Impact of Cultural Diversity in Multi-national Project **Teams: A Case Study in Chinese Cultural Impact**

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Abstract

In the face of ever-increasing globalization, the question of how to manage culturally diverse project teams efficiently and successfully was never likely to be settled easily. It has been shown (Pagan, 2009) that 92% of project team members believe that cultural diversity exists in their teamwork, 60% think that cultural diversity impacts project management, and 83% hold the view that cultural impact is relevant to the performance of project teams. The research aims to help overseas project managers to obtain greater insight into the impact of culture on project teams and so manage them more effectively. The literature review context presents the general concepts of cultural factors and cultural barriers. Through a case study of an international project team including Chinese participants, the Chinese cultural impact on project teams will be explored. In addition, a comprehensive behaviours model has been provided for overseas project practitioners. Finally, in the 'Recommendations' section, use of the quantitative research method, and further case studies, were suggested as being of likely benefit to future work along these

Keywords: Cultural diversity, Multi-national project team, Case study, Chinese cultural impact.

create

Introduction

Each country has its own culture, and culture has a variety of definitions, for example, 'culture is that complex whole which includes knowledge, belief, art, morals, law, custom and any other capabilities and habits acquired by man as a member of a society'(Tylor and Barker,1974). The meaning of diversity is when individuals value things differently (for example, innate or postnatal personality as well as characteristics) (Morgan, 2007). When diversity is managed properly across a project team, the mindset of the individual team members will be united into one common objective, creating a strong bond between them. Therefore, it is essential to understand that the purpose of managing diversity is to form and develop an energetic and united team even though many differences exist between the individual members (Morgan, 2007).

A project can be defined as a one-off, temporary and time-limited activity, with resources, performance criteria planned to meet the customer's requirements (Savelsbergh et al, 2016). The Project Management Institute (PMI) specifies that 'a project

a mutual goal, to convey a successful project under budget and on time (Tylor, 2014). Currently, as an outcome of increased globalisation, the question, how should a project team with a culturally diverse background be managed effectively to create successful results, is not a simple one to answer. There is a link between cultural impact and performance. The aim of this study is to examine the effects of culture on project teams using the Chinese cultural context to help a foreign project

unique and transient endeavour undertaken to

refers to a temporary endeavor undertaken to

result.' Additionally, the Association for Project

Management (APM) proposes, 'a project is a

achieve planned objectives, probably defined in

terms of outputs, outcomes or benefits. A project

is defined as a success when it achieves the

objectives in a planned timescale and budget.'

Project management sits at the core of the

project and is dedicated to creating an

environment where project team members can

work together to maximise their efforts and reach

manager obtain a better understanding of the

behaviour of Chinese project team members. The

results of this study may contribute to

understanding multi-national project teams

product,

service,

unique

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which contain several Chinese team members.

For these objectives to be met, this research needs to describe several of the definitions used in paper, including culture and project management. This research must also identify the cultural diversity factors, the project phase affected, and any culture barriers found in the project process in general. Specifically, this research will describe Hofstede's cultural dimensions in China, followed by a multi-national project case study from the view of analysing Chinese project team members. Finally, several recommendations will be drawn from the results of this study to help overseas project managers adapt to a multicultural working environment. To this end, the following objectives have been set:

To identify the factors affecting the project team from the view of cultural diversity.

To understand which project phase(s) is affected. To analysis the cultural barriers in the project team.

To describe the Chinese cultural context by utilising Hofstede's cultural dimension theory.

To explore the behaviour of Chinese project team members in a multi-national project team via a case

To generate comprehensive recommendations to support the effective management of multi-national project teams.

Cultural impact is common across project teams. Studies show that 92% of project managers and team members think that cultural diversity can exist when they work in a team, 60% feel that culture does impact project management, and 83% believe that cultural diversity can cause conflict or disagreements among team members (Pagan, 2009). Therefore, it is believed that in order to exploit cultural advances, behaviours can be adopted that significantly motivate a team and ease any culture-related disputes and conflict. Consequently, the impact of culture on a project team has provoked the attention of many academics.

The project management job market demands culture-related skills and experience. Human resources and recruitment departments transnational corporations are continually searching for candidates that have cross-cultural work experience, and this experience is viewed as a priority in the recruiting process (Wilhelm, 2004 cited in Robles, 2012). Likewise, Belzer (2001:2) illustrated that'...often projects fail because of a project manager's inability to communicate effectively, work within the organisation's culture, motivate the project, the project team, manage stakeholder expectations, understand the business objectives,

solve problems effectively, and make clear and knowledgeable decisions.' Cultural diversity can generate new ideas, fresh thinking and come up with new solutions to old problems. Project managers need to understand the different cultures within their team, to manage them appropriately and effectively (Hossein,1993). Therefore, the beneficiaries of this study include project managers, team members in multinational project teams and graduates who plan to work in multi-cultural project teams.

