

## The Mediating Effect of Cultural Intelligence on the Relationship Between Openness Personality and Job Performance among Expatriates on International Assignments

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**Abstract:** This study examines the role of cultural intelligence in the relationship between openness personality and job performance from work role transition perspective. This study uses hierarchical regression analysis to test the hypotheses in a sample of 332 expatriates from Malaysia. The results show that the variance in job performance attributable to openness personality is partly a direct effect and partly an indirect effect mediated through cultural intelligence. The findings provide evidence that in addition to the direct effect openness personality predicts cultural intelligence and cultural intelligence in turn predicts job performance among expatriates in Malaysia. Finally, this study discusses managerial implications and highlights future research directions.

**Key words:** Cultural intelligence, job performance, hypotheses, implications, Malaysia

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### INTRODUCTION

The intensifying globalization has led many Multinational Companies (MNCs) to expand their business into international markets. The strong global presence, however requires a competent global workforce to execute the corporate strategies. In this regard, the use of expatriates has become an important component of international human resource management practices among MNCs (Froese and Peltokorpi, 2011). Expatriate refers to an employee who moves from his or her home country to live and work in another country for one to several years and is expected to return to his/her home country after completing a particular assignment (Aycan and Kanungo, 1997). Apart from executing the corporate strategy expatriates are also sent on international assignments to establish new international markets spread and sustain corporate culture facilitate organisational coordination and control and transfer of technology knowledge and skills (Huang Chi and Lawler, 2005). For this reason, expatriates effectiveness on international assignments has become central a concern among expatriating MNCs.

Research on determining factors of expatriate effectiveness (i.e., cross cultural adjustment, job performance, premature return) found that personality is a vital intercultural competency deserved to be shown

considerable attention. Personality trait is believed to be a reliable predictor of expatriate effectiveness in the international setting similar to what has been found in the domestic research (Burke and Witt, 2002; Ang *et al.*, 2006). Personality defined as enduring emotional, interpersonal, experiential, attitudinal and motivational style that explains individual's behaviour in different situations (McCare and Costa, 1989; Funder, 2001). A review of the, Industrial/psychology literature suggests that the sum of all personality characteristics can be categorized into 5 basic trait dimensions, i.e., extraversion, conscientiousness, agreeableness, openness to experience and neuroticism. These 5 trait dimensions have been labelled as the Big Five personality or Five Factor Model in the literature (Hough, 1992; Digman, 1997).

Unlike the other big five personality dimensions least is understood about openness to experience. The stigma surrounding openness to experience as the only dimension in big five personality that often is not related to work outcomes has contributed to this deficiency (Barrick and Mount, 1991; LePine and van Dyne, 2001). However, others have found that individuals higher on openness to experience perform better in situations characterized by cultural novelty in the international setting (Bing and Lounsbury, 2000). Openness to experience personality trait reflects individuals' habitual willingness to try new ideas tolerate ambiguity and

dissonance and curiosity and eagerness to learn (Barrick and Mount, 1991). Being open minded, original in thought, intelligent, imaginative and non-judgmental are also some of the traits associated with individuals high on openness. In the international context, openness to experience trait has been linked with expatriate outcome such as cross cultural adjustment (Huang Chi and Lawler, 2005; Shaffer *et al.*, 2006) cross cultural training performance (Lievens *et al.*, 2003), intention to remain in assignment (Ones and Viswesvaran, 1999; Shaffer *et al.*, 2006) and work performance.

This study is concerned with how personality of openness to experience and cultural intelligence affects job performance of expatriates assigned to Malaysia. While, the relationship between other big five personality factors and job performance of expatriates have somewhat been established (Dalton and Wilson, 2000; Mol *et al.*, 2005) to date only one study has found a significant relationship between openness to experience and job performance (Shaffer *et al.*, 2006). However in view of the inconclusive evidence, it is still uncertain whether openness to experience is the determinant of job performance.

Similar to other behaviours, job performance is influenced by factors other than individuals' personality traits. Researchers propose that one such factor is a person's ability for successful adaptation to new and unfamiliar cultural settings, i.e., cultural intelligence (CQ). Researchers believe that CQ has a direct relationship to job performance such that those who are adaptive to diverse cultural environments will be able to perform in their international assignments. Further in the view, employees' CQ play an important role in understanding job performance as it mediates the relationship between openness personality characteristics and job performance. That is expatriates ability to navigate effectively in diverse cultural environment in international assignment is influenced by individuals' openness personality traits which in turn influence job performance. Thus, openness personality job performance linkages should be explained through cultural competence (i.e., CQ) possessed by expatriates.

