

# **Examination of the Empirical Dimensionality of Job Performance Construct**

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## **ABSTRACT**

*This study attempts to examine the psychometric properties of the job performance constructs by espousing task performance and organizational citizenship behavior (OCB) items. The latter comprises of sportsmanship, civic virtue, courtesy, altruism, conscientiousness, and innovative behavior. A priori proposition was made that the job performance measurement could be explained by two factors, which are task performance and OCB. SPSS version 12 and AMOS 6 were used to analyze the data. Findings supported the hypothesis that job performance could be measured by the two hypothesized factors. However, four factors of OCB i.e. civic virtue, sportsmanship, conscientiousness, and courtesy, loaded on the task performance factor, while altruism and innovative behavior loaded on the OCB construct. Findings showed evidence of construct validity of the job performance items, indicating that the instrument can be used in the Malaysian studies.*

**Keywords:** *Job performance, task performance, organizational citizenship behavior, construct validity*

## **Introduction**

Job performance is a significant indicator of organizational performance that has been conceptualized and measured in different ways. Schmitt

and Chan in Motowidlo (2003) categorized job performance into will-do and can-do. The former refers to the knowledge, skill, ability, and other characteristics (KSAOs) that an individual possesses and required in performing a certain job. Can-do reflects the level of motivation that an employee has in performing his or her work. On the same note, Motowidlo and Van Scotter (1994) pointed out that job performance construct consists of task performance and contextual performance. The latter is also known as prosocial behavior, extra role, and OCB. Cardy and Dobbins in Williams (2002) conceptualized job performance as the work outcomes and job relevant behaviors. Work outcomes deal with task performance, such as quality or quantity of work done while job relevant behavior refers to the behavioral aspects useful in achieving the task performance (Williams, 2002). In other words, job relevant behaviors provide support in performing task-related matters. To a certain extent, the distinction between task performance and contextual performance is evident because it is hypothesized that both have different predictors *i.e.* task performance is determined by job experience while contextual performance depends on an individual's personality type (Motowidlo & Van Scotter, 1994). However, Vey and Campbell (2004) asserted that in measuring job performance, it is important to integrate items on task performance as well as OCB. This is because both constructs are strongly related and it is difficult to differentiate as behavioral aspects of performance are very subjective. In fact, Vey and Campbell (2004) strongly suggested that OCB items should be included in job performance measure because some of the items may contain task performance items.

Similar to the conceptualization issue, job performance construct has been measured via several methods. For instance, dimensions in the job analysis can be used in developing performance standard required of each employee (Heneman & Judge, 2005). This is because job analysis specifically spells out work behaviors required of the job incumbents and KSAOs required in exhibiting those behaviors. Another method is through performance appraisal items. Wiedower (2001) and Pincus (1986) asserted that performance measure that is based on the performance appraisal items offers higher reliable and accuracy of performance evaluation. Further, Even though performance is oftentimes assessed in terms of financial figures, it can also be measured through the combination of expected behavior and task-related aspects (Motowidlo, 2003). In fact, both measures of job performance, which are based on an absolute value or relative judgment, can be generalized to the overall organizational performance (Gomez-Mejia *et al.*, 2007; Wall *et al.*, 2004).

## **Objectives**

Studies on job performance have adopted various different measures in capturing the performance construct. The inconsistencies of these measures may not reflect the actual predictors of employees' job performance. Given this, there is a need to develop a more comprehensive instrument that can capture clearly the job performance construct. Therefore, this study examined the construct validity of the task performance and OCB items in the Malaysia Public Service agencies setting. We examined the construct validity of the job performance instrument which is also served as a preliminary investigation of the psychometric properties of the Malay language version of the job performance instrument with a sample of respondents from the Malaysia Public Service agencies.

In specific, the objectives of this study were twofold: firstly, to assess the internal consistency reliability of the job performance dimensions and the total score, and secondly, to assess the construct validity of the job performance instrument utilizing exploratory and confirmatory factor analytic procedures. The items and dimensions of job performance scale were developed and adapted based on the existing instruments that assessed the two dimensions of job performance: task performance and OCB.

## **Literature Review**

### **Conceptualization of Task Performance**

According to Motowidlo (2003), scholars have given limited attention on the most appropriate concept of task performance. Gomez-Mejia *et al.* (2007) stated that task performance can be distinguished into the quality of work done, quantity of work performed, and interpersonal effectiveness. Motowidlo (2003) termed performance as the in-role behaviors, which is the total expected value of the organization on task related proficiency of an employee (Motowidlo, 2003). In other words, task performance is the behaviors related specifically in performing job-related matters.

