

THE EFFECTS OF CULTURAL INTELLIGENCE ON TASK PERFORMANCE AND CONTEXTUAL PERFORMANCE: AN EMPIRICAL STUDY ON PUBLIC SECTOR EMPLOYEES IN MALAYSIA

H. Hartini, A. Fakhrorazi, Rabiul Islam

School of International Studies, Universiti Utara Malaysia, Sintok, Malaysia

h.hartini@uum.edu.my, fakhrorazi@uum.edu.my, rabiul@uum.edu.my

Article History: Received on 02nd January, Revised on 30th March, Published on 20th April 2019

Abstract

Purpose of the Study: This paper investigates high performers as those who are highly competent and possess the necessary skills for a job. In conducting businesses globally, public employees are also exposed to diverse cultural situations. Due to cultural challenges and complexities, public sector employees in Malaysia need to embrace the right capabilities to deal effectively with global customers. One of the key managerial competencies needed for dealing effectively with people from different cultural backgrounds is cultural intelligence or cultural quotient (CQ). The purpose of this study is to investigate the relationship between CQ, task performance, and contextual performance in a cross-cultural context.

Methodology: The data used for this study is derived from the questionnaire survey distributed among Malaysian public service employees in two selected government agencies. A total number of 174 valid responses were successfully obtained. Data were analyzed using Partial Least Square (PLS) and Structural Equation Modeling (SEM).

Results: The results showed that knowledge CQ and drive CQ have positive influence on employees' task performance and contextual performance. The findings of this study have important implications for organizations. Our study provides empirical evidence that CQ can serve as a predictor for employee's work performance in a cross-cultural situation.

Implications: This study implements a valuable contribution to the body of knowledge in the fields of human resource management and cross-cultural management studies in Malaysia. It also augments the growing corpus of literature related to the concept of CQ and individual work performance. Human resource management (HRM) should focus on developing employee's CQ so that they are able to connect and adapt in any global business environment. CQ can be enhanced through proper guidance, training, and development programs.

Keywords: *Cultural Intelligence, Task Performance, Contextual Performance, Malaysian Public Employees.*

INTRODUCTION

Performance of employees is a powerful tool for the long-term success of an organization. [Rodriguez et al. \(2002\)](#) described that high-performing people are critical in high-performing organizations. In addition, scholars have agreed that employees' competencies are an important indicator that represents individual performance and company success ([Savanevičienė et al., 2008](#); [Kolibačova, 2014](#)). This means that success of an organization depends largely upon the quality and competency of its human resources.

Over the past decades, governments around the world are under intense pressure to improve public service performance and many governments have introduced a number of reforms to revitalize and transform their public sectors ([Reson & Lydia, 2012](#); [Aziz et al., 2015](#)). In Malaysia, performance measurements have been widely promoted by the Malaysian government for improving the service delivery of public services ([Siddiquee, 2014](#)). Even though many reforms and measures have been initiated and implemented by the government to improve the service delivery and performance of the public service, the Malaysian public sector is still criticized due to its poor performance and lack of responsiveness to people's needs ([Tajuddin & Ahmad, 2013](#)). Furthermore, previous studies ([Hashim, Rashid & Wan Ismail, 2011](#); [Munap et al., 2013](#); [Selvanathan et al., 2016](#)) have evidenced that customers were not satisfied with the services provided by the Malaysian government agencies and departments. The overall service quality perceived by customers was below their expectations. This implies that customers' expectations were not met and this situation is critical because the public service also needs to serve global clients, who have higher expectations in terms of service quality and efficiency.

Globalization has posed serious challenges to Malaysia, and public service organizations are pressurized to seek solutions to cope with demands for better services from consumers, who are more conscious of their rights and more critical of service standards. Even though the public service organizations have gone through transformation with lots of improvements and employed quite a number of highly qualified people, public sector employees need to be instilled with

unique competency that will help them to serve global clients better and to move in line with the needs of the present times. In case of conflict, high-context cultures are known to make use of indirect, non-confrontational, and unclear language, which depends on the listener's or the reader's skill in understanding the meaning from the context. On the other hand, low-context cultures are more inclined to be direct, confrontational, and candid in their approach to guarantee that the listener gets the intended message (Alnasser et al., 2013, 2014).

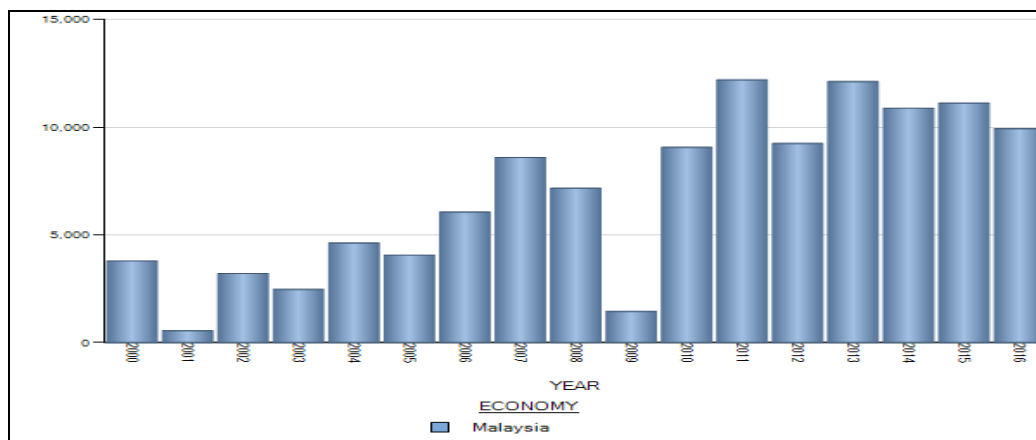


Figure 1. Malaysia FDI Inflow from 2000 to 2016 (USD millions)

Source: [UNCTADSTAT \(2018\)](#)

Recently, an increasing number of scholars began to believe that measuring Intelligence Quotient (IQ) alone is not sufficient to predict an individual's success ([Gardner, 1983](#); [Goleman, 1997](#); [Renzulli, 2005](#); [Sternberg, 2015](#)) emphasizing the fact that intelligence quotient is not the only determinant of one's performance. Researchers have agreed that a variety of intelligent behaviors cannot be represented by only one kind of general intelligence, because an individual needs to develop different types of intelligence to adapt and be successful in different environments ([Gardner, 2006](#); [Nisbett et al., 2012](#)). Therefore, it is important to focus on other categories of intelligences, which allow individuals to achieve success in real life settings. 'Real world' intelligences have gained recognition as a critical factor in real world success. Academic intelligences (cognitive abilities) that are acquired during the course of academic education only gives a person the basis to enter into real life, but 'real world' intelligence provides the person with appropriate abilities or skills to enable him or her to function in the real work setting or daily social interaction ([Earley & Ang, 2003](#)). The growing interest in 'real world' intelligence has introduced new types of intelligences, such as Cultural Intelligence or Cultural Quotient (CQ) to examine the nature of performance in the organization ([Ang et al., 2007](#)).