The aims of this study are therefore to ascertain the nature of the relationships between openness to experience and job performance and to examine the mediating effects of cultural intelligence in the relationships.

#### **Literature review and hypotheses development**

**Openness to experience and job performance:** Major studies that have dealt with the relationship between

openness to experience and job performance include but are not limited to those of Sinangil and Ones (1998), Ones and Viswesvaran (1999), Dalton and Wilson (2000), Caligiuri (2000), Mol *et al.* (2005) and Shaffer *et al.* (2006). Unlike the other big five personality factors, research on expatriate job performance has shown mixed support for openness. Despite showing no evidence on the predictive ability in a meta analysis (Mol *et al.*, 2005) openness recently predicted both task and contextual performance outcomes as rated by the expatriate and a co-worker (Shaffer *et al.*, 2006).

The theory of evolutionary personality psychology (Buss, 1991) can provide theoretical justification for openness to experience as a predictor of expatriate job performance. The theory suggests that the big five personality characteristics are universal adaptive mechanisms that allow individuals to adapt with and meet the demands of physical social and cultural environments (Buss, 1991). These adaptive mechanisms include the propensity for innovation or astuteness in solving problems (i.e., openness). As the universal adaptive mechanism of this theory suggests cognitive complexity and intuitive perceptual acuity among individuals high on openness allows them to accurately perceive and interpret the host culture (Dinges, 1983; Finney and von Glinow, 1988) and perform in a more complex work environment (Ones and Viswesvaran, 1997). This is also echoed in Caligiuri (2000) research that suggests individuals who possess the appropriate personality trait for a given role in a given environment will perform better in their job than those who do not possess the appropriate personality characteristics for that same role.

According to Bing and Lounsbury (2000), openness may be more likely to be job-related for individuals working in a setting where openness to new learning and experience is needed for successful job performance. Thus, openness trait is crucial in the international setting where an individual must adapt new behaviours and make appropriate cultural adaptation in order to achieve a high level of job performance. Therefore, researchers can propose that openness to experience is a valid predictor of expatriate's job performance as shown as:

H<sub>1</sub>: Openness to experience is related to job performance

#### **Cultural intelligence as a mediator in the relationship between openness to experience and job performance:**

Researchers hypothesise that cultural intelligence (CQ) mediates the effects of openness to experience personality on job performance. Cultural intelligence represents an individual's capability for successful

adaptation to new and unfamiliar cultural settings and ability to function easily and effectively in situations characterised by cultural diversity (Earley and Ang, 2003; Ang *et al.*, 2007). Cultural intelligence is a multidimensional construct consisting of meta-cognitive, cognitive, motivational and behavioural components (Earley and Ang, 2003). First of these meta-cognitive CQ is defined as one's knowledge or control over cognitions that lead to deep information processing relating to culture (Ang *et al.*, 2004). Cognitive cultural intelligence reflects knowledge of the norms practices and conventions in different cultures gained from both the experience and formal education those universal as well as culture specific (Ang *et al.*, 2004, 2007). Motivational cultural intelligence goes beyond recognizing cultural differences and deals with the motivation behind cognitive processes and cognitive knowledge it reflects the interest in engaging others and the desire to adapt to the other cultures (Ang *et al.*, 2007). Finally, the behavioural aspect involves the capability to engage in adaptive behaviours in accordance with cognition and motivation based on cultural values of specific settings. In the past, studies on cultural intelligence have been associated with various expatriate outcomes such as cultural judgment and decision making (Ang *et al.*, 2004, 2007), cultural adaptation (Ang *et al.*, 2007; Ward *et al.*, 2008), cross cultural adjustment (Templer *et al.*, 2006; Lee and Sukoco, 2007) and task performance (Ang *et al.*, 2004, 2007). Ang *et al.* (2004) for instance in their study found that CQ significantly explained variance in performance and adjustment over and above the effects of demographic characteristics and general cognitive ability among international executives and foreign professionals working in Singapore. Specifically, Ang *et al.* (2004) showed that mental (meta-cognitive and cognitive) CQ significantly predicted cultural judgement and decision making and task performance respectively motivational CQ significantly predicted general adjustments in intercultural environments while behavioural CQ related to task performance and general adjustments in intercultural environments.

