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Cultural intelligence and interactional adjustment of Chinese expatriates in Ghana

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Authors:
Isaac T. Agyei[1]
Vuyokazi Mtembu[1]

Affiliations:
[1]Graduate School of Governance and Leadership, Faculty of Law and Management Studies, University of KwaZulu-Natal, Durban, South Africa

Corresponding author:
Isaac Agyei, kati61779@gcuc.edu.gh

Orientation: Expatriates must adjust to geographical and cultural gap, a change that demands cultural intelligence (CQ). Chinese self-initiated expatriates (SIEs), who have travelled out of their own volition with no institutional support, are in Ghana for investment opportunities due to Ghana's political stability and the recently discovered oil in commercial quantities.

Research purpose: The study purpose was to examine which construct of CQ (metacognitive CQ, cognitive CQ, behavioural CQ and motivational CQ) best predicts interactional adjustment (IA) of Chinese SIEs in Ghana.

Motivation for the study: These business opportunities in Ghana for the Chinese SIEs come together with a new set of challenges – inability of most Chinese SIEs to interactionally adjust to the Ghanaian cultural context. The SIEs could be particularly susceptible to cultural failure because they have no institutional support.

Research design, approach and method: This study had a sample size of 397 Chinese SIEs and used quantitative design. Data for this study were gathered using an online survey and analysed using partial least square (PLS)-structural equation model. A number of fundamental analyses were performed, including a description of data entry, missing value processing, outlier handling, assessing normalcy and linearity, and analysing measurement reliability and validity issues. The bivariate correlations between principal variables were investigated.

Main findings: A positive relationship between all constructs of CQ and IA of Chinese SIEs in Ghana was found by the study.

Practical/managerial implications: The study suggests that cross-cultural managers and expatriate coaches should focus their training on the four constructs of CQ for effective IA of SIEs.

Contribution/value added: This study contributes to CQ research on SIEs' cross-cultural assimilation, and it will serve as a reference for further studies.

Keywords: cultural intelligence; interactional adjustment; cultural failure; cultural distance; self-initiated expatriation.

Introduction

The study examined cultural intelligence (CQ), the ability of a person to successfully adjust to different cultural circumstances (Earley & Ang 2003), and cross-cultural adjustment (CCA), an individual's psychological comfort level while residing outside of his or her own country (Black 1990). Cross-cultural adjustment, according to Black and Gregersen (1991), has three constructs: interactional adjustment (IA), general adjustment and work adjustment. Psychological well-being, which is concerned with interactions with the host nation, on and off the job is related to IA. General adjustment is concerned with psychological well-being, which encompasses aspects of daily living such as climate, food and customs. Work adjustment is the process of getting accustomed to new employment responsibilities, duties, supervision, performance standards and the atmosphere in a cross-cultural situation. The study focused on IA facet of CCA.

Today, investment by self-initiated expatriates (SIEs) is higher all over the world, and their cross-cultural acclimatisation is vital for survival of their investment (Arseneault 2020). At the individual level, expatriates are different from each other in terms of capabilities and skills in cross-cultural settings (Richter et al. 2021). Failure or nonadjustment of expatriates eventually results in a cost, either direct or indirect. The direct cost includes, among other things, the price of the travel and lodging. According to reports, the indirect losses caused by transition issues also include the psychological and social effects on expatriates and their families, such as lowered self-confidence, harmed relationships, lost reputation and stopped jobs. All of these together would place significant

overall limits on SIEs and their investment because they each have the potential to result in loss, harm and cost due to nonadjustment or ineffectiveness of expatriates (Mangla 2021). Cultural intelligence is a crucial indicator or a determinant of expatriate success and influences the perception of achievement in foreign tasks in terms of satisfaction, performance and assignment completion (Malek & Budhwar, 2013).

Cultural intelligence is therefore very appropriate for helping SIEs regarding expatriations and cross cultural adjustment (CCA) (Malek, Jaguli & Rabie 2019). Chinese SIEs are in Ghana for investment opportunities due to Ghana's political and economic stability and the recently discovered oil in commercial quantities. The ability of the Chinese SIEs to interact on and off the job in the host nation's cultural diversity and the success of their investment depend on their level of CQ (Zhang 2013). Culturally intelligent expatriates would bridge cultural knowledge gaps between home and host countries, build interpersonal connections and facilitate interpersonal processes in a multicultural environment (Wang et al. 2014). Culturally intelligent expatriates can also bring about innovation and creativity in their business because they are able to work with individuals from different cultural origins and tap into the multiple perspectives of the multicultural workforce (Rand 2015). The question that has not been answered is whether culturally intelligent people can interact and integrate well in a different country. Applying the concept is vital to understand how, for example, Chinese SIEs in Ghana can understand and exhibit culturally intelligent behaviour that facilitates their IA to the Ghanaian environment. This concept has become necessary due to the increased Chinese SIEs in Ghana and their engagement in several sectors of the economy, including construction, mining and general trade. The study's main goal was to investigate which CQ construct – cognitive CQ, metacognitive CQ, behavioural CQ and motivational CQ – best predicts IA of Chinese SIEs who moved to Ghana to look for business opportunities.

