Asian Journal of Social Psychology

Asian Journal of Social Psychology (2008), **11**, 222–231 DOI: 10.1111/j.1467-839X.2008.00261.x

Construct of job performance: Evidence from Chinese military soldiers

Zheng-Xue Luo,[1] Kan Shi,[2] Wen-Dong Li[2] and Dan-Min Miao[1]
[1]*Fourth Military Medical University, Xi'An, and* [2]*Institute of Psychology, Chinese Academy of Sciences, Beijing, China*

The construct of job performance has been one of the important topics in job performance research. The present study investigated the construct of job performance among Chinese military soldiers using both qualitative and quantitative methods. First, after interviewing 95 officers and soldiers, we categorized and conceptualized eight sets of typical behavioural incidents related to soldiers' job performance, and designed a questionnaire measuring job performance. Then, using a sample of 1402 Chinese soldiers, questionnaire reliability and validity were tested, and then the questionnaire was revised. The construct of job performance was further refined using confirmatory factor analyses and regression analyses using another sample of 1068 soldiers. The results showed that Chinese military soldiers' job performance consisted of two dimensions of task performance and contextual performance. Furthermore, task performance had three subfactors: military training, task accomplishment and work capability, whereas contextual performance encompassed four factors: helping others, love of learning, promoting organizational benefit and self-discipline. Task performance and contextual performance contributed independently to overall job performance.

Key words: China, contextual performance, job performance, task performance.

Introduction

Job performance is one of the most important topics in Industrial/Organizational Psychology. Campbell (1990) defined job performance as individuals' behaviours regarding self-control and those affecting achievement of organizational goals. Many scholars have adopted this definition and conducted research on such behaviours, including task performance, citizenship behaviours, and counterproductive behaviours (Hollinger & Clark 1983; Giacalone & Greenberg, 1997; Rotundo & Sackett 2002). Motowidlo, Borman, and Schmit (1997) further advanced a definition of job performance, conceptualizing it as behavioural, episodic, evaluative and multidimensional.

Scholars have used different methods in their researches on job performance and found various dimensions of the construct. Katz and Kahn (1978) proposed a basic model, in which job performance could be categorized into three types of behaviours: (i) joining and staying in the organization; (ii) independently meeting or exceeding standards of performance prescribed by organizational roles; and (iii) innovatively going beyond prescribed roles to perform discretionary actions such as cooperating with others, protecting organization resources, offering suggestions for improvement, self-development, and representing the organization favourably to outsiders. Behaviours described in (ii) and (iii) are different from role requirements prescribed by organizations. They are discretionary, not required by organizations, but are important to organization effectiveness. According to whether behaviours positively or negatively influence organizational goals, Borman and Motowidlo (1993) divided job performance into task performance and contextual performance. Further, they made distinctions between task performance and contextual performance in three ways: (i) prescribed or discretionary role behaviours; (ii) cooperative or helping behaviours like organizational citizenship behaviours (Organ, 1988), prosocial behaviours (Brief & Motowidlo, 1986) and organizational spontaneity (George & Brief, 1992); and (iii) relating these behaviours to task proficiency. Both task performance and contextual performance are essential to achieve organizational goals but in different ways. Rational task behaviours are required to complete job tasks whereas contextual behaviours can help safeguard and improve the social and psychological environment in the organization and, thus, may complement the function of core tasks. Task performance includes two types of behaviours. One type of behaviour refers to direct transformation of raw materials into products and services, such as selling goods on retailers' counters, operating machines in the workshop, teaching in schools, and performing surgical operations in a hospital. The other type denotes maintaining and keeping core technology by supplying raw materials, distributing products and providing important advice, cooperation,

Correspondence: Dan-Min Miao, Department of Psychology, Fourth Military Medical University, Xi'An 710032, China. Email: psych@fmmu.edu.cn
Received 11 January 2006; accepted for publication 27 September 2007.

supervision and improving the working atmosphere so as to ensure that the skills and core technology are able to play their role in organizational effectiveness. Therefore, task performance behaviours are directly related to organizational core skills and technology and have their effect through implementing technology or maintaining technical requirements. Contextual performance can help build a supportive organizational, social and psychological atmosphere in order to assure that core technology and skills can play their roles effectively, but are not core technology or activities per se. Contextual performance includes helping and cooperation behaviours such as organizational citizenship behaviours, prosocial organizational behaviour, and organizational spontaneity, whereas task performance encompasses none of the above. In other words, task performance consists of role-prescribed behaviours, whereas contextual performance is more about discretionary behaviours.

