rEFLections
Vol 29, No 3, September - December 2022

Cultural Intelligence to Cultural Adaptation of Expatriates in Thailand

JUNE BERNADETTE D'SOUZA
Suvarnabhumi Institute of Technology (Sarasas Affiliated), Thailand
Author email: jbernadettedsouza@gmail.com

Article information
Article history:
Received: 14 Jul 2022
Accepted: 19 Dec 2022
Available online: 23 Dec 2022

Keywords:
Cultural intelligence
Sociocultural adaptation
Psychological adjustment

Abstract

Cultural diversity in the 21st century makes it imperative for managers to examine the multidimensional construct of cultural intelligence, aiming to solve cross-cultural problems, mitigate culture shock and promote a harmonious work environment. Using the quota sampling technique, this quantitative paper gathered data from three subgroups in Bangkok: Thai, Chinese and ASEAN employees from two organizations settings, consisting of heterogeneous and homogeneous employees. The relationship between the four dimensions of cultural intelligence proposed by Earley and Ang (2003), to sociocultural adaptation developed by Wilson (2013), and psychological adjustment developed by Demes and Geeraert (2014), was hypothesized. Results of Structural Equation Modeling, Multiple Group Analysis and ANOVA, fully or partially supported the predictions hypothesized, indicating differences on the dimensions of cultural intelligence and cultural adaptation across different sub-groups of expatriates, within a single national culture. The assumption of these findings is that expatriates exposed to a host culture, in contrast to their own, can be coached prior to an international assignment with cross-cultural capabilities, so as to avoid depersonalization while simultaneously mastering diverse skills in a cultural context in order to excel with job accomplishments and integration within a culture. The dual dimensions of sociocultural and psychological adjustment can be conceptualized independently, to procure an in-depth picture of expatriates from diverse cultural backgrounds.

INTRODUCTION

"Successful interaction with people from other cultures is the heart of cultural intelligence. Knowing facts about another culture is helpful, but your approach can't be only academic or intellectual; you need to know how to interact successfully with people" (Peterson, 2004).

Cross-cultural communication and adjustment is a precursor for expatriates who endeavor to accept overseas assignments in multinational corporations, which essentially exist in a diverse milieu. Culture could be responsible for who we are and cultural backgrounds have an impact, at all times and in all places, on what we do. Ergo, the intricacies of the host culture may dictate how expatriates adjust. Subsequently, contact with others who are culturally distinct can be

unnerving, especially when the transfer is rapid (Bochner, 2003). The categories of persons who travel between societies as a consequence of natural calamities may include refugees, immigrants, missionaries and peacekeepers. The other categories are sojourners like international students, tourists and expatriates (Ward et al., 2001). If expatriates are exposed to a structured task setting, reliance on cultural intelligence may be lower than if ambiguity and vagueness exist (Ang & Van Dyne, 2008).

Thailand continues to be a prime destination for expats visiting, working or retiring. Despite the Covid 19 pandemic, a total of approximately 2,131,751 migrant workers were registered with the ministry of labor in December, 2021 (International Labor Organization). Migrant workers contribute substantially to the country's economy, albeit exposure to an alien culture may lead to isolation, acculturative stress (Young, 2005), as well as culture shock. Culture shock is a feeling of psychological anguish and overwhelm experienced when exposed to an alienated setting and unknown techniques of communication (Adler, 1981; Bochner, 1982). The cultural context could make adaptation arduous even for those with high cultural intelligence; hence contextual boundaries must be examined (Ott & Michailova, 2016).

Hofstede and Minkov (2010), stated that culture assists in distinguishing persons from different categories and groups as a consequence of how the mind is programmed. This can lead to cultural clashes and conflict between expatriates and individuals from the host country, owing to the disparity in perceptions of what is deemed appropriate behavior. Social expectations inherent to a culture are unique and possessing cultural intelligence assists persons to get the better of unknown scenarios through the needful skills and knowledge (Bücker & Korzilius, 2015). An issue of relevance is, ***"Do diverse employees possess sufficient knowledge about novel cultures for successful acculturation, assimilation and adaptation?"***

The concept of cultural intelligence (CQ)

Unlike general intelligence which emphasizes cognitive proficiency, conventionally measured academically, cultural intelligence is a form of intelligence, distantly different (Crowne, 2009), as it crosses boundaries and resides in the body, head and heart (Earley & Masakowski, 2004). In their book, *Cultural intelligence: Individual interactions across cultures*, Earley and Ang (2003), conceptualized the concept of cultural intelligence. The emphasis is on learning new cultural situations together with the creation of a new framework for understanding what is seen and experienced (Earley & Ang, 2003). Adapting, selecting and shaping the cultural aspects of the environments will assist in meeting the demands of novel cultural environments (Thomas et al., 2008).

For expatriates assigned to jobs that are globally demanding, cultural intelligence is an inherent advantage considering that countries can differ on national values and within a single culture, the existence of multitude of subcultures with varying norms, customs, traditions, religions and practices are evident (Cohen, 2007). Variations within a single culture can be demanding and vital as cross-cultural differences for adaptation.

Cultural intelligence is not necessarily an innate ability. It can be accomplished through different

interceders to assist expatriates' adjustment (Earley & Masakowski, 2004). Cultural intelligence emphasizes frequent cross-cultural interactions due to differences in nationality, in race and ethnicity (Ang et al., 2007). To make a fresh start and get acquainted with the new culture, expatriates can measure the aspects in a culture that need improvement and join training programs for effortless adaptation. The cultural intelligence measurement criteria containing psychometric properties is credited to Ang et al., 2007; Van Dyne et al, 2008.

The concept of cross-cultural adaptation (CCA)

Cross-Cultural adaptation (CCA), can be defined as the potential of a person to reconcile with aspects of a completely new environmental setting. Prior research identified cross-cultural adjustment as a unidimensional concept (Torbiorn, 1982). Over the year's attempts to identify different aspects of adjustment led to the multidimensional of the concept Black & Gregersen (1991a). A questionnaire measuring general, work and interactional facets of adjustment, contributed significantly to the measurement of expatriate adjustment. According to Black & Gregersen, (1991a), general adjustment refers to adapting to conditions of living like climate, food, expenditure for living, housing, transportation, health, education etc. Work adjustment refers to the job description, the amount of effort involved in the job as well as standards for performance pertaining to the job. Interactional adjustment refers to the ability to have successful interactions with persons from the host culture.

Young (2001), preferred to include the emotional, cognitive and behavioral aspects of cultural adaptation and posited that the central aspect of adaptation is assimilating new ways of communication. In the Cultural Adaptation Theory (Gudykunst et al., 1988), the emphasis is on transforming oneself to understand the host culture in depth at an emotional, intellectual and aesthetic level, for successful acculturation to occur (Young, 2005). The three stages experienced during transformation are the "stress-adaptation-growth" dynamic. When faced with adversity in the new environment anxiety, denial, lack of acceptance, reverting back to old ways and imbalance occurs frequently. Gradually, adjustment to the new challenges of the present environment is manifested, although at times there is resistance to adapt. Eventually acculturation to the new environment transpires with growth. Nevertheless, reverting back and forth from the new to the old ways, is not uncommon and the process is not linear either (Young, 2005). According to Tung (1993) and Stahl et al., (2010), the complications associated with cultural heterogeneity for adaptation have been overlooked and need exploration.

RELATED LITERATURE

Cultural intelligence can be defined as **"having what it takes"** to successfully integrate and survive in another culture. Earley and Ang (2003), enumerated four dimensions of cultural intelligence that are contingent upon adjustment in culturally diverse situations. The cognitive, metacognitive and motivational dimensions are psychological aspects while the behavioral dimension is situational (Ang et al., 2007).