To date only two studies have been conducted to examine the relationship between openness to experience personality and CQ (Ang *et al.*, 2006; Lee and Sukoco, 2007). However, only Ang *et al.* (2006) found significant relationships between openness and four CQ facets. In their study, a significant link was found between:

- Conscientiousness and meta-cognitive CQ
- Agreeableness and emotional stability with behavioural CQ

- Extraversion with cognitive motivational and behavioural (CQ)
- Openness with all 4 factors of CQ

Lee and Sukoco (2007) on the other hand found that conscientiousness personality was the only big five personality traits that were significantly related to all three dimensions of CQ. Drawing from the tenets of evolutionary personality psychology, Buss (1991) cited in Caligiuri (2000) states that perceiving attending to and acting upon differences in others are crucial for solving problems of survival and reproduction. He further contends that these are the traits observed among individuals high on openness. Such qualities allow them to accurately assess the intercultural environments as a matter of self preservation which combined with the tendency toward flexibility in thought and action suggests potential significant relationships with CQ. Furthermore, according to Leiba-O'Sullivan (1999) stable competencies such as personality traits are essential for the acquisition of dynamic competencies (cultural knowledge and cross cultural skills) in the cross cultural context hence suggesting a possible relationship between openness to experience and CQ. Sharing a similar view, Ang *et al.* (2006) contend that CQ is state like individual differences (specific to certain situations or tasks and tend to be malleable over time), thus it is possible that the stable dispositions of personality (i.e., openness) serve as predictors of proximal state like individual differences like CQ.

Two major studies that have dealt with the relationship between CQ and job performance are those of Ang *et al.* (2004, 2007) for instance in their study on 98 international managers working in Singapore, they found that meta cognitive CQ and behavioural CQ significantly predict peer-rated task performance. In their final study on a sample of 103 foreign professionals and their supervisors working for an IT consulting firm in Singapore meta-cognitive CQ and behavioural CQ were also found to significantly predict supervisor rated-task performance. Ang *et al.* (2004) in their study on international executives and foreign professionals found that mental (meta-cognitive and cognitive) and behavioural CQ significantly predict task performance.

In both studies, it was found that there is a significant positive relationship between CQ and job performance implying that the greater the level of CQ the greater the level of job performance. Since, expectations for performing role prescribed behaviours often differ across cultures, CQ will facilitate individuals to perform in their job because of its more context or situation specific

nature characterized by cultural diversity. Individuals high on CQ have the specific capabilities to gather and manipulate information draw inferences and enact on cognitive, emotive and behavioural actions in response to cultural cues of the host country (Earley and Ang, 2003) hence helping minimize the gap between expectation perception of role to perform in a new cultural environment and eventually enhance their job performance.

The function of a mediator variable is to explain the relationship between a predictor and a criterion mediators should explain why such an effect might occur (Baron and Kenny, 1986). In this study, researchers hypothesise that CQ and its dimensions function as mediators in the relationship between openness to experience and job performance. Past research has indicated significant relationships between CQ and both openness and job performance. Given the pattern of relationships, researchers strongly believe that the relationship of openness personality to job performance is mediated by CQ.

The empirical evidence on the mediating effect of CQ on the relationship between openness personality and job performance has been limited to those of Oolders *et al.* (2008). In their study conducted in New Zealand, the mediation results for six narrow facets of openness personality show CQ partially mediated both the relationships between adaptive performance and intellectual efficiency and curiosity facets. Additionally, CQ was found to fully mediate the relationships between ingenuity tolerance and aesthetics facets and adaptive performance. Based on work role transition hypothesis (Nicholson, 1984) individuals with a higher level of openness personality trait are expected to perform better in their job via CQ. Culturally intelligent individuals will be able to adapt effectively to various cultural aspects in a host country including adjustment in the workplace which allows them to make a successful work role transition to new international assignments. Thus, it appears that open individuals will tend to be high in CQ which in turn will perform more effectively in transitional or novel environments. Drawing from the argument researchers hypothesise that:

H<sub>2</sub>: The relationship between openness personality and job performance is mediated by cultural intelligence

Figure 1 shows the mediation model of CQ on the relationship between openness personality and job performance. The linkages in Fig. 1 show that the independent variable (openness personality) is related to the mediator (CQ) which in turn is related to the dependent variable (job performance).