Methodology

This dissertation can be divided into the literature-based review and the empirical-based research, and both will be used in this dissertation. According to Novikov (2013), many reliable academic texts, for example peerreviewed journals, published data, books, magazines, newspapers and government documents, should provide a significant source of literature or the literature review. By following the literature review protocol, the research will gather qualitative secondary sourced data from previous research documents and academic journals online. These texts will be critically analysed, offering strong opinions and giving evidence. In the process of searching for meaningful data and sufficient information for this study, Google Scholar, ProQuest, the library search of the University of Manchester and other academic search engines will be utilised. Keywords or key-phrase techniques will be used and input into the search engines. The possible keywords used will include 'cultural impact on project team', 'Hofstede culture dimensions theory", Chinese culture environment, "guanxi, 'mianzi', 'a culture-oriented problem in a project team', and so forth. To ensure that this information is valid and reliable, the process of data gathering will involve identifying the publisher, the author, the date of publishing, and whether or not the paper is peer-reviewed.

Naoum (2006) described the research strategy as 'the way in which the research objectives can be questioned.' Generally, the research strategy can be divided into two types of research, quantitative research and qualitative research (Saunders et al., 2012; Bajpai, 2011). There are many differences between quantitative research and qualitative research. Quantitative data may not only fail in achieving the defined aims and objectives of the research but is an unsuitable method for discussing the topic of cultural impact. By contrast, qualitative research

is more closely suited to the nature of the research topic. Therefore, this research will collect secondary qualitative data from relevant articles or case studies, ensuring the publication quality, in order that this research process could be replicated in the future.

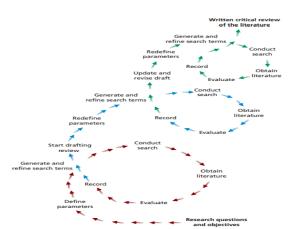


Figure 1. The literature review process (source: Saunders, Lewis and Thornhill, 2007)

A case study is a primary research method applied to both qualitative and literature review research. It is used to evaluate a specific occasion within a certain time and a particular geographic location as well as with a specific group of participants (Mill et al., 2010). The case study method used in this paper will demonstrate the cultural impact on project team issues. The deductive approach, and the inductive approach Saunders et al. (2012). The relationships between hypotheses and study are the main distinctions of the two approaches. Quantitative research is a standard methodology in the area of science and has been used extensively in investigative studies in the field of management (Mukhopadhyay and Gupta, 2014). According to Creswell (2014), the quantitative approach is the most suitable research strategy when data can easily be measured in numbers and directly analysed by following typical statistical procedures. Based on the description of the inductive approach method, the research will be conducted without theories nor hypotheses. This is because this could become an alternative method and begin with a topic, aims and objectives. Then by identifying specific patterns or any new trends from the observations related to the topic area, a new theory or assumptions could be developed (Beisk, 2007; Gulati, 2009; Snieder and Larner, 2009).

Cultural impact factor in protect phrases Interview observation

In an electronic company, the response of the participants in regards to the impact of culture in a

project team is that it is a challenging topic to analyze and that team meetings are a cause of stress towards culture. Participant A believes that culture will influence the duration of the meeting depending on if the main points of the meeting are discussed straight away. For instance, teams that employ Latin American employees tend to spend more time on discussion throughout the meeting, therefore losing the formality of the meeting process. However, European teams tend to work more quickly by discussing the main points immediately. Participant B indicated that culture differences may help to create new project values and that project managers must set rules and norms in order to avoid endless changes due to the dynamics of the culture. Moreover, participant C illustrated that each employee brings their own methods into meetings and this creates a beneficial collaboration. 'If everyone thinks alike the project does not work. The most important aspect is the interaction between members" (Pagan, 2009).

From working within an aerospace company, participant D holds the view that language and communication is a diverse culture challenge that is apparent in work teams. Participant E made complaints regarding the integration of the team members as the process has the opportunity to become time and energy consuming based on how diverse the culture is. In contrast, Participant F supposes that different culture is important for innovating new ideas and project teams should maintain open communication and display a willingness to understand the different views of different team members (Pagan, 2009)

The next section of this chapter assembles all of the gathered information from the interview and placed this data into bar chart in order to discover the internal relationship of the different variables.