Reviewed literature
Cultural intelligence

Cultural intelligence is a type of intelligence which encompasses a broad range of talents that are applied to settings marked by cultural variety. An individual's ability to successfully adjust to new cultural conditions is referred to as CQ (Earley & Ang 2003). While it shares certain characteristics with emotional intelligence (EQ) and personality, it is fundamentally different in terms of ability, from personality and EQ, because CQ is naturally cultural-dependent. Four domains are used to conceptualise CQ: metacognitive, cognitive, motivational and behavioural (Ang & Van Dyne 2015). In research studies, the four-dimensional CQ model has been demonstrated to be effective (Schlägel & Sarstedt 2016). Metacognitive CQ refers to mental ability for absorbing and comprehending cultural knowledge at a higher level. The cognitive dimension of CQ reflects cultural knowledge and its systems that have been acquired or learned procedurally. The motivating factor recognises that motivation drives the bulk of cognition and represents a person's willingness to commit time and resources

to research and engage with people from various cultures. Behavioural CQ, on the other hand, refers to the capacity to exhibit appropriate verbal and nonverbal behaviours during cross-cultural interactions. According to some experts, individuals develop CQ through a shift in their existing behaviour as they learn and react to new situations (Earley & Peterson 2004; Richter et al. 2021). By contrast, some researchers assert that individuals develop CQ through exposure to cross-cultural situations (Ramsey & Lorenz 2016). Additionally, some researchers presented a procedure for creating CQ through cross-cultural formal training (Ang et al. 2007; Thomas 2006). Thomas (2006) remarked that the process of developing CQ may be rather slow due to the fact that time is a critical aspect in the acquisition of information. Additionally, Bücker and Korzilius (2015) demonstrated that the ability to comprehend and make sense of cultural cues, the motivation to adapt to the new environment and the capability to function correctly in the new environment (Jurásek & Potocký 2020) are critical components of the CQ development process.

The study focuses on CQ because, globally, firms increasingly require employees to work, adjust and connect efficiently with individuals from many cultures (Earley & Ang 2003). Additionally, Liao and Thomas (2020) explain that CQ is a significant construct that may be used to predict a person's capacity to work across cultures.

The interaction of cultural intelligence and cross-cultural adjustment

Cross-cultural adjustment is a critical predictor and indicator of expatriate success and the ability to adapt to change during international assignments (Mangla 2021; Takeuchi & Chen 2013). Both CQ and CCA have been associated with and critical to the success of expatriates (Engle & Crown 2014). Cultural intelligence has been shown to positively connect with cross-cultural adoption (Lee, Veasna & Sukoco 2014). Cross-cultural adjustment is critical because it relates to the individual differences that contribute to expatriates' effectiveness in cross-cultural situations (Caligiuri 2000; Van der Bank & Rothmann 2006). The behavioural and motivational CQs of a research by Malek and Budhwar (2013) indicated a bad correlation with workplace adjustment, and it was concluded that workplace CQs were not particularly beneficial. A similar study by Guðmundsdóttir (2015) indicated a bad correlation between behavioural CQ and work adjustment; however, according to Moon (2010), metacognitive CQ had no impact on task adjustment. Lin, Chen and Song (2012) indicated that all the constructs of CQ significantly improve all the constructs of CCA. Malek and Budhwar (2013) also found that all types of adjustment were positively influenced by cognitive and metacognitive CQ. Ang et al. (2007) found that all types of adjustment, including CCA and well-being, are predicted by motivational and behavioural CQ as well as self-reported cultural adaptation.

A field research on 332 expatriates in Malaysia for Doing Business in the Global Arena: An Examination of the Relationship between CQ and CCA was done by Sri Ramalu

et al. (2010). The research findings suggested that CQ is a critical cross-cultural capacity that contributes to expatriates' CCA when doing foreign businesses. More precisely, the study's findings indicate that more IA is associated with increased motivational and metacognitive CQ. The findings further show that a successful modulation of interactions is associated with increased motivational, metacognitive and cognitive CQ. The only characteristic of CQ that was strongly linked with all three dimensions of CCA is motivational CQ. The research also made a significant contribution to the corpus of knowledge on the topic of cross-cultural management and provided practical implications for expatriating enterprises, particularly in the area of international candidate selection and recruitment. Jyoti and Kour (2017) also conducted a field study among 342 managers employed in Jammu and Kashmir's nationalised banks on the effect of CQ on job performance. According to the study's findings, CCA serves as a bridge between CQ and work performance and that EQ and social intelligence (SQ) have a substantial impact on CQ. Additionally, the research increased awareness of CQ as a valuable intercultural competency and selection tool. As mentioned earlier, both studies demonstrated a substantial bridge between CQ and CCA. Cultural intelligence and CCA will become increasingly important in managing a diverse workforce.

Most studies supporting CQ and expatriate adaptation connection are theoretical, summarising CQ's potential predictive power for expatriate success (Kumar, Che Rose & Sri Ramalu 2008). Contrarily, new study has offered empirical proof of the association between CQ and expatriate adjustment and performance (Wang, Yang & Xu 2020). Wang et al. (2020) studied how CQ affected Malaysian foreigners' ability to adapt to different cultures. Their findings offered evidence to support the validity of all four CQs in explaining how individuals adapt and succeed in their international mission. After examining characteristics such as race, international experience, duration in host nation and language proficiency, CQ was found to be strongly associated with cross-cultural adaptation and work success. More specifically, the CQ of motivation and metacognitive skills increases with overall coordination, while the CQ of motivation increases with job coordination (Ramalu et al. 2012).

Lee and Sukoco (2010) looked into CQ and global experience's impact on cultural variation, viability and execution of expatriates working in Taiwanese multinationals in three distinct nations. Specifically, they explored the impact of global experience on connection among CQ, execution and adaptation standards. Their outcomes recommend that three parts of CQ (intellectual, social and persuasive) fundamentally affected transformation. Consequently, expatriates who had the option to interface with individuals of various cultures showed a more elevated level of transformation. The results showed that higher CQ levels were associated with higher fitness than the range of international experience. However, exposure to international employment and travel facilitated the link between CQ and cultural adaptation and were only effective at high CQ levels. Therefore, managers should

consider hiring candidates with CQ levels that exceed the level of international experience. Understanding the value of CQ conceptualisation for CCA in various cultural contexts is still in its early stages (Ramalu et al. 2012); thus, the potential for academics to investigate the interactions of various characteristics of CQ and CCA is great. Prior studies attest to interactions between CQ and CCA, but the settings and context of all these studies are different from the present study, hence the need for an African context.

