THE RELATIONSHIP BETWEEN CULTURAL INTELLIGENCE AND CROSS-CULTURAL ADJUSTMENT AMONG CONSTRUCTION PROFESSIONALS

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ABSTRACT

Culture is proven to be one of the fundamental characteristics that will differentiate international management from domestic management. The capability to adapt to new cultural contexts effectively is necessary for an expatriate to perform well. Additionally, cross-cultural adjustment is an important criterion of expatriate success in the international workplace. Hence, this study aims to examine the relationship between the four facets of cultural intelligence (CQ) with the cross-cultural adjustment to those who are working in the construction industry. A total of 116 construction professional expatriates participated in this study through questionnaire surveys. The results revealed positive correlations between cultural intelligence and cross-cultural adjustment. Motivational CQ proved to be the most significant CQ when it comes to the cross-cultural adjustment, indicating that an expatriate's interest in learning about cultural differences would help an individual to work efficiently in culturally diverse environments.

Keywords: cultural intelligence, cross-cultural adjustment, expatriates, professional, construction industry, correlation

INTRODUCTION

The world is becoming smaller due to globalisation and thereafter trade barriers are reduced, creating challenges for individuals and organisations with a diversified culture and leading to an increasingly significant issue of foreign assignment (Littrell and Salas, 2005; Ang *et al.*, 2007; Lee and Sukoco, 2010; Chen, Lin and Sawangpattanakul, 2011). The competitive global marketplace provides the opportunity for construction companies to enter different nations around the world as the market is now borderless (Nur et al., 2018).

Globalisation increases cross-cultural interactions since culture is proven to be one of the fundamental characteristics that differentiate international management from domestic management (Lane *et al.*, 2009). Cross-cultural interactions cause huge numbers of expatriates unable to adjust in different countries and results in premature return (Konanahalli *et al.*, 2014; Akhal and Liu, 2019). Hence, expatriates need to be extremely skilled when being assigned to international business. They always face difficulties in the foreign assignment such as inadequate managerial practices, unable to adjust to the foreign culture, delayed productivity, and damaged relations, etc (Alon and Higgins, 2005; Littrell and Salas, 2005). In fact, not everyone who can succeed in the domestic context will have the same achievement in an international context (Caligiuri, Tarique and Jacobs, 2009; Daher, 2019).

According to Daher (2019), the expatriation obviously experienced elevated failure rates, incompetence and higher cost. As a result, developing personnel who can adapt and operate effectively and efficiently in international setting has become essential for worldwide organisations. Research supports that the way construction professionals manage and lead becomes diversified when cultural differences exist. Interaction between construction players and organisations from diverse cultures is one of the most complex issues on the international construction project but lack of studies was conducted regarding the challenges of managing human resources internationally (Ofori and Toor, 2009; Santoso and Loosemore, 2013).

Since the construction industry is unique as it is more of a project-based industry, a project would require different construction enterprises such as architects, engineers, and contractors, etc. to form a project team. Besides, the output of the industry is immobile and as a result, there is a need for expatriates to be allocated to the global construction market (Konanahalli *et al.*, 2014). Hence, this paper intended to study the relationship between cultural intelligence (CQ) in all four dimensions (cognitive, metacognitive, motivational and behavioral) and three dimensions of cross-cultural adjustment (general, interaction and work) related to professional who worked in the construction industry. Many scholars embarked on studying the relationship between cultural intelligence and cross-cultural adjustments however not many examined the relationship of each facet of CQ in detail with the cross-cultural adjustments separately. Explicitly, this study intended to identify which constructs of CQ should an international company to pay particular attention when assigning or recruiting expatriates who are able to adjust well in the host country. Personnel also can be beneficial from the findings if he is interested to work abroad.