The division of job performance into task performance and contextual performance proposed by Borman and Motowidlo (1993) has received empirical support from several studies. Motowidlo and Van Scotter (1994) investigated the job performance of 300 members of the US Air Forces by their superiors, and found significant correlations between overall job performance and task performance (0.43), and between overall job performance and contextual performance (0.41). This study also revealed that task performance and contextual performance contributed independently to overall job performance. Borman, White, and Dorsey (1995) collected supervisors' and peer ratings of overall job performance, task performance and contextual performance data from 400 soldiers in the US Army. Path analysis showed that overall job performance was influenced by both task performance and contextual performance, supporting the division of job performance into task performance and contextual performance. This further demonstrated that task performance and contextual performance independently contribute to overall job performance. Their ratio of contribution is different in various types of work (Johnson, 2001).

More recently, some researchers have conceptualized contextual performance as two factors: interpersonal facilitation and job dedication. Interpersonal facilitation includes interpersonal behaviours contributing to the achievement of organizational goals, such as cooperating with others, understanding others, and helping colleagues. Job dedication includes self-disciplined, aggressive behaviours and those following organization rules, which can help organizations achieve their goals. Using data from 1136 airplane mechanics, Van Scotter and Motowidlo (1996) provided evidence that interpersonal facilitation and job dedication accounted for variance in overall job performance independently. They, therefore, concluded that there are three dimensions of job performance, task performance, interpersonal facilitation and job dedication. Likewise, Conway's (1999) research found that task performance, job dedication, and interpersonal facilitation significantly predicted overall job performance ($\beta = 0.48, 0.31, 0.21$, respectively).

Some scholars have conducted studies on job performance in the Chinese context. For example, Kwong and Cheung (2003) reported that in HK, personality traits concerning interpersonal orientation of supervisors in an elite hotel chain were good predictors of their interpersonal contextual behaviours, whereas personality traits concerning personal virtue predicted the personal domain of contextual behaviours. But this study didn't explore the construct of job performance. Similarly, Ang, Van Dyne, and Begley (2003) compared task performance and organizational citizenship behaviours between local Chinese employees and employees from other countries, but they didn't assess the construct of job performance either.

It is important, in the Chinese social and culture context, to investigate the construct of job performance. The present study is aimed, in the Chinese social and cultural context, to investigate the construct of job performance using a sample of Chinese soldiers, and examine whether different domains of job performance (e.g. task performance and contextual performance) contribute independently to overall performance. The results of the present study can be taken as a criterion for the selection, assessment and training of soldiers, and provide a theoretical basis for job performance evaluation.

Study 1: Conceptualization and instrument development

Conceptualization

In the current study, we defined soldiers' job performance as a representation of soldiers' assessable explicit behaviours during training and life, which will have either positive or negative effects on the achievement of organizational goals. Only behaviours that have influences on the achievement of organizational goals fall in the scope of job performance. According to this definition, a collection of typical behavioural events affecting soldiers' job performance was the basis to develop an instrument to measure their job performance. Therefore, in the first stage, a series of structured interviews were conducted with 15 officers and 80 soldiers in fighting units. The officers were company commanders, political instructors, and platoon leaders. The soldiers were first-class and second-class sergeants, and were in their second year of service. They were a representative sample of the targeted population of Chinese soldiers.

The interviews were conducted within the company as the basic unit, each having one to two officers and seven to 10 soldiers each. All the interviewees were randomly

selected from the muster roster of the company. Each interviewee was asked to list one to three soldiers with the best and worst performance and give explanations and concrete behavioural events in detail. The interviews were carried out in strict accordance with an interview outline and were taped.

The transcripts of these interviews were analyzed next. The original interview records contained approximately 120 000 words, with 1067 behaviours that influenced job performance of soldiers. First, the researchers sorted out the 1067 behaviour events affecting the job performance of soldiers into categories. In the course of category induction and sorting-out behaviours, identical sentences that expressed the same behaviour were combined and frequencies were recorded. Then sentences that expressed basically consistent meaning were combined and frequencies were recorded. The expression of behavioural events affecting the job performance of soldiers was thus encoded and combined, forming a list of 214 behavioural events affecting the job performance of soldiers. Five specialists (two military psychological specialists, two army political work specialists, and one army military specialist) were invited to classify the 214 behavioural events affecting the job performance of soldiers and formed a typical behaviour description of each category. After three repeated discussions, the behavioural events affecting the job performance of soldiers were finally grouped into eight categories: military training, task accomplishment, helping others, being polite to others, discipline observation, love of learning, promoting organizational benefits, and work capability. Descriptions of 51 behavioural events affecting the job performance of soldiers were finally formed, elucidating these categories.