The term 'cross-cultural adjustment' describes how comfortable and accustomed a person feels psychologically in a new host culture (Black 1988). Cross-cultural adjustment, according to Black and Gregersen (1991), has three constructs: IA, general adjustment and work adjustment. Interactional adjustment relates to psychological well-being, which is concerned with interactions with the host country on and off the job (Silbiger et al. 2021). General adjustment is concerned with psychological well-being, which encompasses aspects of daily living such as climate, food and customs. The process of adjusting to new job responsibilities, duties, supervision, performance standards and the environment in a cross-cultural setting is referred to as work adjustment. The study focused on IA facet of CCA.

Cultural intelligence and interaction adjustment

Factors such as aptitude, flexibility and a general understanding of local cultural practices and language may explain why expatriates adjust more smoothly through interaction (Imai & Gelfand 2010). The phrase 'interactional adjustment' refers to the ease with which individuals communicate and interact in both in and out of work circumstances in a cross-cultural setting. The most challenging aspect of adjustment is interactional (Peltokorpi 2008). Cultural intelligence may help to explain why some people are competent in their nation but less so in another. By constructing a 'cultural intelligence' scale, Earley and Ang (2003) attracted considerable study interest in this cultural idea. More crucially, during the last decade, our knowledge of the projected benefits of IA that can result from the development of CQ has progressed (Earley & Mosakowski 2004). Individuals and organisations that understand and value CQ as a strategic asset might benefit from cultural differences (Sawhney 2008). People with high CQ believe that they are better adapted to both in and out work settings in the host nation because they may obtain more suitable emotional and informative support in an adapted environment. This supports the need for CQ by SIEs to facilitate their IA in a new cultural setting because CQ impacts positively on IA (Kim et al. 2006).

Research methods and design

The study used the survey research method to investigate the connection between CQ and CCA of Chinese SIEs in Ashanti Region of Ghana. The target population for the study was Chinese SIEs in the Ashanti Region in Ghana who are in Ghana to seek investment opportunities. The Chinese SIEs in the region are into small-scale mining, the hospitality industry and general commerce. Ghana

Immigration Service (GIS) puts Chinese SIEs population in the Ashanti Region at 2976. This study employed probability sampling method and simple random sample technique. From a group of participants where each member of the target population had an equal chance of being chosen, a sample was randomly chosen. The sample size for the study was 400 participants. A sample of 400 were sufficient for the population of 2976, as per the table created by Krejcie and Morgan (1970), for calculating sample size from a given population.

Data collection

Data were collected using questionnaires. The researcher and two assistants administered the questionnaires to the respondents through an online survey. Chinese SIEs in all sectors of the economy in the region were reached online. The objective was to ensure that the final outcomes reflected all sectors of the economy. The Chinese version of CQ scale questionnaires, which is written in Mandarin, was used for the online survey with written permission from Bücker, Furrer and Peeters Weem (2016) and Kanmanee (2018). The Likert scale of CQ scale and IA scale was used. The IA scale has been tested and validated in the literature (Koveshnikov, Wechtler & Dejoux 2014; Okpara 2016). The 20-item CQ scale involving four-factor approach, created by Ang et al. (2007) and later modified by the CQ centre (2010), was used.

Black and Stephens' four items IA scale was used to measure the study's dependent variable, IA (Black & Stephens 1989). The scale has been examined and verified in academic works (Jyoti & Kour 2017; Okpara 2016). The IA scale measures expat adjustment in terms of daily contact with host nationals, interacting with host nationals outside of work and chatting with them (Zhang & Oczkowski 2016). About 20 Chinese SIEs in Kumasi were selected for an online pilot survey to determine the questionnaire's suitability. Following the questionnaire's piloting, some changes were made. To determine the questionnaire's reliability, this study used reliability analysis. Internal consistency of the items or variables was evaluated using Cronbach's alpha reliability coefficient. A high alpha value indicates that the internal consistency of the system is satisfactory.

Data analysis

The study's goal was to investigate the connection between CQ and IA of Chinese SIEs in Ashanti Region of Ghana. The study used partial least square (PLS)-structural equation modelling (SEM) for the analysis. The constructs of CQ, IA, were used as variables in this study. The indicator reliabilities, internal consistency and convergent validity of measured constructs were assessed using composite reliability (CR), indicator loadings, average variance extracted (AVE) and Cronbach's alpha. In order to execute a bootstrapping technique and determine the significance of variables, the study used a two-tailed t-distribution. The statistical significance of some PLS-SEM results, in particular path coefficients, can be assessed using the nonparametric technique known as bootstrapping.

The PLS algorithm with bootstrapping technique was used without the moderating variable in order to find the direct relationships and effects, and then the bootstrap was run using 5000 iterations with a 95% bias-corrected interval level (Ofori-Amanfo, Akonsi & Agyapong 2022).

Ethical considerations

Ethical clearance to conduct this study was obtained from the University of KwaZulu-Natal Humanities and Social Sciences Research Ethics Committee (HSSREC) (No. HSSREC/00000540/2019). Participants' informed consent was obtained before the study started, and their privacy and anonymity were also guaranteed at the start of the study.

Results
Partial least square-structural equation modelling model assessment

To determine if CQ IA is connected, a PLS-SEM approach was used. The PLS algorithms were ran using the Smart PLS programme (version 3.3.3). The measurement model's validity and reliability were assessed, and then the structural model's goodness of fit and the calculation of the correlations between the constructs were used to assess the model.

Convergent validity and item reliability

The indicator reliabilities, internal consistency and convergent validity of measured constructs as proposed by Hair et al. (2017) were assessed using the CR scores, indicator loadings, Cronbach's alpha and AVE. According to Hair et al. (2019), construct indicator loadings must be 0.7 or above to be considered credible. The model was then ran a second time without the indicators that loaded below the 0.7 threshold. The results of the loadings are displayed in Table 1. The internal consistency and reliability of the constructs were evaluated using the CR and Cronbach's alpha. The total findings show a Cronbach's coefficient alpha of 0.750,

TABLE 1: Assessment of average variance extracted, composite reliability and Cronbach's alpha for relationship between cultural intelligence and interactional adjustment.