Malaysia has relied heavily on international trade and foreign direct investment (FDI) as the source of nation's economic growth. In 2016, FDI in Malaysia recorded a net inflow of USD 9.88 billion ([UNCTADSTAT, 2018](#)). In 2017, Malaysia's total trade grew by 18.8 percent to reach RM1.77 trillion (comprising exports worth RM 935.39 billion and imports amounting to RM838.14 billion), compared to RM1.49 trillion in the previous year ([Malaysia External Trade Statistics, 2018](#)). Figure 1 below illustrates the Malaysian FDI inflow from 2000 to 2016, whereas Table 1 shows the Malaysian import, export, and total trade from 2010-2017.

Table 1: Malaysian Import, Export, and Total Trade 2010-2017

Year	Total Exports	Total Imports	Total Trade
2010	638,822.5	528,828.2	1,167,650.7
2011	697,861.9	573,626.3	1,271,488.3
2012	702,641.2	606,676.9	1,309,318.2
2013	719,992.4	648,694.9	1,368,687.3
2014	765,416.9	682,937.1	1,448,354.0
2015	777,355.1	685,778.4	1,463,133.5
2016	786,964.2	698,818.7	1,485,782.8
2017	935,393.3	838,144.5	1,773,537.8

Source: [Malaysia External Trade Statistics \(2018\)](#)

Figure 1 and Table 1 show evidences that the inflow of FDI and international trade volumes have increased steadily over the years. Therefore, both international trade and FDI have made a positive and significant contribution to the Malaysian economic growth. In this regard, the Malaysian government has authorized specific agencies to promote and coordinate international trade and foreign investment in Malaysia. Dealing with the international clients who come from various cultural backgrounds, public service employees may face a lot of difficulties and challenges to achieve the desired performance because of obstacles, such as cultural diversities and task complexities. In efforts to provide world class service quality, it is important to identify and explore new strategies to enhance the competitiveness of the Malaysian public services sector and this has heightened the need for a research to examine whether CQ facilitates public service employees' work performance.

LITERATURE REVIEW

Cultural Intelligence (CQ)

The concept of Cultural Intelligence or Cultural Quotient (CQ) is derived from [Sternberg and Detterman's \(1986\)](#) and [Gardner's \(1993\)](#) multiple intelligences framework. [Sternberg and Detterman \(1986\)](#) described intelligence as having three different 'loci' within a person: metacognition, cognition, and motivation, which are classified as mental capabilities that reside within the 'head', while overt actions are classified as behavioral capabilities. [Gardner's \(1983\)](#) Multiple Intelligences Theory proposed that each person has varying levels of intelligence in different areas. The Multiple Intelligence Theory also dictated that there are various forms of intelligence essential for solving different kinds of problems (beyond the traditional focus on academic and cognitive problems).

The Multiple Intelligence Theory has led to the emergence of non-academic intelligences, such as Emotional Intelligence ([Mayer & Salovey, 1993](#)), Social Intelligence ([Thomdike & Stein, 1937](#)), and Practical Intelligence ([Sternberg, 1997](#)). However, none of these intelligences focus exclusively on the ability to function and solve problem in cross-cultural settings ([Gardner, 1993](#)). In order to fill this gap, [Earley and Ang \(2003\)](#) developed a new type of intelligence known as Cultural Intelligence or Cultural Quotient (CQ). In line with [Sternberg's \(1986\)](#) multiple-loci of intelligence, [Earley and Ang \(2003\)](#) conceptualized CQ as a multidimensional construct that consists of metacognitive, cognitive, motivational, and behavioral dimensions.

CQ is defined as a person's capability to adapt effectively to new cultural contexts ([Earley & Ang, 2003](#)). In order to function effectively, individuals need to be socially apt in deciding on the most appropriate behavior suitable in a cross-cultural interaction. According to [Livermore \(2008\)](#), the four dimensional model reiterates that individuals with higher CQ levels are influenced by four main factors: Knowledge CQ (Cognitive), Strategy CQ (Meta-cognitive), Drive CQ (Motivational), and Action CQ (Behavioral).

Strategy CQ (Meta-cognitive) refers to an individual ability to utilize his or her knowledge and develop appropriate strategies to manage and deal with cultural differences ([Livermore, 2010](#)). Individuals with high Strategy CQ are consciously aware of other cultural preferences before and during cross-cultural interactions ([Ang et al., 2007](#)). Individuals with strong strategy CQ are better prepared to adjust themselves in cross-cultural interactions.

Knowledge CQ (Cognitive) focuses on individual capability to learn the norms and practices of other cultures, which can be acquired from education and professional experiences ([Ang et al., 2007](#)). Individuals with high Knowledge CQ possess better understanding of how culture affects the way people think and behave.

Drive CQ (Motivational) refers to one's interest, confidence and drive to acclimatize in a culturally diverse environment ([Livermore, 2010](#)). According to [Ang et al. \(2007\)](#), Drive CQ can triggers effort and energy toward learning about other cultures, and functioning in novel cultural settings ([Ang & Van Dyne, 2008](#)). Individuals with high Drive CQ have a strong desire to experience cultural novelty and enjoy interacting with people from diverse culturally background.

Action CQ (Behavioral) reflects to one's capability to exhibit appropriate verbal and non-verbal actions when interacting with people from different cultures ([Ang et al., 2007](#)). Individual who possess high Action CQ is able to adapt their verbal and non-verbal behavior appropriately in an effort to communicate effectively with others.

Work Performance

They are many definitions offered by scholars. [Campbell et al. \(1993\)](#) defined performance as actual behavior that can be scaled and measured in terms of proficiency rather than outcome. Similarly, [Murphy \(1989\)](#) stated that performance definitions should concentrate on behaviors rather than outcomes because by focusing on outcomes it could lead workers to search for the easiest way to achieve the desired results, which is expected to be harmful to the organization because

other important behaviors will not be executed. [Campbell et al. \(1993\)](#) explain that performance is not the consequence of behaviors, but rather the behaviors themselves. In other words, job performance is basically the result of a series of behaviors that workers actually engage in the work situation which can be observed.