CULTURAL INTELLIGENCE

Expatriates who can understand cultural differences are able to work together with colleagues from various cultures and achieve higher performance in the multinational business world (Lane *et al.*, 2009; Chen, Lin and Sawangpattanakul, 2011). This capability is known as cultural intelligence or cultural quotient (CQ) that appears to be the natural capacity of a foreigner to interpret someone's unfamiliar and vague gestures as local citizens would do (Earley and Mosakowski, 2004). P.Christopher Earley and Soon Ang (2003) made known to the model of cultural quotient constructs and hereafter called cultural intelligence which widely used by different researchers. Started with three dimensions of capabilities that involved cognitive, motivational and behavioral, later in the year 2007, Soon Ang and the team added metacognitive as one of the dimensions in cultural intelligence (Ang *et al.*, 2007; Ang and Van Dyne, 2015; Akhal and Liu, 2019).

Cultural intelligence (CQ) is defined as a person's knowledge, skill and awareness to act and manage effectively in multiple cultural environments (Ang and Van Dyne, 2015; Alexandra, 2018; Nguyen, Jefferies and Rojas, 2018). It is unlike other types of intelligence because CQ involves diversified culture in interactions. A person can be emotionally intelligent but unable to perform the same in other cultures and thus cultural intelligence is an essential ability to adjust well in dissimilar cultural surroundings (Sousa, Gonçalves and Santos, 2019). CQ is conceptualized by using Sternberg and Detterman's framework as a multifactor construct and proposed four ways to theorize the intelligence (Ang and Van Dyne, 2015; Alexandra, 2018) inclusive of cognitive, metacognitive, motivational and behavioral.

Cognitive CQ is also known as CQ knowledge (Abid *et al.*, 2019) indicates an individual's knowledge of the economic, legal and social aspects in diversified cultures and subcultures attained from education and personal experiences (Ang *et al.*, 2007; Mahasneh, Gazo and Al-Adamat, 2019). People from different cultures always classify the world differently (Triandis, 2006) and therefore those possess high cognitive CQ can understand similarities and dissimilarities across cultures (Daher, 2019). Metacognitive CQ is the process used by individual to acquire and understand the knowledge (Ang and Van Dyne, 2015) through awareness on other's cultural knowledge, planning a strategy before encountering cultural differences and checking the ways to adjust when the real situations are different from expected one (Alexandra, 2018; Abid *et al.*, 2019). People with high metacognitive CQ always alert to others' cultural preferences and cultural assumptions, they will understand when and how their cultural understanding can be applied and adjust their mindset before and during interactions (Ang *et al.*, 2007; Lin, Chen and Song, 2012).

Motivational CQ is also known as CQ drive (Abid *et al.*, 2019). It is a capability to direct the responsiveness and energy towards the unfamiliar culture and the expatriates possess a strong desire to engage with the host nationals (Lin, Chen and Song, 2012; Sousa, Gonçalves and Santos, 2019). It is the demand to learn, comprehend and perform in a different culture and hence the individual will search for the right information and communicate among people with different cultural backgrounds (Abid *et al.*, 2019; Mahasneh, Gazo and Al-Adamat, 2019). Behavioral CQ is an ability that a person can adapt to verbal and nonverbal behaviours in

different cultural contexts (Alexandra, 2018; Daher, 2019). This includes appropriate tone and content, body languages and facial expressions (Mahasneh, Gazo and Al-Adamat, 2019). Hence behavioral CQ focusses on the action and known as CQ action (Ang and Van Dyne, 2015; Abid *et al.*, 2019). This CQ allows an individual to be flexible when interacting with others from distinct background (Huff, Song and Gresch, 2014).

CROSS-CULTURAL ADJUSTMENT

Cross-cultural adjustment started by Lysgaard in the year 1955 and later added by Oberg in the year 1960 with the introduction of culture shock (Black, 1990). Black (1988) defined cross-cultural adjustment as a psychological result linked to the adaptation, which implies the degree of convenience one feels in his new position and the degree one feels adjusted to the role demands. Black's model has been widely recognized and utilised which including general adjustment, interaction adjustment and work adjustment (Lin, Chen and Song, 2012) after he found empirical evidence that the expatriates can adjust to the general environment and also adjust to interacting with host nationals and work responsibilities (Black, 1990).