Constructs	Items	Indicator Loadings	AVE	Cronbach's Alpha	CR
Cognitive	COG3	0.720	0.537	0.755	0.799
	COG4	0.766	-	-	-
	COG5	0.702	-	-	-
Metacognitive	MC1	0.720	0.500	0.753	0.766
	MC2	0.768	-	-	-
	MC4	0.788	-	-	-
Motivational	MOT3	0.717	0.585	0.769	0.738
	MOT4	0.711	-	-	-
	MOT5	0.760	-	-	-
Behavioural	BEH1	0.710	0.561	0.733	0.713
	BEH2	0.866	-	-	-
Interactional adjustment	IA1	0.772	0.541	0.877	0.779
	IA3	0.795	-	-	-
	IA4	0.737	-	-	-

AVE, average variance extracted; CQ, cultural intelligence; CR, composite reliability; COG, cognitive cultural intelligence; MC, metacognitive cultural intelligence; MOT, motivational cultural intelligence; BEH, behavioural cultural intelligence; IA, interactional adjustment of the canonical correspondence analysis scale.

indicating that all scales had strong internal consistency and reliability. If the instrument's Cronbach's alpha coefficient is 0.70 or higher, it is considered dependable (Taber 2018). Similar to that, AVE was employed to assess convergent validity. An AVE value over 0.5 indicates sufficient convergent validity. This implies that the construct accounts for at least 50% of the variation in measures of a particular construct. The CR, Cronbach's alpha and AVE values are shown in Table 1 for each construct.

Indicator loadings

The findings of the indicator loadings, which were calculated using the PLS algorithm to estimate the correlation between CQ and IA, are shown in Figure 1. It gauges a construct's discriminant validity or how much it genuinely differs from other constructs. The findings show that all indicator loadings are greater than 0.7, supporting the notion that behavioural, metacognitive and cognitive components are accurate predictors of IA.

Discriminant validity

The degree to which a given variable differs from other variables is referred to as discriminant validity. Heterotrait-Monotrait (HTMT) was used to evaluate it, with a threshold of < 0.85 or < 0.90. The estimation of the actual correlation between two latent variables is demonstrated by this method. Therefore, HTMT values greater than 0.9 indicate a lack of discriminant validity. Table 2 displays the discriminant validity results. The findings demonstrate that the HTMT values fell below the 0.9 cutoff, which is evidence that the measures of the construct in the model are distinct from each other.
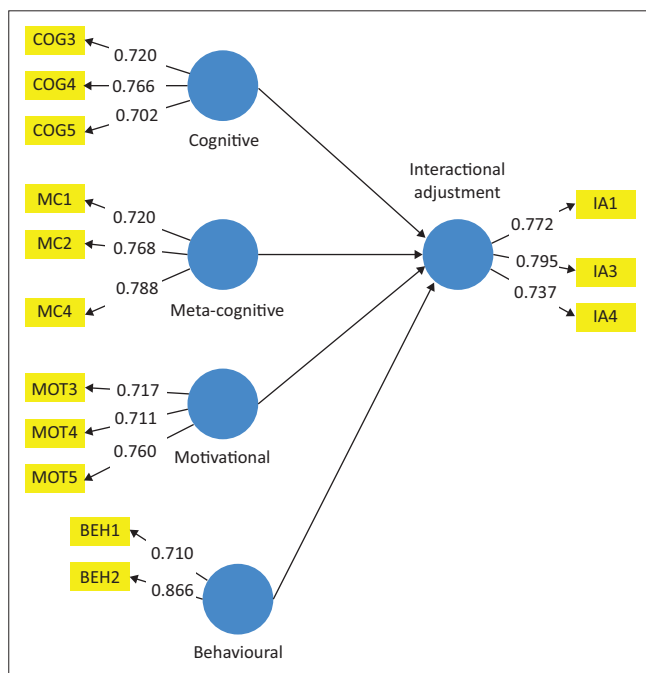
COG, cognitive cultural intelligence; MC, metacognitive cultural intelligence; MOT, motivational cultural intelligence; BEH, behavioural cultural intelligence; IA, interactional adjustment of the canonical correspondence analysis scale.

FIGURE 1: Partial least square algorithm for the relationship between cultural intelligence and interactional adjustment.

Multicollinearity test

Multicollinearity, as defined by Schroeder et al. (1990), occurs when variables are highly interrelated. This test is carried out to address the issue of bias and inaccurate coefficients estimate. In PLS-SEM, the measure employed to evaluate multicollinearity was the variance inflation factor (VIF). With a minimal VIF threshold of 5, multicollinearity problems can be avoided. Table 3 displays the results. The findings indicate that all of the VIFs are below 5, which is below the researchers' preferred cutoff point of 10. This implies that collinearity problems are not present.

The relationship between cultural intelligence and interactional adjustment

The study looked at the connections between IA and CQ. The study used the bootstrapping method to investigate the importance of variables using a two-tailed t-distribution. A nonparametric method called bootstrapping enables the statistical significance of many PLS-SEM results, particularly path coefficients. The direct linkages and effects were discovered using the PLS method and bootstrapping technique. Table 4 displays the findings, which are corroborated by Figure 2. The findings in Table 4 demonstrate the significance of the relationships between the behavioural, cognitive, metacognitive and motivational dimensions of CQ and IA in the context of the postulated link between CQ and IA. These results indicate that there is a direct effect between

TABLE 2: Discriminant validity using Heterotrait-Monotrait ratio for cultural intelligence > interactional adjustment.

| Constructs	Behavioural	Cognitive	IA	Metacognitive	Motivational
Behavioural	1.000	-	-	-	-
Cognitive	0.491	1.000	-	-	-
IA	0.524	0.817	1.000	-	-
Metacognitive	0.816	0.893	0.820	1.000	-
Motivational	0.465	0.845	0.726	0.639	1.000

IA, interactional adjustment.