Over the past few decades, researchers have begun to develop multi-dimensional frameworks or models of job performance ([Murphy, 1989](#); [Campbell, 1990](#); [Ilgen & Hollenbeck, 1991](#); [Borman & Motowidlo, 1993](#); [Viswesvaran, 1993](#); [Organ, 1997](#); [Rotundo & Sackett, 2002](#); [Koopmans et al., 2011](#)). In 1990, Campbell has developed an influential model to measure job performance. [Campbell \(1990\)](#) proposed that job performance encompasses of eight major dimensions: (1) job-specific task proficiency, (2) non-job-specific task proficiency, (3) written and oral communications, (4) demonstrating effort, (5) maintaining personal discipline, (6) facilitating peer and team performance, (7) supervision, and (8) management and administration. Based on the work of [Campbell \(1990\)](#), [Motowidlo et al. \(1997\)](#) proposed Theory of Individual Differences that incorporates the idea that the measurement of individual job performance should include two sets of dimensions; task performance and contextual performance. The theory suggests that individuals differ in terms of personality and cognitive capability. Cognitive abilities are strongly associated to task performance on the other hand; personality characteristics are more relevant for contextual performance ([Borman & Motowidlo, 1993](#); [Motowidlo et al. 2013](#)). Concisely, task performance constitutes in-role behaviors that are necessary for the execution of the basic job duties, while contextual performance is more to extra-role behaviors which exceed formal job requirements ([Motowidlo & Van Scotter, 1994](#); [Borman & Motowidlo, 1997](#); [Coleman & Borman, 2000](#)). A number of researchers have provided strong empirical evidence that task and contextual performance are different and contributed independently to overall performance ([Motowidlo & Van Scotter, 1994](#); [Van Scotter & Motowidlo, 1996](#); [Borman & Motowidlo, 1997](#); [Conway, 1999](#); [Jawahar et al., 2008](#); [Hosie, Willemyns & Sevastos, 2012](#)). Although scholars have advocated that task and contextual performances are distinct and critical components of job performance, however, there has been limited research examining both constructs simultaneously in the same study. Hence, the present research embarks to fill the paucity by studying the variability in performance as well as identifying factors that contribute to superior task and contextual performance at workplace.

Task Performance

Task performance is an important construct for predicting individual's behavior and performance at workplace. [Borman, and Motowidlo \(1997\)](#) defined task performance as "effectiveness with which job occupants execute their assigned tasks, that realizes the fulfillment of organization's vision while rewarding organization and individual proportionately." Meaning that the behavior attached to task performance is generally included in the job descriptions and reward systems of organizations. Task performance involves activities that are formally prescribed and mandated by the job description ([Jawahar & Ferris, 2011](#); [Díaz-Vilela et al., 2015](#)). Most organizations consider task performance for measuring employee's ability to perform the core technical activities for a particular job role. Major criteria that reflect task performance are work quantity and quality, job skills, and job knowledge ([Campbell, 1990](#); [Rotundo & Sackett, 2002](#)).

Contextual Performance

In recent years, contextual performance has emerged as important aspect of overall job performance. Contextual performance (also called citizenship performance) involves behaviors that support the organizational, social, and psychological environment in which the technical core must function ([Borman & Motowidlo, 1993](#)). Contextual performance is said to consist of organizational citizenship behaviors and pro-social organizational behavior ([Borman & Motowidlo, 1997](#)). Organizational citizenship behavior is defined as "individual behavior that is discretionary, not directly or explicitly recognized by the formal reward system, and in the aggregate, it promotes the effective functioning of the organization" ([Organ, 1988, p.4](#)). In other words, contextual performance involves voluntary behavior which is not formally part of the normal job scope but it indirectly contributes to an organization's performance. These behaviors help to provide a context or environment that facilitates effective task performance. Demonstrating effort, facilitating peer and team performance, cooperating, and communicating are examples of contextual performance behaviors ([Campbell, 1990](#); [Rotundo & Sackett, 2002](#)).

Theoretical Framework

Figure 2 depicts a framework that illustrates how an individual's CQ interacts with employee's work performance. CQ is split up into four dimensions: 1) Knowledge CQ, 2) Strategy CQ, 3) Drive CQ, and 4) Action CQ. The main purpose of this study is to investigate the effects of CQ on employees' task and contextual performance.

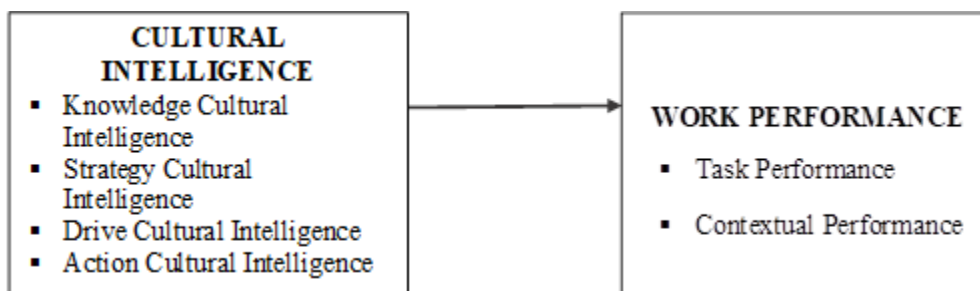


Figure 2. Theoretical Framework of Performance

Customers from different cultural backgrounds may have different expectations and perceptions towards service encounters and they may perceive certain situations differently (Stauss & Mang, 1999; Sharma, Tam & Kim, 2012). In order to diminish the problems caused by cultural differences and function effectively in a global business environment, public service employees must have the ability to build cross-connections and interact with customers, who come from different cultural backgrounds. One of the key competencies needed for dealing effectively with people from different cultural backgrounds is CQ.

The theoretical framework for this study is based on two important theories; Gardner's Theory of Multiple Intelligence and Individual Differences Theory of Motowidlo et al. (1997). CQ is claimed to be the theoretical extension of Gardner's Theory of Multiple Intelligence (Early & Ang, 2003). Motowidlo et al. (1997) propose that individual work performance is a multi-dimensional concept that can be differentiated into two main domains: task performance and contextual performance. Earley and Ang (2003) contended that CQ is a manifestation of intelligence; therefore, CQ is a more proximal predictor of performance outcomes. In fact, previous studies (Ang et al., 2007; Chen et al., 2011; Ramalu et al., 2012; Abdul Malek & Budhwar, 2013; Jyoti & Kour, 2017) have provided strong evidences that CQ is a strong predictor of job performance in a cross-cultural context. Employees who possess a high level of CQ can successfully blend into any environment and perform their jobs successfully. Therefore, this study proposed CQ as an important competency that could help improve the performance of public service employees in a culturally diverse working environment. The main purpose of the present research is to examine the relationship between CQ, task performance, and contextual performance among the Malaysian public sector employees.