Instrument development

A questionnaire to evaluate the job performance was developed with 51 items from the eight categories obtained from the content analysis just described. The 51 items were randomly arranged and seven other specialists (three army political work specialists, two army administrative specialists and two military psychological specialists) who were unaware of research purposes sorted the 51 items into eight categories once again. Only the items correctly sorted by over 70% specialists were retained. The specialists discussed items that failed to reach general consensus. The items with general agreement during discussion were retained. The items without general agreement were deleted. Meanwhile, similar items were cut out. The wording of each item was revised, leading to a final questionnaire with 44 items. Next, another 35 officers and 98 soldiers were invited to resort the 44 items into the eight factors again. The items that were correctly sorted in corresponding dimensions by over 70% officers and soldiers were retained, resulting in a questionnaire with 40 items as the last version used in following studies.

Study 2: Instrument validation

Participants

Participants were officers and soldiers of fighting forces in different companies located in diverse regions. One thousand four hundred and eighty evaluation questionnaires were distributed and 1402 usable questionnaires were returned, with a rate of 94.7%.

Measures and procedure

Participants were asked to evaluate the job performance of their subordinates on a five-point Likert scale, ranging from 1 (strongly disagree) to 5 (strongly agree) using the 40-item questionnaire developed in study 1.

The investigation was conducted with the company as the unit of investigation. The evaluators in each company were the two leaders of the company or platoon who had stayed in the company for the longest time, three more soldiers, and three sergeants of the first class or second class (for a total of eight per company or platoon). Second-year soldiers were evaluated. An imbedding design was used for evaluation (Scullen, Mount, & Goff, 2000), resulting in the job performance of each soldier being evaluated respectively by eight evaluators. The researchers gathered the evaluators together and the soldiers to be evaluated were randomly taken out of the muster roll of the company. The evaluators independently fulfilled the questionnaires based on their knowledge of daily job performance of soldiers to be evaluated. To ensure that evaluators gave true responses, the following procedures were taken: (i) the evaluators were promised of anonymity and their responses were used only for academic purposes; (ii) each evaluator was given a black pen to ensure that all questionnaires would be filled out with the same ink; (iii) questionnaires were completed during training time, with no interference with rest time, and a small souvenir was given to each evaluator; and (iv) the number of the soldiers to be evaluated by each evaluator was from 13 to 17 and the total time used to complete the evaluation was less than 2 h.

Results

Construct validity. Principal component analyses (PCA) were carried out with promax rotation and 25 maximum iterations to derive common factors. PCA were performed interactively and, finally, a seven-factor structure was obtained, with eigenvalues all over 1, accounting for 67.33% variance. Factor 1 had 11 items, containing items

such as obeying orders, self-discipline, and keeping solidarity with others. This factor was named 'Self-discipline'. Factor 2 included eight items measuring the quality and efficiency of task completion and was termed 'Task accomplishment'. Factor 3 had four items, such as helping others in the army in work and caring for others. This factor was named 'Helping others'. Another four items, namely, body energy drilling, professional skills, operation of arms and equipment, comprised the fourth factor entitled 'Military training'. Factor 5 had five items (e.g. sparing use of public properties, maintaining collective honour, presenting reasonable proposals) and was defined as 'Promoting organizational benefits'. Factor 6 was composed of four items, including receptivity, communication ability and physical fitness. This factor was named 'Work capability'. Factor 7 encompassed four items (e.g. studying hard, active participation of training, intensive study of military knowledge). This factor was named 'Love of learning'. When comparing the results of PCA with the classification of soldiers' job performance behaviours that we acquired through interview and content analyses we obtained the results as shown in Table 1.