General adjustment involves expatriate's daily life which is food, health care, living condition, transportation, shopping, and the cost of living (Wu and Ang, 2011; Lin, Chen and Song, 2012). This facet deals with the expatriate's general comfort on the overall adjustment to the host cultural environment (Takeuchi and Chen, 2013; Konanahalli *et al.*, 2014). Interaction adjustment focuses on the level of convenience that people encounter when socializing in both work and non-work settings with the host country nationals (Wu and Ang, 2011; Akhal and Liu, 2019). Work adjustment includes adjusting oneself to the work roles, job responsibilities and work situation. It is a work-related variable and is thought to be the simplest of all three facets if there are parallels between the parent and the subsidiary company in the host country (Takeuchi and Chen, 2013; Konanahalli *et al.*, 2014). Previous research suggested that expatriation failure mainly caused by the adjustment rather than technical expertise (Wu and Ang, 2011) as an expatriate only encounters little stress if he feels comfortable in the host country (Huff, Song and Gresch, 2014).

METHODOLOGY

Sample and data collection

The research population for this study consisted of expatriates who are professionals such as project managers, architects, engineers, quantity surveyors, and directors or associate directors from the construction-related companies. As long as the professional is working outside their home country, they are considered as the target respondents in the study. The questionnaire was developed to collect data for this study. Since most of the expatriates are based overseas and have access to the internet, hence web survey was used in this study.

The respondents were identified through convenient sampling method, mainly was collected through LinkedIn, the world's largest professional network (LinkedIn Corporation, 2019). LinkedIn platform is a professional networking where employers posting jobs and job seekers posting their curriculum vitae, hence the profile of the respondents could be studied before the invitation to participate in the questionnaire was sent. The cover message addressed clearly the target respondents in the study during the internet invitation. Data from this study were collected from 124 participants, however, 8 participants were excluded by reason of either they were not working in the construction industry or they were not working in the host country, leaving 116 participants for analysis. The demographic data of respondents were presented in Table 1.

Table 1: Demographic details (N=116)

Variables	(%)	Variables	(%)
Gender		No.of years stay in the host country	
Male	76.70%	< 3 years	32.76%
Female	23.30%	3-6 years	20.69%
Position		6-9 years	19.83%
Director/ Associate Director	15.52%	9-12 years	12.93%
Project manager/ /Site Supervisor	9.48%	> 12 years	13.79%
Architect/Engineer	8.63%	Birth country based on continents	
Quantity surveyor/Cost Engineer	59.48%	Africa	6.03%
Others	6.89%	Asia	70.69%
		Australia and Oceania	1.72%
		Europe	18.97%
		Northern America	1.72%
		South America	0.87%

Cultural intelligence and cross-cultural adjustment measures

Cultural Intelligence Scale (CQS) developed by Ang et al. (2007) to measure culture intelligence consisting of 20 items involves metacognitive CQ (4 items), cognitive CQ (6 items), motivational CQ (5 items), and behavioral CQ (5 items) on a 7 point Likert scale (1= Strongly disagree, 7 = strongly agree) was used. This CQS is widely used by different researchers. However, the cross-cultural adjustments were measured using scales developed by Black and Stephens (1989) which was extensively used and cited by loads of researchers. The cross-cultural adjustment measures comprise of 14 variables represented general adjustment (7 items), interaction adjustment (4 items) and work adjustment (3 items). The variables were rated on a 7 point Likert scale ranging from 1 (very unadjusted) to 7 (very adjusted).

Hypotheses

The purpose of this study is to examine the relationship between cultural intelligence and cross-cultural adjustment of expatriates in the construction industry. CQ is an individual's ability to adapt to a new cultural environment, hence individuals who have high CQ are expected to adjust better in the host country (Gu, 2015). From the research by Nguyen, Jefferies and Rojas (2018), cultural intelligence was identified to be a crucial personal characteristic to have in order to achieve better intercultural adjustment. Hence, hypothesis 1 was developed as below:

Hypothesis 1: There is a positive relationship between cultural intelligence and cross-cultural adjustment of expatriates in the construction industry

Each cultural intelligence constructs was tested with cross-cultural adjustment. A person with high metacognitive CQ will have high consciousness on others' cultural preferences before and during interactions as it reflects the individuals in acquiring and understanding host cultural knowledge (Ang *et al.*, 2007). This ability enables one to be open and sensitive when dealing with people, places, and events between different cultures, hence it can be considered to increase adjustment level to the new cultures (Wu and Ang, 2011; Gu, 2015) and hence hypothesis 2 was developed as below:

Hypothesis 2: Metacognitive CQ in all its dimensions significantly influences general adjustment, interaction adjustment and work adjustment.

