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# Research on cross-cultural leadership and management in construction: a review and directions for future research

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A great volume of cross-cultural research has been undertaken during the past two decades. Although the interaction among participants and organizations from different cultures is one of the most complex issues evident on large construction projects, there is not much cross-cultural research in the context of the construction industry. An overview of cross-cultural research in the social sciences and management studies is presented and some of the recent conceptual and methodological advances are highlighted. Studies on cross-cultural research in construction are then summarized. A number of conceptual and methodological issues are highlighted that deserve more attention in future research in construction. Among these is the need for a more interdisciplinary and interactionist perspective to unearth the complexity of cross-cultural issues. Research in construction should move beyond the conventional models to try more challenging approaches. This calls for the development of comprehensive research frameworks which can derive benefits from the methodologies being applied, and advances being made in cross-cultural research.

*Keywords:* Cross-cultural research, construction industry, leadership, management, future research.

## Introduction

For several centuries, major construction projects have involved corporate and individual participants from several countries. The idea of 'globalization' was evident in construction long before the word came into popular use. Owing to this long history of international construction, one would expect the industries in most countries to be mature in terms of cross-border business activities. However, socio-economic and cultural changes during the last few decades have influenced the internationalization of construction activities (Chan *et al.*, 2001), and, as a result, the players involved have faced several challenges. In particular, in the developing countries, where, as Ofori (2007) and Lewis (2007) note, construction activity in the large-project segment is dominated by foreign players, cross-cultural interactions—interaction among two or more parties belonging to two different cultures—play a key role in negotiations, decision making, problem solving, and other aspects of business and technical operations. On large construction projects, an added complexity is the different interests of a large number of stakeholders.

Research supports the observation that cultural differences account for the varieties in the way management and leadership approaches are perceived and operationalized in different societies (Gerstner and Day, 1994; Loosemore and Lee, 2002). Research has also shown that failure to appreciate the differences in culture among the participants in construction projects can lead to undesirable circumstances (Fellows *et al.*, 1994). For example, in their study of joint ventures, Norwood and Mansfield (1999) found that the differences within Asian and Western cultures led to several problems. Giving the example of doing business in China, Dahles and Wels (2002) highlight the importance of personal networks and cultural norms and values as the bases of personal networks. They observe that one must be able to deal with tensions and conflicts, uncertainties and frustrations while negotiating and managing various national cultures, corporate

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identities, and business pressures and objectives. Therefore, it is suggested that international firms should have managers who are culturally intelligent and have the 'capacity to adapt to varying cultural settings based on the facets of cognitive and meta-cognitive processing, motivational mechanism and behavioral adaptation' (Earley, 2006, p. 929). Others note that managers of global firms should have the reflexive capability (London and Chen, 2007) and ability to communicate effectively within culturally diverse teams—teams comprising members who come from two or more different cultures. Selmer (2001) suggests that managers with these attributes can be used in a strategic way to develop business across borders.

There have not been many studies of issues related to cross-cultural management in the construction industry. The existing works in construction management literature tend to have deficiencies in the frameworks they adopted, and mostly focus on exploring the dimensions of culture. Moreover, much of the research has been based on the work of Hofstede although many other authors have criticized key aspects of Hofstede's research (see, for example, points made by Schwartz, 1994; McSweeney, 2002; Kirkman *et al.*, 2006 as discussed below). Furthermore, others have suggested that cultural studies should be advanced beyond Hofstede's five-dimensional model, and more complex approaches anchored in sound theory and empiricism employed (Javidan *et al.*, 2006).

## Research rationale

Despite the significance of cross-cultural interaction and widespread recognition of cultural capital (London and Chen, 2007) or cultural intelligence (Earley, 2006) for success in businesses, not many studies investigate cross-cultural interactions in construction. This issue should be addressed owing to the possible negative consequences of lack of understanding of cross-cultural issues on projects. For example, some researchers argue that working with people from diverse cultures in the global market involves significant risk (Elmuti and Kathawala, 2001; Bu-Qammaz *et al.*, 2006). It is also suggested that cultural distances among project participants significantly mediate the mutual trust, negotiation, decision making, dispute resolution and other working practices (Ling and Lim, 2006). Therefore, some authors suggest that these distances should be regarded as involving a high degree of risk, and that resources and management effort should be invested to mitigate or reduce the cultural risk (Fellows and Liu, 2006).

The existing studies in construction include those which attempted to assess culture at team or organizational level. For example, Fellows *et al.* (2003) studied the cultural orientation of leaders in Hong Kong and found that Chinese culture continues to have a profound influence on local culture despite over a century of British rule. Sillars and Kangari (2004) highlight the importance of cultural match between partners in the internal working of joint ventures. Other researchers study culture within nations (see English, 2002a, 2002b). Others study cultures across various nations. For example, Pant *et al.* (1996) study cultural differences between Nepalese and Western project managers. Winch *et al.* (1997) examine the cultural difference between British and French managers working on the Channel Tunnel project. Bröchner *et al.*'s (2004) study compares the cultural orientation of British and Swedish managers. Mäkilouko (2004) examines cultural differences across Finnish–European, Finnish–Chinese and Finnish–American managers. Toor and Ogunlana (2008) compare Thai managers with their non-Thai counterparts.

