Improving performance of construction projects:
multi-cultural perspective

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Abstract: This paper reveals the national culture of the migrant construction employees in the UAE. The study is based on the national culture dimensions proposed by Hofstede. These include the power distance index (PDI), individualism (IND), masculinity (MAS), the uncertainty avoidance index (UAI) and long term orientation (LTO). The data was collected through observations, narratives and semi-structured interviews. The research covers multi-cultural construction team members from India, Pakistan, Bangladesh and China. The results show Indian construction employees were having high UAI, Pakistani employees showed high MAS, Bangladeshi employees revealed low LTO and IND and Chinese construction employees showed high IND and LTO. The study suggests that the management of cultural differences may help the successful completion of projects, which could be beneficial for both the migrant sending country and the host country and also for the individual migrant and his family.

Keywords: project management; national culture; multi-cultural; performance; construction projects, construction.


Biographical notes: Maqsood Ahmad Sandhu has an excellent record of research and teaching as well as administrative experience working as the Head of Business Administration Department. Having worked for several years in a multinational corporation (Wärtsilä) in Finland, he retained close links with the industry and academia. His teaching experience span over 20 years at the University of Vaasa, Swedish School of Economics, Vaasa University of Applied Sciences, Oulu Business School, University of Maryland University College and currently at the United Arab Emirates University. He has published about 100 papers (including accepted manuscripts) among 35 articles in international journals and around 65 research papers in international conference proceedings and presentations.
Asadullah Khan has over 16 years of experience in the construction industry in Asia and the Middle East. His research focus is construction industry covering aspects of project management, employee performance, employee motivation, decent work practices and national cultures, cultural assimilation.

1 Introduction

United Arab Emirates (UAE) has been the centre of migration employees in all sectors of economy. However, it is the construction industry that employees the most of the foreign employees. This is based on the high scale of construction in the UAE evident from the largest malls and islands in the world and the talent building in the world. The industry involves 340,000 construction workers and 16,000 construction contractors engaged in the US$30 billion construction industry of the UAE (Albaloushi and Skitmore, 2008). This study aims to identify the national culture of the construction employees in the UAE, which has profound impact on the performance of the organisations and construction projects. Loosemore and Muslmani (1999) emphasise the cultural sensitivity and behavioural differences at the workplace in international construction projects. However, few studies were found to have covered national culture in construction projects and the impact thereof on the performance of the projects and the organisations. This study therefore attempts to fill the gap in the knowledge of the national cultures of the employees in a migrant country. Hofstede (1980) pioneered the national culture dimensions while working for IBM. His research was based on questionnaire collecting data from different offices if IBM around the world. The present research on the other hand studies national culture of the construction employees in a foreign country. These nationalities include Chinese, Indian, Pakistanis and Bangladesh. The study covers Chinese construction employees in the wake of ‘go global’ policy of the Chinese Government and the increased presence of such employees in the region. Chan and Chan (2004) indicate the importance of the performance measurement of construction projects beyond Atkinson’s (1999) iron triangle of time, cost and quality. Few studies were found on the performance of the migrant construction employees in the construction of major sites. Frost (2004) discussed migrant Nepalese construction employees in Special Administered Region of China (Hong Kong). Torres et al. (2013) investigated Latin American construction employees in the city of Austin in the USA. In the context of the UAE very limited research was conducted on the national cultures in the construction industry employees. This research therefore attempts to answer the research question: what is the national culture of the construction employees belonging to India, Pakistan, Bangladesh and China in the migrant country of the UAE and the impact of it on the project performance? This research therefore studies national culture dimensions presented by Hofstede in a foreign country.

2 Literature review

This section on literature review presents definition of national culture followed by the descriptions of national culture dimensions presented by Hofstede. The paper, in this section, also highlights national culture dimensions presented by other scholars/studies.
such as Schwartz (1994), Trompenaars and Hampden-Turner (1998) and GLOBE (House et al., 2004). Finally this section discussed impact of national culture on the performance of construction projects.

