM and the individual's attitude towards PM methodology as compared to literature. On the one hand, these questions contrast the expert's perspective on PM against the literature and methodologies provided by professional institutes. On the other hand, answers to these questions in context of domestic projects provide a sound basis to compare and contrast against in the following section with an explicit focus on international projects.

The third section deals with international PM specifics and asks open and probing questions on additional challenges and issues for cross-border teamwork. Some questions are similar to the ones asked in section two. This is done on purpose to check for changing views and to compare and contrast perspectives against answers to questions on domestic projects in the previous section. The ultimate goal in this section is find out whether international projects are different from domestic projects and, if this is the case, what advantages, additional challenges and issues result from an international project setup. This includes a judgment on how these challenges are addressed and whether international projects using global resources are beneficial to the organization.

One of the crucial issues that emanates from the literature review in context of international projects with project teams being dispersed all over the world is culture. Thus, questions in the fourth and last section are concerned with a more detailed view on the impact of culture on international PM. The ultimate goal is to find out what cultural differences and challenges mean for the project manager and the project team. The term culture has a very broad scope which in context of this research is narrowed to national cultures. Therefore, the last section of the questionnaire seeks to understand the cultural specifics team members are concerned with and project managers need to be aware of to properly manage international projects. PM aspects as well as organizational issues are reflected. In this context, organizational issues refer to what

an organization can do to effectively foster and support cross-cultural teamwork.

Sample Characteristics

The selection of interview candidates is based on the experience experts have with international projects and with offshore resources. To minimize influences resulting from different organizational cultures on the research performed, interview candidates are selected from a single globally-present IT service provider. In context of this paper, Germany is regarded as the onshore location. The sample consists of candidates with ages from 27 to 57 and, correspondingly, with different seniority and different levels of business experience in at least three international projects. Similarly, the expert sample has a balanced level of familiarity with the organizational culture as shown in Table 1.

Table 1 Number of experts in sample per staff membership category

Staff membership	Number of experts
Less than 2 years	2
2 – 5 years	4
5 – 8 years	3
8 – 10 years	3
More than 10 years	3

For a broad understanding of the phenomenon under research, different stakeholders with their distinct interests in international projects are included in a balanced research sample which consists of 6 Project Managers, 4 IT Architects and 5 Line Managers responsible for international projects.

Additionally, the expert sample needs to include project stakeholders from different nationalities and cultures for a balanced analysis. Therefore, the research sample includes 5 people from offshore locations in India, near-shore locations in Hungary and onshore locations in Germany respectively. Experts from onshore and offshore countries have experience with a broad range of cultures while people from the European near-shore location are more focused on projects in the near-shore perimeter. Table 2 summarizes cultural experience of the experts from the respective locations.

Table 2 Experience with Cultures per Expert Location

Expert's location	Number of experts	Cultures experts have experience with
Onshore	5	Anglo-Saxon (USA / UK) European (North / West / South / East) Asian (India / China)
Near-shore	5	European (North / West / South / East)
Offshore	5	Anglo-Saxon (USA / UK) European (North / West / South / East) Asian (India / China/ Japan) Oceania (Australia)

Research Quality

Reliability, validity and generalisability are key aspects of research quality [34]. Collins and Hussey [6] state that a qualitative research design generally offers a high level of validity but a low level of reliability. Therefore, reliability issues are addressed in the research design. The main threat to reliability is bias during research: *Participant Bias* is minimized by selecting interview candidates without personal relations to the interviewer and by committing to use interview data anonymously. *Observer Bias* resulting from the tone or non-verbal body language during the interview is minimized by distributing the questionnaire in advance for preparation and by maximum neutrality and objectivity during the interview. *Sample Bias* is minimized by selecting a balanced set of interview candidates from the various stakeholders and job roles as well as a balanced mix of different cultures and nationalities

Validity is concerned with the degree the researcher obtains sound data from the interview candidate's experience and expertise. This implies to correctly understand expert responses and derive the right findings from that. Semi-structured and in-depth interviews enable a high level of research validity. According to Sykes [37], this is because meanings can be verified between the researcher and the expert, questions can be clarified and issues can be discussed from different points of view.