However, most studies on cross-cultural interaction in construction either employ simple methodologies, or use cultural dimensions as their research frameworks. Phua and Rowlinson (2003) are among authors who have highlighted shortcomings in studies on cross-cultural projects in construction. They observe that such studies have mostly considered the elements and dimensions that are perceived to fall under the label of 'culture' without understanding which of these dimensions are directly or indirectly related to project performance. For example, they note that in studying cultural differences between project participants from different countries, it would be useful to capture some of the sub-cultures—such as organizational cultures—that might have played important parts in the predicted relationships.

Moreover, most of the existing studies have been conducted at the local level, comparing leadership or management styles at the individual or organizational levels. Furthermore, when comparing cultures across nations, cross-cultural studies in construction do not consider some important factors such as the within-culture diversity, economy, geoclimate and bioclimate of various countries. Few studies use established methodologies which are being employed in cross-cultural research in the social sciences and management. Therefore, it is necessary to take a fresh look at where cross-cultural research in the construction industry should be heading and how it can benefit from the advances being made in other relevant fields—in particular, in social sciences and management studies.

## Research objectives

This study has the following objectives:

(1) To review the literature on 'cross-cultural' research on leadership and management in the construction management literature.
(2) To highlight the advances being made in 'cross-cultural' research in the social sciences and management studies and underscore the potential relevance of these advances to construction management research.
(3) To make suggestions for the study of cross-cultural issues in the construction industry.

## Overview of cross-cultural research

An overview of cross-cultural research is now presented. A brief account of the history of cross-cultural research is followed by a discussion of criticisms of the earlier cross-cultural research. Subsequent sections highlight some notable studies on cross-cultural management, and present a review of cross-cultural research in the construction management literature.

The most influential work on culture in recent decades is considered to be that of Hofstede (1980, 1991, 2001) whose seminal book *Culture's Consequences: International Differences in Work-related Values* was first published in 1980. Since then, a considerable amount of work has been done in the fields of cross-cultural management and cross-cultural leadership (see, for example, Trompenaars, 1993; Den Hartog *et al.*, 1999). Studies in many countries have shown that cross-cultural interactions have implications for several aspects of management such as change management (Eby *et al.*, 2000), human resource management (Ramamoorthy and Carroll, 1998) and entry modes (Fisher and Ranasinghe, 2001). Other relevant aspects of management include motivation (Dorfman and Howell, 1988), leadership (Jung and Avolio, 1999; House *et al.*, 2003), group process (Kirkman and Shapiro, 2000) and emotional exhaustion and stress (Leung *et al.*, 2006). Research has also shown that cross-cultural interactions may create conflicts and tensions that may prevent teams from performing well, but they also possess the potential for creative tensions and may encourage mutual inspiration and facilitate learning (Van Der Zee *et al.*, 2004).

Many researchers have proposed frameworks for studying and measuring 'culture'. In his work that originated from a study at IBM, Hofstede (2001) argues that cultural dimensions such as power distance (PDI), individualism (IDV), masculinity (MAS), uncertainty avoidance (UAI) and long-term orientation (LTO) differ between Eastern and Western cultures. Attributes of Eastern cultures are high in people-orientation, collectivism, long-term orientation, and also have high power distance. On the other hand, Western societies are more task-oriented, with relatively low power distance, individualistic, and uncertainty avoidant.

Following the work of Hofstede (1980, 1991), many researchers have presented similar frameworks and models. For example, Trompenaars (1993), from his study of organizations in 50 countries, proposed seven dimensions of culture: universalism versus particularism; individualism versus communitarianism; neutral versus emotional; specific versus diffuse; achievement versus ascription; attitudes to time; and attitudes to the environment. Schwartz (1994), in the individual-level study of the content and structure of values, identified seven culture-level dimensions, namely, conservatism; intellectual autonomy; affective autonomy; hierarchy; egalitarian commitment; mastery; harmony. Smith *et al.* (1996) identified two main dimensions: egalitarian commitment versus conservatism; and utilitarian involvement versus loyal involvement.

In their Global Leadership and Organizational Behavior Effectiveness (GLOBE) project which covered 62 countries, House *et al.* (2003) identified nine dimensions, each measured twice, isometrically, as practices and respective values. These dimensions are: performance orientation; assertiveness orientation; future orientation; humane orientation; institutional collectivism; family (now in-group) collectivism; gender egalitarianism; power distance; and uncertainty avoidance. These dimensions, although derived in the context of leadership, are similar to those proposed by Hofstede (1991).

In recent studies, researchers have considered concepts of general beliefs, or 'social axioms', which are basic premises that people endorse and use to guide their behaviour in their daily living (Bond and Leung, 2004, p. 552). Leung *et al.* (2002) introduced a five-dimensional structure of social axioms from a survey covering five countries. their classification of social axioms comprises: cynicism; social complexity; reward for application; spirituality or religiosity; and fate control. In a study of 41 nations, Bond and Leung (2004) attempted to reveal the culture-level factor structure of social axioms, and extracted two factors: dynamic externality (related to power distance, conservatism and collectivism); and societal cynicism (relating to a lower emphasis on striving for high performance, a pertinent outcome if there is a general suspicion of the social system, and a general expectation of negative outcomes).

The studies outlined above have produced largely convergent results which are also largely in line with Hofstede's work. Other authors such as Smith and Bond (1998) reached a similar conclusion when they reviewed such works. However, there is a danger that these dimensional studies present stereotypical conceptualizations of cultures (Chen and Partington, 2004, p. 398). Several authors also believe that cross-cultural research has not considered many important issues regarding selection of frameworks and methods (see, for example, Schwartz, 1994; Sivakumar and Nakata, 2001; Kirkman *et al.*, 2006). Some of the criticisms are discussed in the next section.