Similar to the conceptualization issue, task performance has been measured in various ways. Gomez-Mejia *et al.* (2007) and Wall *et al.* (2004) noted that task performance can be measured in terms of the

absolute value or relative judgment. Absolute value is based on the figures or financial indicators, such as productivity and profitability while relative judgment focuses on the overall performance of an employee or organization, which is based on the task-related and behavioral aspects. According to Wall *et al.* (2004), most human resource management researches that focus on individual performance adopted subjective measure of performance, which is most appropriately measured in terms of the task related and behavioral aspects. This is due to the fact that subjective measure allows researchers to generalize the findings to a larger performance construct (Wall *et al.*, 2004).

This is in accordance to Motowidlo's (2003) assertion that task performance is best construed as a behavioral construct because it involves psychological process that is related to the selection, training, motivation, and facilitating situational processes. It has also been reported that performance should be measured broadly to enhance its reliability (Chockalingam, Schmidt & Ones, 1996) but the scope of measurement should be more specific, *e.g.* based on performance appraisal or job analysis, in order to increase its validity (Pincus, 1986; Ashton, 1998; Wiedower, 2001). The present study measures task performance subjectively using items adapted from William and Anderson (1990). Further, performance appraisal form of the public servants was referred to as another source of gaining input on how task performance is measured in the public sector.

### **Conceptualization of Organizational Citizenship Behavior**

The biggest challenge for employers in managing human resources is to get their employees work beyond what is stated in their job descriptions voluntarily. In fact, maximizing efforts from employees is important in sustaining competitive advantage, keeping abreast with changes, and promoting innovation (Organ, 1997). This situation demands for organizational citizenship behavior or OCB to be exhibited by all employees in the organization. Organizational citizenship behavior or OCB was first introduced in the early 1980s by Bateman and Organ (Organ *et al.* 2006). It has been defined by Organ (1988) as:

An individual behavior that is discretionary, not directly or explicitly recognized by the formal reward system and that in aggregate promotes the effective functioning of the organization. By discretionary, we mean that the behavior is not an enforceable requirement of the role or job description that is the clearly specifiable terms of the person's employment contract with the organization; the

behavior is rather a matter of personal choice, such that the omission is not generally understood as punishable (p. 4).

In other words, OCB concerns with the positive behavioral aspects that are neither stated in job description nor enforced by employment contract. Besides contextual performance, OCB has been also coined as the extra-role behaviors or discretionary behaviors (Organ *et al.*, 2006). When first introduced by Bateman & Organ, OCB was distinguished into general compliance, which concerns with what employees should do and altruism, which focuses on employees' willingness in helping others (Organ *et al.*, 2006). Later, Organ (1985) expanded OCB into five distinct dimensions: altruism, civic virtue, conscientiousness, courtesy, and sportsmanship.

Following this, the concept of OCB has gone through several transformations. For instance, Williams and Anderson (1991) divided OCB into OCB-I that focuses on behaviors at individual level and OCB-O that deals with employee behaviors at organizational level. Then, Organ (1997) categorized OCB into three dimensions: helping, courtesy, and conscientiousness. According to Koster and Sanders (2006), OCB has also been defined as customer-service behavior or pro social behavior. However, Chiaburu and Baker (2006) stated that OCB and pro-social behavior or customer-service behavior differ markedly based on the context of the behaviors being performed by the employees. This is because OCB is about reciprocity whereby employees would engage in OCB if they perceive that their supervisors or colleagues exhibit OCB whereas pro-social behavior is the type of behaviors that should be exhibited by employees in attending to the customers' needs (Chiaburu & Baker, 2006).

Further, in comparison to most studies that used Organ's (1988) definition of OCB, the present study employs Organ's (1997) definition of OCB which was defined as behaviors that in aggregate, across time and across persons, contribute to organizational effectiveness. Organ (1997) argued that the word 'discretionary' in his earlier definition of OCB is no longer appropriate given the fact that in most cases, OCB items have been considered by respondents as task performance or part of the job (see for example Morrison, 1994; Van Scotter & Motowidlo, 1996; Wilson, 2005; Vey & Campbell, 2004). Despite numerous conceptualization of OCB, the present study adopts OCB based on the six dimensions by Organ (1985) based on Organ's (1997) more recent definition of OCB. The dimensions, which are altruism, civic virtue,

conscientiousness, courtesy, sportsmanship, and innovative behavior, provide the comprehensiveness in defining of OCB construct adopted in this study.

### **Underlying Theory of Job Performance**

Theory of Performance originally introduced by Campbell explains about the predictors of job performance (Williams, 2002). This theory asserts that performance is a behavior determined by declarative knowledge, procedural knowledge, and motivation. Declarative knowledge deals with knowing what to do and procedural knowledge consists of cognitive skill, psychomotor skill, self-management skill, etc. The former is a specific knowledge and skills required in performing a particular job while the latter is the generic skills needed in performing all types of jobs. The third element, motivation is termed as a choice behavior, *i.e.* choice of whether or not to perform, choice of the effort level to be exerted, and choice of whether or not to perform continuously.