Cultural Diversity Factors

Cultural diversity and differences will considerably impact the overall project performance and additionally creates frequent indecision and fluctuations within the project team that may impact the time, budget and quality associated with a project (Hossein, 1993). According to Miller (2000), language barriers, differing religions, nationalities, races. educational backgrounds, political affiliations and so, on represent different factors associated with different cultures. Apart from miscommunication has been considered as a cultural factor that can also influence a project

team in Laroche's (2005) research. Furthermore, these factors have the ability to divide team members into different social circles within the workplace and further development of the project team may also be affected by the composition of the team and whether the group is 'team-oriented vs. individual oriented,

verbal and non-verbal communication, space and touching difference and time zone differences (Nine-Curt, 1992 cited in Ramirez Pagan, 2009)

According to Ramirez Pagan's questionnaire results the frequency of culture diversity factors are as follows:

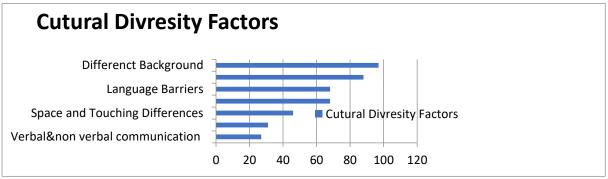


Figure 2. Frequency of cultural diversity of factors (Source: Pagan, 2009)

According to Fig. 2, the factor labeled 'different background' ranked highest of the analyzed cultural diversity factors. The 'different background' factor can be explained as events such as a different educational major or different professional experiences in industries such as Business, Mechanical Engineering, Industrial Engineering, Computer Science, Mathematics; some team members may even have more than one area of study or related and relevant experience (Pagan, 2009). With the advance of globalization, result from

Pagan's (2009) investigation have indicated that numerous project teams are comprised of employees from a variety of national backgrounds such as Mexican, North American, Indian, South American, Canadian and Chinese. Therefore, the nationalities factor ranked second in the culture diversity factor ranking. The remaining factors such as time zone difference, language difference, special awareness differences, team-orientation or

individual-orientation and finally verbal and nonverbal communication still need to be accounted for during the construction of a project team.

Project phases

In Pagan's questionnaire, there are five phases of project that have been discussed: defining, planning, executing, monitoring and controlling or complete depending on if either Gray or Larson's (2003) definition is being used. These five phases also make up the project lifecycle and the questionnaire were created to identify which part of a project will be the most impacted by the previously mentioned factors.

In Ramirez Pagan's research, the majority of participants stated that executing the project (39 recurrences) and defining the project (38 recurrences) were the phases that would be influenced significantly. Details can be seen in Figure 3.

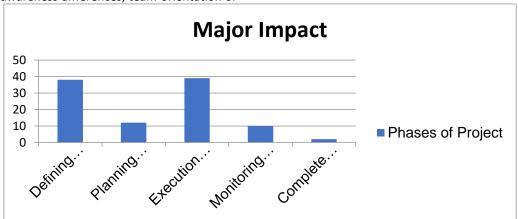


Figure 3. Major Impact of Culture Diversity in the Five stages of Project management (Source: Pagan, 2009)

Culture barriers in project teams

There is no doubt that culture diversity will trigger both positive influences as well as negative influences on project team performance. According to Pagan's (2009) observation, the barriers affecting culture may include 'culture shock. time difference, geographically disperse teams, language barriers, competition between team members, confrontation and miscommunication. Importantly, those barriers may delay the project and contributed to the terrible performance of project team. Therefore, this section intends to determine which barriers may trigger such undesirable consequence (Davis, 2015)

The participant within this investigation also miscommunication recurrences) were the major element associated with project completion delays. Competition between members (twenty-six recurrences), confrontation with other members (twenty-two recurrences), and language barriers (twenty-one recurrences) made up the other elements associated with project completion delays. In Ramirez Pagan's questionnaire investigation, several barriers were also identified as follows:

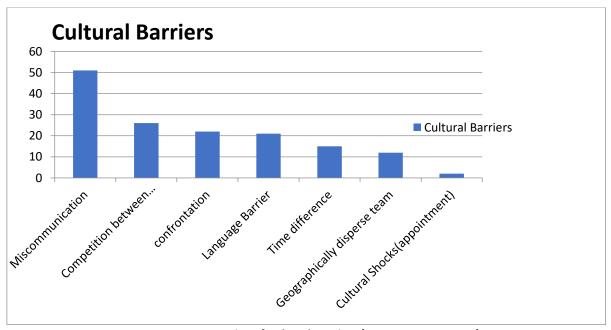


Figure 4. Frequencies of Cultural Barriers (Source: Pagan, 2009)

The cultural barriers among project team members creates an easy opportunity for the initiation of conflicts or disputes among project team members. After analyzing this questionnaire, it was observed that eighty three percent (83%) of the participants agreed and only seventeen percent (17%) of the participants disagreed by believing that cultural difference will not trigger any conflicts or disputes among project team members. Under this assumption, Ramirez Pagan introduced Robbin's (2003) theory of Communication Process and the Team Effectiveness in order to maintain good behaviors

Throughout the entire project lifecycle. Furthermore, the culture differences among project team members also require project managers to attain beneficial soft skills such as adequate communication skills, interpersonal skills and so on to develop a harmonious working atmosphere. As a project team member, it is important to learn how

to transform cultural diversity into the creation of successful projects. Cooperation, communication, information sharing, and patience are some standard methods used to reduce culture bias within project teams (Gray and Larson, 2003).