## A critique on cultural dimensions

Many authors, including Sondergaard (1994), Smith (2002), Fang (2003) and Javidan *et al.* (2006) note that Hofstede's work has profoundly influenced the course and development of cross-cultural studies within psychology, organizational studies and the social sciences in general. The Social Science Citations Index showed that Hofstede's work has been widely cited; at least 1036 times by 1993, 1800 times by 1999 and 3240 times by 2005 (see Sondergaard, 1994; Hofstede, 2001; http://www.fdewb.unimaas.nl/os/diversity.htm).

There has been a great deal of criticism of Hofstede's work. Roberts and Boyacigiller (1984) argue that Hofstede's conclusions are culture-bound. Yeh and Lawrence (1995) point out that the fifth dimension or Confucian dynamism reflects the same cultural values as individualism and therefore should not be a unique cultural dimension. Sivakumar and Nakata (2001) are more concerned about Hofstede's sampling design and offer an alternative approach for designing better multi-country samples for cross-cultural research.

Smelser (1992) asserts that Hofstede's model is an attempt to measure the unmeasurable. McSweeney (2002) argues that Hofstede's claims are 'excessive and unbalanced' as they do not justify the identifiable characteristics and consequences which Hofstede outlines. To McSweeney (2002), the lack of balance in Hofstede's claims is due to his attempt to prove his own viewpoint rather than evaluating the adequacy of his findings. Moreover, owing to the large number of fundamental theoretical and methodological flaws in it, Hofstede's work is a restrictor rather than an enhancer of better understanding of cultural issues. Chiang (2005) doubts whether Hofstede's work can be operationalized; he also highlights issues such as generalizability of the findings, subjectivity and cultural boundedness of the researcher.

An aspect of Hofstede's framework that has attracted much critical comment is the fifth dimension he proposed. Hofstede (1991) introduced this dimension based on his work on Confucian dynamism and called it long-term orientation (LTO). Fang (2003) points out that there are many fatal philosophical and other flaws, methodological weaknesses and doubts, as a result of which the fifth dimension has not been well received by researchers. McSweeney (2002, p. 106) notes that 'his grafting on of this fifth dimension is problematic'. Authors who review Hofstede's work also tend to be reluctant to discuss the fifth dimension in detail (see Triandis, 1993; Sondergaard, 1994, 2001). Moreover, questions have been raised regarding excessive redundancy among the items of the Chinese Value Survey (Chinese Culture Connection, 1987) on which Hofstede based his fifth dimension. Other criticisms on the fifth dimension include: inaccurate English translation of Chinese values in Hofstede's questionnaire; use of students as the survey population (compared to the IBM employees in the earlier studies); and use of inconsistent factor analysis techniques for computations of the first four dimensions and the fifth dimension (Fang, 2003).

Javidan *et al.* (2006) argue that, contrary to Hofstede's (2006) assertion, his work lacks many of the steps of action research. They also argue that Hofstede's study might have suffered from its consideration of the specific needs of one organization, IBM. Javidan *et al.* (2006) also observe that '… the ease, simplicity, and the prevalent use of his (Hofstede's) constructs and associated country scores seems to be a tradition that can only be called Hofstedeian hegemony. No single researcher or research team, including GLOBE, should own the cross-cultural research field!' (p. 910).

Kirkman *et al.* (2006) review Hofstede's work and note that it is time to comprehend other cultural values beyond what he proposed. Also, there is a need to explore if there are other values (such as Confucian dynamism) that are specific to certain regions and cultures (such as *ubuntu* in African cultures), religions (such as monotheism, henotheism and atheism) and countries (such as *satyagraha*—Gandhi's philosophy—in India). Kirkman *et al.* (2006) suggest that thinking outside the Hofstedian box can help researchers to undertake more extensive and deeper exploration of the subject.

## Cross-cultural research in management and leadership

Dickson *et al.* (2003) observe that: 'It is almost a cliché to say that there has been an explosion in the amount of

research on leadership in a cross-cultural context' (p. 729). Others note that there is a general consensus on the culture-specific nature of managerial and leadership practices in the literature in the social sciences and management studies. For example, Smith *et al.* (2002) studied managers in 47 countries and found that their values are significantly correlated with their reliance on sources of guidance but relatively less predictive of reliance on their peers and on more tacit sources of guidance. In a study of self-managing work teams in Belgium, Finland, the Philippines and the United States, Kirkman and Shapiro (2001) observed that country-level differences in cultural values remain an important concern. They examined the attitude of self-managing work teams in relation to their cultural values and team effectiveness. Their findings showed that teams with higher collectivism were more productive, cooperative and empowered. These relationships were also mediated by the level of team resistance to the team-related aspect of its work.

Van de Vliert (2006) focuses on the relationship between autocratic and democratic leadership, and economy, geoclimate and bioclimate. His study across 61 countries supports a significant relationship between the wealth of the country and leadership behaviour. The findings showed that autocratic leadership is less effective in economically richer countries with more demanding (colder) geoclimates but more effective in poorer countries with more demanding geoclimates. Similarly, autocratic leadership is less effective in economically richer countries with more demanding (colder or hotter) bioclimates but more effective in poorer countries with more demanding bioclimates. Thus, factors beyond culture such as economy and climate also play a significant role in determining the appropriateness of leadership and management styles in particular nations.