Triandis (2006) highlighted that a person with high cognitive CQ will have knowledge of economic, legal and social systems in different culture and therefore can compare and reflect on their own culture and hence they are more likely to adjust to the new cultures. This CQ is a pre-requisite for cross-cultural adjustment as it helps an individual to interact and act competently within the intercultural environment. A person's knowledge of cultural diversify affects him regularly in both work and non-work circumstances (Konanahalli *et al.*, 2014) and therefore cognitive CQ can influence cross-cultural adjustments significantly.

Hypothesis 3: Cognitive CQ in all its dimensions significantly influences general adjustment, interaction adjustment and work adjustment.

The higher the motivational CQ, the higher the general, interaction and work adjustment because motivational CQ emphasizes the interest in learning about cultural variations. This facet represents the ability of an individual to learn about and function in culturally varied environments. Those who have higher motivational CQ tend to adjust better due to the personal motivation to gain the necessary knowledge (Akhal and Liu, 2019). Daher (2019) reported that research carried by Templer, Tay, and Chandrasekar (2006) demonstrated a significant relationship between motivational CQ and work adaptation.

Hypothesis 4: Motivational CQ in all its dimensions significantly influences general adjustment, interaction adjustment and work adjustment.

An individual interacts with host nationals appropriately using verbal and non-verbal actions considered to be equipped with behavioral CQ. To understand cultural differences, it is important to be able to show the right verbal and non-verbal actions in order to exhibit culturally appropriate tones, gestures and facial expressions (Black, 1990). Hence, a person with high behavioral CQ is able to make positive impressions and develop better cross-cultural relations. As a consequence, behavioral CQ is connected positively with expatriate adjustments (Ang *et al.*, 2007; Daher, 2019).

Hypothesis 5: Behavioral CQ in all its dimensions significantly influences general adjustment, interaction adjustment and work adjustment.

RESULTS AND DISCUSSIONS

Reliability Analysis

Reliability analysis was tested by using Cronbach's Alpha. 20 items cultural intelligence and 14 items cross-cultural adjustments had been tested and shown in Table 2. Both Cronbach's coefficient α achieved more than 0.90 which considered excellent according to the Cronbach's Alpha rule of thumb (George and Mallery, 2003). Internal consistency for each constructs themselves in the cultural intelligence and adjustment had satisfactory alpha values which were α = .912 for metacognitive, α =.888 for cognitive, α = .932 for motivational, α = .898 for behavioral. Cronbach's Alpha for three dimensions of adjustment also indicating satisfactory internal consistency including general adjustment, α = .955, interaction adjustment, α = .940 and work adjustment, α =.957. All the values were greater than.70 cut-off value as per the rule of thumb.

Correlations between Cultural Intelligence and Cross-cultural Adjustment

H1 states that there is a positive relationship between cultural intelligence and cross-cultural adjustment of expatriates in the construction industry. A nonparametric Spearman's rank correlation was adopted to test the correlations between cultural intelligence and the adjustment. The result in Table 3 showed that all four CQ facets were positively related with all three dimensions of adjustment, indicating that individuals with higher levels of CQ tended to have a better adjustment in the host country (Wood and St. Peters, 2014; Wang, 2016) and hence accepted the null hypothesis.