Hypotheses

Drawing from the above discussion, the following hypotheses were proposed:

- H1a1** - Knowledge Cultural Intelligence (KCQ) is positively associated with task performance.
- H1a2** - Strategy Cultural Intelligence (SCQ) is positively associated with task performance.
- H1a3** - Drive Cultural Intelligence (DCQ) is positively associated with task performance.
- H1a4** - Action Cultural Intelligence (ACQ) is positively associated with task performance.
- H1b1** - Knowledge Cultural Intelligence (KCQ) is positively associated with contextual performance.
- H1b2** - Strategy Cultural Intelligence (SCQ) is positively associated with contextual performance.
- H1b3** - Drive Cultural Intelligence (DCQ) is positively associated with contextual performance.
- H1b4** - Action Cultural Intelligence (ACQ) is positively associated with contextual performance.

RESEARCH METHODOLOGY

Sample and Data Collection

The primary data was obtained through a survey using self-administered questionnaire. The participants were public service employees who deal and interact directly with international clients from diverse cultural backgrounds as part of their work. Two government agencies were selected to be included in the study. The purposive sampling technique was used for selecting the sample (participants) for this study. Of the 450 questionnaires distributed, 202 returned the questionnaires resulting in a 44.89 percent response rate and 174 questionnaires were usable for this study. There were 77 male respondents (45.3 percent) and 97 female respondents (55.7 percent). The majority of respondents had worked for their current employers for six to ten years (37.1 percent), 88.4 percent were executives and at managerial levels, and 71.8 percent of the respondents had earned a bachelor degree. In terms of the age of respondents, a majority of them were in the range of 26 to 35 years (57.5 percent). The demographic profiles of respondents are presented in Table 2.

Table 2: Demographic Profiles of the Respondents

Respondent's Profile		Frequency	Percentage (%)
Gender	Male	77	44.3
	Female	97	55.7
Age	25 years or less	8	4.6
	26 - 35 years	100	57.5
	36 - 45 years	45	25.9
	46 - 55 years	19	10.9
	Above 56 years	2	1.1
Marital Status	Single	60	34.5
	Married	110	63.2
	Others	4	2.3
Race/Ethnicity	Malay	154	88.5
	Chinese	10	5.7
	Indian	6	3.4
	Others	4	2.3
Education Level	STPM or lower	8	4.6
	Diploma	17	9.8
	Bachelor Degree	125	71.8
	Master Degree or Higher	24	13.8
Job Level	Non-Executive Level	20	11.6
	Executive and Managerial Level	153	88.4
Length of Service	≤ 5 years	60	35.9
	6 - 10 years	62	37.1
	11 - 15 years	26	15.6
	16 - 20 years	11	6.6
	21 - 25years	4	2.4
	≥26 years	4	2.4

Measures

CQ was measured using Cultural Intelligence Scale (CQS) developed by [Ang et al. \(2007\)](#). The original version of CQS contains 20-item statements, which was assessed by using a seven-point Likert scale ranging from 1 (Strongly disagree) to 7 (Strongly agree). Two items from Drive CQ: "I enjoy living in cultures that are unfamiliar to me" and "I am confident that I can get accustomed to the shopping conditions in a different culture" were removed from the CQS scale as both items were found to be irrelevant for the context of this study, resulting in a final CQS comprising of 18 items with four sub-scales consisting of Strategy CQ (4 items), Knowledge CQ (6 items), Drive CQ (3 items), and Action CQ (5 items). Examples of these items include: "I am willing to put in a great deal of effort beyond that normally expected in order to help this organization be successful", "I talk up this organization to my friends as a great organization to work for", and "I am extremely glad I chose this organization to work for over others I was considering at the time I joined".

Work performance was measured by using Individual Work Performance Questionnaire (IWPQ) developed by [Koopmans et al. \(2013\)](#). Examples of these items are: "I was able to plan my work so that I completed it on time", "I can perform my duties efficiently", "I accepted additional responsibilities", and "I kept searching for new challenges in my work". A five-point scale was employed, ranging from 1 (seldom) to 5 (always). In this study, measurement of individual work performance contained 13 items assessing task and contextual performance. Measurement of individual work performance was based on 13 items adopted from the indicators of task performance and contextual performance.

DATA ANALYSIS AND RESULTS

Analysis of the Outer Model or Measurement Model

Smart PLS 2.0 M3 software package was used to assess the measurement model of this study. The outer model is evaluated by using convergent and discriminate validity test.

Convergent Validity

The focus of convergent validity is to find the variance between latent variables. Convergent validity test was conducted to determine whether the indicators in a scale load together on a single construct. In this study, convergent validity was assessed by computing the Composite Reliability (CR) and Average Variance Extracted (AVE) (Fornell & Larcker, 1981). The Cronbach's reliability value should be larger than 0.7 and the AVE value should be larger than 0.5 to indicate an acceptable level of convergent validity for every construct (Hair et al., 2011; Henseler et al. 2009; Fornell & Larcker, 1981). Table 3 shows the results of convergent validity test for all constructs.

Table 3: The Convergent Validity Assessment Results

Construct(s)	AVE ^x	CR ^y	Communality
KCQ	0.5807	0.8923	0.5807
SCQ	0.6868	0.8975	0.6868
DCQ	0.7539	0.9017	0.7539
ACQ	0.7537	0.9242	0.7537
TPERF	0.7367	0.9179	0.7367
CPERF	0.6122	0.9164	0.6122

Note: CR_y= Composite Reliability; AVE_x= Average Variance Extracted

SCQ = Strategy Cultural Intelligence, KCQ = Knowledge Cultural Intelligence, DCQ = Drive Cultural Intelligence, ACQ = Action Cultural Intelligence, TPERF = Task Performance, CPERF = Contextual Performance.

As shown in Table 3, the composite reliability values of all constructs are greater than the threshold level of 0.70 demonstrating high level of internal consistency reliability. In addition, the Average Variance Extracted (AVE) values for all constructs range from 0.58 to 0.75 and exceed the minimum threshold of 0.50, as suggested by Hair et al., (2011). Thus, it can be concluded that all constructs in this research model satisfied the requirement of convergent validity.

Discriminant Validity

Discriminant validity is the extent to which a construct is distinct from other constructs (Hair et al., 2010). In order to assess the discriminant validity of the measurement model, we used the criterion suggested by Fornell-Larcker (1981), which requires the square root of the AVE value of each construct to be higher than its correlation with other constructs. A correlation matrix of the latent constructs and their AVE scores (bold in the diagonal) provide a verification to support discriminant validity assumption as shown in Table 4.