In his study of Finnish project managers, Mäkilouko (2004) noted that relationship-oriented leaders may have a higher potential for leadership success as they are able to maintain the cohesion of the project team and develop a personal bond with their team members. Although, in some instances, managers from different cultures may have similar perceptions about task performance and interpersonal relationships, they may differ in their cultural values, beliefs and power relationships with their subordinates (Wong *et al.*, 2007).

Some studies explore culture against the background of psychological factors and organizational outcomes. For example, Gelade *et al.* (2006) examine organizational commitment (AC) in 49 countries. Their findings show that AC is higher in countries where the population is extravert—who tend to experience more happiness than do introverts—and low in countries where the population is neurotic—tending to experience more unhappiness than do non-neurotics. In terms of culture, AC is negatively related to societal cynicism and positively related to egalitarian commitment. Their results generally show that AC is generally unrelated to most cultural dimensions proposed by Hofstede (2001), Schwartz (1994), Smith *et al.* (1996) and Bond and Leung (2004).

Owing to the cultural differences, researchers argue that Western management approaches should be introduced into the Eastern societies with caution (Chen and Partington, 2004). Attempts to do this have not always been successful and the different underlying belief systems and cultural values may lead to the development of resistance against foreign cultural infiltration. Many others question the universality of management theory and its application across cultures (Enshassi and Burgess, 1990). Management models derived in Western countries might not be compatible with the culturally derived job attitudes and values of employees in developing countries (Pant *et al.*, 1996).

Similar views are shared by other researchers who believe that 'leadership' is dependent on culture (see, for example, Dickson *et al.*, 2003). Research on leadership itself is a demanding endeavour and therefore studying leadership and culture together can pose complex challenges, especially in the absence of a framework to guide cross-cultural leadership research (Dickson *et al.*, 2003). Research has shown that the effectiveness of leaders considerably differs across cultures. For example, Topcu-Oraz *et al.* (2006) study the effect of culture on the leadership behaviour of Turkish project managers and argue that determinants of leadership effectiveness may vary across cultures. Grisham (2006) explores the question whether there are cross-cultural leadership dimensions that are effective internationally, regardless of culture. House *et al.* (2003) also examined the effectiveness of various leadership behaviours across different cultures. Many other authors argue that the prototypical traits of a leader may be different across cultures (see, for example, Den Hartog *et al.*, 1999). The differences in perceptions of leadership prototypes may sometimes reflect conventional wisdom across different countries; however, this is not always the case (Gerstner and Day, 1994).

Chong and Thomas (1997) found that leader and follower ethnicity interact to affect follower satisfaction. Their study also showed that leadership prototypes were different in groups from different cultures. Den Hartog *et al.* (1999) suggest that, in a culture where the authoritarian style is prototypical for a leader, any show of sensitivity by a leader would be perceived as a sign of weakness. On the other hand, the same sensitivity may be seen as an important attribute in a culture that

endorses the nurturing style. A study undertaken in four post-communist countries (Russia, Georgia, Kazakhstan and the Kyrgyz Republic), found that the work cultures of the countries differed greatly despite similarities in economic systems and organizational and managerial structures (Ardichvili and Gasparishvili, 2001). The study showed that, compared to Kazakh and Kyrgyz managers, Russian and Georgian managers were more likely to use an inspirational motivation style of leadership. However, all four countries showed insignificant differences in charisma, transactional leadership and laissez-faire leadership styles (Ardichvili and Gasparishvili, 2001).

Despite cultural differences, there is evidence that some leadership attributes and styles can be universal. For example, Den Hartog *et al.* (1999), in their GLOBE study, found universally endorsed positive and negative attributes of leadership. Leaders were universally considered to be effective if they were: positive, trustworthy, administratively skilled, just, win-win problem solvers, encouraging, intelligent, decisive, informants of the team and effective bargainers. Attributes that were universally endorsed to be negative included: being ruthless, asocial, irritable, egocentric, non-explicit, non-cooperative and dictatorial. Attributes that were found to be culture-specific included being: an intra-group competitor, autonomous, an avoider, formal, subdued, cautious, intuitive, status-conscious, procedural, domineering, elitist and individualistic.

## Cross-cultural research in construction

There has been increasing consideration of 'culture' in studies in the construction industry at various levels. Many of these studies focus on individual and organizational culture in various settings. However, there appears not to have been much work on 'cross-cultural' interaction. In order to compile a list of cross-cultural studies in construction, it was decided to select refereed articles from journals and conferences, as these articles have gone through the peer review process and therefore achieved a certain level of quality. Online databases of scientific works, reputed journals on construction and project management, and databases of proceedings of conferences on construction were searched. This method of selecting articles has been employed by several authors who have presented extensive literature reviews (Bryman, 2004) and meta-analysis in management research. Stajkovic and Luthans (1997) perform a meta-analysis of the effects of organizational behaviour modification on task performance and offer a detailed description of how they selected the studies for their meta-analysis. In their meta-analysis of self-efficacy and work-related performance, they apply similar criteria to select the works (Stajkovic and Luthans, 1998). Reichard and Avolio (2005) also present the criteria they adopted in selecting studies for their meta-analysis of research on leadership intervention.