Table 2: Reliability Statistics for Cultural Intelligence and Cross-cultural Adjustment

Variables	Cronbach's Alpha	N of Items
Cultural Intelligence	**0.933**	**20**
Metacognitive	0.912	4
Cognitive	0.888	6
Motivational	0.932	5
Behavioral	0.898	5
Cultural Adjustment	**0.970**	**14**
General adjustment	0.955	7
Interaction adjustment	0.940	4
Work adjustment	0.957	3

Table 3: Descriptive Statistic and Correlations between CQ and Cross-cultural Adjustment

Variables	Mean	SD	1	2	3	4	5	6	7
1.Metacognitive	5.69	0.96	1						
2.Cognitive	5.09	1.03	.481**	1					
3.Motivational	5.65	0.98	.548**	.490**	1				
4.Behavioral	5.22	1.03	.466**	.400**	.467**	1			
5.General Adjustment	5.59	1.12	.277**	0.175	.358**	0.103	1		
6.Interaction Adjustment	5.42	1.22	.185*	.279**	.415**	.189*	.722**	1	
7.Work Adjustment	5.74	1.14	.265**	.206*	.404**	0.145	.790**	.667**	1

Notes:
N=116
*Correlation is significant at the 0.05 level
**Correlation is significant at the 0.01 level

H2 states that metacognitive CQ in all its dimensions significantly influences general adjustment (r_s=.277, p=.003), interaction adjustment (r_s =.185, p=.047) and work adjustment (r_s =.265, p=.004). Accordingly, the hypothesis was supported showing that when one has more awareness of cultural knowledge who always updating his knowledge will tend to adjust better in the host country (Gu, 2015; Akhal and Liu, 2019). Correlation between 4 facets metacognitive CQ and 14 items of expatriate adjustment were tested individually as shown in Table 4.

The awareness of the cultural knowledge used when interacting with people from different cultural background (MC1) is significantly influencing the adjustment on food (GA3), shopping (GA4) and cost of living (GA5). However, adjustment of cultural knowledge when interacting with people from a culture that is unfamiliar (MC2) is highly affecting the adjustment on the living condition (GA1), housing condition (GA2) and entertainment or recreation facilities and opportunities (GA6). Besides, this ability (MC2) also highly associated with interaction with host nationals on a day-to-day basis (IA2) and outside the work (IA3), and correlated significantly with speaking with host nationals (IA4) if referring to the information from Table 4. MC2 appeared to be the most important metacognitive associated with cross-cultural adjustment when all three work adjustments also found highly correlated with it.

Table 4: Correlation between Metacognitive CQ and Cross-cultural Adjustment

	MC1	MC2	MC3	MC4
GA1	.286**	.420**	.247**	.227*
GA2	.363**	.404**	.281**	.278**
GA3	.249**	.213*	.164	.204*
GA4	.305**	.253**	.187*	.229*
GA5	.304**	.254**	.198*	.291**
GA6	.240**	.368**	.238*	.279**
GA7	.075	.180	.129	.130
IA1	.127	.137	.098	.124
IA2	.199*	.276**	.257**	.175
IA3	.166	.237*	.231*	.188*
IA4	.226*	.307**	.275**	.178
WA1	.224*	.359**	.230*	.219*
WA2	.245**	.355**	.243**	.274**
WA3	.274**	.374**	.231*	.236*

Notes:

N=116; *correlation is significant at the 0.05 level; **correlation is significant at the 0.01 level; MC = Metacognitive CQ, detailed explanation refers to Appendix I; GA = General adjustment; GA1 = Living condition in general; GA2 = Housing conditions; GA3 = Food; GA4 = Shopping; GA5 = Cost of living; GA6 = Entertainment/recreation facilities and opportunities; GA7 = Health care facilities; IA = Interaction adjustment; IA1 = Socializing with host nationals; IA2 = Interacting with host nationals on a day-to-day basis; IA3= Interacting with host nationals outside of work; IA4 = Speaking with host nationals; WA = Work adjustment; WA1 = Specific job responsibilities; WA2 = Performance standards and expectations; WA3 = Supervisory responsibility

Despite the fact in general, metacognitive CQ is significantly associated with all three dimensions of cross-cultural adjustment, however, it was clear that no metacognitive CQ had a significant association with socializing with host nationals (IA1) as shown in Table 4. This is quite a surprising finding as metacognitive CQ reflects as an individual's mind to acquire and understand cultural knowledge (Ang and Van Dyne, 2015) but the result showed that this CQ was not significantly related to socializing with host nationals.