According to Silverman [36], *generalisability* refers to deriving universally applicable findings from particular cases. Two main issues exist regarding the generalisability of our research findings. Firstly, research is performed within a single organization. This is one of the pillars of our research design in order to minimize the influence of different organizational cultures. Secondly, the relatively small sample size implies that our research results and conclusions must not be incautiously transferred to other settings.

RESEARCH RESULTS

Challenges in International Projects

As a starting point the interview questionnaire asks for the expert's definition of project success. All candidates agree that project success is measured in correspondence with the Iron Triangle between time, budget and quality. As the Iron Triangle is also put forward by the organization which is common to all experts, this is not a surprising result. According to the experts, communication and a common understanding about the project and its deliverables are either a key reason for success or, if not present, a key reason for project failure. Especially, four out of five interview candidates from the offshore country India state that the effectiveness of communication and the presence of a common understanding are closely related to cultural influences. Another key reason for failure identified by the interview sample is a lack of teamwork caused by either inefficient or inexistent team building during the project setup phase resulting in demotivation and a lack of commitment that endangers project success.

These three patterns of *team building*, *communication* and *cultural differences* are confirmed in answers to the question on additional challenges resulting from international projects. With respect to the team building challenge one expert states that "*the most apparent challenge is that the dispersed project team needs to work and function as a single team, despite being geographically split. This is the most important challenge and it actually is the most difficult challenge.*" In context of the communication challenge, the communication media and different language skills are mentioned as concrete issues recognizing a challenge to avoid misunderstandings. Avoiding misunderstandings is closely related to the third challenge which is to manage cultural differences between project team members. An expert states that "*there are cultural specifics that further complicate project work. Project team members need to be aware of these specifics and therefore need to show a certain level of cultural intimacy. This is actually a very sensitive area in which you*

can make a lot of mistakes. These mistakes might be fatal, therefore it is a key challenge for international projects.”

According to the experts, the challenges mentioned above are addressed in various ways. The team building challenge is often addressed by co-locating project team members, either offshore people to the onshore location or vice versa. Especially during project setup, joint kick-offs are used to enable people getting to know each other and to build one team. Introducing a team leader or dedicated project manager for each geographically dispersed project team is another way of how the challenge of acting as one global team is addressed on an organizational level.

To address communication challenges and to obtain a common understanding, the most common approach within the group of experts is to verify repeatedly, whether agreements have been understood by re-formulating questions and letting the counterparts repeat their understanding in their own words. Important decisions and agreements are documented in statements of work including an official sign-off of all involved parties. Another approach that is taken in near-shore or offshore countries is to learn the language of the respective country project work is done with.

Cultural differences as the third of the most important challenges are more difficult to address. One expert states that cultural differences are often ignored. Others say that cultural challenges are only addressed on a personal basis, either by personal mentoring or by individually learning about cultures and behaviors linked to them.

Elaborating further on the subject of cultural differences, the experts identified communication, cultural differences related to behaviors and attitudes as well as overcoming language barriers as most important issues when working together with people from different cultural contexts. This confirms the close linkage of culture and communication as stated previously. Interesting to note is that offshore resources regard overcoming language barriers as more important than overcoming cultural issues with respect to behaviors and attitudes. The focus for onshore and near-shore respondents is exactly the other way around as outlined in Table 3:

Table 3 Relevance of issues for International Projects according to times mentioned by expert sample

Answer	Onshore	Near-Shore	Offshore	Total
Communication	5	3	5	13
Behaviors and Attitudes	5	5	3	13
Time Zone Issues	-	1	2	3
Language	2	1	4	7
Skills	1	-	-	1
Specification of Deliverables	1	1	1	3
Management Authority	1	3	-	4
Organizational Structure	-	1	-	1

The most common approach to face these cultural challenges mentioned by the interview sample is to introduce a local project manager or team leader acting as a ‘translator’ regarding behaviors and attitudes as well as language and communication in each involved country. While causing overhead, a local project manager makes things work and eases communication and control. Another approach that is used to address challenges is a co-location of key resources, working face-to-face with the project team aiming to achieve a common understanding of project objectives and deliverables. Generally, the interview sample states that awareness of cultural differences and the management of these differences is a personal matter with the organization providing information and support.