Table 1 shows the names, descriptions and the composing items of each factor. Six factors: military training, task accomplishment, helping others, self-learning, promoting organizational benefit and work capability obtained from PCA, were identical to those acquired through the conceptualization and categorization procedure. Items belonging to 'being polite to others' and 'discipline observation' obtained in the categorization process loaded on one factor in the PCA, named 'self-discipline'. Perhaps, one possible explanation relates to the specific context of the Chinese army in which basic unit requirements include showing politeness to others, cooperation, being honest, respecting leaders and following rules and regulations. Therefore, it was reasonable that items pertaining to being polite and disciplined loaded on one single factor.

With regard to the loading of each item in PCA, the highest loading of two items did not fall on the anticipated factors. The item 'being able to have good social relations and communication with others' (item #22) was considered conceptually to be part of the factor 'being polite to others'. But PCA demonstrated that its highest loading fell into the 'work capability' factor. From further analysis, it was revealed that what the item actually expressed was a social skill, which pertained to the work capability of an individual. Its highest loading was 0.56. This item was therefore included in the 'work capability' factor. With 'active and painstaking participation in military training' (item #4), it was considered during design to be part of the factor 'military training'. But its highest loading was on the factor 'task accomplishment' with a value of 0.45, and a secondary loading on the factor of 'military training' with a value of 0.42. This shows that there was interplay of the

Table 1 Comparison of results between PCA and categorization of items

Categorization	Items	PCA	Items
Military training	I1, I2, I3, I4, I5	Military training	I1, I2, I3, I5
Task accomplishment	I6, I7, I8, I9, I10, I11, I12	Task accomplishment	I6, I7, I8, I9, I10, I11, I12
Helping others	I13, I14, I15, I16	Helping others	I13, I14, I15, I16
Being polite to others	I17, I18, I19, I20, I21, I22	Self-discipline	I17, I18, I19, I20, I21, I23, I24, I25, I26, I27, I28
Self-discipline	I23, I24, I25, I26, I27, I28	Love of learning	I29, I30, I31, I32
Love of learning	I29, I30, I31, I32	Promoting organizational benefit	I33, I34, I35, I36, I37
Promoting organizational benefit	I33, I34, I35, I36, I37	Work capability	I38, I39, I40, I22
Work capability	I38, I39, I40		

PCA, principal component analyses.

item between 'task accomplishment' and 'military training' factors. The item was therefore deleted because of excessive cross-loading. There was another item 'showing concern for the company and presenting reasonable proposals frequently' (item #37). Its highest loading was less than 0.50, and for the factors 'promoting organizational benefit', 'work capability' and 'love of learning', the loadings were 0.40, 0.36, and 0.30, respectively. This shows that the classification of the item was rather dispersed so the item was deleted. After deleting items 0.4 and 37, the remaining 38 items were subjected to PCA again. Table 2 illustrated the final PCA results (wording of the items can be seen in Appendix I).

It can be seen in Table 2 that seven factors were obtained from PCA of the 38 items. The results were in basic agreement with those obtained before deletions. The total variance explained was 67.83%, a slight increase. The highest loading value for each item fell on the appropriate conceptual factor and all factor loadings were greater than 0.50. The final questionnaire on job performance for soldiers consisted of 38 items with good construct validity (see Appendix I for all items). It included seven factors: self-