2.1 National culture

Kroeber and Kluckhohn (1952), cited in Macnamara (2004), identify over 300 definitions of culture. Culture is also “the collective programming of the mind that distinguishes the members of one group or category of people from another” (Hofstede and Hofstede, 2005). Ralston et al. (1993) define culture as those beliefs and values that are widely shared in a specific society at a particular point in time. This definition adds not only context, but also a time line to cultural study. Rosenblatt (2011) says that culture is seen in interpretative schemes or codified patterns of meaning, which inform or constrain behaviour. In simple terms, culture means “things [that] are done around here” (Drennan, 1992).

2.2 Hofstede national cultural dimensions

This research paper is based in part on the national culture study by Geert Hofstede, who pioneered five national cultural dimensions: the power distance index (PDI), individualism (IND), masculinity (MAS), the uncertainty avoidance index (UAI) and long term orientation (LTO).

The PDI has been defined by Hofstede et al. (2010) as “the extent to which the less powerful members of institutions and organisations within a country expect and accept that power is distributed unequally”. A high power distance society accepts wide differences in organisations and in these types of organisations employees show a great deal of respect for those in authority. Titles, rank and status carry more importance. IND is found, according to Hofstede (1994) in “societies in which the ties between individuals are loose; everyone is to look after himself or herself and his or her immediate family. Collectivism as its opposite pertains to societies in which people from birth onwards are integrated into strong, cohesive in-groups, which throughout people's lifetime continue to protect them in exchange for unquestioning loyalty”. Individualism is considered egoistic in China and is therefore unwanted.

MAS has been defined by Hofstede (1994) as pertaining “to societies in which social gender roles are clear; feminine pertains to societies in which social gender roles overlap”; masculinity in this sense “is possible where the emphasis is more on achievement and fighting than on caring and compromise” (Hofstede et al., 2002).

The UAI is “defined as the extent to which the members of a culture feel threatened by uncertain or unknown situations” (Hofstede, 1994), and it is related to the stress when uncertainty is prevalent. It describes how people within a country cope with the fact that the future is unknown (Prasnika et al., 2008). Hofstede et al. (1993) say that China is medium to high in the UAI.

LTO is defined as the dimension which “focuses on the degree to which a society embraces a long-term commitment to traditional values” (Sandhu et al., 2009). Chinese people do not consider deviant behaviours as at all appropriate, which is antipathetic to the Western cultural tolerance of deviant behaviour. Chinese people may be said to show high LTO in their behaviour. But it should be remembered that culture is also subject to change. China, even more certainly than Russia, is in an apparent transition to capitalism,
as Ralston et al. (1997) note, citing Youzhou et al. (1996). China is the latest subject of the topical discussions on cultural norms in its ongoing economic development.

The need for study of the national cultures traces back to the works by Ruth Benedict (1887–1948), Margaret Mead (1901–1978), Alex Inkeles and Daniel Levinson (Hofstede et al., 2010) and Ng et al. (2007) maintain that the basis of Hofstede’s study was an earlier study by Kluckhohn (1951). Nevertheless it was Hofstede who pioneered national cultural studies by conducting an employee attitude survey from 1967 to 1973 at the IBM which was published as Culture’s Consequences: International Differences in Work-related Values. These national cultural dimensions include IND, MAS, PDI and UDI. About a decade later, the collaboration of Michael Bond and Hofstede (Hofstede, 1991) resulted in a fifth dimension, LTO in 1991, which was included in Cultures and Organizations: Software of the Mind. The data were collected on the basis of the Chinese Value Survey (CVS), whose questionnaire was prepared by Chinese and Taiwanese and was administrated in 23 countries to 50 men and 50 women (Hofstede et al., 2010). Ralston et al. (1997) discuss the basis of Hofstede’s LTO, which uses Buddhism and Taoism in surveying Eastern culture and the Judeo-Christian religion in the West, claiming that Western culture focuses on the good of the individual, as opposed to Eastern, which calls for the good of the group. The latest in the list of the national cultural dimensions is indulgence versus restraint, a result of collaboration between Michael Minkov, Geert Hofstede and Gert Jan Hofstede which is included in the third edition of Cultures and Organizations: Software of the Mind (Hofstede et al., 2010).