TABLE 3: Results of multicollinearity test for the relationship between cultural intelligence and interactional adjustment.

Constructs	Interactional adjustment
Behavioural	1.063
Cognitive	1.222
Interactional adjustment	-
Metacognitive	1.127
Motivational	1.208

TABLE 4: Test for significance of hypothesis for cultural intelligence and interactional adjustment.

Constructs	O	M	SD	Path coefficients	p	Inference
Behavioural > IA	0.099	0.101	0.043	0.029	0.022	Supported
Cognitive > IA	0.221	0.224	0.050	0.00	0.000	Supported
Metacognitive > IA	0.192	0.200	0.050	0.00	0.000	Supported
Motivational > IA	0.237	0.236	0.048	0.00	0.000	Supported
R square	0.754	-	-	-	-	-
R square adjusted	0.746	-	-	-	-	-

IA, interactional adjustment; O, original sample; M, sample mean; SD, standard deviation.
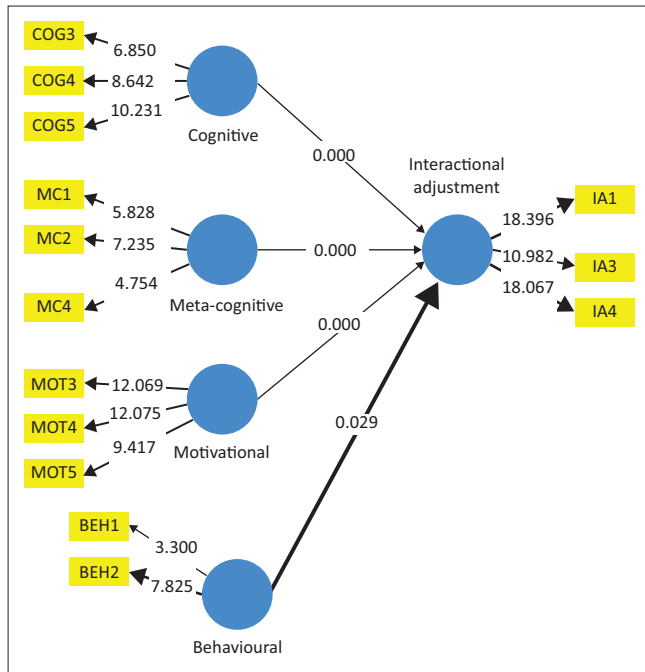
COG, cognitive cultural intelligence; MC, metacognitive cultural intelligence; MOT, motivational cultural intelligence; BEH, behavioural cultural intelligence; IA, interactional adjustment of the canonical correspondence analysis scale.

FIGURE 2: Bootstrapping partial least square algorithm for the relationship between cultural intelligence and interactional adjustment.

all the dimensions of CQ and IA. From Table 4, the P-values of the four subconstructs of CQ were behavioural CQ (0.022), cognitive CQ (0.000), metacognitive CQ (0.000) and motivational CQ (0.000). The results presented in Table 4 showed that, for the proposed connection between CQ and IA, the effects on the relationship between behavioural, cognitive, metacognitive and motivational dimensions of CQ and IA of CCA are significant.

By using Chinese SIEs in the Ghanaian cultural settings, this study helped narrow the gaps in our understanding of how CQ relates to the CCA of SIEs from Asia in Africa, with particular reference to Hofstede country's cultural comparison. The findings of the study advance previous models of CCA (Bücker et al. 2014; Rodsai, Stoffers & Talim 2017; Zhang 2013) by using participants from China (SIEs) who are adjusting in the African context (Ghana). The implication of these findings is that cross-cultural managers in Africa can emphasise the CQ of SIEs rather than focusing solely on the advantages of cognitive knowledge; they emphasise causes in their promotional messaging to potential SIE candidates. Because of the beneficial effect of SIE adjustment's reliance on subconstructs of CQ, cross-cultural managers should make an effort to develop strategies to boost CQ to avoid the huge costs caused by expatriate failure, early repatriation or performance issues caused by maladjustment. The predictive power of the model was calculated using the coefficient of determination and accuracy using R^2. From Table 4, the R^2 value for IA of CCA was 75.4% of the variance accounted for by the CQ dimensions. R^2 value of 0.754 indicated substantial predictive accuracy.

Discussion

The study's findings revealed a substantial correlation between all subconstructs of CQ and IA of CCA. The study revealed that motivational, cognitive, behavioural and metacognitive CQ predict IA of Chinese SIEs in Ghana.

A study by Huff, Song and Gresch (2014); Templer, Tay and Chandrasekar (2006) and Zhang and Oczkowski (2016) found motivational CQ to be positively related to cross-cultural adjustment. A study by Shu et al. (2017) demonstrated a favourable relationship between motivational CQ and CCA. According to a study by Shu et al. (2017), CCA was positively correlated with all four dimensions of CQ. Another study concluded that cognitive and behavioural CQ predicted all the subconstructs of CCA (Sri Ramalu et al. 2011). Self-initiated expatriates who are more eager to learn about different cultures and demonstrate a wide range of behaviours may benefit from more cultural flexibility, making them less objectionable to others and more likely to blend in and adapt cross-culturally. Cognitive talents always result in productive work and IA acts and behaviours, as information ensures appropriate behavioural results in a new cultural situation. Awareness of diverse cross-cultural circumstances, whether conscious or unconscious, guarantees a healthy emotional state.