Table 2 PCA results of Study 2

Item	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5	Factor 6	Factor 7
I19	0.74	0.14	0.13	0.13	0.14	0.12	0.08
I18	0.72	0.29	0.18	0.14	0.15	–0.09	0.13
I21	0.71	0.09	0.18	0.10	0.01	0.17	0.09
I23	0.69	0.20	0.10	0.09	0.27	0.11	0.05
I24	0.68	0.20	0.05	0.07	0.33	0.07	0.12
I20	0.67	0.22	0.20	0.13	0.01	0.36	–0.05
I17	0.63	0.20	0.32	0.06	0.13	0.27	0.02
I28	0.63	0.13	0.06	0.09	0.31	0.04	0.16
I25	0.61	0.31	0.13	0.15	0.07	0.06	0.34
I27	0.58	0.12	0.09	0.15	0.35	–0.08	0.31
I26	0.53	–0.03	0.19	0.16	0.07	–0.20	0.37
I7	0.19	0.78	0.12	0.30	0.12	0.14	0.16
I6	0.18	0.78	0.13	0.29	0.11	0.07	0.11
I8	0.16	0.77	0.13	0.31	0.11	0.15	0.16
I9	0.44	0.62	0.21	0.05	0.27	0.11	0.11
I10	0.44	0.59	0.23	0.07	0.26	0.13	0.19
I11	0.40	0.54	0.26	0.14	0.27	0.10	0.23
I12	0.44	0.52	0.25	0.14	0.27	0.05	0.18
I15	0.23	0.11	0.80	0.11	0.18	0.15	0.19
I14	0.22	0.19	0.76	0.10	0.20	0.14	0.12
I16	0.23	0.15	0.75	0.15	0.16	0.16	0.20
I13	0.26	0.30	0.64	0.19	0.21	0.14	0.17
I2	0.16	0.21	0.09	0.81	0.11	0.18	0.06
I1	0.11	0.20	0.11	0.80	0.11	0.13	0.04
I3	0.22	0.17	0.17	0.69	0.16	0.20	0.16
I5	0.17	0.35	0.13	0.64	0.11	0.13	0.24
I34	0.28	0.16	0.21	0.16	0.73	0.14	0.10
I33	0.34	0.17	0.23	0.12	0.64	0.06	0.18
I35	0.23	0.30	0.23	0.22	0.61	0.21	0.14
I36	0.33	0.22	0.25	0.15	0.59	0.28	0.08
I40	0.07	0.05	0.17	0.28	0.17	0.75	0.14
I38	0.07	0.12	0.14	0.04	0.11	0.71	0.27
I39	0.10	0.13	0.14	0.28	0.21	0.69	0.26
I22	0.46	0.17	0.24	0.17	–0.04	0.56	–0.03
I29	0.25	0.24	0.19	0.14	0.08	0.26	0.67
I32	0.12	0.19	0.13	0.05	0.13	0.35	0.63
I30	0.24	0.30	0.22	0.26	0.15	0.23	0.58
I31	0.22	0.19	0.27	0.16	0.34	0.20	0.50

$N = 1042$.

F1, Self-discipline; F2, Task accomplishment; F3, Helping others; F4, Military training; F5, Promoting organizational benefit; F6, Work capability; F7, Love of learning. PCA, principal component analyses.

Table 3 Rating agreement of job performance of Study 2

	N	F1	F2	F3	F4	F5	F6	F7
Sample 1	17	0.68	0.71	0.60	0.74	0.64	0.70	0.63
Sample 2	14	0.63	0.70	0.68	0.69	0.69	0.62	0.57
Sample 3	17	0.69	0.65	0.54	0.70	0.62	0.67	0.68

F1, Self-discipline; F2, Task accomplishment; F3, Helping others; F4, Military training; F5, Promoting organizational benefit; F6, Work capability; F7, Love of learning. PCA, principal component analyses.

discipline, military training, task accomplishment, helping others, love of learning, promoting organizational benefit and work capability.

Reliability and item analysis. The reliability coefficients for the seven factors in the questionnaire ranged from 0.80 to 0.93, which were acceptable. All subscales of the questionnaire had good internal consistency. Moreover, item-total correlations for the 38 items ranged from 0.50 to 0.79, and deletion of any of the items did not enhance reliability. Taken together, all these showed that the 38-item questionnaire had good internal consistency.

We also calculated agreement regarding performance ratings across eight evaluators. The evaluation was conducted with the company as a unit, so we randomly selected three companies to assess agreement of performance ratings. Averaged Spearman *r*'s between ratings between every two of evaluators was used as an index of rater reliability, with a range from 0.54 to 0.74, showing modest agreement. The results are shown in Table 3.

Study 3: Further investigation of the construct of job performance

Many researchers have dealt with the construct of individual job performance by using different methods and presented corresponding models. Campbell (1990) divided job performance into eight independent components: job-specific task proficiency, non-job-specific task proficiency, written and oral communication proficiency, demonstrating effort, maintaining personalized discipline, facilitating team and peer performance, supervision and leadership, and management and administration. Borman and Motowidlo (1993) distinguished task performance from contextual performance according to whether performance behaviours would have positive or negative effects on organizational goals. Van Scotter and Motowidlo (1996) proposed that contextual performance covers two domains, interpersonal facilitation and job dedication, thus further dividing job performance into three dimensions: – task performance, interpersonal facilitation and job dedication. So what is the construct of job performance for Chinese soldiers? Can these seven factors obtained in study 1 and study 2 be related to second-order factors of job performance? Study 3 intends to address these above questions.