Knowledge/ Cognitive Cultural Intelligence- is akin to mental processes and learning of norms,

beliefs and practices pertinent to a culture. Learning the political, legal and economic structure, imbibed from tacit and explicit knowledge, can foster the ability to distinguish similarities and differences across different cultures and schemas of values in that culture (Brislin et al., 2006). Decision-making in addition is ameliorated through cross-cultural interactions (Ang et al., 2007; Huff, 2013; Huff et al., 2014; Ward et al., 2011)

Strategic/Metacognitive Cultural Intelligence- is acquisition of higher-order mental processes and knowledge that assist in noticing the cultural preference of others (Ang et al., 2007) The investigation of the assumptions in a culture to make adjustments in the cognitive models, in the process, during and after interactions is assisted by the application of cultural knowledge (Brislin et al., 2006; Triandis, 2006), as well as for cultural acumen required for decision-making assignments (Ang et al., 2007). Utilizing better cues in diverse situations can improve cross-cultural adjustment (Huff et al., 2014).

Motivational Cultural Intelligence- is synonymous with the drive and energy possessed intrinsically to learn and adapt to novel situations (Deci & Ryan, 1985). Motivational cultural intelligence can provide assurance about cross-cultural ability (Bandura, 2002). Proactive persons can control their emotions, beliefs and behavior with the intention of achieving their goals (Kanfer & Heggestad, 1997). Persons with high motivational cultural intelligence focus their energy and attention on cross-cultural situations because of interest which is intrinsic (Deci & Ryan, 1991)

Behavioral Cultural Intelligence- is the manifestations of the right and flexible verbal and non-verbal behaviors such as words, tone of voice, gestures and facial expressions and actions (Gudykunst et al., 1988), during culturally diverse interactions. Behavioral cultural intelligence is action oriented and alteration of verbal and non-verbal behaviors contingent to the culture can promote adaptation (Earley & Ang, 2003). In addition, cognitive and motivational facets promote adaptive behaviors, contingent upon cultural values in a specific culture (Ramsey & Lorenz 2016; Rose et al., 2010).

The empirical potential of the twenty-item scale based on the four dimensions: cognitive, metacognitive, motivational and behavioral dimensions (Ng et al., 2012), for measuring cultural intelligence is eminent subsequent to the psychometric properties contained across countries, samples and time (Gelfand et al., 2008). Possession of the constituent dimensions of cultural intelligence is a salient intercultural competency for managers leading to a prediction of attitudes and behaviors of persons assigned for international projects (Alon & Higgins, 2005), for cross-cultural operations and for organizational performance (Ang & Inkpen, 2008; Chen et al., 2012). Converging evidence suggest that both cultural intelligence and cross-cultural adaptation are important for forming successful relationship and being effective with assignments abroad (Earley & Ang, 2003; Thomas & Inkson, 2004). Ang et al., (2007), reiterated that possessing knowledge and strategic cultural intelligence may lead to judgment and decisions making but motivational and behavioral cultural intelligence leads to adaptation. Manifestations of the dimensions of cultural intelligence can be attributed to immanent individual differences, coupled with expertise useful for progress in a culture (Earley & Ang, 2003). Chen et al., (2014), reported that demographic variables like age, experience, language ability, tenure in the local

country and cultural intelligence had a positive relationship with general and interactional adjustment. Cultural distance is the main factor that accounts for the variability in acculturation (Suanet & Van de Vijver, 2009; Tan & Liu, 2014; Ward & Kennedy, 1993a, 1993b). Celik et al., (2021), asserted that national culture impacted cultural intelligence dimensions and eventually cultural adaptation. Data collected from 281 employees in 14 countries, indicated that higher collective and masculine cultures were prone to adapt better to novel environments and higher power distance cultures possess better cognitive cultural intelligence.

Templer et al., (2006), affirmed that motivational cultural intelligence was a better predictor of work and general adjustment compared to realistic living conditions and realistic job previews for professionals in global companies in Singapore. The intrinsic aspect of motivational cultural intelligence steered employee's self-adequacy to adapt compared to just the factual living conditions and job description. Knowledge cultural intelligence may provide a background of how to go about on a daily basis in the exposed culture but motivational cultural intelligence can lead to intrinsic happiness and satisfaction, related to self-efficacy to adapt. Chen et al., (2010), discovered that motivational cultural intelligence impacted job performance with work adaptation acting as a mediator for expatriates in the United States, especially when contrasting cultural differences existed between the host and country of origin or when there was lack of support from a foreign subsidiary. Huff (2013), discovered that for expatriates speaking English in Japan, cultural intelligence dimensions and language competence were predictors of adjustment, work life satisfaction and attitudes towards their future goals but motivational cultural intelligence was a good predictor of all the eight variables included in the study. A sample of 217 expatriates from 26 countries living in Brazil revealed a positive association between cultural intelligence and cross-cultural adaptation (Nunes et al., 2017). Uncertainty for domestic or international adjustment is alike and cultural intelligence can alleviate the unresolved feelings (Presbitero & Attar, 2018). Confirmation of a positive relationship between cultural intelligence and general, work and interactional adjustment of 134 expatriates in Malaysia was supported by Malek and Budhwar (2013). Hong et al., (2021), investigation of Malaysian students stipulated that cultural intelligence has a significant positive relationship with cross-cultural adjustment, with openness to experience personality trait, social connectedness, cultural exposure and cross-cultural training, determining cultural intelligence. Kadam et al., (2021), theorized that cultural intelligence upholds the adjustment of employees within the domestic context in India. Evidently, successful expatriates need to adjust to the conditions of the host country and a challenge for expatriates is to confront the differences that exist in that culture (Konanahalli et al., 2012).

The general work and interactional facets of adjustment developed by Black (1988), are unsystematic and measures cognitions and emotions as a single dimension, on an adjusted-unadjusted continuum (Haslberger, 2005). To obtain a comprehensive idea of sociocultural adaptation related to routine overt experiences, Wilson (2013), proposed five facets of namely, ecological adaptation, performance, personal interests and community involvement, interpersonal communication and language proficiency, all of which allow a person to go through the host culture on a daily basis effectively (Sam & Berry, 2006). Williams (2008), postulated that expatriates in the United States, who possessed cognitive cultural intelligence had better sociocultural adjustment while those with motivational cultural intelligence had better

sociocultural and psychological adjustment. Rana et al., (2020), study of international students studying in India, depicted that except for behavioral cultural intelligence having a direct and positive correlation with psychological adaptability, cognitive, metacognitive and motivational cultural intelligence had a negligible impact.

The psychological dimensions of adjustment which include covert feelings of happiness, homesickness, anxiety and overall well-being and mental health in the host culture, can be quantified and are critical for adjustment (Demes & Geeraert, 2014). Both sociocultural and psychological factors are complementary in nature. Sociocultural facets essentially assist people to get in tune with the environment, leading to euphoria and elated emotions. Similarly, possessing stable moods and emotions enhances perpetual learning and adjustment. Moreover, both impact cross-cultural adjustment and can be crucial for a clearer mastery during training of expatriates. These two aspects of adaptation are distinct and need not always be correlated (Ward et al., 1998) and should be quantified independently (Motti-Stefanidi et al., 2008; Ward & Kennedy, 1996). A study conducted on 105 Malaysian and Singaporean students in New Zealand (Searle & Ward, 1990), revealed that extraversion, satisfaction with persons in the host culture, life changes and social difficulty attributed to 34% of the variance in psychological adjustment. For sociocultural adaptation, 36% of the variance can be attributed to depression, anticipated difficulties and cultural distance. According to these researchers, both dimensions are interrelated but conceptually distinct.