Chinese national culture analysis Chinese Culture Values

Chinese project teams have prevailed across unique management styles that are dissimilar from those observed in western society (Pun, Chin and 2000). Mianzi(face), Lau. For instance, Guanxi(relationships) and networking have been factors that are consistently emphasized by Chinese project teams, while western team members tend to focus more efforts towards project efficiency and achieving stated objectives (Hempel Martinsons, 2009; Pun, Chin and Lau, 2000).

National culture encourages the outlook of their citizens and helps the citizens to form fundamental

values and understanding regarding how to differentiate between different opposing factors, such as right and wrong, success and failure, moral and immoral and perfection and imperfection (Hoecklin, 1995). Apart from forming these values, the national culture also aids in the development of an organizational culture, which refers to the construction of a project team (Pun, Chin and Lau, 2000). The famous Hofstede's (1984) cultural dimensions theory has demonstrated dimensions regarding national culture that commonly influence an individual's values and actions: power distance, uncertainty avoidance, individualism/collectivism, masculinity/femininity, long-term orientation and indulgence.

Chinese culture brief

A well-known fact in Chines culture is that the Confucian value system occupies a predominate portion of the culture. As Pun, Chin and Lau (2000) stated the 'Philosophical system of ethical dictates and moral precepts that embrace broad and vague concepts.' Confucianism is based on the belief that social order relies on the hierarchy and the stability of each unit like a family. Accordingly, individuals should connect in society conscientiously by participating in frequent networking and interventions instead of isolating themselves. This is so that each individual obtains a valued a role or position within the social machine (Faure and Fang, 2008). Based on the Confucian outlook, the rule surrounding how people should interact with each other is strictly dominated by their relationships and hierarchical positions (Pun, Chin and Lau, 2000).

Professional dedication, peace, self-discipline and self-sacrifice have also been exceptionally emphasized in moral principles. Additionally, a stereotyped image commonly displays success within many Asian companies, and those values may also be embedded within their team values or team culture (Pun, Chin and Lau, 2000).

Hofstede's cultural dimensions theory- China

Hofstede's culture dimension theory was created by Greert Hofstede, and included the concepts of individualism-collectivism, masculinityfemininity, uncertainty avoidance, power distance, long-term orientation/short-term orientation, and indulgence versus self-restraint (Hofstede, 2001; Petrakis, 2014). This theory comprehensively describes the culture related features of a definite society or nation and it has been imperative in the development of cross-culture communication and research (Hofstede, 2001). The following bar charts

demonstrates the results from the analysis of applying Hofstede's culture dimension's theory

(see Fig.5).

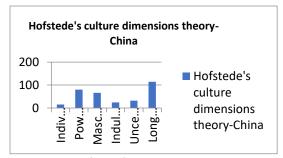


Figure 5. Hofstede's culture dimension theory (Source: Kriss, 2015)

The Individualism factor describes the extent to which an individual's interests are considered as more important in comparison to the overall interest of the group (Davis, 2015). Hofstede (2001) indicated that this represents the interdependence degree of a specific society. According to the above bar chart, China has been marked at a rate of 15 in the Individualism index, which illustrates that China is a highly collective country (Kriss, 2015). Within a collectivistic society, it is not dishonorable to be individualistic, however relationships tend to have a higher priority for overall cultural focus (Davis, 2015). Also, Galit (2009) and Fincher et al. (2008) further indicated that similar views in regards to collective culture, as team members' predominately work for the best interests of the group, rather than for any individual based benefit. Moreover, Fincher et al (2008) stated that Chinese people have been affected deeply by the local collective culture. Additionally, in the workplace, team members tend to establish and maintain good 'mianzi' and 'guanxi' (relationship) with other team members in order to create a harmonious atmosphere that facilitates the efficient and smooth completion of tasks. Accordingly, a wise project manager that maintains a positive working relationship with the project team members will effectively accelerate the speed of completion of the project and significantly increase the performance of the project team (Smith et al, 2008; Smith, 2004).

Power Distance is a concept that measures cultural attitudes in terms of unequal social relationships. It is observable that many people have more power or a higher status than other people. Then, to create the concept of power distance, Hofstede worked to measure the tolerance degree when accepting the power that is

distributed unequally from the perspective of the less powerful individuals in the relationship (Hofstede, 2001). The bar chart displays that China scored 80 on the power distance index, which describes that there is the prevalence of a high inequality among power distribution. In other words, this score has indicated that Chinese project team members are commonly adopting high inequalities of power distribution (Kriss, 2015). During the process of the project, the relationship between the project manager, leaders or supervisors and subordinates tend to be polarized, where project team members usually display their respect and loyalty to leaders by not adjusting any plans or actions until their leader has explicitly instructed them to do so (Davis, 2015).