H3 states that cognitive CQ in all its dimensions significantly influences general adjustment, interaction adjustment and work adjustment has been rejected. From Table 3, cognitive CQ only significantly correlated with interaction adjustment (r_s = .279, p=.002) and work adjustment (r_s =.206, p=.027). According to Lin, Chen and Song (2012), people with higher cognitive CQ are better in interacting with those from a different culture. Cognitive CQ was found to be no significant association with general adjustments which was contradicted with the previous study. Cognitive CQ reflects general knowledge and the structure of cultural knowledge gained from experience and formal education (Ang *et al.*, 2007), including knowledge of the economic, legal, and social systems of a different culture (Triandis, 2006). Those with high cognitive CQ understand the similarities and differences across the cultures (Ramalu *et al.*, 2010). Table 5 showed the results of the cognitive CQ constructs tested separately with general adjustment, interaction adjustment and work adjustment. Among six (6) facets of cognitive CQ, only three (3) are significantly associated with interaction and work adjustment. The knowledge of the marriage system (COG4), arts and crafts (COG5) and rules for expressing nonverbal behaviors of other cultures (COG6) appeared to be highly associated with interaction adjustment and work adjustment in overall.

Table 5: Correlation between Cognitive CQ and Cross-cultural Adjustment

	COG1	COG2	COG3	COG4	COG5	COG6
GA1	.142	-.088	.122	.184*	.101	.140
GA2	.195*	-.051	.146	.218*	.154	.169
GA3	.144	-.008	.070	.140	.165	.121
GA4	.139	-.019	.102	.150	.186*	.156
GA5	.124	-.027	.092	.130	.157	.182
GA6	.096	-.015	.063	.129	.165	.201*
GA7	.047	.269**	.154	.281**	.284**	.209*
IA1	.115	.076	.181	.257**	.257**	.236*
IA2	.151	-.018	.228*	.235*	.225*	.242**
IA3	.206*	.072	.232*	.297**	.295**	.302**
IA4	.146	.072	.210*	.286**	.247**	.289**
WA1	.127	-.038	.172	.192*	.195*	.185*
WA2	.172	-.018	.208*	.268**	.225*	.231*
WA3	.157	-.036	.219*	.254**	.220*	.217*

Notes:

*N=116; *correlation is significant at the 0.05 level; **correlation is significant at the 0.01 level; COG = Cognitive CQ, detailed explanation refers to Appendix I; GA = General adjustment; GA1 = Living condition in general; GA2 = Housing conditions; GA3 = Food; GA4 = Shopping; GA5 = Cost of living; GA6 = Entertainment/recreation facilities and opportunities; GA7 = Health care facilities; IA = Interaction adjustment; IA1 = Socializing with host nationals; IA2 = Interacting with host nationals on a day-to-day basis; IA3= Interacting with host nationals outside of work; IA4 = Speaking with host nationals; WA = Work adjustment; WA1 = Specific job responsibilities; WA2 = Performance standards and expectations; WA3 = Supervisory responsibility*

Similar to the findings in the majority of the previous studies, motivational CQ was significantly associated with all three dimensions of adjustment, general (r_s =.358, p=.000), interaction (r_s =.415, p=.000) and work adjustment (r_s =.404, p=.000). Accordingly, *H4* was supported and the motivational CQ established the strongest relationship with expatriate adjustments. The finding as shown in Table 6 suggested that expatriates who love to discover and understand diverse cultures, and who had higher self-confidence in adapting to new environments adjusted better to work, life, and social demands in foreign assignments (Ang *et al.*, 2007). General adjustment to living condition (GA1) and housing condition (GA2) and work adjustment to the specific job responsibilities (WA1) were highly associated with the enjoyment of interacting with people from different cultures (MOT1). The confidence to be familiar with shopping conditions in a different culture (MOT5) is highly correlated with general adjustment on food (GA3), shopping (GA4), cost of living (GA5), entertainment or recreation facilities (GA6) and work adjustment on performance standards and expectations (WA2). However, the confidence of the individual to be able to socialize with locals in a culture that is unfamiliar (MOT2) is significantly affecting all the interaction adjustments (IA1,IA2,IA and IA4) and general adjustment on health facilities (GA7).