Literature on cultural intelligence and cross-cultural adaptation of employees in international cultures is profuse, albeit researches in a Thai cultural context are few despite existence of the ASEAN Economic Community (AEC). Sangkrit (2013), discovered that culture, especially sub-culture and cultural intelligence can impact Thai negotiators' behaviors and perceptions. Charoensukmongkol (2014), exploration of small and medium firms in Thailand, revealed that cultural intelligence positively impacted expatriate's performance with international knowledge acquisition capability being a mediator. Poonpol (2015), investigation on 377 expatriates in Thailand found that cultural intelligence has an indirect impact on performance with cross-cultural adaptation being a mediator. Poonpol (2017), inquiry on 420 international ASEAN students, designated personal, social and cultural factors as having a direct causal association with the cross-cultural adjustment. Seriwatana and Charoensukmongkol (2020), investigated Thai cabin crew and reinforced the negative relationship between the cultural intelligence of cabin crew members and their job burnout. Thamarat and Arthittiya (2021), consent that metacognitive, cognitive and motivational cultural intelligence of expatriates is significantly related to general adjustment and interactive adjustment at work with the exception of behavioral cultural intelligence.

Most researches enumerated above in a Thai and international context emphasize adjustment as a summative outcome, rather than conceptually different sociocultural and psychological outcomes. In accordance, the researcher intended to make a comparison between cultural intelligence of different groups of expatriates and test the impact of sociocultural and psychological adjustment as distinct outcomes of cultural intelligence within a single study. Four hypotheses were derived from the above data which are as follows:

Hypothesis 1: Cultural intelligence i.e. strategic CQ (a), knowledge CQ (b), motivational CQ (c) and behavioral CQ (d) are related to sociocultural adaptation of expatriates.

Hypothesis 2: Cultural intelligence i.e. strategic CQ (a), knowledge CQ (b), motivational CQ (c) and behavioral CQ (d) are related to psychological adjustment of expatriates.

Hypothesis 3: Expatriates with different nationalities have different levels of cultural intelligence, sociocultural adaptation, and psychological adjustment.

Hypothesis 4: Expatriates with different nationalities have different relationships between cultural intelligence, sociocultural adaptation and psychological adjustment

METHODOLOGY

Research instruments

In the emic phase of the descriptive research, a questionnaire survey consisted of three parts. Part 1, computed the dimensions of cultural intelligence. Part 2, computed the dimensions of the sociocultural adaptation and psychological adjustment. Finally, part 3, congregated the demographic data of the respondents.

Following the format designed by Ang et al., (2007), based on Ackerman's theory of adult intellectual development (1996), the -"Four Factor Cultural Intelligence"- Scale (CQS), was utilized, constituting 20 items answered on a 7-point Likert-type scale, ranging from strongly agree (7) to strongly disagree (1). The respondents were asked to rate if the item in the questionnaire pertains to their strategic, knowledge, behavioral and motivational dimensions of cultural intelligence, with higher scores indicating positive responses. The mean scores varied from 4.614 to 5.097, thus exceeding the midpoint of 4.00 for all dimensions of cultural intelligence.

Twenty-one items of the revised version of the Sociocultural Adaptation Scale (SCAS-R), proposed by Wilson (2013), were utilized to measure cultural adaptation, with items answered on a 5-point Likert-type scale, ranging from not at all competent (1) to extremely competent (5). The respondents were asked to envisage their lives, in a different culture from their own regarding components of interpersonal communication, work performance, personal interests and community involvement, ecological adaptation and language proficiency. Higher scores indicated better sociocultural adaptability. The obtained mean of 3.727 with the standardization of 0.528, was higher than the mid-point of 3.00 for socio-cultural adaptation.

Psychological adjustment was measured by ten items of the Psychological Adjustment Scale (PAS), proposed by Demes and Geeraert (2014), with items answered on a seven-point rating scale from never (1) to always (7). In addition, the respondents had to rate the frequency of the experienced feelings, like loneliness, homesickness and nervousness. Four items were phrased positively, while six items were phrased negatively. Higher scores indicated better

psychological adjustment. The mean score of psychological adjustment was 4.161, which exceeded the mid-point of 4.00 minutely.

On completion of the first draft of the questionnaire in English, the Thai version was prepared using back translations with decentering, to avoid cultural language barriers and avoidance of concentration on one language. Experts evaluated the content validity of both versions and changes were made heeding their suggestions. The revised questionnaires in bilingual languages were pre-tested and the Cronbach's Alpha Coefficient of both versions of the questionnaire, and item-to-total analysis together with the exploratory factor analysis was executed to verify the reliability of the measurement items. The Cronbach's Alpha coefficients for both English and Thai versions of cultural intelligence were 0.89, for sociocultural adaptation was 0.90, for positive psychological adjustment was 0.79 and for negative psychological adjustment was 0.90, indicating sufficient reliability of all scales. Subsequently, the exploratory factor analysis (EFA) was performed to determine validity of the measurement items. All fifty-one measurement items were put in the EFA model; twenty items for cultural intelligence, twenty-one items for sociocultural adaptation, and ten items for psychological adjustment. The Kaiser-Meyer-Olkin of 0.931 (> cutoff point of 0.5) and significant Bartlett's Test of Sphericity ($x2 = 11688.950$; $p < 0.05$), indicated the adequacy of the pre-test sample data of 120 respondents. All twenty items of cultural intelligence were loaded with satisfactory results. Two items of out of twenty-one for measuring cultural adjustment were not loaded in any dimensions, hence excluded in the final scale. All ten items for positive and negative psychological adjustment were loaded in the proposed dimensions with satisfactory results. All forty-nine measurement items were subjected to the CFA model. All 426 data sets indicated satisfactory results on five fit indices, i.e. $\chi2/df$, IFI, TLI, CFI, and RMSEA, were used to determine the fit of the CFA.

Participants and sampling

For determination of the sample size, the formula recommended by Zinkmund et al., (2013), was utilized, yielding a 95% level of confidence resulting in a z score of 1.96. A total of 480 questionnaires were distributed; 120-set to each subgroup, applying the in-person drop off technique to respondents in the two companies. Implemented through the quota sampling technique, a total of 120 data sets were gathered from Thai respondents in a selected international company and 105 data sets from Thai respondents in a Thai company, while a total of 101 and 100 data sets were gathered from Chinese and ASEAN (includes all other nationalities, besides Thai and Chinese) respondents from the international company (28.17, 23.71, 23.47, and 24.65 percent, respectively). 426 sets of date were ultimately analyzed.

Gender differences of the respondent are varied with 53.5% female and 46.5% male. The national makeup were Thai, composing of 52.8%, followed by Chinese composing of 23.7% while the rest were from United States, Australia, Myanmar, Japan, Vietnam, Singapore, Cambodia and other ASEAN countries (includes all other nationalities, besides Thai and Chinese) composing of 23.5% respectively. Respondents were further segregated on their experiences of living in a host country for longer than one or 2 years. 44.6% belonged to this category, while 55.4% were never exposed to other cultures, even for short lengths of time.

Design and procedure

Initially, the descriptive data analysis gathered the respondent's demographic information to measure the level of each major construct i.e. cultural intelligence, sociocultural adaptation and psychological adjustment, as depicted in Table 1. The verification of the reliability and validity of the data by performing the analysis of Cronbach's Alpha coefficient and item-to-total as well as the exploratory factor analysis ensued. The data was then subjected to Structural Equation Modeling (SEM) to examine the good fit of the model as well as to test hypothesis 1 and 2. For hypothesis 3, the Analysis of Variance (ANOVA), was tested for the estimations of differences in the means of cultural intelligence, cultural adaptation, and psychological adjustment of respondents from different national backgrounds. Finally, hypothesis 4 intended to test the robustness of the structural relationships of all contracts; hence the data was analyzed using Multiple Group Analysis. Before this the Confirmatory Factor Analysis (CFA), for each group was performed and qualified for the Multiple Group Analysis. Then, the model fits of each group were tested. The recommended value of the each fit index and the estimated value gathered from the analysis are depicted in Table 2.

Ethical considerations

Before collecting data, the respondents from the two selected multinational companies provided written consent to participate in this study with assurance that they would not be harmed. Emphasis on anonymity and confidentiality of the results was also guaranteed.