Table 4: Discriminant Validity of Constructs

	LATENT CONSTRUCTS					
	ACQ	CPERF	DCQ	KCQ	SCQ	TPERF
ACQ	0.87	0	0	0	0	0
CPERF	0.78	0.78	0	0	0	0
DCQ	0.48	0.42	0.87	0	0	0
KCQ	0.53	0.41	0.40	0.76	0	0
SCQ	0.44	0.31	0.59	0.47	0.83	0
TPERF	0.25	0.74	0.37	0.30	0.32	0.86

Note: The diagonal values represent the square root of the AVE while the other entries represent the squared correlations.

As illustrated in Table 3, the square root of AVE values for all constructs were greater than the squared correlation between constructs, demonstrating that each construct in this research has an adequate level of discriminant validity. Thus, the measures significantly discriminate between the constructs.

Structural Model Specification

The coefficient of determination (R^2) is computed to find the level of variance for each endogenous latent variable (Hair et al., 2012). The coefficient of determination refers to “the level of variance of an endogenous latent variable explained by the related exogenous latent variables” (Chin, 1988, p.83). Falk and Miller (1992) recommended that R^2 for endogenous constructs should be equal to or greater than 0.10. As outlined by Cohen (1988), R^2 values for endogenous latent variables should be assessed as follows: 0.02 (weak), 0.13 (moderate) and 0.26 (substantial). The findings for the structural model are presented in Figure 3.

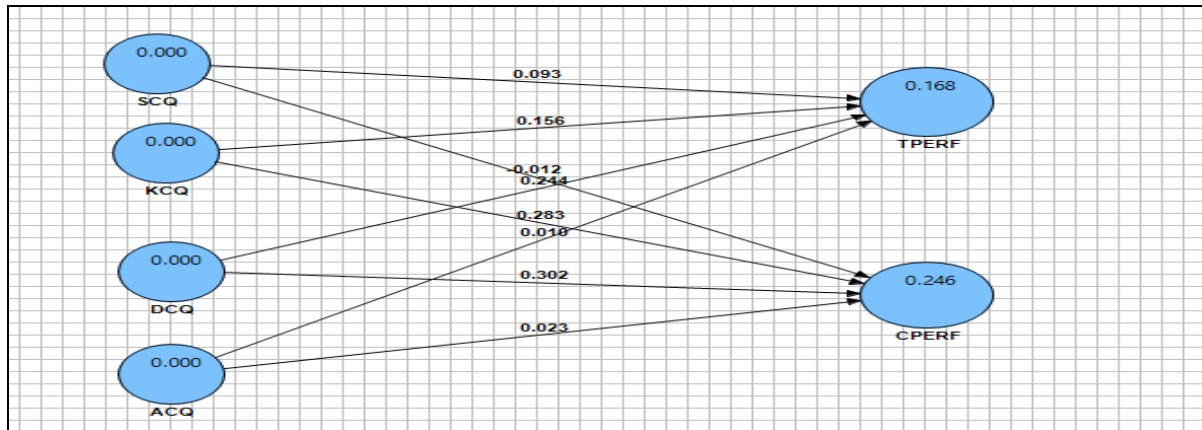


Figure 3. Structural Model Specification

Note: SCQ = Strategy Cultural Intelligence, KCQ = Knowledge Cultural Intelligence, DCQ = Drive Cultural Intelligence, ACQ = Action Cultural Intelligence, TPERF = Task Performance, CPERF = Contextual Performance. Significant level R^2 (Cohen, 1988) : >0.02 (weak)*, >0.15 (moderate) **, >0.26 (Substantial) ***

As depicted in Figure 3, the constructs task performance ($R^2=0.16$), and contextual performance ($R^2=0.24$) exhibit moderate level of variances. Based on these results, it is confirmed that all constructs have fulfilled the basic structural model specifications required to verify the structural model for this study.

Path Coefficients Estimation and Hypotheses Testing

The values of path coefficients (β) are used to determine the significance of the proposed hypotheses. The bootstrapping procedure was used to assess the significance of the path model relationship which results in the determination of t-statistics values (Henseler et al., 2009). According to Hair et al. (2011), the path coefficient values need to be at least 0.1 to account for a certain impact within the model. The t-statistics value must be above 1.645 to be considered as significant at a 95 percent level of confidence. The results of hypothesis testing are summarized in Table 5.

Table 5: Result of Path Coefficients and Hypotheses Testing

Hypotheses	Relationship	β	S.E	T	Sig.
H1a1	KCQ -> TPERF	0.1554	0.0849	1.8329	*
H1a2	SCQ -> TPERF	0.1029	0.1122	0.8257	#
H1a3	DCQ -> TPERF	0.2441	0.1026	2.376	**
H1a4	ACQ -> TPERF	0.085	0.085	0.1212	#
H1b1	KCQ -> CPERF	0.2863	0.0919	3.0811	**
H1b2	SCQ -> CPERF	-0.0059	0.0965	0.1226	#
H1b3	DCQ -> CPERF	0.3034	0.0789	3.8308	**
H1b4	ACQ -> CPERF	0.0291	0.0897	0.2554	#

Note: *significant at $p<0.05$; ** $p<0.01$

Path analysis with SEM (see Table 5) showed that four out of eight hypotheses were significant at significant level of $p<0.05$. Specifically, the results demonstrated that Knowledge Cultural Intelligence and Drive Cultural Intelligence

significantly influence task performance and contextual performance. On the other hand, Strategy Cultural Intelligence and Action Cultural Intelligence did not exhibit any significant influence on task performance and also contextual performance. Therefore, hypotheses H1a1, H1a3, H1b1 and H1b3 are supported while H1a2, H1a4, H1b2 and H1b4 are not supported.

The present study attempts to investigate whether the four dimensions of CQ, namely, Knowledge CQ, Strategy CQ, Drive CQ, and Action CQ, positively influence employees' task performance and contextual performance. The four CQ dimensions have different effects on task and contextual performance. Statistically, Drive CQ has the strongest effect on task performance and contextual performance. The results demonstrated that Knowledge CQ and Drive CQ have a positive influence on employees' task performance and contextual performance. However, the other dimensions, namely Strategy CQ and Action CQ, did not indicate any significant influence on task and contextual performance.

The results showed that Knowledge CQ was positively correlated with task performance. [Ang and Van Dyne \(2008\)](#) assert that Knowledge CQ is a critical component of CQ, because the knowledge of culture influences an individual's thought and behavior. According to [Brislin et al. \(2006\)](#), individuals with high Knowledge CQ are able to anticipate and understand similarities and differences across cultures ([Brislin et al. 2006](#)). Thus, employees with high Knowledge CQ are able to execute work better in a diverse environment, because they have adequate knowledge to understand the needs and expectations of global clients.