Although Campbell's Theory of Performance has been useful in many performance studies, it lacks comprehensiveness in explaining the antecedents of performance because it focuses mainly on the factors related to a person as the main determinant of performance (Williams, 2002). Drawing on the limitation, Cardy and Dobbins and Waldman in Williams (2002) added the 'person factors' and 'systems factors' as performance predictors. According to Cardy and Dobbins (as cited in Williams, 2002), "person factors" are the abilities and personalities of an individual that may influence his or her performance level. This is evident in a study by Motowidlo and Van Scotter (1994), which reported that personality influences employee's contextual behavior and experiences or abilities relate significantly to an employee's task performance. Person factors can be enhancing if employees have relevant KSAOs and motivation. Nevertheless, person factors are considered inhibiting if employees have inadequate KSAOs and lack of motivation (Adler & Borys, 1996). 'System factors', on the other hand, are environmental factors related to the organization, for instance organizational culture and structure, leadership, and job design (Williams, 2002).

According Adler and Borys (1996), 'system factors' can be categorized into 'enabling' or 'coercing'. As an example, 'system factors' can be considered 'enabling' if positive organizational culture encourages high performance work place; nevertheless, "system factors" can be considered "coercing" if rigid organizational structure limits high

performance work place (Adler & Borys, 1996). In sum, Theory of Performance by Cardy and Dobbins in Williams (2002), which includes 'person factors' and 'system factors', provides a more comprehensive outlook on the antecedents of performance.

### **Antecedents of Task Performance**

Most research findings reported that there is a significant relationship between personality dispositions and task performance, for example: Berry, Page and Sackett (2007), Nikolaou (2003), Bing and Lounsbury (2000), and Posthuma (2000). Nevertheless, Motowidlo and Van Scotter (1994) revealed that personality traits are significantly related to contextual performance but experiences have a profound influence on employee's task performance. Tett, Jackson and Rothstein (1991) and Motowidlo (2003) pointed out that personal dispositions have continuously become a popular predictor of task performance because of the conflicting findings reported. However, the use of personality traits in predicting task performance has been questioned in terms of its validity. For instance, Tett *et al.* (1991) argued that personality traits do not necessarily related to task performance; instead, intellectual ability is the most valid determinant of task performance. Barrick and Mount (1991) examined the 'Big Five' personality traits (extraversion, agreeableness, emotional stability, conscientiousness, and openness to experience) and performance criteria (job proficiency, training proficiency, and personal data) for five occupational groups (professional, police, managers, sales, skilled/semi-skilled). It was found that only conscientiousness is related to task performance for all job categories. Other personality traits show various correlations for different jobs and criterion types. This finding suggests that personality dispositions, if measured separately, may have impacted task performance at different level.

Cropanzano, James, and Konowsky (1993) distinguished task performance into trait-positive affect and trait-negative affect. Cropanzano *et al.* (1993) conducted a longitudinal study the association of trait-positive affect and task performance. Study result revealed that trait-positive affect is significantly related to task performance, but only among the longer-tenured personnel. In the subsequent study however, Cropanzano *et al.* (1993) reported that trait-positive affect does not correlate to task performance but trait-negative affect does correlate negatively to task performance. In other words, negative personality traits, such as neuroticism, have a negative influence on task performance but

positive personality traits, such as conscientiousness, does not have a positive influence on task performance. In fact, positive personality traits have a positive influence only among the longer-tenured employees. This is in accordance to the findings by Motowidlo and Van Scotter, which revealed that experience, is significantly related to task performance. It can therefore be concluded that experience is more important in determining task performance, instead of personality traits. In short, most studies highlighted above provide inconclusive findings on personality traits and task performance. It can be concluded that personality traits are not the main predictors of task performance.

Various job attitudinal constructs have been examined in the task performance studies. Job attitudes such as organizational commitment and job satisfaction are prevalent in predicting task performance, for instance: Black and Porter (1991); Hechanova, Alampay, and Franco (2006); Sarminah (2005); Somers (2001), and Pincus (1986). It can be concluded that personality traits as well as job attitude are important determinants of work place outcomes. Somers (2001) suggested that future studies on organizational constructs and job performance need to include a mediating variable, given that these variables do not necessarily have a linear correlation. Given the limitations, it is useful to incorporate a job attitude construct in explaining the relationship between predictors and task performance.