2.3 Comparative national culture dimensions

With globalisation already firmly established in international business, the need for understanding national culture became a priority for business researchers. Trompenaars and Hampden-Turner (1998), Schwartz (1992) and the GLOBE study (Global Leadership and Organizational Behaviour Effectiveness) by Robert J. House are one of the leading studies on national culture. The national culture dimensions have also been covered by some other scholars and these are presented in the table below.

### Table 1 Synthesis of national cultural studies

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1 IND</td>
<td>1 Conservatism</td>
<td>1 Universalism vs. particularism</td>
<td>1 Uncertainty avoidance</td>
</tr>
<tr>
<td>2 MAS</td>
<td>2 Hierarchy</td>
<td>2 Sequence vs. synchronisation</td>
<td>2 Power distance</td>
</tr>
<tr>
<td>3 UAI</td>
<td>3 Mastery</td>
<td>3 Specificity vs. diffusion</td>
<td>3 Societal collectivism</td>
</tr>
<tr>
<td>4 PDI</td>
<td>4 Affective autonomy</td>
<td>4 Individualism vs. communitarianism</td>
<td>4 In-group collectivism</td>
</tr>
<tr>
<td>5 LTO</td>
<td>5 Intellectual autonomy</td>
<td>5 Inner-directed vs. outer-directed</td>
<td>5 Gender egalitarianism</td>
</tr>
<tr>
<td></td>
<td>6 Egalitarianism</td>
<td>6 Achieved status vs. ascribed status</td>
<td>6 Assertiveness</td>
</tr>
<tr>
<td></td>
<td>7 Harmony</td>
<td>7 Neutral vs. affective</td>
<td>7 Future orientation</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>8 Performance orientation</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>9 Human orientation</td>
</tr>
</tbody>
</table>
This research paper is based on the national culture dimensions proposed by Hofstede because of their widely use in the literature and research studies. The other research dimensions are noted to be influenced by the national culture dimensions proposed by Hofstede, therefore those have not been considered as the base theory.

2.4 Results of the Hofstede study

Hofstede collected data using questionnaire mainly in the IBM computer industry having its branches in different countries of the world. The findings of the national culture dimensions for India, Pakistan, Bangladesh and China are presented in the table below.

<table>
<thead>
<tr>
<th>Country</th>
<th>National culture dimension</th>
<th>PDI</th>
<th>IND</th>
<th>MAS</th>
<th>UAI</th>
<th>LTO</th>
</tr>
</thead>
<tbody>
<tr>
<td>India</td>
<td></td>
<td>77</td>
<td>48</td>
<td>56</td>
<td>40</td>
<td>51</td>
</tr>
<tr>
<td>Pakistan</td>
<td></td>
<td>55</td>
<td>14</td>
<td>50</td>
<td>70</td>
<td>50</td>
</tr>
<tr>
<td>Bangladesh</td>
<td></td>
<td>80</td>
<td>20</td>
<td>55</td>
<td>60</td>
<td>47</td>
</tr>
<tr>
<td>China</td>
<td></td>
<td>80</td>
<td>20</td>
<td>66</td>
<td>30</td>
<td>87</td>
</tr>
<tr>
<td>Arab countries</td>
<td></td>
<td>80</td>
<td>38</td>
<td>53</td>
<td>68</td>
<td>36 (Kingdom of Saudi Arabia)</td>
</tr>
</tbody>
</table>

*Source: Hofstede et al. (2010)*

Hofstede collected national culture data using questionnaire, which was not suitable as the culture is subconscious behaviour, the present research however used observational and narrative methods for the data collection followed by semi-structured interviews to confirm the data collection. Further, Hofstede attempted to study national culture of the IBM employees in their respective countries. The present study takes the national culture dimensions to the migrant country of the employees. The above results presented in table show India is Individualism, Pakistan is high in UAI, Bangladesh is high in PDI and China is high in PDI, MAS and LTO. Arab World is high in PDI. It will be interesting to see national culture dimension score of the above nationalities in the construction industry of the UAE.