This directly leads us to the role of a successful project manager in context of international projects. The experts agree that the most important characteristics of successful project managers in both domestic and international projects are leadership capabilities, communication skills and emotional intelligence. In an international context, the importance of communication is further emphasized due to the fact that communication means and media are more difficult to use in a geographically dispersed context. Additionally, cultural awareness and respect for cultural differences becomes an important factor for a successful project manager due to the inter-cultural nature of international projects. One expert summarizes the common patterns resulting from the answers to this question as *“In an international project, communication gets even more important than in domestic ones. But additionally, it is even more important to have emotional intelligence and being able to see things from the point of view of a global resource that has a different cultural context.*

If you can't reflect the things you did and why some personal action has provoked a distinct reaction, you are in trouble. You really need to be able to reflect about yourself and recognize mistakes you made."

A common pattern identified on the basis of the interviews with onshore, near-shore and offshore experts is that a critical success factor for effective PM is a methodological approach and thorough project planning. The expert sample agrees that communication is a critical factor for projects being successful. This methodological approach needs to be anchored in the organization. Furthermore, from a systematic and structural perspective the organization needs processes and infrastructures necessary for international projects including roles and responsibilities and defined processes for the co-location of people and a flexible transfer of knowledge. Therefore, the organizational systems and structures need to provide a framework enabling cultural management as one of the core project management disciplines.

International Project Management

One of the key conclusions emanating from qualitative research is that distinct challenges result from international projects compared to domestic projects. While these challenges need to be addressed explicitly, traditional PM methodology is not obsolete. On the contrary, interview results showed that a methodological approach to international PM is mandatory for project success. However, focus in international projects shifts towards Communication Management, Risk Management, Quality Management and Scope Management. In context of quality and scope, the most important aspects regarding a traditional methodological PM approach are a realistic project plan, clearly defined roles and responsibilities as well as an appropriate and jointly agreed specification of deliverables. In that context, the Organizational Framework in which the project is conducted and the contractual agreements between the different countries' organizations is important for obtaining a common understanding of the respective project roles and responsibilities.

Comparing domestic and international projects, focus on PM disciplines shifts towards effective risk management in international projects. Specific risks resulting from an international environment mainly deal with (mis-)communication and the transfer of knowledge across the team which is especially important in case of high attrition rates. Therefore, Organizational Systems and Processes need to be in place to flexibly transfer knowledge, skills and resources from one country to another. This is especially valid for fluctuating resources that need to adapt to a changing environment and adopt project knowledge very quickly.

Being the most important area for domestic projects already, communication gains even more relevance in an international project context. Research shows that an effective communications plan and a common understanding of project objectives are critical issues and, at the same time, difficult challenges. All these issues are related to a sound traditional PM methodology and the organizational environment of a project. While these aspects are still important in context of international projects, fieldwork results indicate that there are even more important issues that refer to more intangible features of communication rooted in cultural differences. The differences in behaviors and attitudes, mentalities and personalities as well as different interpretations need to be managed appropriately for project success

Cultural Management

According to interview results, communication, behaviors and attitudes as well as language have been identified as primary cultural challenges. While language skills such as vocabulary, voice and accent can be improved by courses and self-study to avoid misunderstandings, inter-cultural communication with different interpretations and mentalities is more difficult to manage. The basis for effective cultural management is to be aware of cultural differences and their relevance for managing people and project teams. Furthermore, experience with different people and cultures is critical to obtain cultural fluency in the long run. Thus, findings from research suggest that the project manager and each team member benefits from people translating and moderating between different cultures. This mediator, which ideally is the project manager, clearly needs to possess cultural fluency for the cultures involved. If the project manager is not able to accomplish a required level of cultural fluency, a mentoring function from the project team, line management or other stakeholders should be nominated to support PM.