### **Antecedents and Consequences of Organizational Citizenship Behavior**

In addition to task performance, OCB is useful in ensuring organizational effectiveness (Organ, 1997). In particular, OCB is an individual's contribution by doing things that are not stated in job descriptions but it provides support to the task-related activities. Numerous antecedents of OCB have been studied, for instance, satisfaction with business-to-employee benefits systems (Huang, Jin & Yang, 2004), structural independence and personality (Comeau & Griffith, 2005), empowerment, service training, and service reward (Lee, 2006), work environment (Turnipseed, 1996), perception of justice (Kim, 2004), internal career orientations (Chompookum & Derr, 2004), demographics and altruism (Emmerik & Jawahar, 2005), and culture, leadership, and trust (Appelbaum *et al.*, 2004). Nevertheless, job attitude has been reported to be the major antecedent of OCB compared to other predictors (Organ & Ryan, 1995). In other words, job attitudes are the significant predictors of OCB that



should be continuously scrutinized in further identifying the antecedents of OCB.

Additionally, various organizational factors have been identified as the determinants of OCB. For instance, Garg and Rastogi (2006) examined the influence of organizational climate on OCB among teachers in the private and public schools in India. The comparative study reports that there is a significance difference in the climate profile in both types of schools and level of OCB among the respondents. In particular, private schools provides better organizational climate that encourages teachers to highly engage in OCB.

The role of OCB in research is not only limited to criterion, but also it has also been examined as predictor and mediator. For instance, Castro *et al.* (2004) conducted a study on OCB in the marketing environment. Their study reveals that OCB is significantly related to service quality, customer satisfaction, customer behavioral intention, and organizational performance. Similarly, Morrison (1996) found that OCB mediates the relationship between HRM practices and service quality. Given these findings, the importance of OCB in the service and marketing industry is evident to enhance organizational performance, particularly in ensuring high quality customer service.

## **Methodology**

### **Instrument Development**

A total of 37 items were used to measure the job performance construct. We adopted and adapted the items from seminal works by prominent scholars in the job performance field such as Morrison and Phelps (1999), Podsakoff *et al.* (2000), Van Dyne and Le Pine (1998), and William and Anderson (1991). The internal consistency reliability value for the instrument was observed based on the results in preceding studies. Measurement for the construct is above the acceptable limit of internal consistency value *i.e.* above 0.6 was considered reliable and therefore usable in the study.

Content validity for all measures was also examined by assessing the suitability of items in representing the operational definition of each dimension. The content validity of the items was also gauged by referring to previous studies. We identified observed variables that were used to measure hypothesized latent construct in seminal works by Morrison and

Phelps (1999), Podsakoff and MacKenzie (1990), Van Dyne and Le Pine (1998), and William and Anderson (1991). Decentering was conducted. In this process, the original measurement was changed before it was adapted and back-translated. The purpose is to improve the translatability of the measurement whereby items that are likely to be specific to the original culture or context were removed or altered (Geisinger, 2003; Brislin, 1970). Two bilingual experts and one public service officer helped to identify items in the measurement that need to be refined to suit the Malaysian culture and public service context. Then, the measurement was assessed to ensure that there is no culture-specific language or content. Then, the measurement was translated using back-translation procedure.

Following Brislin (1970) and Geisinger (2003), two different bilingual language experts were used in the back-translation process. One of the experts translated the original items to the Malay language, and another expert re-translated the translated items into the English language without having seen the original test. After that, based on Geisinger (2003), the quality of the language translation was observed in terms of how accurately the back translated measurement agrees with the original version. The back translated items were discussed and verified with officers and clerical staff from the public service departments and agencies to ensure suitability of all items in the public sector context. The researcher also referred to public servant performance appraisal form to identify how job performance is measured in the public sector. Upon scrutiny, it was noted that the performance appraisal form consist of items that measured both task performance and OCB. Another discussion was made with two human resource officers in one of the public service departments to get feedbacks on the appropriateness of items adapted and translated in measuring job performance of public servants. This stage is crucial to guarantee content and face validity of all items used in the study. Based on the feedbacks, several improvements were made to the items.

Finally, cover letter from the researcher was attached to each questionnaire and detailed written instructions were given in the questionnaires. Respondents were asked to answer the items by indicating their level of agreement using a seven point Likert scale. After they had completed the questionnaire, respondents were asked to seal the completed questionnaires into the provided envelopes to ensure confidentiality of the information.

## **Measurement of the Job Performance Construct**

The job performance construct was measured in terms of tasks performance and OCB. Task performance was measured by seven items adapted from Williams and Anderson (1991). As for OCB, a total of 30 items were used to measure the dimension. Five questions were used to measure sportsmanship, civic virtue, courtesy, and altruism respectively while four items were used to measure conscientiousness. Six items were used to measure innovative citizenship behavior.

## **Sampling and Data Collection**

Unit of analysis in this study was individuals and the target population was public servants. Based on the sampling frame, there were a total of 5,473 public servants in all public service departments and agencies in the northern region of Peninsular Malaysia. The generalized scientific guidelines for sample size decisions by Krejcie and Morgan (1970) in Cavana, Delahaye and Sekaran (2001), Sekaran (2003), and Veal (2005) noted that the appropriate sample size for the respective population size was 381. Hence, a total of 500 self-administered questionnaires were distributed to the respondents in nine public service agencies in the northern region of Peninsular Malaysia. We went to each agency and gave the questionnaires personally to the chief clerk of each department, who were contacted prior to our visit. They were briefed on the research objectives and guidelines in answering the questionnaires. A letter stating that the research is purely academic and research results will be used for academic purposes only was also enclosed. In the study, respondents were required to evaluate one of their immediate subordinates on task performance and OCB items.