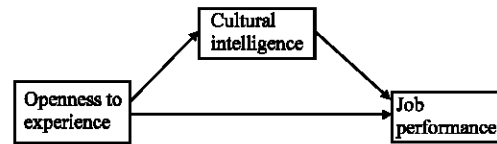


Fig. 1: Mediation model of cultural intelligence on the relationship between openness and job performance

## MATERIALS AND METHODS

**Procedure:** The population of this study was expatriates currently working and residing in Malaysia. Participants were those holding key posts executive posts and non-executive technical posts. The respondents list (sampling framework) was drawn from various directories of foreign business chamber of commerce and associations in Malaysia. A probability sampling design of systematic sampling technique was used to draw the sample of the study. The systematic sampling design is most appropriate method for determining the sample for this study since the sampling frame does not contain any hidden patterns or periodic arrangements hence secures the randomness (Babbie, 2001). Furthermore according to Saunders *et al.* (2007), a systematic sampling design is suitable for sample selection for geographically dispersed population in this study.

In this study, a structured questionnaire was used to collect the data. The mixed mode strategy employing both the mail and online survey (Web survey) was used to survey the population. The web survey which was used as alternative survey modes deemed to be appropriate for this study given the equivalency and complementarity of this mode with mail survey (Dillman, 2000). A mixed mode strategy has been suggested as a means for exploiting the advantages of web surveys and minimizing nonresponse which is typically higher in mail surveys (Dillman, 2000; Schaefer and Dillman, 1998). Furthermore for populations that regularly use the Internet such as expatriates in the study, the web has been found to be a useful means of conducting research in addition to traditional mail surveys (Sills and Song, 2002).

The mail survey was designed in a package where by an introduction letter, informed consent letter, survey questionnaires and stamped and self addressed envelopes were mailed to the selected individual expatriates. The introduction letter which serves as the letter of invitation to the participants stated the objective of the study explaining what to do where to return the completed survey and ensuring that their responses would be strictly confidential and anonymous. The

introduction letter informed consent letter and questionnaires were consolidated into a booklet form. The respondents were to complete the questionnaires and return to researcher using the stamped and self addressed envelope provided.

As for the online survey (Web survey) an invitation to participate in the survey together with the URL link was emailed to the participants. In order to participate in the survey, the participants were to click on the URL address which will direct them to the online questionnaire and after completing the survey they were to click on the end of the session button to send the responses to the survey database.

The data collection period took place over a 4 month period from April to August, 2009. Follow-up notifications via e-mails and letters were sent to the participants 2, 4 and 6 weeks after the initial mailing.

A total of 500 mail surveys and 500 online surveys were distributed out of which 339 surveys were replied. The initial response rate was 34% which is consistent with other typical response rates (20-30%) in most expatriate studies (Harrison and Shaffer, 2005). Out of 3397 were unusable responses resulting in final sample of 332 representing a 33% return rate.

**Sample:** The sample included 252 (75.9%) men and 80 (24.1%) women. One third of the participants (36.7%) were between 42 and 52 years old and 31.0% between 31 and 41 years old. As for those in the age group between 53 and 63 years old there were 16.6% of them. The remaining 2.7% were >64 years old. The majority of the participants were married (75.6%) and 54 (16.3%) unmarried. In terms of prior overseas experience 251 (75.6%) had previous international experience and 81 (24.4%) had no previous experience. Half of the participants (50.9%) were in a managerial position and 163 (49.1%) in a non-managerial position. In terms of education level, 119 (35.8%) had a bachelor's degree and 85 (25.6%) a master's degree. With regards to distribution by industry 112 (33.7%) participants worked in a service sector 84 (25.3%) in manufacturing and 109 (32.8%) in other sectors. The participants' length of stay in Malaysia ranged from 2-24 years ( $M = 4.80$ ,  $SD = 3.40$ ). Tenure with present organization ranged from 2-25 years ( $M = 7.25$ ,  $SD = 4.45$ ). The participants came from various countries 51 (15.4%) were from India 39 (11.7%) from the UK 32 (9.6%) from Australia and 200 (63.3%) from some other 42 countries.