The experts agree that cultural awareness is mandatory, if not critical, in international PM and two thirds of the experts agree that international projects bear additional risks compared to domestic ones. This poses distinct leadership challenges for project managers. Additional challenges for project managers result from integrating different communication patterns, behaviors and attitudes into one functioning project team. Therefore, a project manager in international projects with inter-cultural teams becomes more of a mediator between different worlds with distinct value sets, bridging gaps between the cultures. This requires high levels of emotional intelligence including sensitivity to upcoming tensions or misunderstandings, respect for different approaches and flexible adaptation to changing environments.

Answering the Research Questions

Referring back to the research questions, the interview results confirm that globalization and the use of offshore project teams enforce cultural management as PM discipline. The experts agree that international projects pose additional challenges with one of the most critical ones being inter-cultural communication and understanding. Therefore, awareness and an appropriate management of cultural differences is not just a necessary, but a critical factor for effective international PM.

Whether success of international IT service projects can be positively influenced by cultural management must be answered in a two-fold way. While cultural management is identified as a critical discipline for PM in an international context it does not inherently increase project success when considered in an isolated way. Rather, cultural management is a hygiene factor that, in analogy to Herzberg [18], negatively impacts project success, if not present to an appropriate extent. It is rather the combination of several distinct factors that need to be managed in a balanced way to increase project success. According to the experts these factors are

- Methodological Approach to Project Management
- Defined Organisational Systems and Procedures
- Appropriate Organisational Infrastructure
- Effective Stakeholder Management

These factors form an environmental framework for both domestic and international projects. For international projects these factors need to be supplemented by cultural management to ensure effective communication and a common understanding of project objectives and deliverables. Based on the analysis of interview data and conclusions drawn with respect to International Project Management and cultural management, a Cultural Framework for International Projects is derived.

FRAMEWORK DEVELOPMENT

By combining empirical research results with results from our literature review we try to suggest a first tentative PM Cultural Framework comprising these different streams of research.

Referring back to theory, experts agree that a methodological PM approach as proposed by professional institutes such as PMI or APM is a necessary basis for successful PM. Linking to the definition of a professional culture provided by Trompenaars and Hampden-Turner [40] these methodological approaches form the basic pat-

terns and define a common language of communication. Therefore, these bodies of knowledge form the building blocks of a professional culture that exists within the particular function of project practitioners. On an organizational level, Goffee and Jones regard culture as a conjunctive element providing direction and purpose [11]. However, the experts rather see the responsibility of an organization in defining roles and responsibilities, offering support systems and functions and providing an appropriate infrastructure for international projects.

Going beyond the professional and organizational perspectives, most of the experts agree to Kliem's [24] point of view that additional risks result from international projects. The key challenges are team building and maintaining trust which is, again, aligned to Kliem's view. Overcoming tangible and intangible obstacles refers to managing cultural differences, such as interaction patterns, and avoiding misunderstandings and misinterpretations. This research finding corresponds to the framework provided by Gurung and Prater [13] considering culture as one of the key aspects for offshore outsourcing success.

With respect to cultural differences and national cultures, the Iceberg Model by Garrison [10] provides a valuable framework to understand the reasons for different interpretations and visible behaviors across cultures. Different 'above-the-waterline' elements are rooted in distinct cultural values. In that context experts state that communication and different behaviors and attitudes are main challenges for cross-cultural teamwork. This is reflected in Hall's Compass Model [14] taking into account that people from different cultures dispersed across geographies have different value sets and behaviors.