Masculinity within this study is defined as 'a performance in a society for an achievement, heroism, assertiveness and material rewards for success' (Hofstede, 1991). Within the bar chart, China has scored 66 on this dimension (see Fig.5). Therefore, China should be considered as a masculine society due to the fact that Chinese citizens are considered success oriented and driven (Kriss, 2015). On the masculine side of the culture, Chinese project team members may choose to sacrifice their spare time and families in order to pursue better opportunities for their work (Kriss, 2015; Fincher et al, 2008) Furthermore, within a masculine society, both men and women are relatively robust, therefore the expectations of team leaders are higher as the project leaders expect that their subordinates will work extremely hard in order to achieve any significant success. Accordingly, Chinese project team members may find that it is difficult to obtain a good work-life balance and then later have issues in the long-term with stress and work-related diseases that can negatively influence the performance of an individual in a masculine culture (Smith et al, 2008). Apart from this, male members of the project team are expected to be strong and they should fight to protect the overall interest of the project teams. Additionally, female members of the project team should be nurturing and sensitive to feelings under the influence of masculinity culture (Davis, 2015).

The indulgence factor refers to when an individual in the society attempts to control their desires and impulses (Petrakis, 2014). In the field of indulgence, China scores 24 according to the bar chart. This score illustrates that China is observed to some extent as a restrained country (Kriss, 2015). Noticeably, Petrakis (2014) also declared that under the influence of a restrained culture, those that are native to the culture might not pay more attention

to their spare time. This thought is also consistent with Chinese masculinity culture.

Uncertainty avoidance refers to the extent in which the individuals in a society feel anxious within an unknown or ambiguous situation (Hofstede, 1991). Within this dimension, China has scored at 32, which is relatively low and it indicates that Chinese culture supports the acceptance of higher levels of uncertainty and ambiguity (Kriss, 2015). According to Hofstede (1991), 'The Chinese are comfortable with ambiguity and the Chinese language is full of ambiguous meanings that can be difficult for Western people to follow.' Within this culture, even though there are many uncertainties that exist throughout the project process, Chinese project team members may still exhibit feelings of calm (Fincher et al, 2008). Consequently, Chinese project team members may also be more suitable to undertake flexible projects that exhibit uncertainty issues throughout the project process as the team members will likely not be phased by the situation.

The final factor that has been analyzed in this situation was long-term orientation. This is a factor that refers to the individuals that pay greater attention to the projections of the future rather than the current situation in a society (Hofstede, 1991). In the bar chart listed above, China scored at 114 in this dimension, which displays that China is considered as a long-term oriented nation where citizens have a strong desire to consider their future situations (Kriss, 2015). Hofstede (1991) also declared that under the influence of a nation with long-term oriented, individuals prefer to save their energy and invest now in order to attain future benefits. Importantly, as the Chinese are affected by local culture, they also practice a spirit of thrift and durability. Therefore, within the project team, Chinese members tend to work to reduce the project costs as much as possible, while also working

to obtain a result that is as close to perfection as possible (Fincher et al, 2008). Hofstede (1991) also stated that Chinese culture might encourage longterm educational opportunities in order to prepare thoroughly for the future. Accordingly, within the project team, Chinese members tend to prefer working at the creation of long-term strategy plans, or other jobs that require silent work, in comparison to highly social organizational roles.

Case study analysis About project alpha and project beta

Both projects were tourism-focused and related to the construction of marina, revetments,

dredging and reclamation works. The contractor of Project Alpha worked in a government department of the UAE and with a European consultant, while Project Beta's contracting team was managed by an experienced Chinese project manager. Khan (2012) used Hofstede's (1994) cultural dimensions theory to analyse the communication between the Urdu/Hindi-speaking consultant, the Arabic-speaking client and the Mandarin-speaking contractor (Pheng and Yuquan, 2002).

Following Khan's research, the data was transferred into the categories of IND (indulgence), MAS (masculinity), PDI (power distance index), UAI (uncertainty avoidance index) and LTO (long-term orientation). A score was given under the national cultural dimension categories after a systematic analysis. For instance, if a long-term oriented behaviour occurred or was identified during oral or written communication or the project process, it was given a separate score of 1. The final score, accordingly, is the sum of the repetition of the behaviour related to this particular cultural dimension. Due to the data being collected throughout the whole execution period, it can also be applied to a longitudinal study.

In order to avoid possible deviations, Khan reconfirmed the data by means of individual interviews to check whether the object of observation belonged to the category IND, MAS, PDI, UAI or LTO and whether the data correctly reflected the behaviour in a particular context. Furthermore, Khan's research team cross-checked by means of face-to-face interviews with other members of the same project team, to ensure the validity of the research. For instance, there was an observed behaviour that the contractor project manager maintained a distance from the labourers and talked to them only through his foreman, but the response from the project was different; he said: 'I talk to all the labourers at the dinner table.' In the cross-check interview by two members from the project manager's team, it was disclosed that such meetings and discussions had never been held between the project manager and the labourers. In fact, the project manager only spoke to the engineers at the dinner table. Similarly, a line engineer complained that salaries were not paid for four months. However, after cross-checking, it was discovered that salaries had always been sent and received on time, whereas bonuses had not been paid for the last few months. Therefore, Khan's team made a great effort to minimise possible errors and misunderstandings during the research process.