RESULTS AND DISCUSSION

Table 1

Descriptive statistics of the major constructs

	Mean	SD	Minimum	Maximum
Strategic Cultural Intelligence	5.097	0.997	1.00	7.00
Knowledge Cultural Intelligence	4.614	1.007	1.60	7.00
Motivational Cultural Intelligence	5.039	1.061	1.80	7.00
Behavioral Cultural Intelligence	4.865	1.011	1.00	7.00
Sociocultural Adaptation	3.727	0.528	2.15	5.00
Psychological Adjustment	4.161	1.168	1.00	7.00

Table 2

Recommended and actual values of the CFA fit indices

	χ2/df	IFI	TLI	CFI	RMSEA
Required	<3.00	>0.90	>0.90	>0.90	<0.08
Actual	1.840	0.914	0.907	0.913	0.046

Note: * Tucker Lewis index is a Non-normed Fit Index; RMSEA= Root Mean Square Error of Approximation

Table 3

Estimated coefficients for structural paths

Structural Paths			Estimated Coefficient		Critical Value		R^2
Strategic CQ	→	Adaptation	0.056	(0.124)	1.975		0.388a
Knowledge CQ	→	Adaptation	-0.022	(-0.049)	-0.765		
Motivation CQ	→	**Adaptation**	**0.166**	**(0.392)**	**5.019**	***	
Behavioral CQ	→	**Adaptation**	**0.097**	**(0.218)**	**3.118**	**	
Strategic CQ	→	Adjustment	0.038	(0.038)	0.598		0.151b
Knowledge CQ	→	**Adjustment**	**0.325**	**(0.321)**	**4.933**	***	
Motivation CQ	→	Adjustment	0.055	(0.058)	0.812		
Behavioral CQ	→	Adjustment	0.063	(0.063)	0.914		

Note: unstandardized is shown; standardized is presented in parentheses;

Significance of the critical Ratio is shown as: ***p < 0.001; ** p < 0.01; * p < 0.05

a= R^2 for Cultural Adaptation; b=R^2 for Adjustment

Results of the Structural Equation Modeling partially supported hypothesis 1. Two proposed relationships were significant i.e. the relationship between motivational cultural intelligence and sociocultural adaptation (β = 0.166; p = 0.001) and the relationship between behavioral cultural intelligence and sociocultural adaptation (β = 0.097; p < 0.01). The relationships between strategic and knowledge cultural intelligence and sociocultural adaptation were not significant (= 0.056 and -0.022; p > 0.05), as reported in Table 3. In addition, the R2 of 0.388 for sociocultural adaptation was illustrated, meaning that the four dimensions of cultural intelligence could explain 38.8% of the variation of the sociocultural adaptation.

The literature review advocated the idea that cultural intelligence can impact expatriates' cross-cultural adjustment (Chen et al., 2014; Nunes et al., 2017; Presbitero & Attar, 2018; Hong et al., 2021; Kadam, et al., 2021). In the present study, sociocultural and psychological adjustment was regarded as conceptually separate outcomes of adaptation as suggested by Searle and Ward (1990). Hypothesis 1, partly revealed the conclusions of Ang et al., (2007), that possessing knowledge and strategic cultural intelligence may lead to judgment and decisions making but motivational and behavioral cultural intelligence leads to adaptation. Templer et al., (2006), agreed that knowledge cultural intelligence may provide a background of how to go about on a daily basis in the exposed culture but motivational cultural intelligence can lead to intrinsic happiness and satisfaction, related to self-efficacy to adapt and assurance about cross-cultural ability (Bandura, 2002). Expatriates in a Thai environment may encounter many cross-cultural clashes but they can exert extra effort to alleviate the cultural faux pas by assimilating and altering their verbal and non-verbal behaviors contingent to the culture in order to adapt (Earley & Ang, 2003). Manifesting behaviors that are not in opposition to the host can become a priority for self-directed adaptation (Earley & Ang, 2003; Williams, 2008).

Results of the Structural Equation Modeling, partially supported hypothesis 2, since one significant relationship between knowledge cultural intelligence and psychological adjustment was revealed. The others relationships between strategic, motivational, and behavioral cultural intelligence and psychological adjustment revealed no significance, Thus, H2b (β = 0.325; p < 0.001) was supported by the data while H2a, H2c, and H2d (β = 0.038; β = 0.055; β = 0.063; p > 0.05) were not, as reported in Table 3. As the R2 of 0.151 for psychological adjustment was shown,

it could be concluded that the cultural intelligence could explain the variation of psychological adjustment by 15.1.

Knowledge cultural intelligence proved to be a major aspect of psychological adjustment, as indicated by results of hypothesis 2. In the literature review Celik et al., (2021), confirmed a positive relationship between knowledge cultural intelligence and high power distance cultures. Evidently, successful expatriates residing in high power distance cultures like Thailand (Hofstede, 1984), adjust rapidly to the conditions of the host country and a challenge for expatriates is to confront the differences that exist in that culture, if they wish to attain psychological contentment. Learning the norms, beliefs and legal, economic and social practices pertinent to a culture is important for self-gratification, happiness, lowering anxiety and reducing the cultural gaffe, when exposed to unfamiliar cultures. Knowledge, strategic and motivational cultural intelligence include mental capabilities that exist in the "head" of individuals (Ang et al., 2007), rather than actions manifested by a person. Owing to Thailand being a high power culture (Hofstede, 1984), employees with higher status, in business organizations are compelled to adhere to the hierarchical structure and norms and roles (Pimpa, 2012).

Table 4

Comparisons of the major constructs among employee groups

Constructs	Thai Employees		Chinese Employees	ASEAN Employees	F-Value
	International Context	Thai Context			
Strategic CQ	5.08 (0.71)	*4.55*(1.01)	5.43(1.11)	5.35 (0.92)	18.39 ***
Knowledge CQ	4.46 (0.85)	*4.09*(0.99)	4.87(1.06)	5.09 (0.85)	23.46 ***
Motivational CQ	5.19 (0.92)	*4.41*(0.99)	5.34(1.13)	5.21 (0.87)	18.98 ***
Behavioral CQ	4.91 (0.95)	*4.41*(0.99)	5.19(1.08)	4.96 (0.85)	11.89 ***
SC Adaptation	3.94 (0.43)	*3.67*(0.55)	*3.64*(0.57)	3.58 (0.46)	11.16 ***
PA Adjustment	*3.92* (0.95)	*3.88*(0.97)	4.50(0.95)	5.04 (0.76)	37.23 ***

Note: Numbers shown in the Table are the average score; Standard deviation is shown in the parentheses. Number in italic means it is significantly less than others

The ANNOVA results for hypothesis 3, revealed significant differences in the mean scores of all major constructs among four groups of respondents. The F-value of 18.39 ($p < 0.001$) for strategic cultural intelligence, 23.46 ($p < 0.001$) for knowledge cultural intelligence, 18.98 ($p < 0.001$) for motivational cultural intelligence, 11.89 ($p < 0.001$) for behavioral cultural intelligence, 11.16 ($p < 0.001$) for sociocultural adaptation, and 37.23 ($p < 0.001$) for psychological adjustment, indicating existence of cultural differences. The Sheffe´ tests were performed to investigate a higher level of the subgroups of respondents. Significant differences were revealed: 1) strategic cultural intelligence, motivational cultural intelligence, and behavioral cultural intelligence of the Thai respondents was lowest among all subgroups; 2) the knowledge cultural intelligence of the Thai respondents, in a Thai environment were the lowest, that of Thai respondents in an international environment was the second lowest while those of Chinese and ASEAN employees were higher; 3) the sociocultural adaptation of the Thai respondents in an international environment was highest among all subgroups; and 4) the psychological adjustment of Thai respondents, in both Thai and international environments were lower than that of Chinese employees while the psychological adjustment of the ASEAN respondents was the highest. The illustration of differences among respondent's major constructs supports hypothesis 3 as reported in Table 4.