Bandura's (1977) social learning theory explained the findings of the study, as the Chinese SIEs' CCA to the Ghanaian cultural settings occurs over time as a result of a combination of knowledge of proper conduct and cultural customs during routine encounters with citizens of the host nation (Volpone et al. 2018). Finally, the study's findings revealed that motivational and behavioural CQs were crucial in Chinese SIEs' CCA to their host nation's cultural norms and values. The findings validated the study's primary objective by demonstrating the significance of recognising individual CQ subconstructs and their importance in facilitating SIEs' successful adjustment for effective functioning in the host country environment. All four of the CQ subconstructs, according to earlier research by Lin et al. (2012), were positively correlated with CCA. In their investigations, Shu et al. (2017) and Lee and Kartika (2014) came to conclusion that all four of the CQ subconstructs were positively correlated with IA. Chinese SIEs in the last decade have increased; focusing on these individuals, their motivations, behaviours and relevance to the global workforce are worth studying.

Conclusion

The overarching research aim was to determine whether CQ dimensions are connected to IA of Chinese SIEs in Ghana. The data for this study were gathered using an online survey. The study included 400 respondents who were identified as Chinese SIEs residing in Ghana, specifically in the Ashanti Region. According to the study's findings, there was a significant correlation between the IA of CCA of

Chinese SIEs in the Ashanti region of Ghana and all four subconstructs of CQ. The study's findings indicate that all the four constructs of CQ should be the emphasis of training for cross-cultural managers, human resource management professionals and expatriate coaches regarding IA of SIEs. Self-initiated expatriates must be trained to be able to focus their efforts on intercultural contacts and display acceptable verbal and nonverbal behaviours in interactions with people from different cultural backgrounds if they are to perform well in those contexts.

This work is valuable not only for Chinese SIEs in Ghana but also for all SIEs in Ghana and beyond, cross-cultural managers, researchers, human resource practitioners and academics interested in gaining insights into the SIE expatriation process in countries worldwide, with a particular emphasis on the African context. Future research could make a contribution by considering outcomes with a broader criterion domain, such as SIEs' task performance, assistance, counterproductive behaviours, turnover and/or failure and human resource policy, rather than only adjusting to individual behaviours. Additionally, research into how social support and CQ affect these preexisting networks of relationships linked to the cross-cultural results will advance managerial expertise. Firstly, the study limited its examination of expatriates' IA to SIEs, with the research focusing on Chinese SIEs in Ghana. The company-assigned expatriates (CAEs) and SIEs of other nations other than China in Ghana are not examined. Secondly, this study is limited regarding examining variables that influence the adjustment of expatriates (SIEs).

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Competing interests

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Authors' contributions

All the authors have substantially contributed to the manuscript.

Funding information

Data availability

The data that support the findings of this study are available from the corresponding author upon request.

Disclaimer

The views and opinions expressed in this article are those of the authors and do not necessarily reflect the official policy or position of any affiliated agency of the authors.

References

Ang, S., Van Dyne, L., Koh, C., Ng, K.Y., Templer, K.J., Tay, C. & Chandrasekar, N.A., 2007, 'Cultural intelligence: Its measurement and effects on cultural judgment and decision making, cultural adaptation and task performance', *Management and Organization Review* 3(3), 335–371. https://doi.org/10.1111/j.1740-8784.2007.00082.x

Ang, S. & Van DySne, L., 2015, *Handbook of cultural intelligence: Theory, measurement, and applications*, Routledge, Oxfordshire.

Arseneault, R., 2020, 'Intercultural adjustment challenges of Korean and Canadian self-initiated expatriates in the workplace: An exploratory bidirectional investigation', *International Journal of Cross Cultural Management* 20(2), 181–199. https://doi.org/10.1177/1470595820915630

Bandura, A., 1977, 'Self-efficacy: Toward a unifying theory of behavioral change' *Psychological Review* 84(2), 191. https://doi.org/10.1037/0033-295X.84.2.191

Black, J.S., 1988, 'Work role transitions: A study of American expatriate managers in Japan', *Journal of International Business Studies* 19(2), 277–294.

Black, J.S. & Gregersen, H.B., 1991, 'Antecedents to cross-cultural adjustment for expatriates in Pacific Rim assignments', *Human Relations* 44(5), 497–515.

Black, J.S., 1990, 'The relationship of personal characteristics with adjustment of Japanese expatriate managers', *Management International Review*, 30, 119–134.

Black, J.S. & Stephens, G.K., 1989, 'The influence of the spouse on American expatriate adjustment and intent to stay in Pacific Rim overseas assignments', *Journal of Management* 15(4), 529–544.

Bücker, J., Furrer, O., & Peeters Weem, T., 2016, 'Robustness and cross-cultural equivalence of the Cultural Intelligence Scale (CQS)', *Journal of Global Mobility: The Home of Expatriate Management Research* 4(3), 300–325.

Bücker, J.J., Furrer, O., Poutsma, E. & Buyens, D, 2014, 'The impact of cultural intelligence on communication effectiveness, job satisfaction and anxiety for Chinese host country managers working for foreign multinationals', *The International Journal of Human Resource Management* 25(14), 2068–2087.

Bücker, J.J. & Korzilius, H., 2015, 'Developing cultural intelligence: Assessing the effect of the Ecotonos cultural simulation game for international business students', *The International Journal of Human Resource Management* 26(15), 1995–2014. https://doi.org/10.1080/09585192.2015.1041759

Caligiuri, P.M., 2000, 'The big five personality characteristics as predictors of expatriate's desire to terminate the assignment and supervisor-rated performance', *Personnel Psychology* 53(1), 67–88. https://doi.org/10.1111/j.1744-6570.2000.tb00194.x

Earley, P.C. & Ang, S., 2003, *Cultural intelligence: Individual interactions across cultures* Stanford University Press, Redwood City, California.

Earley, P.C. & Mosakowski, E., 2004, 'Cultural intelligence', *Harvard Business Review* 82(10), 139–146.