However, the expert sample recognizes that each of the previously mentioned elements cannot be regarded and managed in an isolated way. Rather, an integrated approach to international PM including communication and cultural management, PM methodology and organizational support is regarded as the key to project success. In that context, distinct leadership challenges for project managers result from cross-cultural teamwork as identified by House et al. [20] in context of the GLOBE project.

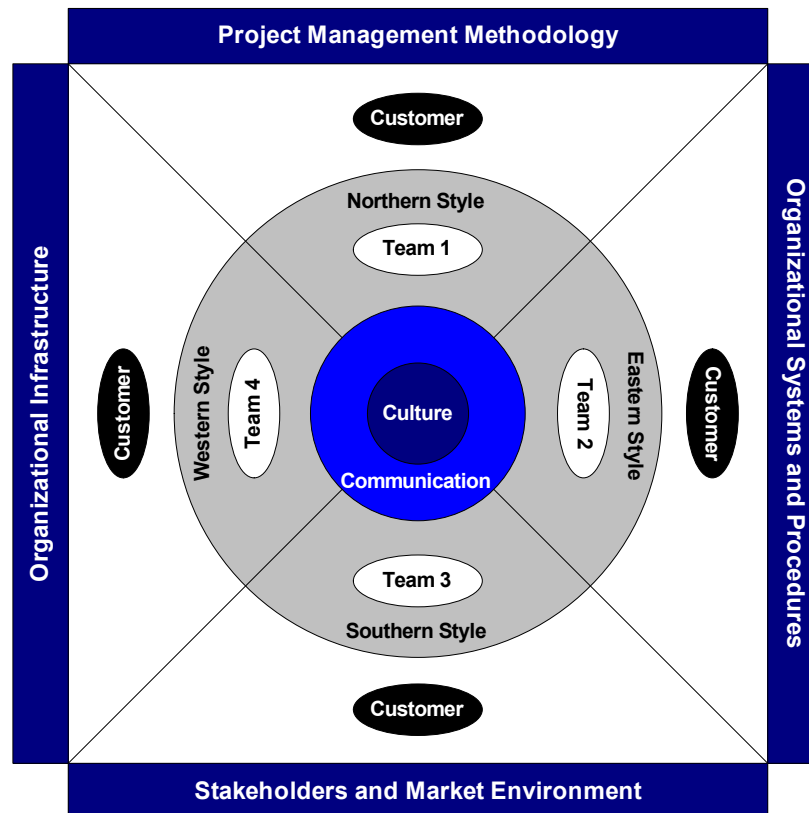
International Project Management Model

The research findings show that a methodological PM approach and effective communication are the key critical success factors for international PM and team building across cultures. Reasons for misunderstandings and false interpretations are – to a large extent – considered to be rooted in cultural differences. Organizational systems and procedures as well as the organizational infrastructure are environmental elements that can hardly be managed or changed from within the project, but must be

present on organizational level. Based on these findings, the following International PM Model as part of an overall

PM Cultural Framework is created.