The literature review indicated that individual differences and expertise useful for progress in a culture (Earley & Ang, 2003), cultural distance (Suanet & Van de Vijver, 2009; Tan & Liu, 2014; Ward & Kennedy, 1993a, 1993b), and national culture can be attributed to the variation in adaptation (Celik et al., 2018). It is not surprising that Thai respondents, exposed to a Thai environment, scored lower than ASEAN and Chinese respondents on the four dimensions of cultural intelligence since they are familiar with the intricacies of their own culture and the cultural distance is almost non-existent. ASEAN and Chinese employees on the other hand needed to possess a certain level of cultural intelligence to recognize and reconcile cultural differences and adapt to work and non-work settings as noticed in hypothesis 3. Moreover, sociocultural adaptation for Thai respondents obviously exceeded all groups, owing to the fact that besides acquaintance to the national culture of collectivism, where emphasis is on team work and group loyalty (Hofstede, 1991), adjustment to the mainstream culture was not arduous and culture shock is hardly endured. ASEAN and Chinese respondents are unfamiliar with the host culture and this could result in disillusionment with a culture radically different from theirs in terms extrinsic factors like communication, ecological factors and community involvement which are facets of sociocultural adaptation. Celik et al., (2018) asserted that in collective cultures expatriates may exert more effort to maintain good relations with others. Thailand is a collective culture (Hofstede, 1991), and harmoniums interactions with the group for Thais is considered a salient priority. The lower scores for Thais on psychological adaption can be accounted by the fact that the study was conducted in a Thai culture itself and the items on the scale of psychological adjustment like covert feelings of happiness, homesickness, anxiety and overall well-being and mental health in the host culture may not be applicable to them. Adapting to Thai culture maybe less cumbersome for Chinese since at present the number of Chinese migrants and their descendants in Thailand is almost 7. 1 million, dispersed in categories of business, education and leisure (Siriphon et al., 2021). The ASEAN group consisting of the highest diversity and the highest cultural distance possessed the highest scores for psychological adaptation since the cultural distance was also the highest. The expatriates in this category had to try very hard to maintain a sense of balance by overcoming feelings of loneliness and homesickness.

Table 5

Comparisons of the structural relationships between constructs among respondents with different Nnationalities

Path Relationships			Parameter Estimated						Critical Ratio for Difference		
			Thai Respondents		Chinese Respondents		ASEAN Respondents		Thai – Chinese	Thai-ASEAN	Chinese-ASEAN
CQ-Strategic	→	Adaptation	0.085	(0.142)	-0.14	(-0.272)*	0.107	(0.218)	**-2.886****	0.231	**2.477***
CQ-Knowledge	→	Adaptation	-0.083	(-0.164)	0.224	(0.414)***	-0.063	(-0.117)	**4.357*****	0.196	**- 2.836****
CQ-Motivation	→	Adaptation	0.183	(0.394)***	0.186	(0.366)**	0.11	(0.205)	0.038	-0.777	-0.753
CQ-Behavior	→	Adaptation	0.09	(0.201)	0.169	(0.318)*	0.167	(0.301)*	0.98	0.815	-0.019
CQ-Strategic	→	Adjustment	0	(0.00)	-0.058	(-0.063)	-0.344	(-0.425)**	-0.266	-1.695	-1.451
CQ-Knowledge	→	Adjustment	0.198	(0.149)	0.182	(0.189)	0.545	(0.603)***	-0.08	1.692	1.888
CQ-Motivation	→	Adjustment	-0.083	(-0.068)	0.17	(0.188)	-0.025	(-0.029)	1.203	0.291	-0.976
CQ-Behavior	→	Adjustment	-0.089	(-0.076)	0.136	(0.144)	0.335	(0.365)*	1.038	**2.177***	0.945

Remarks: T = Thai respondents; C = Chinese respondents; F = Foreign respondents

The number shown in the Table are unstandardized coefficient; Standardized coefficients are shown in the parentheses. * p-value < 0.05; ** p-value < 0.01; *** p-value < 0.001

The data of 3 groups of respondents with different nationalities i.e. Thai, Chinese, and ASEAN was analyzed using the Multiple Group Analysis. The fits of the CFA model indicated that the data were qualified for the Multiple Group Analysis. Chi-square per degree of freedom of the group of Thai respondents was 1.578, which was less than the cutoff point of 3.00 while that of Chinese and ASEAN respondents was 2.082 and 2.458 which were also less than the cutoff point 3.00. All fit indices exceeded the minimum requirement of 0.900 for all groups. For Thai respondents, Goodness of Fit Index (GFI), Incremental Fit Index (IFI), Tucker Lewis Index (TLI), and Comparative Fit Index (CFI) were 0.942, 0.957, 0.912, and 0.954, with the RMSEA of 0.070. For Chinese respondents the GFI was 0.910 while the IFI, TLI, and CFI were 0.955, 0.910, 0.953 and the RMSEA was 0.074. Fit indices of the group of ASEAN employees were GFI = 0.907, IFI = 0.926, TLI = 0.917, CFI = 0.922, and the RMSEA = 0.074. Model fits of the SEM models of all three groups of respondents were ensured and the comparisons among groups could be performed.

The Nested Model comparison indicated a significant difference among groups as illustrated, since the Chi-square difference of the three models was 13.20 with 3 degrees of freedom where the p-value was 0.004 ($p < 0.01$).There were differences of the influence of cultural intelligence on sociocultural adaptation and psychological adjustment. However, only five structural paths were found to be different. The first two different paths were strategic cultural intelligence and sociocultural adaptation (C. R. = -2.886; $p < 0.05$) and knowledge cultural intelligence and sociocultural adaptation (C. R. = 4.357; $p < 0.001$) between Thai and Chinese employees. The relationship between strategic cultural intelligence and sociocultural adaptation of Thai respondents was significantly higher than that of Chinese. In contrast, the relationship between knowledge cultural intelligence and sociocultural adaptation of Chinese respondents was significantly higher than that of Thai employees. Significant differences of the same paths were found between Chinese and ASEAN respondents. ASEAN respondents had higher relationship between strategic cultural intelligence and sociocultural adaptation than Chinese respondents (C. R. = 2.477; $p < 0.05$) while Chinese respondents had higher relationship between knowledge cultural intelligence and sociocultural adaptation than ASEAN respondents (C. R. = -2.836; $p < 0.01$). Thus, it could be concluded that the relationship between knowledge cultural intelligence and sociocultural adaptation of Chinese respondents was higher than that of Thai and ASEAN respondents.

The next different path was on behavioral cultural intelligence and psychological adjustment. The relationship between behavioral cultural intelligence and psychological adjustment of the ASEAN respondents was significantly higher than that of the Thai respondents (C. R. = 2.177; $p < 0.05$). All differences can be viewed in Table 5.

Hypothesis 4, indicated that strategic cultural intelligence and cultural adaptation of Thai respondents were higher than Chinese respondents. In contrast knowledge cultural intelligence and cultural adaptation for Chinese exceeded Thai respondents significantly. Furthermore, ASEAN respondents' strategic cultural intelligence and adaptation exceeded that of Chinese who possessed higher knowledge cultural intelligence than ASEAN respondents. As stated in the literature review, cultural distance (Suanet & Van Vijver, 2009; Tan & Liu, 2014; Ward & Kennedy, 1993a, 1993b), and national culture can be attributed to the variation in adaptation (Celik et al., 2018).

Hypothesis 1 revealed that Thai employees had the highest knowledge cultural intelligence among all groups of employees by virtue of being familiar with their own cultural heritage. This research was conducted in Thai environmental setting, so lower cultural distance resulted in facing fewer dilemmas. However, Thai employees may need to have a better standing of their foreign counterparts. Attaining cues to make adjustments in their cognitive models, in the process, during and after interaction could be assisted by the application of cultural knowledge (Brislin et al., 2006; Triandis, 2006), which eventually assist strategic cultural intelligence of Thai employees as revealed in hypothesis 4.