**Instrumentation:** Gender prior overseas experience length of stay in Malaysia and language proficiency identified as correlates of expatriate attitudes and behaviours

were controlled in this study (Hechanova *et al.*, 2003; Shaffer and Harrison, 1998; Takeuchi *et al.*, 2005) because it has been argued that such background characteristics of expatriates could contaminate the findings (Ang *et al.*, 2007). The main predictor openness personality was measured with the 10 item, self reported Big five Inventory (BFI) adopted from John *et al.* (1991), Benet-Martinez and John (1998) and John and Srivastava (1999). A sample item includes: I see myself as someone who is original comes up with new ideas. Participants were asked to use a 7 point Likert-type scale ranging from 1 strongly disagree to 7 strongly agree to indicate the extent to which each item describes their openness characteristic. Cronbach's alpha for openness scale was reported at 0.86 (Ang *et al.*, 2006).

About 17 items measured the dependent variable job performance. Of these 5 items were adapted from the research of Black and Porter (1991) and 10 items from the research of Caligiuri (1997). A sample item includes: Your effectiveness at completing tasks on time. Participants were asked to rate their perceived ability in each of the job performance items in comparison to their peers in similar positions on a 7 point Likert-type scale ranging from 1 much worse than most to 7 much better than most for each item. Cronbach's alpha for this scale was reported at 0.86 (Shay and Baack, 2006).

The mediator CQ was measured with the 20 item self reported Four Factor Model of cultural intelligence scale developed and validated by Ang *et al.* (2007). The scale includes 4 items for meta-cognitive CQ 6 for cognitive CQ, 5 for motivational CQ and 5 for behavioural CQ. Sample items include I am conscious of the cultural knowledge; I apply to cross cultural interaction for meta-cognitive CQ; I know the legal and economic systems of other cultures for cognitive CQ; I enjoy interacting with people from different cultures' for motivational CQ and I; change my verbal behaviour when a cross cultural interactions requires it for behavioural CQ. Participants were asked to use a 7 point Likert-type scale ranging from 1 strongly disagree to 7 strongly agree to indicate the extent to which each item describe their capabilities. Cronbach's alphas for meta-cognitive, cognitive, motivational and behavioural CQ were reported at 0.76, 0.76, 0.79 and 0.77, respectively (Ward *et al.*, 2008).

## RESULTS

Table 1 shows the means standard deviations and bivariate correlations among the study variables. Support for H1 required a significant relationship between openness personality and job performance. This

Table 1: Descriptive statistics reliability coefficients and correlations (N = 332)

Variables	Mean±SD	1	2	3	4	5	6	7	8	9	10
Gender	1.24±0.43	-									
Experience	1.24±0.43	0.12*	-								
Length	4.80±3.40	-0.03	0.03	-							
Language	3.57±0.70	0.16**	-0.21**	0.16**	-						
Openness	5.36±0.56	0.05	-0.16**	-0.02	0.18**	(0.73)					
MC	5.79±0.70	0.05	0.01	0.12*	0.18**	0.23**	(0.84)				
CO	5.16±0.56	0.08	-0.08	0.12*	0.18**	0.14**	0.33**	(0.78)			
MO	5.90±0.71	0.03	-0.09	0.08	0.30**	0.34**	0.53**	0.35**	(0.85)		
BE	5.42±0.81	0.13*	-0.07	0.14**	0.28**	0.22**	0.42**	0.42**	0.44**	(0.86)	
Performance	5.58±0.55	-0.19**	-0.01	0.14*	0.04	0.24**	0.22**	0.16**	0.22**	0.22**	(0.91)

Coefficient alphas are presented along the diagonal, \*p<0.05, \*\*p<0.01; MC: Meta-Cognitive; CO: Cognitive; MO: Motivational; BE: Behavioral

hypothesis was accepted as the results indicated that openness was positively related to job performance ( $r = 0.24, p < 0.01$  and  $\beta = 0.26, p < 0.01$ ).

Since, regression analysis is used with numerical variables all the categorical variables need to be given numerical values prior to be included in the estimation models. This was done by dummy coding the categorical variables using only ones and zeros to convey all of the necessary information on group membership (Aiken *et al.*, 1991).

In this study, gender and previous overseas experience were given dummy code. Dummy coding for gender was as follows; 0 = female, 1 = male while for previous overseas experience, 0 = no previous overseas experience, 1 = with previous overseas experience. Exploratory data analysis was conducted on every variable to examine for assumptions of normality and homogeneity of variances linearity and any outliers or extreme values in the data set. This is to allow for an appropriate statistical analysis either the use of those under parametric or non-parametric test.