2.5 Project performance measurement

Project performance measurement is defined as the setting of parameters and their achievement. Neely et al. (2002) define performance measurement as the process of quantifying the efficiency and effectiveness of past actions in terms of parameters. Various models have been considered for the measurement of performance, such as the European Foundation for Quality Management (EFQM), the Balanced Score Card (BSC) and Key Performance Indicator (KPI). Bassioni et al. (2004) discuss measuring the performance of the construction projects in both financial and non-financial terms. Mohamed (2003) uses BSC for the development of construction safety performance indicators. However, with the increasing emphasis on human resources and corporate social responsibility (CSR), there is an increasing focus on client satisfaction, business, health and safety and environment as parameters for construction performance (Yu et al.,
2007), which ultimately leads to employee satisfaction. Lam et al. (2007) define project success as the degree to which project goals and expectations are met. The study recommends looking into the social aspects of the projects besides their economic and technological performance.

The emphasis on employee satisfaction for the success of a construction project is due to the impact of employee satisfaction on performance and productivity. Poor working conditions contribute to low productivity; high employee standards contribute to high productivity (Silva, 2004). Aziz and Najib (2010) and Cooke (2000) consider that performance encompasses the concepts of productivity, efficiency, effectiveness and competitiveness. Aziz and Najib (2010) suggest that for productivity and profitability both people strategic and business strategic approaches have to be applied. One of the people strategic actions includes pay for performance, which could help achieve the business objective of the organisation. Chan and Suen (2005) find that in international joint venture projects, more than 60% of the conflicts are due to unfamiliarity with the local cultural conditions. The above performance measurement tools and the indicators of the performance, such as satisfaction and productivity, are dependent on understanding of the culture of the employees and the management of the cultural difference. Bener and Glaister (2007) found that in case of the joint venture projects involving project teams from different organisational and national cultures, the impact of cultural differences was well managed with the organisations having cultural management policies. Similarly Liu et al. (2015) study impact of the national culture on perception for risk management. The research revealed that the national culture (IND and UAI) plays a significant role in the risk management for the contractors executing projects in the host country with different national culture.

3 Methodology

This research study is based on the ethnographic study in which the data was collected through observational methodology while executing the construction project and narratives of the employees in their accommodation blocks. Semi-structured interview were also conducted to confirm if the data collected during the observation was as per the cultural frame of the employees. The ethnographic approach was adopted as this was the most suited for the qualitative research studies. The data was recorded in a diary and the themes were picked with respect to the national culture dimensions of PDI, IND, MAS, UAI and LTO. The data was averaged out during the observation, narratives and semi-structured interview.

Semi-structured was also used to collect data for cultural understanding of ‘others’. This helped in getting some insight into the data collected during the observation research, and to confirm that the data had been collected according to the cultural frame of reference of the construction employees. Yin (1984) suggests open-ended interviews for greater depth of data and to increase the sources of information. Liu et al. (2015) studied impact of national culture on the perception for the risk management using interview and archival documents.

Following framework was adopted for the research study.
Figure 1 Theoretical framework

4 Data collection and analysis

Both of the researchers belonged to the construction industry at one point in time. However, at the later stage one of the researchers became involved in the academia giving an opportunity to connect theory with practice. This research paper therefore is based on the observations of the construction employees during their work on the projects, narratives of the construction employees while executing the projects, in their labour camps, grassy fields and in the streets. The thus collected was confirmed through semi-structured interviews.

The data collected against each of the national culture dimension of LTO, IND, MAS, UAI and PDI while observing the employees or while recording their narratives followed by confirmatory semi-structured interviews. For example, a Pakistani excavator operator showed masculine behaviour when another employee hit blade of the equipment with a stick. Chinese construction employees would continue supporting the clients for more future projects than losses in one project, showing high LTO behaviour and the Indian construction employees would prefer to be aware of the rules/laws of the company and the country. Bangladeshi construction employees were observed to be in a group showing high collectivistic behaviour.