Figure 1: International Project Management Model



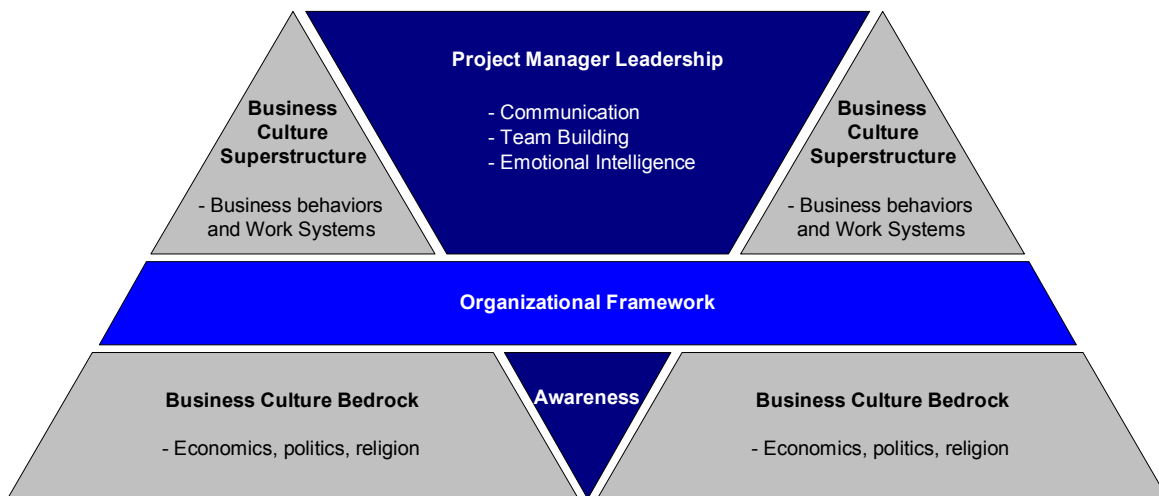
This model applies Hall's Compass Model [14] to PM and extends it by reflecting the key research findings of this paper. International project teams consist of people from different cultures which can be pinpointed on Hall's Cultural Compass. The PM methodology, the organizational systems and procedures, the organizational infrastructure and stakeholders as well as the market environment provide the framework in which international projects exist. Different cultures are present in these projects. The project team needs to act as one team and therefore communication to gain a common understanding overcoming cultural differences lies at the heart of the proposed model. Dispersed teams, different cultures and behavioral patterns as well as communication challenges result in distinct leadership challenges for the project

manager. These challenges are to be addressed in the following part of the PM Cultural Framework.

Leadership Challenges

Schematically extending Garrison's Iceberg Model [10] as depicted in Figure 2 shows two cultural icebergs with the visible 'above-the-waterline' elements being different, separated due to distinct cultural roots and underlying values. With respect to globalization, international PM and virtual teams, a key challenge is to integrate the different cultures into one functioning team. The two integrating elements identified within the research performed are the organizational framework and PM as depicted in the following Project Management Cultural Integration Model.

Figure 2: Project Management Cultural Integration Model



The organizational framework acts as a binding tie between the different national cultures. As identified by the research sample, the organizational framework includes defined systems and structures as well as common processes and procedures on an organizational level. Additionally, the organizational culture as proposed by authors like Goffee and Jones [11], Deal and Kennedy [7] and Handy [16] forms the ‘glue’ holding the company and the project teams together. According to Goffee and Jones [11], organizational culture is “*a powerful way to hold a company together against a tidal wave of pressures for disintegration, such as decentralization, de-layering and downsizing*”. As these disintegrating pressures also apply in global project teams, research confirms the validity of this statement for international PM.

Even more important than the organizational framework is the role of the project manager in international projects. The project manager is the main integrating resource for developing a team to function as a single team working jointly towards commonly understood and agreed project objectives. Key requirements identified by the interview sample for a project manager managing across cultures is cultural awareness combined with respect for cultural differences, cultural fluency regarding the countries and cultures involved in the project and the ability to communicate across cultures. Cross-cultural communication includes constantly sending and receiving messages, interpreting them correctly in context of the cultural backgrounds of the respective sender, and translating messages within the project team and for project stakeholders. These requirements are related to the concepts of emotional intelligence which, according to Mayer and Salovey [27], “*involves the ability to perceive accu-*

rately, appraise, and express emotion; the ability to access and/or generate feelings when they facilitate thought; the ability to understand emotion and emotional knowledge; and the ability to regulate emotions to promote emotional and intellectual growth”.

The project manager therefore additionally acts as a cross-cultural mediator which implies cultural experience and fluency with the cultures involved in the project. Gupta, Hanges and Dorman [12] analyzed specific leadership challenges for 61 nations grouped into 10 cultural clusters. In context of the project GLOBE, this provides cross-cultural lessons in leadership [21]. This is aligned to Walker et al. [43] stating that “*developing leaders and managers who are capable of working across cultures is a critical challenge*”.