In this study, all assumptions for parametric test have been fulfilled, hence warranting the use of hierarchical multiple regression analyses to test the hypotheses.

Hierarchical regressions were conducted by performing a series of regression analyses in steps. The control variables were entered in first regression analysis (Step 1) followed by predictor variable in subsequent analysis or step (Step 2) and regressed against the criterion variable.

Support for the mediation hypothesis requires the following conditions: the independent variable must significantly impact the mediating variable in the 1st step; the independent variable must significantly impact the dependent (criterion) variable in the 2nd step and in the 3rd step the mediator variable must impact the dependent (criterion) variable and at the same time the impact of the independent variable on the dependent must either become insignificant (total mediation) or become significant but the effect of the independent

variable on the dependent variable would be reduced in size (partial mediation) (Baron and Kenny, 1986).

Based on the recommendation by Baron and Kenny (1986),  $H_2$  is supported when the initial significant effect of openness personality on job performance became non significant when CQ was entered the equation in the 3rd step. The Sobel (1982)'s z-test was conducted to test whether the mediator carries the influence of the independent variable on the dependent variable.

$H_2$  predicted that CQ would mediate the relationship between openness personality and job performance. Four equations estimated for each dimension of CQ (Meta-cognitive, cognitive, motivational and behavioural). The estimators of the parameters involving mediator variable of meta-cognitive CQ were derived from Models 1A-1C. Models 2A-2C were estimated for analysis involving cognitive CQ as the mediating variable. Meanwhile, Model 3A-3C were estimated for analysis involving motivational CQ as the mediating variable. Finally, Model 4A-4C involve behavioural CQ as the mediating variable.

Consistent with Baron and Kenny (1986)'s procedure for testing mediating effect meta-cognitive CQ ( $\beta = 0.16, p < 0.05$ ), cognitive CQ ( $\beta = 0.13, p < 0.05$ ) motivational CQ ( $\beta = 0.16, p < 0.05$ ) and behavioural CQ ( $\beta = 0.19, p < 0.05$ ) are significantly related to job performance in step 3 (Table 2).

The predictor variable (openness personality) in step 3 is significant and the beta value has reduced in size when the mediating variables (Meta-cognitive, cognitive, motivational and behavioural) were entered in the models (1C-4C). This shows that meta cognitive, cognitive, motivational and behavioural intelligence partially mediates the relationship between openness personality and job performance.

The Sobel (1982)'s z-test conducted to test whether the mediator (Meta-cognitive, cognitive, motivational and behavioural) carries the influence of the openness personality to job performance shows the results are all significant at  $p < 0.05$ . Hence, it is fair to conclude that  $H_2$  is partially supported.

Table 2: Results of mediated regression analyses for cultural intelligence on job performance (N = 332)

Independent variables	Dependent variables								
	Step 1 (Models)				Step 2: Performance (Models 1B-4B)	Step 3: Performance (Models)			
	MC (1A)	CO (2A)	MO (3A)	BE (4A)		(1C)	(2C)	(3C)	(4C)
<b>Controls</b>									
Gender	-0.11	-0.06	0.02	-0.09	0.21**	0.21**	0.21**	0.20**	0.22**
Experience	-0.73	0.05	-0.01	0.01	-0.06	-0.04	-0.06	-0.05	-0.06
Length	0.10	0.11*	0.05	0.12*	0.13*	0.12*	0.12*	0.13*	0.11*
Language	0.14**	0.12*	0.24**	0.21*	0.01	-0.01	-0.00	-0.02	-0.03
<b>Predictor</b>									
Openness	0.22**	0.11*	0.30**	0.17*	0.26**	0.23**	0.25**	0.21**	0.23**
<b>Mediator</b>									
Meta	-	-	-	-	-	0.16*	-	-	-
Cognitive	-	-	-	-	-	-	0.13*	-	-
Motivation	-	-	-	-	-	-	-	0.16*	-
Behavior	-	-	-	-	-	-	-	-	0.19**
ΔR <sup>2</sup>	0.45**	0.01*	0.08**	0.03*	0.06**	0.09**	0.08**	0.08**	0.10**
R <sup>2</sup>	0.90**	0.06*	0.17**	0.12*	0.12**	0.14**	0.13**	0.14**	0.15**
F	6.46**	4.07**	13.652**	9.176**	8.765**	8.97**	8.41	8.71**	9.68**