Supervisory rating method was chosen over self-rating to avoid common method variance as suggested by many performance-related researchers, *e.g.* Yousef (1998), Jabroun and Balakrishnan (2001), Crossman and Abou-Zaki (2003), Castro, Armario, and Ruiz (2004), Kim (2006), and Koster and Sanders (2006). Most importantly, Wall *et al.* (2004), Tubre (2000), Organ *et al.* (2006), and Organ and Ryan (2001) strongly contended that self-rating performance-related construct will lead to a spuriously high or low correlation, confounded by the common method variance. Further, Bohlander and Snell (2007) and Moideenkutty, Blau, Kumar and Nalakath (2005) asserted that immediate supervisors are the most appropriate source of information with regard to job

performance. As such, immediate supervisors were chosen to evaluate their subordinates on task performance and OCB items.

## **Analytical Procedures**

Reliability and initial evidence of validity were reported based on results from Cronbach's alpha reliability, exploratory factor analysis (EFA), and confirmatory factor analysis (CFA). Following Hair *et al.* (2007), Cavana *et al.* (2001), Sekaran (2003), and Veal (2005), EFA on each latent construct was carried out to determine if the responses gathered can be grouped according to the items in each variable similar to previous studies. Specifically, EFA using principal axis factoring with direct oblique rotation with a priori criteria of factors was conducted to analyze factor structure of the variables (Byrne, 2001; Hair *et al.*, 2006; Kim & Mueller, 1978; Tabachnick & Fidell, 2007; Worthington & Whittaker, 2006). The cutoff point of 0.5 was used as the threshold for further analysis (Hair *et al.*, 2006; Worthington & Whittaker, 2006). Measurement model or CFA for each latent factor was examined by observing the model fit level.

Further, construct validity indicated by convergent validity was examined based on Hair *et al.* (2007) and Tabachnick and Fidell (2007). Convergent validity was assessed by calculating the variance explained (VE) and composite reliability of each latent construct. In addition to that, value of standardized loadings for each observed variable were also examined to assess the convergent validity of the instrument.

## **Findings**

### **Demographic Profile of Respondents**

The sample consisted of 61.70 percent male and 38.30 percent female. The majority of respondents or 55.08 percent were below 30 years old while 7.42 percent were above 50 years old. Given the fact that Malaysian public service departments and agencies were predominantly Malay-populated, 98.4 percent of the respondents were Malays. Only 1.2 percent and 0.4 percent were Chinese and Indian respectively. Majority of the respondents, 34 percent were SPM holders, 22.70 percent were STPM holders, and 29.30 percent were diploma holders. The rest of the respondents or 13.7 percent were undergraduates and masters degree holders. A total of 72.2 percent of the respondents had worked in the

organization for less than 10 years while 27.80 percent had worked for more than 10 years. A total of 210 respondents or 83 percent had been in the job position for less than 10 years while the rest were more than 10 years. Finally, 94.90 percent of the respondents were non-exempt employees and only 5.10 percent were exempt employees.

### **Reliability and Exploratory Factor Analysis (EFA)**

This study also assessed the internal consistency reliability and initial validity of the instruments used for measuring all of the constructs. Results of the internal consistency reliability are depicted in Table 1.

Table 1: Reliability of Job Performance Dimensions

Constructs	Items	Mean	SD	Cronbach's alpha
Task performance	7	5.949	0.082	0.821
OCB	30	5.260	0.219	0.924
Overall job performance	37	5.390	0.265	0.937

The Cronbach's alpha values range from 0.821 to 0.937. An exploratory factor analysis (EFA) was carried out to examine the factorial validity of the instruments used in the study. EFA in the study used a principal axis factoring extraction technique with direct oblique rotation and a priori criteria of factors based on the literature review. Principal axis factoring was chosen over other method of extraction because it is mostly used and understood (Tabachnick & Fidell, 2007). Most importantly, principal axis factoring extraction analyzes common variance among items while unique and error variances were eliminated (Byrne, 2005; Hair *et al.*, 2006; Kim & Mueller, 1978; Tabachnick & Fidell, 2007; Worthington & Whittaker, 2006). Direct oblique rotation was used because all items shared the same second order factor and hence they are assumed to be correlated (Hair *et al.*, 2006; Tabachnick & Fidell, 2007; Worthington & Whittaker, 2006).