Scholars have acknowledged that higher levels of education lead to greater CQ. [Khodaday and Ghahari \(2011\)](#) found that education level is an important factor contributing to higher level of Knowledge CQ. In addition, an empirical study by [Alon et al. \(2016\)](#) reported that educational level is a significant predictor for all CQ dimensions. [Heckman and Kautz \(2012\)](#) claimed that higher levels of education may lead to greater open-mindedness and interest in learning about other people and cultures. Statistics show that 85.6 percent of the respondents have earned a bachelor degree and master degree or higher. This means that highly educated employees in both organizations exhibit a high ability to assimilate knowledge in their work tasks, as they have more ability to understand and translate cultural differences. Cognitive CQ is important because it helps employees deal with cross-cultural situations effectively and this would lead to positive commitment and involvement at the workplace. Thus, it is clear that Knowledge CQ plays a crucial role in enhancing employee's contextual performance.

A substantial amount of empirical research has documented the existence of a positive association between Drive CQ and individual performance ([Chen, Lin, & Sawangpattanakul, 2011](#); [Chen, Kirkman, Kim Farh, & Tangirala, 2010](#); [Chen, Liu, & Portnoy, 2012](#)). [Ang et al. \(2007\)](#) explained that individuals with high Drive CQ have a strong sense of self-efficacy in diverse cultural contexts. In addition, numerous scholars and researchers have contended that an individual's chances of successfully performing a task depend upon his or her level of self-efficacy ([Judge & Bono, 2001](#); [Randhawa, 2004](#); [Cherian & Jacob, 2013](#); [Iroegbu, 2015](#)). This is because people who possess high self-efficacy exert greater effort and persistence to complete a task successfully. In the context of this study, employees with higher levels of Drive CQ put more efforts to seek new experiences and knowledge of other cultures. Cultural awareness and knowledge about cultural differences help them to successfully execute their tasks in diverse cultural situations.

The empirical results have confirmed that Drive CQ was a strong predictor of contextual performance. These outcomes were parallel with prior research, which found that employees who possessed high Drive CQ were able to perform their work effectively ([Rose et al., 2010](#); [Ramalu et al., 2012](#)). Drive CQ is a critical component of CQ because it triggers a person's interest and motivation to adapt new cultural settings ([Earley & Ang, 2003](#); [Ng & Earley, 2006](#)). Drive CQ stimulates employees' motivation to gain knowledge on how to adjust in an intercultural environment. When employees can interact and deal with cross-cultural situations effectively, they can perform better and are more engaged in their work.

CONCLUSION

The ability to interact effectively in diverse cultures has become very important in today's global business world. In order to function effectively in a global business environment, public sector employees must be equipped with CQ. Employees who possess a high level of CQ are able to adjust their thoughts, behaviors, and communication styles to match those of culturally diverse clients, and all these can contribute to a better work performance. Empirical evidence has showed that each dimension of CQ has different effects on task and contextual performances. The current study has empirically proved that Knowledge CQ and Drive CQ have a positive impact on employees' contextual performance and task performance. In addition, Drive CQ was found to be the strongest predictor of task and contextual performance.

Hence, it is essential for managements to understand the dimensions and role of CQ to incorporate this knowledge into their global business plan, so that they can develop more strategies to strengthen their employees' capabilities.

This research makes several important contributions. The present study makes a valuable contribution to the body of knowledge in the fields of human resource management and cross-cultural management studies in Malaysia. It also augments the growing corpus of literature related to the concept of CQ and individual work performance.

The current study provides empirical support for the validity of four dimensions of CQ in understanding how individuals adjust and perform their work in cross-cultural situations. At present, attempts to empirically examine which factors of CQ (Knowledge CQ, Strategy CQ, Drive CQ, or Action CQ) are the strongest predictors of work outcomes are very limited. As such, this study has been conducted to explore the differential effects of the four CQ dimensions on two categories of work performance outcomes, namely, task performance and contextual performance.

The findings of this study have important implications for organizations. Our study provides empirical evidence that CQ can serve as a predictor for employees' work performance in a cross-cultural situation. CQ can enhance employees' work performance in response to the challenges of dealing with different cultural and competitive working environments. In order to promote more foreign business and *investments* into the *country*, many private and public sector organizations around the world have responded to the growing need for a cross-culturally competent workforce. Hence, human resource management (HRM) should focus on developing employees' CQ so that they are able to connect and adapt in any global business environment. CQ can be enhanced through proper guidance, training, and development programs.

REFERENCES

- Abdul Malek, M. & Budhwar, P. (2013). Cultural intelligence as a predictor of expatriate adjustment and performance in Malaysia. *Journal of World Business*, 48, 222–31.
- ALNasser, A., Yusoff, R. Z., & Islam, R. (2013). The Mediator Effect of National Culture on the Relationship between Soft-Hard Total Quality Management and Organizational Performance. *Australian Journal of Basic and Applied Sciences*, 7(10): 586-593.
- Al-Nasser, M., Yusoff, R. Z., Islam, R. & Al-Nasser, A. (2014). Relationship among E-service Quality, Culture, Attitude, Trust and Risk of Online Shopping. *Journal of Social Sciences*, 10(3): 123-142.
- Alon, I., Boulanger, M., Elston, J. A., Galanaki, E., De Ibarreta, C. M., & Meyers, J. (2016). Business cultural intelligence quotient: A five-country study. *Thunderbird International Business Review*, 1–14.
- Ang, S., & Van Dyne, L. (2008). Conceptualization of cultural intelligence: Definition, distinctiveness, and nomological network. In S. Ang & L. Van Dyne (Eds.), *Handbook of cultural intelligence: Theory, measurement, and applications*, (pp. 3-15). New York, NY: M.E. Sharpe.
- Ang, S., Van Dyne, L., Koh, C., Ng, K.Y., Templer, K. J., Tay, C., & Chandrasekar, N. A. (2007). Cultural Intelligence: Its measurement and effects on cultural judgment and decision making, cultural adaptation, and task performance. *Management and Organization Review*, 3(3), 335-371.
- Aziz, M. A. A., Rahman, H. A., Alam, M. M., & Said, J. (2015). Enhancement of the accountability of public sectors through integrity system, internal control system and leadership practices: A review study. *Procedia Economics and Finance*, 28, 163 – 169.
- Borman, W. C., & Motowidlo, S. J. (1993). Expanding the criterion domain to include elements of contextual performance. In N. Schmitt, & W. C. Borman (Eds.), *Personnel selection in organizations* (pp. 71-98). San Francisco: Jossey-Bass.
- Borman, W. C., & Motowidlo, S. J. (1997). Task performance and contextual performance: The meaning for personnel selection research. *Human Performance*, 10(2), 99-109.
- Brislin, R., Worthley, R., & MacNab, B. (2006). Cultural intelligence: Understanding behaviors that serve people's goals. *Group & Organization Management*, 31(1), 40-55.
- Campbell, J. P. (1990). Modeling the performance prediction problem in industrial and organizational psychology, In M.D. Dunnette & L.M. Hough (Eds.), *Handbook of Industrial and Organizational Psychology* (pp. 687-732)., Palo Alto, CA: Consulting Psychologists Press.
- Campbell, J. P., McCloy, R. A., Oppler, S. H., & Sager, C. E. (1993). A theory of performance. In N. Schmitt & W. C. Borman (Eds.), *Employee Selection*. New York: Jossey-Bass.