Table 3 presents comparison of national culture score by the present authors and Hofstede. The employees include from Pakistan, India, Bangladesh and China.
### Table 3

Comparison of Hofstede’s findings and those of the present study

<table>
<thead>
<tr>
<th></th>
<th>India</th>
<th>Pakistan</th>
<th>Bangladesh</th>
<th>China</th>
<th>UAE (Arab countries)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Hofstede</td>
<td>Khan</td>
<td>Hofstede</td>
<td>Khan</td>
<td>Hofstede (1993)</td>
</tr>
<tr>
<td>LTO</td>
<td>61</td>
<td>24.5</td>
<td>50</td>
<td>24.5</td>
<td>47</td>
</tr>
<tr>
<td>IND</td>
<td>48</td>
<td>24.5</td>
<td>14</td>
<td>21</td>
<td>20</td>
</tr>
<tr>
<td>MAS</td>
<td>56</td>
<td>22</td>
<td>50</td>
<td>31</td>
<td>55</td>
</tr>
<tr>
<td>UAI</td>
<td>40</td>
<td>28.5</td>
<td>70</td>
<td>26</td>
<td>60</td>
</tr>
<tr>
<td>PDI</td>
<td>77</td>
<td>17</td>
<td>55</td>
<td>17</td>
<td>80</td>
</tr>
</tbody>
</table>

Note: 1 Estimated, 2 Kingdom of Saudi Arabia. Hofstede et al (2010) mention China score of 87, 0, 66, 30 and 80 for LTO, IND, MAS, UAI and PDI respectively.

Source: Hofstede (1991)
The discussion of the above comparative results is presented in the section below.

5 Discussion of results

5.1 Difference in national culture

Pakistani construction employees showed high MAS behaviour. The employees would not prefer their female relatives to work in Pakistan even if a single worker is responsible for the wellbeing of a whole family. Similarly, Indian construction employees revealed high UAI behaviour because of their awareness of working practices in the UAE. Chinese workers showed high LTO behaviour, by committing themselves to working with their company and not thinking of leaving it. The qualitative data were quantified to yield maximum meaning. The data revealed different results when compared to Hofstede’s study, from the early 1980s:

• LTO had been retained by Chinese migrant employees
• Indians are not IND but Chinese migrant employees are
• Chinese are not MAS but Pakistani migrant employees are
• Pakistanis do not have high UAI, but Indian migrant labours do.

The present research therefore reveals that the national cultural of the Pakistani, Indian, Bangladeshi and Chinese construction employees is not the same as found by Hofstede in IBM offices in the respective countries.

The section below highlights importance of the understanding of the national culture of the multinational construction employees in the UAE for the effective management of the construction projects.

5.2 Managerial contribution

The role a project manager is vital in the success and failure of the project. Many projects failed because of the internal conflict between the employees at the workplace. The multi-culturalism is unavoidable in the international projects. Therefore the success of a project is dependent on the teamwork, and the satisfaction of the employees. Development or management of the project team is possible through match of the work practice and the culture of the people. Further the reward system is again dependent on the culture of the employees as in Japan it could be collective prize to the whole that matters and not to the individual performance as in US. Therefore the study attracts managers to check culture of the construction employees for effective team management, considering the work practices.

Managers may face problem in managing projects in the worker receiving country because of the difference in the national culture of the migrant sending and migrant receiving country. A project manager, who is successful in the home country, may not be successful in the migrant receiving country because of the difference in the national culture. However the literature suggests that LTO and UAI play important part in success of the international project. Jacob (2005) informs that Austrian manages are soft spoken and considered as grand gentlemen, and it is quite opposite in Germany where the
communication is direct and open and project managers can be even reprimanded by the subordinates.

China is following the go global policy. For successful projects in the foreign country, it is important that project team in the foreign country is aware of the self national culture and the national culture of the UAE. Subsequent training to the migrant staff shall result into successful projects and effective temporary migration. This also applies to the companies from India, Pakistan, Bangladesh and companies from around the world wanting to make business in the UAE.

This research contributes for managers with the first hand research observation, than reliance on the western management theories in the construction projects of the UAE. The study contributes to contextualisation of the national culture for the study of the culture of the employees, by the employees and for the employees, when the results of the study would contribute to effective and successful management of the projects, beneficial to all the stakeholders in a project.