In addition, at one of the project meetings, the

project manager announced that equipment X would be used for construction, while at a later meeting on the same topic, he said that they would like to use equipment Y for the same operation. Noticeably, during the re-confirming process, the same engineer concluded that both equipment X and equipment Y were important to the construction. It seems that there are many misunderstandings in communication in a multinational project team. Bjerregaard et al. (2009) described the 'theoretical shift from a culture-as-code to a culture-in-context view in inter-cultural communication studies. It is clear that culture-related factors play a significant role in communication and trigger an impact on it. Loosemore and Lee (2002, cited in Bjerregaard et al., 2009) state that 'culture is viewed as something that potentially distorts the meanings intended'. As a result, the message sender and the receiver are in the same cultural background. As Pheng and Yuguan (2002) state, social context is deeply connected with local values and beliefs. Consequently, the contextualisation of crosscultural communication has a significant meaning in Khan's study.

Culture dimension index analysis of Project Alpha

After analysing and double-checking, the data was split into cultural dimensions, which can be seen in the following Figure 6.

Project execution team		PDI	IND	MAS	UAI	LT0
Contractor	Chinese	4	7	8	(-28)	30
	Arabic Director		1	7		7
Client	Arabic		1	4	(-2)	11
	English				3	1
Consultant	Urdu/Hindi		1			1
	English		2	1		4
		4	12	20	(-27)	54

Figure 6. National cultural dimension scores for Project Alpha (Source: Khan, 2012).

From the Figure 6, it can be seen that the highest score is LTO (54) and the lowest is UAI (-27) for the whole period of the project. The negative UAI score is half the LTO score. MAS and IND are the average of the LTO and UAI scores. PDI is the smallest of the positive scores.

In Khan's research, the highest of the LTO scores (30) and the lowest of the UAI scores (-28) were identified in the Chinese contractor. Hofstede's earlier (1993) studies show that the Chinese are traditional and do not appreciate deviant people. The high LTO score also presents their willingness to maintain a good relationship with the client, with the intention of pursuing future projects and

business. Compared with Hofstede's previous (1993) research, the Chinese scored medium to high in the uncertainty avoidance dimension, while this research indicates the opposite result, UAI being the lowest score. This is attributed to the fact that participants disliked working with the documentation and were unwilling to explain how they would conduct the construction works at the site; they also disliked causing uncertainty, stress and anxiety during the project.

In fact, regarding documentation, the Chinese team member would have liked to ignore it or to consider it lightly without any stress or anxiety. Moreover, the Chinese project management team preferred to act above requirements or against specifications.

The MAS score (8) is consistent with past studies, but the IND score (7) is different. The lowest positive score is the PDI (4). This contradicts past research by Hofstede (1993), in which there was a high PDI score between labourers and management; during the management process, the manager would not talk to the workers at the construction site. In fact, the high PDI score was not observed in the same company between lead and subordinate. The main reason is that the Chinese company was going to develop by becoming international; open and high PDI behaviours 'contradict the spirit of teamwork' (Khan, 2009).

During the inspection process, the Chinese workers were constructing a project element that did not follow specifications; they were not stopped by the Chinese project manager, who could have monitored what they were doing but instead phoned the foreman and asked him to make the workers stop.

According to the above table, the high PDI and MAS scores for the Chinese project team member were observed from the start of the project and began to reduce as the project progressed. The contracted project manager expressed authority by saying: 'It is an easy piece of construction. One of our engineers can do it and therefore method statements are unnecessary.'

It was also found that the Chinese project manager arrived at the site alone and started to smoke in front of the junior staff, ignoring the consultant engineer. The intention of this behaviour may have been to show his power and authority. While the junior engineers were busy, the project manager would consult the engineer for advice (Khan, 2012).

During the project it was found that the Chinese project team members were traditionalists (Khan, 2012). In the UAE, 1 May is a working day rather

than a celebrated national day. However, the Chinese project management team decided to stop working on the site and declared 1 May as a holiday. Furthermore, the daily noon break, which allowed the Chinese workers to sleep after intensive working, lasted some two and a half hours according to UAE summertime break law. Even if the project were delayed, the project management team would not have dared to ask the head office to reduce the length of the break.

At the beginning of the project, the construction continued without concerns over how to avoid reworking. The Chinese project management team stayed calm when re-working was required, since it was found that the construction work had not been done according to the project specification. Based on Khan's observations, the Chinese project team did not try to reduce uncertainty at the beginning of the project. However, during the process period, a cultural assimilative effort was made in the Chinese management team. It is clear that on the one hand, the Chinese team avoided uncertainty by cultural assimilation and on the other hand, maintained a long-term relationship with the client and the consultant. Furthermore, the Chinese contractor gave the client a considerable discount, which extended the cooperation between them and led to continued business for the Chinese company. Under the influence of the long-term orientation impact, the extension of the work symbolised the success of Project Alpha. The result of cultural integration and assimilation can be seen in the case of Alpha. As Chen et al. (2004) state in their article, culture-related conflict can be solved by changing the behaviour of the project manager after fully understanding the different culture. The Project Alpha team members changed their management behaviour since they understood the culture of the host country and that of other team members.