- Chen, A. S., Chun Lin, Y., & Sawangpattanakul, A. (2011). The relationship between cultural intelligence and performance with the mediating effect of culture shock: A case from Philippine laborers in Taiwan. *International Journal of Intercultural Relations*, 35, 246-258.
- 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, 1110- 1130.
- Chen, X. P., Liu, D. & Portnoy, R. (2012). A multilevel investigation of motivational cultural intelligence, organizational diversity climate, and cultural sales: Evidence from US real estate firms. *Journal of Applied Psychology*, 97(1), 93 - 106.
- Cherian, J. & Jacob, J. (2013). Impact of self-efficacy on motivation and performance of employees. *International Journal of Business and Management*; 8 (14), 80-88.
- Chin, W. W. (1998). Issues and opinion on structural equation modeling. *MIS Quarterly*, 22(1), 7-16.
- Cohen, J. (1988). *Statistical power analysis for the behavioral sciences* (2nd ed.). Lawrence Erlbaum Associates: Hillsday, NJ.
- Coleman, V. I., & Borman, W. C. (2000). Investigating the underlying structure of the citizenship performance domain. *Human resource management Review*, 10(1), 25-44.
- Díaz-Vilela, L., Díaz-Cabrera, D., Isla-Díaz, R., Hernández-Fernaund, E., & RosalesSánchez, C. (2012). Spanish adaptation of the citizenship performance questionnaire by Coleman y Borman (2000) and an analysis of the empiric structure of the construct. *Journal of Work and Organizational Psychology*, 28: 135-149.
- Earley, P.C., & Ang, S. (2003). *Cultural intelligence: An analysis of individual interactions across cultures*. Palo Alto, CA: Stanford University Press. 328p.
- Falk, R. F., & Miller, N. B. (1992). *A primer for soft modeling*. Akron, Ohio: University of Akron Press. 512p. Scientific Research an Academic Publisher.
- Fornell, C., & Larcker. D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research*, 18(1), 39-50.
- Gardner, H. (1983). *Frames of mind: The theory of multiple intelligences*. New York. 528p. Basic Books; 3rd edition.
- Gardner, H. (2006). *Multiple Intelligences: New Horizons*. Basic Books, USA. 320p. Basic Books, Reprint edition.
- Goleman, D. (1997). *Emotional Intelligence*. New York: Bantam Books. 433p. Bantam trade paperback edition.
- Hair Jr., J. F., Black, W. C., Babin, B. J. & Anderson, R. E. (2010). *Multivariate Data Analysis: A Global Perspective*. 7th Edition, Pearson Education, Upper Saddle River. 438p. New Jersey: Pearson Prentice Hall.
- Hair, J. F., Ringle, C. M., & Sarstedt, M. (2011). PLS-SEM: Indeed a silver bullet. *The Journal of Marketing Theory and Practice*, 19(2), 139-152.
- Hair, J. F., Sarstedt, M., Ringle, C. M. & Mena, J. A. (2012). An assessment of the use of partial least squares structural equation modeling in marketing research. *Journal of the Academy of Marketing Science*, 40(3), 414-433.
- Hashim, H., Rasid, S. Z. A., & Wan Ismail, W. K. (2011). Customer Service Quality in A Public Agency in Malaysia: Towards A Customer-Focused Public Organization. *Australian Journal of Basic and Applied Sciences*, 5(9), 1777-1783.
- Heckman, J. J., & Kautz, T. (2012). Hard evidence on soft skills. *Labour Economics*, 19, 451–464.
- Henseler, J., Ringle, C. M., & Sinkovics, R. R. (2009). The use of partial least squares path modeling in international marketing. In R. R. Sinkovics & P. N. Ghauri (Eds.), *Advances in International Marketing* (Vol. 20, pp. 277-320). Bingley: Emerald.
- Hosie, P., Willemyns, M., & Sevastos, P. (2012). The impact of happiness on managers' contextual and task performance. *Asia Pacific Journal of Human Resources*, 50, 268-287.
- Ilgen, D. R., & Hollenbeck, J. R. (1991). The structure of work: Job design and roles. In M. D. Dunnette & L. M. Hough (Eds.), *Handbook of industrial and organisational psychology* (2nd ed., pp.165–207). Palo Alto, CA: Consulting Psychology Press.
- Iroegbu, M. N. (2015). Self-efficacy and work performance: A theoretical framework of Albert Bandura's model, review of findings, implications and directions for future research. *Psychology and Behavioral Sciences*, 4, 170-173.