The summary of managerial contribution of the paper is presented in the following bullet points:

- It helps organisations in recruiting cross-cultural teams.
- It helps project managers to check cultural differences within their project management team.
- It helps in the management of cultural differences at the project management level and at the construction employee level for the successful completion of projects. For example, managers may want to know how to benefit from the high LTO of Chinese team, the high collectivism of Bangladeshi team, the high MAS behaviour of Pakistani team and the high UAI of Indian construction team.
- Through cultural training, it helps the project management team and employees to act with restraint in considering cultural differences.
- It helps to achieving the best project performance by considering differences national culture.
- It helps at the national level in making effective temporary migration policies for both migrant sending and receiving countries.
- It helps in training for the project team in the context of cross-cultural aspects.

A research on management is about the development of a theoretical framework/developing a theory. This paper therefore helped in establishing a theory of national culture of the multinational migrant construction employees in the UAE. This is explained in the section below.

5.3 Theoretical contribution

The most successful theories are those which help resolve problems. This paper helps in both adding to the body of knowledge on national culture, temporary migration, cross-cultural communication and performance of construction projects in the construction projects of the UAE, but also helps to resolve issues related to the these aspects construction work life.
The study on determination of national culture went one step ahead of the study by Hofstede study. Hofstede study was focussed on the employees of IBM in their respective countries using questionnaire survey. This article study, on the other hand, studied national culture of the employees in the migrant country.

National culture affects performance of the projects. However, the impact of national culture on the performance of the international projects in foreign country was determined in this paper. The article puts Hofstede national culture dimensions into practice on a wider domain. Empirical data on the national culture adds meaning to the data collected, and helps in comparison on the national culture. The increase MAS of the Pakistani employees, low LTO of the Bangladeshi employees, high IND of the Chinese employees and high UAI of the Indian employees was possible, comparatively, through the quantification of the qualitative data.

The methodological contribution can also be emphasised that Indian, Pakistanis, Bangladeshis and Chinese workers reflected consistent behaviour. It is possible that the employees from different parts of Pakistan may have their own sub-culture, but once in the migrant receiving country UAE, these employees showed a consistent behaviour, specially Indian and Pakistani construction workers, however Pakistani construction employees collecting paper cartoons from the dust bins and belonging to one specific area of Pakistan, reflected a different sub-culture, within the national culture of the Pakistani employees in the UAE. Culture convergence theory as result of the globalisation does not apply in case of migrant construction workers in the UAE.

This research helps in international migration policy making and keeping balance between economical and social objectives. Both migrant sending and receiving countries should consider the culture of the migrant employees. Effective temporary migration policies are only possible through the understanding of the culture of the people at work and the culture of the people under whose responsibility the employees are working, the companies in the migrant receiving countries. Therefore, the study not only helps in the policy making, but in the recruitment of the staff as well.

The theoretical contribution is listed in the following bullet points:

- culturally contextualises national culture in the construction industry
- puts into practice Hofstede’s national culture dimensions
- brings out the national culture of migrant countries, whereas Hofstede focused on the resident country of the IBM employees whom he studied
- stands as a cross-cultural study covering four nationalities
- identifies the cultural behaviour of the employees in the context of construction projects
- exposes the impact of the cultural behaviour of the project management team and on the performance of construction projects
- exposes the impact of the cultural behaviour of the construction team on the performance of construction projects
- allows for the effective improvement of project management which depends on knowing the culture-based behaviour of the construction team.
6 Conclusions and recommendations

The present research reveals that the national culture of the multinational construction employees in a migrant country of the UAE is different when compared to the national culture of India, Pakistan, Bangladesh and China in their respective countries. Data collection on culture was adopted using observational and narrative method against the questionnaire method adopted by Hofstede. The difference in the national culture of the migrant construction employees could be due to the influence by the national culture of the host country. However, this was not the case.

Contextualising of the multinational national culture of the construction employees in the construction industry of the UAE helps in effective management of the cultural differences for project success. This cross-cultural study therefore helps in using the cultural differences as strength for a project team.

The present study was based on the national culture of the construction employees, the researchers recommend understating of the organisational culture and its impact on the performance of the construction projects in the UAE.

References


Improving performance of construction projects