Coefficient alphas are presented along the diagonal, \*p<0.05, \*\*p<0.01; CQ: Cultural intelligence; MC: Meta-Cognitive; CO: Cognitive; MO: Motivation; BE: Behavioral

### DISCUSSION

The purpose of this study is to enhance the knowledge on the determinant factors of job performance for expatriates assigned to Malaysia. Researchers have examined how openness personality influences job performance both directly and indirectly via cultural intelligence (CQ). In this study, all 4 dimensions of CQ namely, meta-cognitive, cognitive, motivational and behavioural were found to partially mediate the relationship between openness personality and job performance. This indicates that the variance in job performance attributable to openness personality is partly a direct effect and partly an indirect effect mediated through meta-cognitive, cognitive, motivational and behavioural CQ. Therefore, it can be concluded that in addition to the direct effect openness personality (independent variable) predicts CQ (mediator variable) and CQ in turn predicts job performance (dependent variable) among expatriates in Malaysia.

The results of this study to some extent appear to be consistent with findings of Oolders *et al.* (2008) being the only study that examined the mediating effect of CQ. While Oolders *et al.* (2008) reported both partial and full mediation effects of CQ on the relationships between various facets of openness and adaptive performance the present study however found only partial mediation effect. The type of sample used to collect the data probably has contributed to this difference. Oolders *et al.* (2008) sampled international students in New Zealand and the results indicate that openness personality for some students may be directly related to their adaptive performance while for others it is only via CQ. However,

among the international assignees sample used in this study, openness personality can have both the direct and indirect effect on adaptive performance mediated through CQ.

The findings of this study are also in line with the contention of work role transition hypothesis (Nicholson, 1984). The direct and indirect effects of openness personality on adaptive performance indicates that both the openness and CQ helps one to make effective work role transition a prerequisite condition before they can perform in their job. The spillover effects of successful work-role transition allow expatriates to focus their energy and efforts on their work hence higher level of job performance can be expected.

Given these results, there are a few implications for organizations and individuals considering international assignments. The interrelationships among openness personality CQ and job performance suggest that both openness personality and CQ are important in enhancing job performance. Those high in openness to experience were found to be culturally sensitive and adaptable to a new cultural environment (Ang *et al.*, 2006; Lee and Sukoco, 2007) and are more likely to perform in their job. Expatriating firms can consider the use of selection methods that include testing for openness personality trait. Past studies have indicated that openness personality characteristics relate to international assignee success in a unique way and should be included in a selection system for international assignees (Hough and Dunnette, 1992; Deller, 1997; Ones and Viswesvaran, 1997; Caligiuri *et al.*, 2009).

The evidence found on the mediating role of CQ on the relationship between openness personality and job

performance suggests that organizations need to take necessary actions to improve the CQ level among their expatriates so that a higher level of job performance can be achieved. Organizational training and developmental programs such as mentoring and coaching might help expatriates enhance their CQ level for better adaptation and performance in different cultural environments. Organizations should provide host culture awareness training and expose their international assignees to host culture via on-site visit so that they can gain a better understanding of perceived job fit before taking up an international assignment. By doing so expatriates could prepare themselves well and address personal deficiency before departing from home country and while on an international assignment.

This study has certain limitations that provide avenues for future research. Firstly, job performance is not the only criterion for expatriate effectiveness. Other criterion variables such as job satisfaction organizational commitment and turnover intention should be included in future studies. Secondly, researchers acknowledge that some concerns might exist in that self reported measures of job performance have social desirability and common method bias problem. Therefore, future research should include job performance assessment from multiple sources including peers, subordinates and superiors. Thirdly, a cross sectional study design restricts the ability to prove a cause effect relationship. Future research should consider a longitudinal study if replication of this study is to establish the predictive functions of openness personality trait over time and space. Fourthly, this study did not consider the possible moderating effects of the contextual factors on the predictor outcome relationships. Potential moderators such as cultural distance (i.e., home vs. host country) assignment type (e.g., managerial vs. non-managerial) assignment tenure and prior overseas experience may help further enhance the understanding on the phenomenon under investigation.

### CONCLUSION

Finally, since this study uses the perceptual measures of openness personality on various effectiveness criterion variables conducting a qualitative study using interview or observation may provide a broader understanding of how openness personality trait affects these outcomes.

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