H5 states that behavioral CQ in all its dimensions significantly influences general adjustment, interaction adjustment and work adjustment has been rejected. Behavioral CQ only significantly correlated with interaction adjustment (r_s = .189, p=.042) at the 0.05 level. This result was in line with the findings by Akhal and Liu (2019) but was different from the findings by Ang *et al.* (2007) and Konanahalli *et al.* (2014). A person with high CQ in behaviour supposed to be flexible and the flexibility should be correlated with general interaction and work adjustment (Gu, 2015). According to Table 7, it was noticed that one varies the

rate of speaking when a cross-cultural situation requires it (BEH3) has been the most significant behavioral CQ that associates with expatriate adjustment mainly on interaction and work adjustment. Change verbal and nonverbal behavior (BEH1), pause and silence differently (BEH2) and alter facial expressions (BEH4) were generally less significantly affecting the expatriate adjustment.

Table 6: Correlation between Motivational CQ and Cross-cultural Adjustment

	MOT1	MOT2	MOT3	MOT4	MOT5
GA1	.415**	.377**	.385**	.260**	.411**
GA2	.422**	.405**	.373**	.270**	.416**
GA3	.300**	.265**	.200*	.192*	.403**
GA4	.247**	.235*	.197*	.113	.317**
GA5	.351**	.318**	.252**	.191*	.353**
GA6	.268**	.307**	.240**	.196*	.319**
GA7	.192*	.276**	.153	.064	.220*
IA1	.334**	.449**	.268**	.143	.300**
IA2	.446**	.453**	.316**	.268**	.426**
IA3	.416**	.493**	.306**	.238**	.403**
IA4	.414**	.504**	.382**	.318**	.388**
WA1	.406**	.400**	.294**	.250**	.400**
WA2	.347**	.375**	.229*	.221*	.430**
WA3	.391**	.419**	.332**	.240**	.389**

Notes:

*N=116; *correlation is significant at the 0.05 level; **correlation is significant at the 0.01 level; MOT = Motivational CQ, detailed explanation refers to Appendix I; GA = General adjustment; GA1 = Living condition in general; GA2 = Housing conditions; GA3 = Food; GA4 = Shopping; GA5 = Cost of living; GA6 = Entertainment/recreation facilities and opportunities; GA7 = Health care facilities; IA = Interaction adjustment; IA1 = Socializing with host nationals; IA2 = Interacting with host nationals on a day-to-day basis; IA3= Interacting with host nationals outside of work; IA4 = Speaking with host nationals; WA = Work adjustment; WA1 = Specific job responsibilities; WA2 = Performance standards and expectations; WA3 = Supervisory responsibility*

CONCLUSION

In conclusion, this study found that among twenty (20) items of cultural intelligence, there are some constructs highly associated with cross-cultural adjustments and should be paid attention by international companies when they intend to allocate staffs to work abroad or an expatriate who plans to work in a foreign country, which including the following:

a) Adjust cultural knowledge when interact with people from an unfamiliar culture
b) Knowledge on the marriage systems, arts and crafts of other cultures
c) Knowledge on the rules for expressing nonverbal behaviors in other cultures
d) Confidence level in socializing with locals from an unfamiliar culture
e) Confidence level in accustomed to the shopping conditions in a different culture
f) Able to vary the rate of speaking when a cross-cultural situation requires it

Table 7: Correlation between Behavioral CQ and Cross-cultural Adjustment

	BEH1	BEH2	BEH3	BEH4	BEH5
GA1	.191*	.145	.156	.045	.083
GA2	.243**	.175	.232*	.112	.125
GA3	.155	.112	.195*	.065	.067.
GA4	.149	.093	.176	.064	.54
GA5	.281*	.130	.179	.065	.001
GA6	.138	.175	.223*	.103	.084
GA7	.011	.089	.076	-.072	-.004
IA1	.085	.178	.226*	.099	.078
IA2	.168	.164	.285**	.118	.151
IA3	.141	.231*	.245**	.104	.179
IA4	.222*	.200*	.306**	.103	.169
WA1	.151	.112	.286**	.117	.081
WA2	.131	.127	.209*	.124	.108
WA3	.182	.126	.255**	.154	.107