To find papers published in conference proceedings, the CIB's online library (ICONDA) was also searched. A total of 25 works were found addressing cross-cultural issues in construction. Among these, there were 19 journal articles, two books and four conference papers. Table 1 presents a summary of these empirical studies. In the majority of the studies, the analysis was undertaken at the individual and organizational levels. Few of the studies focused on the national level, and these considered a very small number of countries. None of the studies was conducted across regions. The research works mainly utilize questionnaires to elicit the cultural values within organizations using project managers as the target subject. Few of the studies operationalized interviews, case studies and other research methodologies. This shows the predilection of construction researches towards quantitative methodologies and a positivist paradigm.

Most of the studies presented in the Table 1 did not benefit from proven frameworks applied or developed in research in the social sciences and management studies. Some authors observe that works on cross-cultural issues in construction present cross-cultural interactions as simpler conceptualizations than they really are (see, for example, English, 2002a, 2002b). Only two studies shown in Table 1 consider the heterogeneity within the culture (English, 2002a, 2002b) while a few others focus on cultural diversity within organizations (Sillars and Kangari, 2004; Fong and Lung, 2007).

The studies on culture in construction have explored topics including: communication (Loosemore and Muslmani, 1999; English, 2002a, 2002b), stress management (Leung *et al.*, 2006) and leadership style (Enshassi and Liska, 1999; Fellows *et al.*, 2003; Mäkilouko, 2004; Grisham, 2006; Ozorovskaja *et al.*, 2007; Wong *et al.*, 2007; Toor and Ogunlana, 2008). Other subjects that have been studied include marketing and market entry (Fisher and Ranasinghe, 2001; Cheah *et al.*, 2006) and inter-organizational teamwork (Fong and Lung, 2007). Still other studies focus on cross-cultural project management (Low and Leong, 2000; Chan and Tse, 2003; Chen and Partington, 2004; Ling and Lim, 2006).

Finally, the studies shown in Table 1 principally chose subjects at the managerial level. Only two studies considered employees at all levels of the organizations (see English, 2002a, 2000b) while one study targeted

**Table 1** Summary of cross-cultural studies in construction

| No. | Author/s | Country | Research subject | Level of analysis | Research method/type of framework | Target subjects | Publication outlet |
|---|---|---|---|---|---|---|---|
| 1 | English (2002a) | South Africa | Cross-cultural communication | Individual/ organizational/ national | Training based on *ubuntu* philosophy | Employees at all level | *Building Research & Information* |
| 2 | Cheah *et al.* (2006) | China | Market entry and marketing in China | Organizational | Interviews/questionnaires/ case study | Managers/ designers | *Building Research & Information* |
| 3 | Ang and Ofori (2001) | Singapore/ China | Implementation of partnering in Chinese culture | Individual | Questionnaire related to cultural values and partnering practices in China | Construction professionals | *Construction Management and Economics* |
| 4 | Fisher and Ranasinghe (2001) | Singapore | Entry mode choice of construction firms | Organizational/ national | Hofstede cultural dimensions and published firm data | | *Construction Management and Economics* |
| 5 | Fellows *et al.* (2003) | Hong Kong | Culture, leadership style and power relations | Organizational | Cultural dimensions survey | Quantity surveyors | *Construction Management and Economics* |
| 6 | Bröchner *et al.* (2004) | UK/Sweden | Cross-border post-acquisition knowledge transfer | Organizational/ national | Case study of an acquisition | Consultants | *Construction Management and Economics* |
| 7 | Wong *et al.* (2007) | Hong Kong | Leadership style in multinational organizations | Individual/ organizational/ national | Questionnaire related to leadership style and power relations | Managers in multinational firms | *Construction Management and Economics* |
| 8 | Fong and Lung (2007) | Hong Kong | Inter-organizational teamwork | Inter-organizational teams | Questionnaire related to cultural dimensions and team orientation | Construction practitioners | *Construction Engineering and Management* |
| 9 | English (2002b) | South Africa | Communication problems on construction projects | Individual/ organizational | Training based on *ubuntu* philosophy | Employees at all level | *Journal of Construction Research* |
| 10 | Pant *et al.* (1996) | Nepal | Organizational culture in Nepal | Organizational | Questionnaire survey related to organizational culture | Managers | *International Journal of Project Management* |
| 11 | Loosemore and Muslmani (1999) | Middle East/ UK | Intercultural communication | Individual/ national | Interviews | Project managers | *International Journal of Project Management* |
| 12 | Low and Leong (2000) | China/US | Cross-cultural project management | Individual/ organizational | Case study | | *International Journal of Project Management* |
| 13 | Chen and Partington (2004) | China/UK | Relationships in construction project management work | Individual/ national | Penomenography Interviews | Project managers | *International Journal of Project Management* |
| 14 | Mäkilouko (2004) | Finland/US/ China/Hong Kong | Leadership style | Individual/ national | Interviews | Project managers | *International Journal of Project Management* |