Cultural dimension index analysis of Project Beta

Project Alpha ended successfully due to its extension. The cultural dimension index of Project Beta can be seen in the following Fig.7.

Project execution team		PDI	IND	MAS	UAI	LTO
Contractor Client	Chinese Arabic English		6 1	2	(-15) (-1)	16 5
Consultant	Urdu/Hindi English		7	2	(-1) (-19)	2 23

Figure 7. National cultural dimension scores for Project Beta (Source: Khan, 2012)

The Figure 7 indicates that the Chinese team members scored the lowest negative score for UAI

(-15) and the highest positive score for LTO (16). Project Beta shows a slightly higher IND score (16), which is different from the relatively low score in Project Alpha (7). This demonstrates that the Project Beta team preferred to work individually rather than as a team. It was found that Project Beta's UAI score declined as the project progressed; there was uncertainty and anxiety among the other members of the project management team, and anxiety increased due to the project manager's authoritarian personality. These elements contributed to the failure of Project Beta. According to Pheng and Yuquan (2002), UAI can be defined as the extent to which the members of a society feel anxious or threatened and try to reduce future uncertainty. Consequently, the high UAI culture typical of the UAE and the low UAI culture typical of China accelerated the feelings of uncertainty and stress among project team members; according to Neelankavil et al. (2002), ambiguous, risky and uncertain feelings in a situation will lead to the significant failure of a project. In every multinational project, it is vital to be aware of the importance of a common understanding in UAI and LTO. According to Yan and Zeng's research (1999), the differences in UAI and LTO may trigger an obvious negative impact in multinational joint ventures, while this will not exist in the difference in PDI, IND and MAS scores. In Project Beta, it was found that the cultural differences in UAI and the gap in LTO resulted in the termination of the project.

A low UAI score can be found at the beginning of Project Beta and was exhibited at one of the meetings. Khan's (2012) observations indicate that, at the start of the meeting, the contractor believed that it was the consultant's or the client's duty to provide copies of the contractor's management plan. However, after intensive discussion and argument, every team member agreed that it was the contractor's responsibility to submit the plan.

During the construction process, the contractor brought in heavy equipment that did not function properly at first; more importantly, the project could not continue without it. Even though the equipment worked for a short period of time, the result did not meet the project specification. As a result, the consultant submitted a preventive and corrective letter, but no useful feedback could be observed at the end. It was at this stage that Project Beta was terminated.

The data and information above demonstrate the management team's efforts to reduce cultural bias. Hofstede et al. (2002) suggest not 'judging someone from another culture by your own cultural values until you have first come to know them and their cultural values'. Accordingly, the data collected during Khan's research was re-confirmed and cross-checked carefully to ensure that the information was accurate and valid. In the two projects, it is clear that ineffective communication occurs frequently in multinational project teams. As Andrews and Baird (2005) state, the main reason for misunderstandings in communication is 'being activity-oriented rather than results-oriented, it is one-way rather than multidimensional, and its effectiveness is not measured'. Furthermore, Hofstede et al. (2002) suggest that 'In any interculture encounters, there is always a temptation to feel that the others have bad character or bad intentions, rather than to realize that they are acting according to different rules.'

Conclusions

Review of research aims and objectives

The aim of this dissertation is to help overseas project managers acquire a better understanding of the impact cultural factors have on project teams. There follows a review of how its six research objectives have been achieved:

Objective 1: To identify the cultural factors affecting multicultural / international project teams.

Chapter 3 reviewed Pagan's (2009) research on cultural diversity impact factors. The factors identified as being likely to affect project teams during the lifecycle of a project are many and

include verbal versus non-verbal communication; team versus individual orientation; space and touching differences; differences of time zone; and differences of background.

As well as language and nationality, 'different background' includes such things as academic profile (different majors, colleges and attainment levels), work experience, geographical location and age. 'Different background' ranked as Pagan's top (most influential) impact factor and calls for serious consideration from any multicultural / international project team hoping to work effectively. By identifying this fact, the first objective of this research was achieved.

Objective 2: To identify the project phrase most affected by factors of cultural diversity.

It is evident that cultural diversity factors impact the various phases of a project differently and in different degrees. Pagan's (2009) research, using both the face-to-face interview and questionnaire methods, collected a wide range of useful information. The present research utilised this

material as secondary data in its attempt to determine which project phase is likely to receive the most significant impact from factors of cultural diversity. 'Defining the project' and 'Executing the project' were the two phases identified by the highest number of Pagan's participants as having the most impact. Others included planning, monitoring, controlling, and completing the project. These were all impacted by cultural factors, but not so significantly as to consume much energy and effort. The study's second objective has thus been met, the 'Defining' and 'Executing' phases having been identified as the project phases of most important to multi-national project teams.