Further, the cutoff point for factor loadings in this study were 0.50 or greater because this threshold value was considered crucial in ensuring practical significance for sample size of 150 and above (Hair *et al.*, 2006; Worthington & Whittaker, 2006). As shown in Table 2, EFA results indicated that four dimensions of OCB, which were sportsmanship, courtesy, civic virtue, and conscientiousness loaded on the task

Table 2: Factor Loadings for Exploratory Factor Analysis

Items		Factor 1	Factor 2
Task performance 1	He/she performs tasks that are expected of him/her.	0.600	
Task performance 2	He/she meets formal performance requirements of the job.	0.782	
Task performance 3	He/she is involved in activities that are relevant to his/her yearly performance assessment.	0.703	
Task performance 4	He/she fails to perform essential duties. ®	0.619	
Conscientiousness 2	He/she adequately completes assigned duties.	0.515	
Conscientiousness 3	He/she does not take extra time for breaks.	0.544	
Conscientiousness 4	He/she often work beyond office hours even though not being asked to.	0.682	
Courtesy 1	He/she always complains about things that are not important. ®	0.784	
Civic virtue 1	He/she always finds fault with what the organization is doing. ®	0.718	
Sportsmanship 3	He/she always pays attention to matters that are negative rather than on matters that are positive. ®	0.583	
Sportsmanship 4	He/she is always complaining about work. ®	0.506	
Civic virtue 4	He/she tries to prevent himself/herself from creating problems for his/her coworkers.	0.544	
Courtesy 3	He/she is aware of how his/her behavior affects other people's jobs.	0.712	
Courtesy 4	He/she reads and follows all announcements, memos, and others given out by the organization.	0.629	
Courtesy 5	He/she keeps up to date with changes in the organization.	0.590	
Task performance 7	He/she attend meetings that are not compulsory but are considered important.	0.695	
Altruism 1	He/she helps others who have problems with their work.		0.685
Altruism 2	He/she helps others who have heavy workload.		0.822

*(continued)*

Table 2 (continued)

Items		Factor 1	Factor 2
Altruism 3	He/she always ready to offer help to those around him or her.		0.832
Altruism 4	He/she tries to make innovative suggestions to improve the department/organization.		0.777
Innovative behavior 1	He/she tries to adopt improved procedures for the department/organization.		0.851
Innovative behavior 3	He/she tries to institute new more effective work methods for the department/organization.		0.785
Innovative behavior 4	He/she tries to make constructive suggestions for improving how things operate in this department/organization.		0.889
Innovative behavior 5	He/she makes recommendations on issues that affect the department/organization.		0.815
Innovative behavior 6	He/she speaks up for new changes in this department/organization.		0.606
Eigen Value		10.648	3.439
Variance Explained		39.129	11.583
KMO		0.912	
Total Variance Explained		50.712	

performance factor. Only items on altruism and innovative behavior loaded on the OCB factor. Based on the results, items that loaded on factor 1 were categorized as task performance while items loaded on factor 2 were labeled as OCB. For the operational definition purpose of the study, task performance is operationally defined as behavioral dimensions of performance encompassing job-specific task proficiency, sportsmanship, courtesy, civic virtue, and conscientiousness while OCB is defined as altruism and innovative behaviors. The remaining 25 items were then subjected to EFA with principal axis factoring extraction and direct oblique rotation. Based on the EFA results in Table 2, the Eigen values for factor 1 was 10.648 and factor 2 was 3.439. Total variance explained for this construct was 50.712.

As indicated in Table 3, a total of 12 items were dropped from further analysis because of cross or low factor loading. Items with factor loadings above 0.5 were retained for further analysis. This is crucial given that

values greater than 0.50 were generally considered necessary for practical significance (Hair *et al.*, 2006).

### **Item Parceling and Measurement Model of the Job Performance Construct**

Item parceling was done to reduce the number of parameters estimated in the job performance measurement model. A total of 25 items remained after data reduction and EFA were used to measure job performance. These items were bundled into five parcels based on the dimensions in job performance namely task performance, conscientiousness, courtesy, civic virtue, sportsmanship, altruism, and innovative behavior. Parcels are indexes computed by averaging two or more items of the same dimension. Item parceling is suggested in structural equation modeling to enhance stability of the instrument. Item parceling is more reliable because it provides better fit and higher loadings and poses fewer problems with model identification (Bagozzi & Edwards, 1998; Bandalos, 2002; Bandalos 2008; Holt, 2004; Worthington & Whittaker, 2006).

According to Byrne (2001), Kline (2005), Schumacker and Lomax (2004), measurement model is important to examine whether or not measurements used in the study fits the data. Although the traditional chi-square goodness of fit statistics was reported, this criterion is overly strict and very sensitive to large sample size, *i.e.* 200 or above (Byrne, 2001; Kline, 2005; Schumacker & Lomax, 2005; Tabachnick & Fidell, 2007). As an alternative, Byrne (2001) and Kline (2005) suggested researchers to consider using other fit indices, such as normed chi-square or chi-square/degree of freedom, in analyzing model fitness. Following Schumacker and Lomax (2004), the value of normed chi-square between 1 and 5 indicates acceptable model fit.