**Table 1** Continued.

| No. | Author/s | Country | Research subject | Level of analysis | Research method/type of framework | Target subjects | Publication outlet |
|---|---|---|---|---|---|---|---|
| 15 | Chan and Tse (2003) | Hong Kong, UK, Australia | Contractual arrangements; conflict causation | Individual | Survey on East–West cultural effect Survey on dispute in international project | Professionals and academics | *Construction Engineering and Management* |
| 16 | Ozorovskaja *et al.* (2007) | Lithuania/ Netherlands | Leadership and cultures of Lithuanian and Dutch construction firms | | Questionnaire related to leadership and organizational culture | HR managers | *Construction Engineering and Management* |
| 17 | Sillars and Kangari (2004) | US | Culture match in joint ventures | Organizational | Questionnaire related to joint venture success | Senior executives | *Construction Engineering and Management* |
| 18 | Toor and Ogunlana (2008) | Thailand | Leadership style for large construction projects | Individual | Questionnaires/interviews | Thai and expatriate project managers and line managers | *International Journal of Human Resource Development and Management* |
| 19 | Winch *et al.* (1997) | UK/ France | Culture and organization: the case of Transmanche-Link | Individuals/ national | Cultural dimensions survey | Managers | *British Journal of Management* |
| 20 | Tijhuis (ed.) (2001)* | | Culture in construction—part of the deal? | | | | *International Council for Research and Innovation in Building and Construction (CIB): Publication No. 255* |
| 21 | Fellows and Seymour (eds) (2002)* | | Perspectives on culture in construction | | | | *International Council for Research and Innovation in Building and Construction (CIB): Publication No. 275* |
| 22 | Grisham (2006) | Australia | Cross-cultural leadership in construction | Individual | Delphi technique | CEOs/ managers | *The Joint International Conference on Construction Culture, Innovation and Management, Dubai* |
| 23 | Leung *et al.* (2006) | Hong Kong/ UK | Emotional exhaustion and stress of estimators | Individual | Questionnaires | Estimators | *The Joint International Conference on Construction Culture, Innovation and Management, Dubai* |
| 24 | Ling and Lim (2006) | China | Cross-cultural encounters in Chinese projects | Individual/ organizational | Case study | | *The Joint International Conference on Construction Culture, Innovation and Management, Dubai* |
| 25 | Enshassi and Liska (1999) | Palestine | Leadership style of American and Palestinian construction managers | Individuals | Interviews/questionnaires | Construction managers | *CIB W55 & W65 Joint Triennial Symposium* |

* CIB Published Book

senior executives as subjects (see Sillars and Kangari, 2004). The characteristics of the studies presented in Table 1 raise a number of issues which are discussed further in the next section.

## Important issues and future directions

Research in cross-cultural settings is complex and challenging. Hofstede (2001) considers the most important grounds for cross-cultural research to be found in three questions: 'What are we comparing?' 'Are ''nations'' suitable units for this comparison?' 'Are the phenomena we look at functionally equivalent?' In cross-cultural interactions, it is particularly difficult to say which cultural aspects intertwine with other mediating factors (and under what conditions they intertwine) (Javidan *et al.*, 2006). There are no simple answers to the questions explored in cross-cultural studies and both of the large studies in the field—Hofstede's work and the GLOBE study—have limitations, contingent risks and ambiguities (Earley, 2006; Smith, 2006).

Some researchers suggest that there is need for better understanding of the relationship between values and practices and that such a relationship should be viewed as dynamic and double directional rather than static and unidirectional (House *et al.*, 2003). Despite these challenges, cross-cultural interaction is a daily reality on large construction projects. Thus, it is necessary to understand cross-cultural issues in order to address and, possibly, reduce the problems that result from them (Chan and Tse, 2003). Some of the important issues in relation to cross-cultural research are shown in Figure 1 and discussed in the subsequent sections.

### Levels of culture and relationships among them

First, it should be understood that every nation comprises several ethnic and religious groups who have their own cultural beliefs and values (Bock, 1999; McSweeney, 2002). Moreover, in some countries, expatriates constitute a significant part of the population, and in particular, the workforce (at various levels). Although foreigners who eventually settle in any country may adopt the local culture, they still maintain some ties with their roots. Owing to this within-country heterogeneity (Dickson *et al.*, 2003), it would appear to be inappropriate to define culture at the national level. With this consideration, it is clear that the cross-cultural issues are even more complex when teams from different countries participate in major construction projects.

The second relevant issue is the relationship between national culture and that of organizations. Research shows that the culture of an organization is predominantly influenced by the national culture (Low and Leong, 2000). Some argue that organizational values that are in conflict with national values and beliefs are likely to be met with resistance (Low and Leong, 2000). This interplay between organizational and national cultures is further complicated if the organization is itself a multicultural one, with activities in many countries. How this interplay influences the perceptions