In addition, adapting to Thai culture maybe less cumbersome for the Chinese population of expatriates. At present the number of Chinese migrants and their descendants in Thailand is almost 7. 1 million, dispersed in categories of business, education and leisure (Siriphon et al., 2021). This closeness in cultural distance could account for Chinese employees possessing better knowledge cultural intelligence about the host culture, the elements of which are necessary for survival. For ASEAN respondents to get acculturated and be malleable to the host culture when first exposed is surely more arduous than for the Chinese employees. The closeness between the ASEAN employee cultures and Thailand is lower than that of Chinese employees and Thai culture, The ASEAN group was more heterogeneous in terms of diversity. Secondly, since the cultural distance was vast learning cues that assist in noticing the cultural preference of others may become priority (Ang et al., 2007). Utilizing better cues in diverse situations can improve cross-cultural adjustment too. (Huff et al., 2014).

CONCLUSIONS AND RECOMMENDATIONS

The seminal aspects of the research findings are crucial for attributing cultural intelligence as a precursor for expatriates to adapt to cultures that they are unfamiliar with, and in which they have a prolonged contract. This quantitative research provides an overall datum for Human Resource Managers of large conglomerates regarding the dimensions of cultural intelligence of diverse groups of expatriates residing in Thailand. The aspects of sociocultural and psychological adaption are enumerated as separate outcomes of cultural intelligence and provide a broader perspective of adaption of diverse employees. However, qualitative findings with face to face interviews from employees and their families were not included in this research, owing to the COVID-19 restrictions as well as the limited time frame for the data collection.

The structured questionnaires possessed high reliability and were translated into two versions for persons with language difficulties. The bilingual translation did not favor the other nationalities like Chinese and other ASEAN employees. The quota sample size of over 400 employees, selected from two large Asian conglomerates was representative of the Asian population but not the Caucasian population, as the researcher could come by just few higher level Caucasian respondents. The sample size of different groups of employees was not equivalent in terms of number and gender on account of exclusion of questionnaires containing deficient data from some groups, although an attempt was made to equalize them.

The results derived from the research need to be interpreted with discretion. Attributing

differences between different groups of respondents to the national culture alone is a perceptual bias since the data was accumulated from expatriates in the Thai cultural context and other variables like age, language ability, tenure in the host country, the number of previous transfers, and having a spouse in the host culture, all of which could impact adjustment were excluded.

An elaborate model examining plenty of antecedents like personality traits, self-efficacy, self-monitoring, emotional intelligence and other intervening variables and outcomes that impact cultural intelligence can be undertaken to provide organizations with substantial information about employees who are self-initiated to relocate versus those who are assigned but reluctant to relocate. This research sheds lights on important questions for the future like employee retention, development of orientation programs, cross-training programs and remedial programs for different sub-groups of expatriates, especially those who are more inclined to experience adjustment problems. The caveats of this research can be converted into opportunities for future research. Multinational companies can disseminate information about the idiosyncrasies in a national culture prior to the assignment in the host culture to succor better sociocultural and psychological adjustment.

Data availability statement

The raw data supporting the conclusions of this article will be made available by the author, without undue reservation.

Conflict of interest

The author declares that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

THE AUTHOR

Asst. Prof. June Bernadette Dsouza has completed an M.A. (Social Sciences), and M.Ed and Ph.D in the field of Education. She is currently a lecturer at Suvarnabhumi Institute of Technology (Sarasas Affiliated), Thailand. Her areas of interest are teaching English as a Second Language, Psychology and Human Resources.
jbernadettedsouza@gmail.com

REFERENCES

Ackerman, P. L. (1996). A theory of adult intellectual development: Process, personality, interests, and knowledge. *Intelligence, 22*(2), 227-257. https://doi.org/10.1016/s0160-2896(96)90016-1

Adler, N. J. (1981). Re-entry: Managing cross-cultural transitions. *Group & Organization Studies, 6*(3), 341-356. https://doi.org/10.1177/105960118100600310

Alon, I., & Higgins, J. M. (2005). Global leadership success through emotional and cultural intelligences. *Business Horizons, 48*(6), 501-512. https://doi.org/10.1016/j.bushor.2005.04.003

Ang, S., & Inkpen, A. C. (2008). Cultural intelligence and offshore outsourcing success: A framework of firm-level intercultural capability. *Decision Sciences, 39*(3), 337-358. https://doi.org/10.1111/j.1540-5915.2008.00195.x

Ang, S., & Dyne, L. V. (2008). *Handbook of cultural intelligence*. Routledge.

Ang, S., Van Dyne, L., Koh, C., Ng, K. Y., Templer, K. J., Tay, C., & Chandrasekar, N. A. (2007). Cultural intelligence: It's 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

Bandura, A. (2002). Social cognitive theory in cultural context. *Applied Psychology, 51*(2), 269-290. https://doi.org/10.1111/1464-0597.00092

Black, J. S. (1988). Work role transitions: A study of American expatriate managers in Japan. *Journal of International Business Studies, 19*(2), 277-294. https://doi.org/10.1057/palgrave.jibs.8490383

Black, J. S., & Gregersen, H. B. (1991). Antecedents to cross-cultural adjustment for expatriates in Pacific Rim assignments. *Human Relations, 44*(5), 497-515. https://doi.org/10.1177/001872679104400505

Bochner, S. (1982). *Cultures in contact*. Pergamon.

Bochner, S. (2003). Culture shock due to contact with unfamiliar cultures. *Online Readings in Psychology and Culture, 8*(1). https://doi.org/10.9707/2307-0919.1073

Brislin, R., Worthley, R., & Macnab, B. (2006). Cultural intelligence. *Group & Organization Management, 31*(1), 40-55. https://doi.org/10.1177/1059601105275262

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

Çelik, M., Keser, A., & Yapıcı, Ümit K. (2021). The relationship between cultural diversity and cultural intelligence: A cross-cultural research. *International Journal of Advanced Intelligence Paradigms, 19*(3), 450-469. https://doi.org/10.1504/ijaip.2021.116367

Charoensukmongkol, P. (2014). Cultural intelligence and export performance of small and medium enterprises in Thailand: Mediating roles of organizational capabilities. *International Small Business Journal: Researching Entrepreneurship, 34*(1), 105-122. https://doi.org/10.1177/0266242614539364

Chen, A. S.- yih., Wu, I.- heng., & Bian, M.- dau. (2014). The moderating effects of active and agreeable conflict management styles on cultural intelligence and cross-cultural adjustment. *International Journal of Cross Cultural Management, 14*(3), 270-288. https://doi.org/10.1177/1470595814525064

Chen, G., Kirkman, B. L., Kim, K., Farh, C. I. C., & Tangirala, S. (2010). When does cross-cultural motivation enhance expatriate effectiveness? A multilevel investigation of the moderating roles of subsidiary support and cultural distance. *Academy of Management Journal, 53*(5), 1110-1130. https://doi.org/10.5465/amj.2010.54533217

Chen, X. -P., Liu, D., & Portnoy, R. (2012). A multilevel investigation of motivational cultural intelligence, organizational diversity climate, and cultural sales: Evidence from U.S. real estate firms. *Journal of Applied Psychology, 97*(1), 93-106. https://doi.org/10.1037/a0024697

Cohen, A. (2007). One nation, many cultures. *Cross-Cultural Research, 41*(3), 273-300. https://doi.org/10.1177/1069397107302090

Crowne, K. A. (2009). The relationships among social intelligence, emotional intelligence and cultural intelligence. *Organization Management Journal, 6*(3), 148-163. https://doi.org/10.1057/omj.2009.20

Deci, E. L., & Ryan, R. M. (1985). *Intrinsic motivation and self-determination in human behavior*. Plenum Press.

Deci, E. L., & Ryan, R. M. (1991). A motivational approach to self: Integration in personality. In R. Dienstbier (Ed.), *Nebraska symposium on motivation, 38. Perspectives on motivation* (pp. 237-288). Lincoln: University of Nebraska Press.

Demes, K. A., & Geeraert, N. (2014). Measures matter: Scales for adaptation, cultural distance, and acculturation orientation revisited. *Journal of Cross-Cultural Psychology, 45*(1), 91-109. https://doi.org/10.1177/0022022113487590

Earley, P. C., & Ang, S. (2003). Cultural intelligence: Individual interactions across culture. *Stanford Business Books*, 12-18.