The measurement model was also observed for overall fitness by referring to other fit indices as suggested by Byrne (2001), Kline (2005), Schumacker and Lomax (2005), and Tabachnick and Fidell (2007). Based on Byrne, (2001), Hair *et al.* (2007), Schumacker and Lomax (2005), Tabachnick and Fidell (2007), the fit indices reported in this study are the root mean square error of approximation (RMSEA) and root mean square residual (RMR) for model fit, the Tucker-Lewis index (TLI) and the Comparative index (CFI) for model comparison, and Normed Chi-Square (NC) for model parsimony. To indicate that the model is adequately fit, the cutoff values are 0.90 or higher for CFI and TLI (Byrne, 2001; Kline 2005; Schumacker & Lomax, 2005), 0.08 or lower for RMSEA (Byrne,



2001; Kline 2005; Schumacker & Lomax, 2005). The acceptable range for normed chi-square was 1 to 5 (Schumacker & Lomax, 2005).

### **Construct Validity of the Job Performance Measure**

According to Hair *et al.* (2007) construct validity is crucial to ensure that a set of observed variables actually represents the theoretical latent construct these variables were designed to measure. In addition to factor loadings in confirmatory factor analysis, convergent validity in the present study was examined by observing the values of composite reliability and variance extracted (VE).

As noted by Hair *et al.* (2007), composite reliability values should be greater than 0.6 while VE should be above 0.5. Composite reliability value that is lower than 0.6 indicates that the items do not consistently measure the same latent construct (Hair *et al.*, 2007). VE was computed by dividing the total of all squared standardized factor loadings (squared multiple correlations) by the number of items. The value of VE smaller than 0.5 indicates that more error remains in the items than variance explained by the latent factor structure imposed on the measure.

Table 4 shows the calculated composite reliability for each latent construct. Composite or construct reliability is an indicator of convergent validity. The rule of thumb for a good reliability estimate is 0.7 or higher, which means that all observed variables consistently represent the same latent construct. However, Hair *et al.* (2007) also asserted that reliability between 0.6 and 0.7 may be acceptable given that other indicators of construct validity are good. In this case, task performance and rule observation showed composite reliability value of 0.663. However, as suggested by Hair *et al.* (2007), these values were considered acceptable as it fulfilled the lower limit of acceptability. Table 4 shows the values of composite reliability for each of the measured latent.

Table 5 shows the result of the calculated variance extracted (VE) to further support the convergent validity of each construct. A variance extracted of 0.5 or higher is a good rule of thumb suggesting adequate convergence (Hair, *et al.*, 2006). VE for task performance and OCB were 0.501 and 0.713 respectively, lending support for convergent validity of the instrument in measuring job performance.

Table 4: Items Deleted from the Job Performance Construct

Items	
Task 5	He/she neglects aspects of the job that he/she is obliged to perform.
Task 6	He/she fails to perform essential duties.
Conscientiousness 1	He/she follows the department's rules and regulations even when no one is watching.
Courtesy 2	He/she does not abuse the right of others.
Civic virtue 2	He/she keeps up to date with changes in the organization.
Civic virtue 3	He/she is confident that if he/she does his/her job honestly, he/she will be rewarded accordingly.
Civic virtue 5	He/she attends functions that help improve company's image even though his/her attendance is not compulsory.
Innovative behavior 2	He/she tries to adopt the improved procedures for this department.
Altruism 5	He/she helps to do work of those coworkers who have not been able to come to work.
Sportsmanship 1	He/she always complains about things that are not important. ®
Sportsmanship 2	He/she always find faults with what the organization is doing. ®
Sportsmanship 5	He/she is always complaining about work. ®

Table 5: Composite Reliability of the Job Performance Construct

Observed variables	Standardized loadings	(Sum of standardized loadings) <sup>2</sup>	Error	Number of items	Composite reliability
Task performance	0.910		0.060		
Conscientiousness	0.700		0.360		
Courtesy	0.800		0.230		
Civic virtue	0.670		0.380		
Sportsmanship	0.670		0.290		
Total	1.610	2.592	1.320	5	0.663
Altruism	0.800		0.390		
Innovative behavior	0.880		0.180		
Total	1.680	2.822	0.570	2	0.832