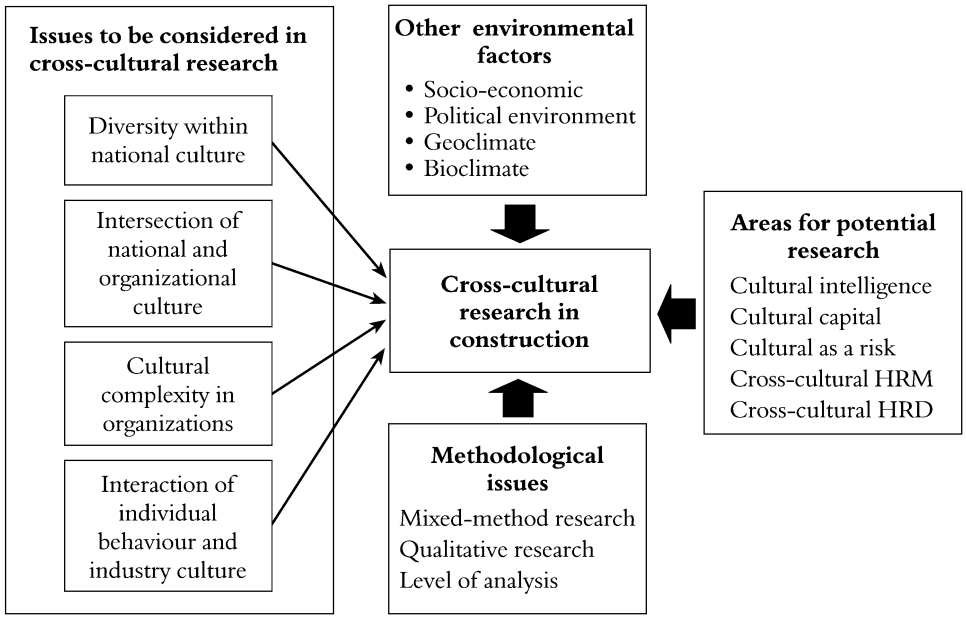


**Figure 1** Issues in cross-cultural research in construction

and resulting styles of leadership and management needs further exploration (Wong *et al.*, 2007). Moreover, there are cultural varieties within and among units of the same organization (Hofstede, 1991). Further research can be undertaken to investigate the influence of organizational culture on leadership perceptions as well as the impacts of the ingroup/outgroup distinction on project performance of the organizations which can have deep implications for organizational culture and performance (Wong *et al.*, 2007). Here, 'ingroup' refers to the members who are closely knit within a team whereas 'outgroup' refers to those members who are considered to be outsiders and are not a part of the 'ingroup'. Phua and Rowlinson (2003) posit that ingroup collectivism can result in improved cooperation within the organization or team but is likely to lead to hostility towards the members of the outgroup.

Third, within organizations, there is further complexity in terms of team composition. Mäkilouko (2004) categorizes multicultural teams into three groups: (1) teams comprising members from dissimilar cultures working in the same country; (2) teams that are partially or completely dispersed in several countries but often meet face to face; and (3) teams comprising members based in many countries who work together only through electronic means and may never meet each other—referred to as 'virtual teams'. Other forms of teams include those working in strategic alliances such as joint ventures and consortiums, involved in the same project. On a large construction project, more than one of these forms of teams may come together to accomplish the project goals. An added complexity is the size and level of bureaucracy in the different organizations that may be involved. Therefore, research should focus on the relationships between cultural values and team processes and outcomes (Kirkman and Shapiro, 2001).

The fourth point is at the individual level. Researchers have argued that there is interaction between the industry culture and individual behaviour. For example, Phua and Rowlinson (2004) observe that 'the relationships between culture and individual behaviors are far more complex than alluded to by simple normative generalizations' (p. 913). Hofstede's (2001) contention that there are worldwide occupational cultures is challenged by many authors (see, for example, McSweeney, 2002). As it is influenced by many factors including the socio-economic situation, structure of the industry, procurement methods and statutory regulations, the occupational culture of the construction industry is likely to be different in different countries. This interaction of occupational culture with national culture and individual behaviour is more complex than perceived in many studies.

The fifth point concerns the factors that influence the behaviour of the players on construction projects. Other than beliefs, values and norms, factors such as socio-economic conditions, political environment, bioclimate and geoclimate are also some factors that have potential influence on how people think and behave. Therefore, while considering the conventional dimensional frameworks (Schwartz, 1994; Hofstede, 2001; Bond and Leung, 2004; Smith, 2004), researchers need to consider factors other than culture that mediate the behaviours of people and groups.

## Research implications

Researchers on cross-cultural issues in construction need to widen the range of topics they study. Of particular interest in this regard would be some of the emerging ideas in the social sciences and management studies research. For example, 'cultural intelligence' is one area to which recent research endeavours have been directed. Cultural intelligence focuses on understanding an individual's capacity to adapt to varying cultural settings through meta-cognitive processing, motivational mechanisms and behavioural adaptation (see Earley and Ang, 2003; Ng and Earley, 2006). The same concept has also been presented under the label of 'cross-cultural adjustment' by authors who argue that it is achieved through the 'uncertainty reduction principle' (Black and Gregersen, 1991). Simply put, reduction in a person's uncertainty in a new cultural environment will (or should) positively contribute to the person's satisfaction, sense of well-being or comfort in that environment (Taveggia *et al.*, 2001). Others refer to the significance of 'cultural capital' or 'reflexive capability' for organizations who work across national borders (London and Chen, 2007). Such studies emphasize the importance of cross-cultural understanding and its inclusion in the business models of organizations, and the concepts are relevant to construction.

A further related line of enquiry is to undertake studies considering the notion of 'culture' as a risk. Bu-Qammaz *et al.* (2006) argue that a major weakness in the existing literature is the absence of a sound framework for assessing cultural risk and its sources and other related factors. In this regard, it is important to explore the potential sources of cultural risk and its relationship with other risks on the projects. However, Fellows and Liu (2006) suggest that in order to recognize 'culture' as an important risk factor, one needs to appreciate

> its existence, manifestations, and impacts on performance with a view to aiding the management of projects and organizations—that is not to fall under the delusion

> of culture as a tool of control but to foster appreciation of the processes and appropriate responses to cultural manifestations and mixes and, thereby, aid performance improvement (p. 138).

Cross-cultural research should also move from merely identifying the cultural characteristics to examining how other contextual forces, in relation to culture, influence the individual and group behaviours in the organizations. Future research should focus on a 'multidisciplinary and interactionist perspective' to examine the complexity of organizations and their environments. For example, there is scope for cross-cultural research on staffing, performance management, employee health and safety, and skills development (Aycan, 2000). Van De Vliert (2006) observes that 'international human resource managers and interventionists can no longer take it for granted that autocratic and democratic leadership approaches are equally malleable in any direction anywhere' (p. 57). Therefore, researchers should attempt to provide an understanding of human resource management and development in various cultural contexts.