Earley, P. C., & Masakowski, E. (2004). Cultural intelligence. *Harvard Business Review*. https://hbr.org/archive-toc/BR0410

Gelfand, M. J., Imai, L., & Fehr, R. (2008). Thinking intelligently about cultural intelligence: The road ahead. In S. Ang & L. Van Dyne (Eds.), *Handbook of cultural intelligence: Theory, measurement, and applications* (pp. 357-387). M. E. Sharpe.

Gudykunst, W. B., & Kim, Y. Y. (1988). *Theories in Intercultural Communication (International and Intercultural Communication Annual), 12*, Sage Publications Ltd.

Gudykunst, W. B., Ting-Toomey, S., & Chua, E. (1988). *Culture and interpersonal communication*. Sage Publications Inc.

Haslberger, A. (2005). Facets and dimensions of cross-cultural adaptation: Refining the tools. *Personnel Review, 34*(1), 85-109. https://doi.org/10.1108/00483480510571897.

Hofstede, G. (1984). *Culture's consequences: International differences in work related values*. Sage Publications.

Hofstede, G. (1991). *Cultures and organizations: Software of the mind*. McGraw-Hill.

Hofstede, G., & Minkov, M. (2010). *Cultures and organizations: Software of the mind* (3rd ed.). McGraw-Hill.

Hong, K. T., Ng, S. I., & Lai, P. S. (2021). International students' cross-cultural adjustment: Determining predictors of cultural intelligence. *Indonesian Journal of Social Research (IJSR), 3*(1), 27-47. https://doi.org/10.30997/ijsr.v2i3.82

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*(1), 151-157. https://doi.org/10.1016/j.ijintrel.2013.08.005

Huff, K. C. (2013). Language, cultural intelligence and expatriate success. *Management Research Review, 36*(6), 596-612. https://doi.org/10.1108/01409171311325750

International Labor Organization (2022). TRIANGLE in ASEAN Quarterly Briefing Note. https://www.ilo.org/wcmsp5/groups/public/---asia/---ro-bangkok/documents/genericdocument/wcms_735108.pdf

Kadam, R., Roa, A. S., Abdul, W. K., & Jabeen, S. S. (2021). Cultural intelligence as an enabler of cross-cultural adjustment in the context of intra-national diversity. *International Journal of Cross Cultural Management 21*(1), 31-51. https://doi.org/10.1177/1470595821995857

Kanfer, R., & Heggestad, E. D. (1997). Motivational traits and skills: A person-centered approach to work motivation. In B. M. Staw & L. L. Cummings, *Research in Organizational Behavior, 19*(1-56). JAI Press, Inc.

Konanahalli, A., Lukumon, O., Meding, V. J., Spillane, J., & Coates. R. (2012). International projects and cross-cultural adjustments of British expatriates in Middle East: A qualitative investigation of influencing factors. *Australasian Journal of Construction Economics and Building, 12*(3), 31-54. https://doi.org/10.5130/ajceb.v12i3.2628

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

Motti-Stefanidi, F., Pavlopoulos, V., Obradovic, J., Dalla, M., Takis, N., Papathanasiou, A., & Masten, A. (2008). Immigration as a risk factor for adolescent adaptation in Greek Urban schools. *The European Journal of Developmental Psychology, 5*(2), 235-261. https://doi.org/10.1080/17405620701556417

Ng, K. Y., Van Dyne, L., & Ang, S. (2012). Cultural intelligence: A review, reflections, and recommendations for future research. In A. M. Ryan, F. T. Leong & F. L. Oswald (Eds.), *Conducting multinational research: Applying organizational psychology in the workplace* (pp. 29-58). Washington, DC: American Psychological Association.

Nunes, M., Felix, B., & Prates, L. (2017). Cultural intelligence, cross-cultural adaptation and expatriate performance: A study with expatriates living in Brazil. *Revista de Administração, 52*(3), 219-232. https://doi.org/10.1016/j.rausp.2017.05.010

Ott, D. L., & Michailova, S. (2016). Cultural intelligence: A review and new research avenues. *International Journal of Management Reviews, 20*(1), 1-21. https://doi.org/10.1111/ijmr.12118

Peterson, B. (2004). *Cultural intelligence: A guide to working with people from other cultures*. Yarmouth, ME: Intercultural Press.

Pimpa, N. (2012). Amazing Thailand: Organizational culture in the Thai public sector. *International Business Research, 5*(11). https://doi.org/10.5539/ibr.v5n11p35

Poonpol, P. (2015). Cultural intelligence as an influential factor on cross-cultural adjustment and job performance among expatriates in Thailand. *Research Methodology & Cognitive Science, 12*(2), 109-121.

Poonpol, P. (2017). The influence of personal, social and cultural factors on cross-cultural adjustment. *Journal of Behavioral Science, 23*(1), 105-121.

Presbitero, A., & Attar, H. (2018). Intercultural communication effectiveness, cultural intelligence and knowledge sharing: Extending anxiety-uncertainty management theory. *International Journal of Intercultural Relations, 67*, 35-43. https://doi.org/10.1016/j.ijintrel.2018.08.004

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

Rana, M., Bhasin, J., & Mushtaq, S. (2020). Measurement of cultural intelligence and its impact on psychological adaptation of international students in India. *Vision, 24*(4), 452-459. https://doi.org/10.1177/0972262920939789

Rose, R. C., Ramalu, S. S., Uli, J., & Kumar, N. (2010). Expatriate performance in international assignments: The role of cultural intelligence as dynamic intercultural competency. *International Journal of Business and Management, 5*(8), 76-85. https://doi.org/10.5539/ijbm.v5n8p76

Sam, D. L., & Berry, J. W. (2006). *Cambridge handbook of acculturation psychology*. Cambridge University Press.

Sangkrit, C. (2013). *The analysis of culture and cultural intelligence's impacts on Thai businessmen's negotiation styles and the perceptions towards Europeans*. [Unpublished master's thesis]. Aarhus University, Denmark.

Searle, W., & Ward, C. (1990). The prediction of psychological and sociocultural adjustment during cross-cultural transitions. *International Journal of Intercultural Relations, 14*(4), 449-464. https://doi.org/10.1016/0147-1767 (90)90030-z

Seriwatana, P., & Charoensukmongkol, P. (2020). The effect of cultural intelligence of Thai cabin crew in national airlines moderated by Job Tenure. *ABAC Journal, 40*(1), 1-19.

Siriphon, A., Banu, F., & Gatchalee, P. (2021). *The nature of recent Chinese migration to Thailand, Perspective, 168,* 1-11. https://www.iseas.edu.sg/articles-commentaries/iseas-perspective/2021-168-the-nature-of-recent-chinese-migration-to-thailand-by-aranya-siriphon-and-fanzura-banu/

Stahl, G. K., Maznevskim M. L., Voigt, A., & Jonsen, K. (2010). Unraveling the effects of cultural diversity in teams: A metaanalysis of research on multicultural work groups. *Journal of International Business Studies, 41*(4), 690-709.

Suanet, I., & Van de Vijver, F. J. R. (2009). Perceived cultural distance and acculturation among exchange students in Russia. *Journal of Community and Applied Social Psychology, 19*, 182-197. https://doi.org/10.1002/casp.989

Tan, S. A., & Liu, S. (2014). Ethnic visibility and preferred acculturation orientations of international students. *International Journal of Intercultural Relations, 39*, 183-187. https://doi.org/10.1016/j.ijintrel.2013.08.011

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

Thamarat, J., & Arthittiya, S. (2021). Relationship between cultural intelligence and self-adjustment of expatriates in the airline industry. *Journal of Community Development Research (Humanities and Social Sciences), Naresuan University, 14*(3), 18-30.

Thomas, D. C., & Inkson, K. (2004). *Cultural intelligence*. Berrett- Kochler.