Objective 3: To analyse the cultural barriers within the project team.

As Pagan (2009) shows that, as well as their positive influence, differences of culture can equally impact multicultural teamwork negatively, producing cultural barriers to co-operation. According to Pagan's (2009) investigation, such obstacles often entail cultural competition between members (sometimes ending in actual confrontation); language barriers (with their potential for miscommunication); geographically dispersed teams (entailing time difference issues); and other cultural shocks. Of these problems, miscommunication arising from language differences emerges as the most frequent barrier to multicultural project teamwork. If project managers and team members want to achieve success in any multicultural project, such potential for misunderstanding between team members needs to be seriously addressed. By this identification, the study's third stated objective can be said to have been achieved.

Objective 4: To describe the Chinese cultural context, using Hofstede's cultural dimensions theory.

Chapter 4 presented the fundamental cultural Firstly, context. Mianzi (face). Guanxi (relationships), and any networking skills, are given greater weight in Chinese culture than professional skills. Secondly, three aspects emphasised in that culture's attitude to relationship building were discussed in detail, morality and dedication to work, and ethnic and humanity. Thirdly, a bar chart of Hofstede's cultural dimensions index, as related to Chinese culture, was presented to facilitate an analysis of the national culture of Chinese team members.

It was noted that Chinese culture scores highly on Long-term orientation, Power distance and Masculinity. The high Masculinity score indicates that Chinese project teams have a strong desire to

be strong and achieve success. The high-Power distance score explains why Chinese project team members typically show respect to the team leader. The highest index is Long-term orientation, which means Chinese team members tend to establish long-term plans for their future. Managers of international projects including Chinese team members need to take these cultural traits into account when they managing therir project teams. By recognizing the importance of this aspect, the study satisfied its fourth declared objective.

Objective 5: To explore, using the case study method, the behaviour of Chinese project team members in multi-national project teams.

Chapter 5 contrasted one successful with one failed project case, to demonstrate the impact of cultural disparity on project teams. Both cases were located in the UAE and involved project teams comprising members of a wide variety of cultural backgrounds. The successful project characterised by good man-management, designed to promote strong cross-cultural teamwork. In the abortive project, however, relationships between project team members, clients and other stakeholders were cold and detached (Khan, 2015).

The cultural dimensions index analysis once again highlights the cultural characteristics of Chinese project team members, linking the reasons for Chinese team members' behaviour once again to Hofstede's cultural dimensions theory. Some strange behaviours have been explained. Objective 5 has this been achieved, though further sampling and investigation will be needed to that ensure these results can be generalised.

Objective 6: To generate relatively comprehensive recommendations for overseas project managers to manage their multi-national project teams effectively.

It is clear that cultural diversity affects project teams differently case by case and can have both positive and negative consequences. In Chapter 6, recommendations for well- managed multicultural project teams were systematically described and found to have two aspects: level of cultural consciousness and specific actions. The crosscultural awareness and adaption process provide the basic concept for overseas project managers to learn how to cope with culture shock. Pagan's positive behaviours model offers guidance by which might multi-national project practitioners effectively manage their project team. The last study objective has thus been achieved.

Limitations

There are two major limitations of this study

which might negatively affect the results of its research. Firstly, the research results and findings are relatively difficult to generalise because all the data and information are embedded in the context rather than presented in the form of rigorous quantitative reasoning. Hence, their reliability and validity might be less than ideal. A second limitation lies in the fact that the case study (Chapter 5) deals only with the Chinese cultural impact on project teams, western cultures like those of those of the USA and UK not being covered, for example. Thirdly, the insufficient and sometimes off-target evidence may not present the whole picture of the impact of cultural on project teams, meaning that the recommendations and behaviour module may lack general application.

Recommendations

Because of the limitations mentioned, it is suggested that future studies should gather firsthand qualitative data, via face-to-face interviews and questionnaire, with Chinese project managers and team members respectively. Personal interviews should also be carried out with team members from other cultural backgrounds, with the aim of exploring the impact of cultural behaviours on project teams. The primary data and information would then provide a higher level of validity and the research results and findings be made more convincing.

A second suggestion is that future researchers should select for analysis several cases, covering multiple examples of cultural behaviour, thus enabling international project managers to acquire more of an overview of the world cultural impact on project teams. The world's stronger and most influential economic powers, such as the UK and the USA, would be expand the research scope significantly and meaningfully. As researchers measure and analyse the impact of more cultures, the more mature this field of study will become and the more overseas project managers will be helped in their understanding and assessments.

Thirdly, quantitative methods should be introduced into such research, given their ability to clarify the interrelation between independent and dependent variables (Barney, 1991; Wernerfelt, 1984). It is by using the quantitative research method that the relationship between cultural impact and project teams will start to be more clearly understood.

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