Notes:

*N=116; *correlation is significant at the 0.05 level; **correlation is significant at the 0.01 level; BEH = Behavioral CQ, detailed explanation refers to Appendix I; GA = General adjustment; GA1 = Living condition in general; GA2 = Housing conditions; GA3 = Food; GA4 = Shopping; GA5 = Cost of living; GA6 = Entertainment/recreation facilities and opportunities; GA7 = Health care facilities; IA = Interaction adjustment; IA1 = Socializing with host nationals; IA2 = Interacting with host nationals on a day-to-day basis; IA3= Interacting with host nationals outside of work; IA4 = Speaking with host nationals; WA = Work adjustment; WA1 = Specific job responsibilities; WA2 = Performance standards and expectations; WA3 = Supervisory responsibility*

Overall, the motivational CQ appeared to be the strongest association with all three facets of adjustment, namely general, interaction and work adjustment. This CQ drives the expatriates to engage with others and the desire to adapt to other cultures (Ang *et al.*, 2007). Motivational CQ includes enhancement where expatriates wanted to feel good about them, improvement where they wanted to expand themselves, and continuity which was the need for continuousness and expectedness in life and these components managed to drive the expatriates to adapt to a new cultural setting (Ramalu *et al.*, 2012). Given the interrelationships among CQ and cross-cultural adjustments, the findings identified the most critical constructs in CQ that significantly associated with cross-cultural adjustments among the construction expatriates. Hence, multinational companies can consider giving more attention to the specific constructs in relation to the training programs or used by the expatriates in self-development so they can be better in adjusting in new culture settings.

This paper investigated the correlations between the cultural intelligence and cross-cultural adjustments among 116 professionals in the construction industry and overall the findings have supported the relationship between the 4 facets of CQ with the 3 dimensions of adjustment. Although this paper contributes to the relationship between cultural intelligence and cross-cultural adjustments, certain limitations should be taken into consideration. The current study did not consider personal characteristics affecting the relationship. Future studies should include a person's background such as gender in relation to the CQ and cross-cultural adjustment and might explore additional moderating factors such as the international experience that link the

CQ and the adjustments. Since all the data was collected through a self-reported questionnaire and the sample size was relatively small, there could be constraints in generalisation.

APPENDIX I

The Cultural Intelligence Scale (CQS) (Ang *et al.*, 2007)

Metacognitive CQ

MC1   I am conscious of the cultural knowledge I use when interacting with people with different cultural backgrounds.

MC2   I adjust my cultural knowledge as I interact with people from a culture that is unfamiliar to me.

MC3   I am conscious of the cultural knowledge I apply to cross-cultural interactions.

MC4   I check the accuracy of my cultural knowledge as I interact with people from different cultures.

Cognitive CQ

COG1   I know the legal and economic systems of other cultures.

COG2   I know the rules (e.g., vocabulary, grammar) of other languages.

COG3   I know the cultural values and religious beliefs of other cultures.

COG4   I know the marriage systems of other cultures.

COG5   I know the arts and crafts of other cultures.

COG6   I know the rules for expressing nonverbal behaviors in other cultures.

Motivational CQ

MOT1   I enjoy interacting with people from different cultures.

MOT2   I am confident that I can socialize with locals in a culture that is unfamiliar to me.

MOT3   I am sure I can deal with the stresses of adjusting to a culture that is new to me.

MOT4   I enjoy living in cultures that are unfamiliar to me.

MOT5   I am confident that I can get accustomed to the shopping conditions in a different culture.

Behavioral CQ

BEH1   I change my verbal behavior (e.g., accent, tone) when a cross-cultural interaction requires it.

BEH2   I use pause and silence differently to suit different cross-cultural situations.

BEH3   I vary the rate of my speaking when a cross-cultural situation requires it.

BEH4   I change my nonverbal behavior when a cross-cultural situation requires it.

BEH5   I alter my facial expressions when a cross-cultural interaction requires it.

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