Earley, P.C. & Peterson, R.S., 2004, 'The elusive cultural chameleon: Cultural intelligence as a new approach to intercultural training for the global manager', *Academy of Management Learning & Education* 3(1), 100–115. https://doi.org/10.5465/amle.2004.12436826

Engle, R.L. & Crowne, K.A., 2014, 'The impact of international experience on cultural intelligence: An application of contact theory in a structured short-term programme', *Human Resource Development International* 17(1), 30–46. https://doi.org/10.1080/13678868.2013.856206

Guðmundsdóttir, S., 2015, 'Nordic expatriates in the US: The relationship between cultural intelligence and adjustment', *International Journal of Intercultural Relations* 47, 175–186. https://doi.org/10.1016/j.ijintrel.2015.05.001

Hair, J.F., Hult, G.T.M., Ringle, C.M., Sarstedt, M. & Thiele, K.O., 2017, 'Mirror, mirror on the wall: A comparative evaluation of composite-based structural equation modeling methods', *Journal of the Academy of Marketing Science* 45(5), 616–632. https://doi.org/10.1007/s11747-017-0517-x

Hair, J.F., Risher, J.J., Sarstedt, M. & Ringle, C.M., 2019, 'When to use and how to report the results of PLS-SEM', *European Business Review* 31(1), 2–24. https://doi.org/10.1108/EBR-11-2018-0203

Huff, K.C., Song, P. & Gresch, E.B., 2014, 'Cultural intelligence, personality, and cross-cultural adjustment: A study of expatriates in Japan', *International Journal of Intercultural Relations* 38, 151–157. https://doi.org/10.1016/j.ijintrel.2013.08.005

Imai, L., & Gelfand, M.J., 2010, 'The culturally intelligent negotiator: The impact of cultural intelligence (CQ) on negotiation sequences and outcomes', *Organizational Behavior and Human Decision Processes* 112(2), 83–98.

Jurásek, M. & Potocký, T., 2020, 'How to improve communication within an organization? The relationship between cultural intelligence and language competence', *Journal of Intercultural Management* 12(2), 53–81. https://doi.org/10.2478/joim-2020-0038

Jyoti, J. & Kour, S., 2017, 'Cultural intelligence and job performance: An empirical investigation of moderating and mediating variables', *International Journal of Cross Cultural Management* 17(3), 305–326. https://doi.org/10.1177/1470595817718001

Kanmanee, W., 2018, 'Cultural Intelligence and Cross-Cultural Adjustment for Thai Expatriates in Myanmar', A PhD Dissertation Submitted to School of Human Resource Development, National Institute of Development Administration, Thailand.

Kim, H.S., Sherman, D.K., Ko, D. & Taylor, S.E., 2006, 'Pursuit of comfort and pursuit of harmony: Culture, relationships, and social support seeking', *Personality and Social Psychology Bulletin* 32(12), 1595–1607. https://doi.org/10.1177/0146167206291991

Koveshnikov, A., Wechtler, H. & Dejoux, C., 2014, 'Cross-cultural adjustment of expatriates: The role of emotional intelligence and gender', *Journal of World Business* 49(3), 362–371. https://doi.org/10.1016/j.jwb.2013.07.001

Kumar, N., Che Rose, R. & Sri Ramalu, S., 2008, 'The effects of personality and cultural intelligence on international assignment effectiveness: A review', *Journal of Social Sciences* 4(4), 320–328. https://doi.org/10.3844/jssp.2008.320.328

Krejcie, R.V., & Morgan, D.W., 1970, 'Determining sample size for research activities', *Educational and Psychological Measurement* 30(3), 607–610.

Lee, L.Y. & Kartika, N., 2014, 'The influence of individual, family, and social capital factors on expatriate adjustment and performance: The moderating effect of psychology contract and organizational support', *Expert Systems with Applications* 41(11), 5483–5494. https://doi.org/10.1016/j.eswa.2014.02.030

Lee, L.Y. & Sukoco, B.M., 2010, 'The effects of cultural intelligence on expatriate performance: The moderating effects of international experience', *The International Journal of Human Resource Management* 21(7), 963–981. https://doi.org/10.1080/09585191003783397

Lee, L.Y., Veasna, S. & Sukoco, B.M., 2014, 'The antecedents of cultural effectiveness of expatriation: Moderating effects of psychological contracts', *Asia Pacific Journal of Human Resources* 52(2), 215–233. https://doi.org/10.1111/j.1744-7941.2013.00055.x

Liao, Y. & Thomas, D.C., 2020, *Cultural intelligence in the world of work*, Springer International Publishing, New York, NY.

Lin, Y.C., Chen, A.S.Y. & Song, Y.C., 2012, 'Does your intelligence help to survive in a foreign jungle? The effects of cultural intelligence and emotional intelligence on cross-cultural adjustment', *International Journal of Intercultural Relations* 36(4), 541–552. https://doi.org/10.1016/j.ijintrel.2012.03.001

Malek, M.A. & Budhwar, P., 2013, 'Cultural intelligence as a predictor of expatriate adjustment and performance in Malaysia', *Journal of World Business* 48(2), 222–231. https://doi.org/10.1016/j.jwb.2012.07.006

Malek, M.A., Jaguli, A.R. & Rabie, O., 2019, 'Antecedents of self-initiated expatriates' adjustments and expatriation outcomes: The influence of career capital aspects on foreign academics' career outcomes of public universities in Malaysia', *International Journal of Business, Economics and Law* 19(5), 299–310.

Mangla, N., 2021, 'Working in a pandemic and post-pandemic period–Cultural intelligence is the key', *International Journal of Cross Cultural Management* 21(1), 53–69. https://doi.org/10.1177/14705958211002877

Moon, D.G., 2010, 'Critical reflections on culture and critical intercultural communication', in R.T. Halualani & T.K. Nakayama (eds.), *The handbook of critical intercultural communication*, pp. 34–52, Wiley-Blackwell, Hoboken, NJ.