### **First-Order and Second-Order Job Performance Measurement Model**

The first order measurement model shows the value of TLI and CFI of 0.989 and 0.995 respectively. All loadings of items on their targeted factors were high, statistically significant, and above 0.55 the cutoff point used in the exploratory factor analysis. Both factors are correlated with the correlation value of 0.54 suggesting that these factors are interrelated but relatively are orthogonal of one another. The hierarchical factor structure of the job performance was also hypothesized and tested. The second order measurement model was found to be good fitted with TLI = 0.991, CFI = 0.987, RMSEA = 0.039, RMR = 0.011, normed chi-square = 1.387 ( $\chi^2 = 12.484$ ,  $df = 9$ ,  $p = 0.187$ ). The factor loadings for task performance and OCB were 0.94 and 0.58 respectively. In other words, both latent constructs converged to the job performance hierarchical factor structure. Observed variables loaded on each factor with standardized factor loadings of 0.67 to 0.91 ( $p < 0.05$ ), lending the evidence of convergent validity for all of the items. Model fit statistics comparing both factor models are presented in Table 7. Results indicated that the two measurement models for the job performance construct met the criteria for good fitting models. The second order factor reproduced similar results to the earlier first order factor.

Table 6: Variance Extracted for Job Performance Dimensions

Observed variables	SMC	Error	Number of items	Variance Extracted
Task performance	0.827	0.060		
Conscientiousness	0.497	0.360		
Courtesy	0.648	0.230		
Civic virtue	0.453	0.380		
Sportsmanship	0.452	0.290		
Total	1.324	1.320	5	0.501
Altruism	0.638	0.390		
Innovative behavior	0.776	0.180		
Total	1.414	0.570	2	0.713

Table 7: Model Fit Statistics for Each Hypothesized Measurement Model

Model	df	$\chi^2$	p	$\chi^2/df$	RMSEA	RMR	TLI	CFI
First-order	10	14.791	0.140	1.479	0.043	0.016	0.989	0.995
Second-order	9	12.484	0.187	1.387	0.039	0.011	0.991	0.987

## Discussion

Findings of the study indicated that only two factors of job performance, namely altruism and innovative behaviors, fall into the OCB construct while the rest loaded on the task performance factor. Such finding is possible because of the supervisory rating approach adopted in this study. In most instances, supervisors perceive OCB item as task performance instead of contextual performance. For example, Wilson (2005) found that 94 percent of supervisors considered OCB as part of their subordinates' task performance. Borman and Motowidlo (1997) also noted that supervisors viewed and evaluated task and contextual performance as a similar construct in appraising employees' job performance. Similarly, Van Scotter and Motowidlo (1996) stated that it is practically difficult to divorce task performance from several dimensions in contextual performance especially when the performance items were evaluated through supervisory ratings. Vey and Campbell (2004) conducted a study among respondents with and without supervisory experience to evaluate the in-role and extra role items. It was found that 17 of the 30 OCB items were categorized by 85 percent of the respondents as in-role performance. In fact, respondents without supervisory experience tend to categorize dimensions on altruism, courtesy, and sportsmanship as in-role compared to the other group of respondents. As such, it is interesting to raise several issues pertaining to the ambiguity in understanding task and conceptual performance concepts among supervisors.

Prior to evaluating subordinates' performance, it is crucial for supervisors to undergo training for the appraisal task. Bohlander and Snell (2007) noted that supervisors must be adequately trained in appraising subordinates' performance so that their appraisals are more meaningful and directive. By understanding subordinates tasks and performance standards and objectives or purposes of the appraisal, supervisors can provide useful feedbacks to subordinates and eventually help improve performance. In other words, training appraisers can ensure better

performance appraisal process which benefits both subordinates and supervisors.

Another plausible explanation for the cross-loadings of the OCB items is because of dimensions used in evaluating employees. Malaysian public servants are being evaluated based on several aspects *i.e.* task and other attributes that are similar to OCB items. This might have inadvertently influenced respondents' perception of the items. The respondents have been trained to evaluate employees based on the items and therefore OCB items in the performance appraisal were considered as task instead of contextual performance. This is in agreement with Organ's (1997) and Vey and Campbell's (2004) assertions that in assessing job performance, OCB items should be included because they are integrally measuring task performance as well.

## **Conclusions and Recommendations**

Based on the findings that showed the evidence of construct validity of the job performance items, this instrument can be used in the Malaysian studies. Results of this study also reported coefficient alphas were more than 0.90 for both task and contextual performance and exploratory factor analysis indicated support for the factorial validity of the job performance scale. Such findings suggest acceptable reliability and validity of the instrument.

Further, composite reliability, variance extracted, and confirmatory factor analysis provided the evidence of construct validity based on tests of significance and assessment of the measurement model fit. Thus, two subscales of job performance with first order and second order measurement model can be useful instruments in examining job performance in the Malaysian setting.

The present study has given a significant contribution in terms of construct development of a more comprehensive job performance measure. Given the psychometric properties of the instruments, which are very acceptable *i.e.* both constructs equal or exceed the measurement levels, this instrument can be used by Malaysian researchers in measuring job performance as all of the items measures the construct it was supposed to measure.

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