Research and practice also needs to establish effective and efficient methods to train professionals for cross-cultural projects (Mendenhall and Oddou, 1985). Black and Mendenhall (1990) note that such skills can be divided into three categories: (1) skills related to the maintenance of self; (2) skills related to the fostering of relationships with host nationals; and (3) cognitive skills that promote a correct perception of the host environment and its social systems. Gerstner and Day (1994) note that the amount of such training largely depends on the magnitude of differences between cultures. Future research can focus on how these skills can be developed and sustained within individuals and organizations.

## Issues of methodology

The need to address methodological issues has also been recognized even in the more mature field of cross-cultural research in the social sciences and management (Smith, 2006). Therefore, there have been calls for greater use of qualitative analyses of cultures to consider and uncover the issues that cannot be directly addressed by quantitative methodologies. For example, Kirkman *et al.* (2006) suggest that qualitative content analysis can be used to capture cultural values in interviews to characterize culture at the individual, group or organizational levels. Dahles and Wels (2002) also note the benefits of the qualitative approach in studies of people and organizations. They argue that a qualitative approach captures complexity where others see uniformity. They also advocate the use of ethnography for studying the local culture as this approach provides insight and understanding of 'the native point of view' (p. 8). To capture such a complex phenomenon as 'cross-cultural interaction', grounded theory methodology (Glaser and Strauss, 1967; Corbin and Strauss, 2008) can also be a useful tool for exploring to greater depth, and unearthing complex relationships of, context, causal conditions, intervening conditions and consequences of cross-cultural interactions. Although there have been some attempts to study cross-cultural patterns in management (see, for example, Houston and Venkatesh, 1996), the application of qualitative methods is rare.

Construction research is starting to embrace the grounded theory approach to address complex phenomena such as leadership (Toor and Ofori, 2008a, 2008b), women's career development (Dainty *et al.*, 2000), crisis management (Loosemore, 1999) and risk and turbulence in large-scale projects (Floricel and Miller, 2001). Others have focused on the role of cultural capital in the development of a sustainable business model (see London and Chen, 2007) and competitive strategy (Green *et al.*, 2008) using the grounded theory approach. Where relevant, researchers in construction can also blend qualitative and quantitative methodologies to explore cross-cultural issues.

Since leadership has been purported as a social process (Conger, 1998) that is heavily influenced by the particular context (Zaccaro *et al.*, 2001), researchers have argued that leadership phenomena should be studied through more qualitative approaches (Bryman, 2004) such as the grounded theory approach (Parry, 1998), and use of qualitative content analysis of interviews to characterize cultural values (Kirkman *et al.*, 2006). Similarly, ethnographic studies can be used to study managerial behaviour and its institutional embeddedness (Noordegraaf and Stewart, 2000). By paying sufficient attention to beliefs, customs, habits and cultural contexts, researchers can enrich the information they collect and hence develop better interpretations of various social phenomena (see Goulding, 2003). In the GLOBE study, researchers utilized this cross-cultural approach through in-depth qualitative interviewing, media analysis and focus groups to elicit a detailed description of leadership across various cultures and elucidate culture-specific elements that result in effective leadership performance (Den Hartog *et al.*, 1999). Scandura and Dorfman (2004) express reservations about the use of qualitative research for leadership and cross-cultural studies. They envisage that survey-based approaches will continue to be dominant in cross-cultural research.

Cross-cultural research in construction also needs to expand the level of analyses from individual level studies to include the influence of intrapsychic, group

or organizational factors. Kirkman *et al.* (2006) also warn that excessive focus on a single level of analysis misses valuable information about the influence of cultural diversity within teams, groups and organizations on various organizational outcomes. Some cross-cultural studies such as GLOBE considered as many as four levels of analysis—individual, organizational, industry and country.

## Conclusions

Cross-cultural interactions can result in conflicts and acerbic tensions. They also possess the potential for creative tensions and may encourage mutual inspiration and facilitate learning. The implications of such interactions on construction projects in both these negative and positive senses are even more important than, arguably, any sector, and the potential impact on performance more significant. Better understanding of cross-cultural interaction can help develop culturally intelligent managers with a global outlook.

A review of cross-cultural research in social sciences, management studies and construction management reveals a number of issues that need to be addressed in the mainstream field. It also shows that there is even greater need for further studies in the context of the globalizing construction industry. There is scope for the development and adoption of more comprehensive research frameworks, innovative approaches and methods for studying cross-cultural interactions in construction. In this regard, the research in the construction industry can benefit from the advances that have been made in social sciences and management studies.

When resources allow and circumstances are supportive, the researchers in construction can take the opportunity to undertake research spread over various countries, along the lines of studies in the mainstream social sciences and management such as the GLOBE project which covered 62 countries. Such studies can build on the findings of the mainstream works by exploring in greater detail the construction-specific aspects of cross-cultural issues. Such studies will face major challenges including developing suitable frameworks for application across countries, resource availability and matters of operationalization and coordination. The coordination issues can be eased through the involvement and leadership of existing networks of construction researchers such as CIB W112 (Culture in Construction), and the resource problems can be dealt with by the active participation of researchers in their own countries, and exploitation of information and communication technology.

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