CONCLUSION

Empirical and literature based research findings confirm that the management of cultural differences is a core discipline for international PM. This is due to additional challenges regarding cross-cultural communication and understanding in international projects. Another research result is that cultural management itself does not automatically increase project success. Rather, the combination of cultural management with a methodological approach to PM, defined and accepted organizational systems and processes and an appropriate organizational infrastructure is regarded to improve business performance.

The Project Management Cultural Framework proposed in this paper is derived from these findings and consists of two models. The International Project Management Model is based on Hall’s Compass Model and

considers culture and communication as the core issues to manage within a surrounding framework of PM methodology, organizational systems, processes and infrastructure as well as the external environment and stakeholders. The Project Management Cultural Integration Model deals with the specific leadership challenges resulting from cross-cultural teamwork. Combining these models might lead to an integrated approach towards inter-cultural PM in an international context

Research Limitations and Areas for Future Research

Ideally, a PM cultural framework is independent from a specific organization. However, as the field research in this paper is conducted within one single corporation with its own existing organizational culture, research findings cannot generally be applied to every organization in the marketplace without being tested in further research. Furthermore, the interview sample is limited to IT service projects, thus research results cannot be generalized to PM in all other sectors without further analysis. A third limiting factor is that the cultures present in the interview sample are restricted to the Middle European, Eastern European and Indian culture groups. Specifics regarding further national cultures from e.g. Africa or South America might impact analysis and research results.

Therefore, the qualitative research performed in this paper cannot claim generalisability due to a relatively small sample size of interview candidates. Not all culture groups are present in the research sample and research is constrained to one organization in which exclusively IT service projects are performed. An additional limitation is that fieldwork is restricted to qualitative research without further triangulation by quantitative research.

Areas for further investigation are derived from existing research limitations. As research in context of this paper is constrained to one organization, research results and conclusions drawn cannot be easily generalized. However, the restriction to just one organization was chosen in order to minimize impacts of different existing organizational cultures. Thus, to further generalize findings qualitative research needs to be performed including other project types and other cultures than the ones present in the interview sample of this research project. Furthermore, case studies verifying the findings, conclusions, frameworks and models developed in this paper should be conducted to further explore into details of cross-cultural teamwork.

Recommendations

Despite the existing research limitations, research performed and the developed Project Management Cultural Framework provides a first basis for project managers and organizations conducting projects in an international context. From an organizational perspective, research identified that clearly defined systems and structures as well as processes and responsibilities need to be in place and communicated across business lines and geographies involved in international projects. An organizational culture based on a shared set of corporate values is a binding tie between nations with distinct cultural value sets. As an organizational culture comes to life with the people acting as a vivid role model, corporations are advised to develop cross-cultural leaders capable to manage challenges resulting from cross-cultural teamwork. Applied to an organizational PM approach, this refers to project managers encouraging flexible transfer of knowledge, individual commitment to the project team and personal motivation to work towards common goals.

The recommendations for project managers emanating from research are to follow a methodological approach towards PM. While there are additional challenges resulting from managing virtual teams in international projects, PM methodology must not be neglected which includes thorough planning, management of the Iron Triangle of time, cost and quality, change and risk management as well as stakeholder involvement.

Furthermore, research shows that communication is of critical importance when managing across cultures. Overcoming cultural differences and avoiding misinterpretation of messages are key challenges for project managers. Therefore, a recommendation is to become familiar with the cultures involved in the project and gather as much experience as possible in international projects. If not familiar with a respective culture, the project manager is advised to involve a cultural mediator familiar with the cultures involved in the project being able to translate between the teams and PM. This enables efficient project communication and helps the project manager and the whole project to benefit from each other and to gather cross-cultural experience.

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