- Jawahar, I. M., Meurs, J. A., Ferris, G. R., & Hochwarter, W. A. (2008). Self-efficacy and political skill as comparative predictors of task and contextual performance: A two-study constructive replication. *Human Performance*, 21(2), 138-157.
- Jawahar, I., & Ferris, G. R. (2011). A longitudinal investigation of task and contextual performance influences on promotability judgements. *Human Performance*, 24, 251–269.
- Judge, T. A., & Bono, J. E. (2001). Relationship of core self-evaluations traits—self-esteem, generalized self-efficacy, locus of control, and emotional stability—with job satisfaction and job performance: A meta-analysis. *Journal of Applied Psychology*, 86, 80–92.
- Jyoti, J., & Kour, S. (2017). Factors affecting cultural intelligence and its impact on job performance: Role of cross-cultural adjustment, experience and perceived social support. *Personnel Review*, 46(4), 767-791.
- Khodadady, E., & Ghahari, S. (2011). Validation of the Persian cultural intelligence scale and exploring its relationship with gender, education, travelling abroad and place of living. *Global Journal of Human Social Science*, 11(7), 64-75.
- Kolibáčová (2014). The relationship between competency and performance. *Acta Universitatis Agriculturae et Silviculturae Mendelianae Brunensis*, 62(6), 1315–1327.
- Koopmans, L., Bernaards, C. M., Hildebrandt, V. H., Schaufeli W. B., De Vet, H. C. W., & Van der Beek, A. J. (2011). Conceptual frameworks of individual work performance: a systematic review. *Journal of Occupational and Environmental Medicine*, 53(8), 856-866.
- Koopmans, L., Bernaards, C. M., Hildebrandt, V. H., Van Buuren, S., Van der Beek, A. J., & De Vet, H. C. W. (2013). Development of an individual work performance questionnaire. *International Journal of Productivity and Performance Management*, 62(1), 6-28.
- Livemore, D. (2008). The cultural intelligence difference: master the one skill you can't do without in today's global economy, *AMACOM*, 14-16.
- Livemore, D. (2010). *Leading with cultural intelligence: The new secret to success*. New York: American Management Association.
- Malaysia External Trade Statistics (2018). Malaysia Import, Export and Total Trade. Retrieved from: <https://metsonline.stats.gov.my/metsonlinev3/web/>
- Mayer, J. D., & Salovey, P. (1993). The intelligence of emotional intelligence. *Intelligence*, 17, 433–442.
- Moore, J. E. (2000). One road to turnover: An examination of work exhaustion in technology professionals. *MIS Quarterly*, 24(1), 141-168.
- Motowidlo, S. J., & Van Scotter, J. R. (1994). Evidence that task performance should be distinguished from con-textual performance. *Journal of Applied Psychology*, 79(4), 475-480.
- Motowidlo, S. J., Borman, W. C., & Schmidt, M. J. (1997). A theory of individual differences in task and contextual performance. *Human Performance*, 10(2), 71-83.
- Motowidlo, S. J., Martin, M. P., & Crook, A. E. (2013). Relations between personality, knowledge, and behavior in professional service encounters. *Journal of Applied Social Psychology*, 43, 1851-1861.
- Munap, R., Badrillah, M. I. M., Mokhtar, A. R. M., & Irawan, R. M. (2013). Service quality and productivity: A Malaysian public service agencies perspective. *Proceedings of the International Conference on Management, Leadership and Governance*. Bangkok University, Thailand.
- Murphy, K. R. (1989). *Dimensions of job performance. Testing: Applied and theoretical perspective*. New York: Praeger.
- Ng, K. Y., & Earley, P. C. (2006). Culture + intelligence: Old constructs, new frontiers. *Group & Organization Management*, 31(1), 4-19.
- Nisbett, R. E., Aronson, J., Blair, C., Dickens, W., Flynn, J., Halpern, D. F., & Turkheimer, E. I. (2012). Intelligence: New findings and theoretical developments. *American Psychologist*, 67, 130–159.
- Organ, D. W. (1988). *Organizational citizenship behavior: The good soldier syndrome*. Lexington, MA: Lexington.
- Organ, D. W. (1997). Organizational citizenship behavior: It's construct clean-up time. *Human Performance*, 10(2), 85-97.

- Ramalu, S. S., Rose, C. R., Uli, N., & Kumar, N. (2012). Cultural intelligence and expatriate performance in global assignment: The mediating role of adjustment. *International Journal of Business and Society*, 13(1), 19–32.
- Randhawa, G. (2004). Self-Efficacy and Work Performance: An Empirical Study. *Indian Journal of Industrial Relations*, Vol. 39, No. 3, 336-346.
- Renzulli, J. S. (2005). The three-ring conception of giftedness: A developmental model for promoting creative productivity. In R. J. Sternberg & J. Davidson (Eds.), *Conceptions of giftedness* (2nd ed., pp. 217-245). Boston, MA: Cambridge University Press.
- Reson, L.M. & Lydia, M.J. (2012). Towards a results-oriented public service in Kenya: The modern human resource management perspective. *International Journal of Business and Social Science*, 3(21), 265-271.
- Rodriguez, D., Patel, R., Bright, A., Gregory, D., & Gowing, M. (2002). Developing competency models to promote integrated human resources practices. *Human Resources Management*, 41(3), 309-324.
- Rose, R. C., Sri Ramalu, S., Uli, J., & Kumar, N. (2010). Expatriate performance in international assignments: The role of cultural intelligence as dynamic intercultural competency. *International Journal of Business & Management*, 5(8), 76-85.
- Rotundo, M., & Sackett, P.R. (2002). The relative importance of task, citizenship, and counterproductive performance to global ratings of performance: A policy-capturing approach. *Journal of Applied Psychology*, 87(1), 66-80.
- Savanevičienė, A., Stukaitė, D., & Šilingienė, V. (2008). Development of strategic individual competencies. *Engineering Economics*, 3, 81–88.
- Selvanathan, M., Selladurai, S., Gill, S.S., Kunasekaran, P., & Tan, P. J. (2016). The customer satisfaction status towards core governmental services in Malaysia. *International Journal of Business and Management*, 11(5), 211-218.
- Sharma, P., Tam, J. L. M., & Kim, N. (2012). Intercultural service encounters (ICSE): An extended framework and empirical validation. *Journal of Services Marketing*, 26(7), 521-534.
- Siddiquee, N. A. (2014). Malaysia's government transformation programme: A preliminary assessment. *Intellectual Discourse*, 22(1), 7-31.
- Stauss, B., & Mang, P. (1999). Culture shocks in inter-cultural service encounters? *Journal of Services Marketing*, 13 (4/5), 329-346.
- Sternberg, R. J. (1985). *Beyond IQ: A triarchic theory of human intelligence*. New York, USA: Cambridge University Press. 725p.
- Sternberg, R. J. (1997). *Thinking Styles*. New York: Cambridge University Press. 628p.
- Sternberg, R. J., & Detterman, D. K. (1986). *What is intelligence? Contemporary viewpoints on its nature and definition*. Norwood, NJ: Ablex.
- Sternberg, R.J. (2015). Successful intelligence: A model for testing intelligence beyond IQ tests. *European Journal of Education & Psychology*, 8(2), 76-84.
- Tajudin, A. F. A., & Ahmad, S. Z. (2013). Impact of environmental scanning on the organisational performance of local authorities in Malaysia. *Transforming Government: People, Process and Policy*, 7 (3), 342-363.
- Thorndike, R. L., & Stein, S. (1937). An evaluation of the attempts to measure social intelligence. *Psychological Bulletin*, 34, 275-285.
- UNCTADSTAT. (2018). Retrieved from UNCTAD's FDI database:
<http://unctadstat.unctad.org/wds/ReportFolders/reportFolders.aspx>
- Viswesvaran, C. (1993). *Modeling job performance: Is there a general factor?* Unpublished doctoral dissertation, University of Iowa, Iowa City, IA. 237p.