Thomas, D. C., Elron, E., Stahl, G., & Bjørn, E. (2008). Cultural intelligence: Domain and assessment. *International Journal of Cross Cultural Management, 8*(2), 123-43. https://doi.org/10.1177/1470595808091787

Torbiorn, I. (1982). *Living Abroad*. John Wiley, & Sons.

Triandis, H. C. (2006). Cultural Intelligence in Organizations. *Group and Organization Management, 31*(1), 20-26. https://doi.org/10.1177/1059601105275253

Tung, R. L. (1993). Managing cross-national and intra-national diversity. *Human Resource Management, 32*(4), 461-477. https://doi.org/10.1002/hrm.3930320404

Van Dyne, L., Ang, S., & Koh, C. (2008). Development and validation of the CQS: The cultural intelligence scale. In S. Ang & L. Van Dyne (Eds.), *Handbook of cultural intelligence: Theory, measurement, and applications* (pp. 16-40). M. E. Sharpe.

Ward, C., & Kennedy, A. (1993a). Psychological and sociocultural adjustment during cross-cultural transitions: A comparison of secondary students overseas and at home. *International Journal of Psychology, 28*(2), 129-147. https://doi.org/10.1080/00207599308247181

Ward, C., & Kennedy, A. (1993b). Where's the 'culture' in cross-cultural transition? *Journal of Cross Cultural Psychology, 24*(2), 221-249. https://doi.org/10.1177/0022022193242006

Ward, C., & Kennedy, A. (1996). Crossing cultures: The relationship between psychological and sociocultural dimensions of cross-cultural adjustment. In J. Pandey, D. Sinha & D. P. S. Bhawuk (Eds.), *Asian contributions to cross-cultural psychology* (pp. 289-306). Sage.

Ward, C., Bochner, S., & Furnham, A. (2001). *The psychology of culture shock* (2nd ed.). Routledge.

Ward, C., Okura, Y., Kennedy, A., & Kojima, T. (1998). The u-curve on trial: A longitudinal study of psychological and sociocultural adjustment during cross-cultural transition. *International Journal of Intercultural Relations, 22*(3), 277-291. https://doi.org/10.1016/s0147-1767(98)00008-x

Ward, C., Wilson, J., & Fischer, R. (2011). Assessing the predictive validity of cultural intelligence over time. *Personality and Individual Differences, 51*(2), 138-142. https://doi.org/10.1016/j.paid.2011.03.032

Williams, M. E. (2008). Individual differences and cross-cultural adaptation: A study of cultural intelligence, psychological adjustment, and sociocultural adjustment. [Unpublished doctoral dissertation]. Trident University International University, Cypress, CA. ProQuest.

Wilson, J. (2013). Exploring the past, present and future of cultural competency research: The revision and expansion of the sociocultural adaptation construct. [Unpublished doctoral dissertation]. Victoria University of Wellington. https://doi.org/10.26686/wgtn.17004835.v1

Young, Y. K. (2001). *Becoming intercultural: An integrative theory of communication and cross-cultural adaptation*. Sage Thousand Oaks.

Young, Y. K. (2005). Adapting to a new culture: An integrative communication theory. In W. Gudykunst (Ed.), *Theorizing about intercultural communication* (pp. 375-400). Sage Publications.

Zikmund, W., Babin, B., Carr, J., & Griffin, M. (2013). *Business research methods* (9th ed.). South Western-Cengage Learning.

Appendix A

Part 1: Cultural intelligence

Please read the following statements and consider how much do you agree on each statement. Please make a ✓ in the box that most represents yourself.

Statement		Level of Opinion						
		Strongly Agree ←→ Strongly Disagree						
When interacting with others who have different background, you…								
1	Recognize your cultural knowledge	7	6	5	4	3	2	1
2	Could adjust your cultural knowledge	7	6	5	4	3	2	1
3	Recognize the cultural knowledge that he/she is applying	7	6	5	4	3	2	1
4	Verify whether your cultural knowledge is accurate	7	6	5	4	3	2	1
You have the following knowledge on other cultures:								
5	Legal and economic systems	7	6	5	4	3	2	1
6	Rules of other languages such as grammar, vocabulary, phonetics, etc.	7	6	5	4	3	2	1
7	Perceived values of the culture and religious beliefs	7	6	5	4	3	2	1
8	Marriage systems	7	6	5	4	3	2	1
9	Arts and crafts	7	6	5	4	3	2	1
10	Non-verbal expressions	7	6	5	4	3	2	1
When interacting with others with different background, you …								
11	Enjoy the interaction	7	6	5	4	3	2	1
12	Are confident	7	6	5	4	3	2	1
13	Are able to deal with them	7	6	5	4	3	2	1
14	Enjoy living with others	7	6	5	4	3	2	1
15	Are familiar with shopping centers	7	6	5	4	3	2	1
When interacting with others who have different background, you would perform the following behaviors to suit with the requests of that particular culture:								
16	Adjust the verbal tone, accent, etc.	7	6	5	4	3	2	1
17	Adjust the verbal pause and silence	7	6	5	4	3	2	1
18	Adjust the rate of speaking	7	6	5	4	3	2	1
19	Adjust the non-verbal cues	7	6	5	4	3	2	1
20	Adjust the facial expressions	7	6	5	4	3	2	1

Part 2: Sociocultural adaptation

Think of your life when you are working in an organization. Then, consider your ability to adapt yourself with the following categories and select the choice that best represents yourself from 1: Not at all competent to 5: Extremely competent. Please make a ✓ in the box that most represents yourself.

	Statement	Level of Adaptation				
		Extremely Competent ← →				Not at all Competent
1	Ability to interact with people in the social events	5	4	3	2	1
2	Ability to interact with the opposite gender	5	4	3	2	1
3	Ability to interpret and respond to gestures and facial expressions of others accurately	5	4	3	2	1
4	Have an appropriate rate of speaking	5	4	3	2	1
5	Ability to build and maintain interpersonal relationships	5	4	3	2	1
6	Have appropriate behaviors to suit the social norms, value and attitudes of people	5	4	3	2	1
7	Ability to interpret and respond to emotions of others accurately	5	4	3	2	1
8	Ability to manage assigned work responsibilities	5	4	3	2	1
9	Working with other persons effectively	5	4	3	2	1
10	Ability to gain feedback from other persons	5	4	3	2	1
11	Express the ideas to others in an appropriate manner	5	4	3	2	1
12	Maintain hobbies and interests	5	4	3	2	1
13	Obtain community services	5	4	3	2	1
14	Ability to deal with the bureaucracy	5	4	3	2	1
15	Attend or participate in community activities	5	4	3	2	1
16	Adjust to the noise level of the neighbors	5	4	3	2	1
17	Find the good way of life in the community	5	4	3	2	1
18	Adapt to the population density	5	4	3	2	1
19	Adapt to the pace of life	5	4	3	2	1
20	Ability to understand and speak the local language	5	4	3	2	1
21	Ability to read and write the local language	5	4	3	2	1

Part 3: Psychological adjustment

Please rate yourself on how often you feel or behave in the following manners from 1: never to 7: always. Then, mark a ✓ in the box that most represents yourself.

Statement		Level of feeling/behavior						
		Always			← →			Never
Being in the Host country, makes you…								
1	Feel excited	7	6	5	4	3	2	1
2	Feel unfit with the place	7	6	5	4	3	2	1
3	Have a sense of freedom	7	6	5	4	3	2	1
4	Sad to be away from home	7	6	5	4	3	2	1
5	Nervous about what and how to behave in a certain situation	7	6	5	4	3	2	1
6	Lonely without family and friends	7	6	5	4	3	2	1
7	Curious about things around	7	6	5	4	3	2	1
8	Homesick and think of home	7	6	5	4	3	2	1
9	Frustrated with the difficulties of the adaptation to the new environment	7	6	5	4	3	2	1
10	Happy with the new day-to-day life	7	6	5	4	3	2	1