Ofori-Amanfo, J., Akonsi, S.W. & Agyapong, G.K.Q., 2022, 'The impact of organisational capabilities on the performance of small-and medium-sized enterprises (SMEs)', *European Business Review* 34(5), 642–665. https://doi.org/10.1108/EBR-06-2021-0139

Okpara, J.O., 2016, 'Cross-cultural adjustment of expatriates: Exploring factors influencing adjustment of expatriates in Nigeria', *International Journal of Cross Cultural Management* 16(3), 259–280. https://doiorg/10.1177/1470595816671149

Peltokorpi, V., 2008, 'Cross-cultural adjustment of expatriates in Japan', *The International Journal of Human Resource Management* 19(9), 1588–1606. https://doi.org/10.1080/09585190802294903

Ramalu, S.S., Rose, R.C., Uli, J. & Kumar, N., 2012, 'Cultural intelligence and expatriate performance in global assignment: The mediating role of adjustment', *International Journal of Business and Society* 13(1), 19.

Ramsey, J.R. & Lorenz, M.P., 2016, 'Exploring the impact of cross-cultural management education on cultural intelligence, student satisfaction, and commitment', *Academy of Management Learning & Education* 15(1), 79–99. https://doi.org/10.5465/amle.2014.0124

Rand, I., 2015, *Cultural intelligence: The essential intelligence for the 21st century*, SHRM Foundation, Alexandria, VA.

Richter, N.F., Martin, J., Hansen, S.V., Taras, V. & Alon, I., 2021, 'Motivational configurations of cultural intelligence, social integration, and performance in global virtual teams', *Journal of Business Research* 129, 351–367. https://doi.org/10.1016/j.jbusres.2021.03.012

Rodsai, T., Stoffers, J. & Talim, M.B., 2017, 'Cross-cultural adjustment: A case of Thai expatriates in Indonesia', *Journal of Applied Business Research (JABR)* 33(6), 1139–1152.

Sawhney, T., 2008, 'Cultural intelligence and business behavior', *ICFAI Journal of Soft Skills* 2(4), 31–37.

Schlägel, C. & Sarstedt, M., 2016, 'Assessing the measurement invariance of the four-dimensional cultural intelligence scale across countries: A composite model approach', *European Management Journal* 34(6), 633–649. https://doi.org/10.1016/j.emj.2016.06.002

Schroeder, M.A., Lander, J. & Levine-Silverman, S., 1990, 'Diagnosing and dealing with multicollinearity', *Western Journal of Nursing Research* 12(2), 175–187. https://doi.org/10.1177/019394599001200204

Shu, F., McAbee, S.T. & Ayman, R., 2017, 'The HEXACO personality traits, cultural intelligence, and international student adjustment', *Personality and Individual Differences* 106, 21–25. https://doi.org/10.1016/j.paid.2016.10.024

Silbiger, A., Barnes, B.R., Berger, R. & Renwick, D.W., 2021, 'The role of regulatory focus and its influence on the cultural distance–Adjustment relationship for expatriate managers', *Journal of Business Research* 122, 398–410. https://doi.org/10.1016/j.jbusres.2020.09.021

Sri Ramalu, S., Mohd Shamsudin, F. & Subramaniam, C., 2012, 'The mediating effect of cultural intelligence on the relationship between openness personality and job performance among expatriates on international assignments', *International Business Management* 6(5), 601–610. https://doi.org/10.3923/ibm.2012.601.610

Taber, K.S., 2018, 'The use of Cronbach's alpha when developing and reporting research instruments in science education', *Research in Science Education* 48(6), 1273–1296. https://doi.org/10.1007/s11165-016-9602-2

Takeuchi, R. & Chen, J., 2013, 'The impact of international experiences for expatriates' cross-cultural adjustment: A theoretical review and a critique', *Organizational Psychology Review* 3(3), 248–290. https://doi.org/10.1177/2041386613492167

Templer, K.J., Tay, C. & Chandrasekar, N.A., 2006, 'Motivational cultural intelligence, realistic job preview, realistic living conditions preview, and cross-cultural adjustment', *Group & Organization Management* 31(1), 154–173. https://doi.org/10.1177/1059601105275293

Thomas, D.C., 2006, 'Domain and development of cultural intelligence: The importance of mindfulness', *Group & Organization Management* 31(1), 78–99. https://doi.org/10.1177/1059601105275266

Van der Bank, M. & Rothmann, S., 2006, 'Correlates of expatriates' cross-cultural adjustment', *Management Dynamics: Journal of the Southern African Institute for Management Scientists* 15(4), 29–39.

Volpone, S.D., Marquardt, D.J., Casper, W.J. & Avery, D.R., 2018, 'Minimizing cross-cultural maladaptation: How minority status facilitates change in international acculturation', *Journal of Applied Psychology* 103(3), 249. https://doi.org/10.1037/apl0000273

Wang, D., Feng, T., Freeman, S., Fan, D. & Zhu, C.J., 2014, 'Unpacking the "skill–cross-cultural competence" mechanisms: Empirical evidence from Chinese expatriate managers', *International Business Review* 23(3), 530–541. https://doi.org/10.1016/j.ibusrev.2013.09.001

Wang, L., Yang, D. & Xu, N., 2020, 'The establishment and empirical study of the mechanism of influence on the expatriate performance of employees enterprise', in *4th International Symposium on Business Corporation and Development in South-East and South Asia under B&R Initiative (ISBCD 2019)*, Atlantis Press, Kunming, China, November 24, 2019, pp. 333–338.

Zhang, Y., 2013, 'Expatriate development for cross-cultural adjustment: Effects of cultural distance and cultural intelligence', *Human Resource Development Review* 12(2), 177–199.

Zhang, Y., & Oczkowski, E., 2016, 'Exploring the potential effects of expatriate adjustment direction', *Cross Cultural & Strategic Management* 23(1), 158–183. https://doi.org/10.1108/CCSM-05-2015-0062