Measures and procedure

The participants were male officers and soldiers of different armed forces in various regions who did not take part in previous studies. One thousand, one hundred and twelve questionnaires were distributed and 1068 usable questionnaires were returned. The questionnaire used was a revised study 2 questionnaire with 38 items and a further item to measure overall job performance. The order of items was counterbalanced with respect to overall job performance and other performance items, and questionnaires were randomly distributed to evaluators. An embedding design was used to conduct investigations with the company taken as the unit as well. The method was the same as that used for study 2.

Results

Construct of job performance. To further investigate the structure of job performance for Chinese soldiers, we assessed four alternative models. Model 1 was a one-factor model in which all the 38 items were used to measure a single dimension of job performance. Model 2 was the seven-factor model obtained in study 2. The other two models were second order in nature, both with the seven factors derived from study 2 as the first-order factors. Model 3 had two second-order factors, with three first-order factors, military training, task accomplishment and work capability, comprising a task performance dimension and the other four first-order factors (e.g. helping others, promoting organizational benefit, love of learning, and self-discipline) forming a contextual performance dimension). Model 4 had three second-order factors, namely job dedication (promoting organizational benefit, love of learning, and self-discipline), interpersonal facilitation (helping others) and task performance (military training, task accomplishment and work capability).

Amos software was used for confirmatory factor analysis (CFA). As suggested by Medsker *et al.* (1994) and

Table 4 Confirmatory factor analysis results of Study 3

Model	Chi-squared	df	GFI	NFI	CFI	RMSEA
Model 1	10 025.97	702	0.58	0.63	0.64	0.11
Model 2	8 001.47	670	0.64	0.70	0.72	0.10
Model 3	2 586.19	662	0.87	0.89	0.91	0.06
Model 4	3 856.74	661	0.79	0.84	0.86	0.07

All chi squared tests are statistically significant.
$N = 1068$.
CFI, comparative fit index; GFI, goodness of fit test; IFI, incremental fit index; NFI, normed fit index; RMSEA, root mean square error of approximation; TLI, Tucker-Lewis Index.

DiStefano (2002), chi-squared/df, goodness of fit test (GFI), normed fit index (NFI), comparative fit index (CFI), and root mean square error of approximation (RMSEA) were used as model fit indices. The rules of thumb used for model fit were under 5 for the χ^2/df, 0.90 and above for GFI, NFI, and CFI values, less than 0.08 for RMSEA values. Table 4 presents the model fit of the four models.

An inspection of Table 4 shows that model 3 was the best-fitting model. Moreover, the factor loading of each observed variable on the corresponding latent factor is an important index of model fit. Generally speaking, when the factor loadings are higher, this shows that model fit is better and the relationship between the observed variables and latent variables are more reliable. The factor loadings of 38 items in model 3 ranged from 0.62 to 0.84, and the loadings of military training, task accomplishment, and work capability on task performance were 0.71, 0.89, and 0.66, respectively. The loadings of helping others, promoting organizational benefit, love of learning and self-discipline on contextual performance are 0.76, 0.86, 0.85, and 0.83, respectively. All item loadings were significant, which further showed that model 3 has the best model fit. In sum, model 3, with two second-order factors (task performance and contextual performance) was the best model to fit data in this study.

Prediction of overall job performance from job performance domains. The means, *SD* and correlations of the task performance, and contextual performance factors and overall job performance are presented in Table 5.

Table 5 shows that there were significant correlations between task performance, contextual performance and overall job performance. So, we further regressed overall job performance on task and contextual performance separately and then on both of the two performance factors in order to examine whether task performance and contextual performance could independently explain variance in overall job performance. The results are presented in Table 6.

It can be found from Table 6 that contextual performance explained 5% incremental variance in overall job performance after the effect of task performance was taken into account. However, task performance accounted for 6% incremental variance in overall job performance when contextual performance was controlled for. The results suggest that task performance and contextual performance each made independent contributions to overall job performance.

Table 5 Means, *SD* and intercorrelations between task performance, contextual performance and overall job performance

Variable	*M*	*SD*	1	2
1 Task performance	3.65	0.59		
2 Contextual performance	3.73	0.54	0.76**	0.67**
3 Overall job performance	3.95	0.71	0.68**	

**$p < 0.01$.
$N = 1068$.

Table 6 Regression analysis results of overall job performance

Variable in regression	Adjusted R^2	ΔR^2
Task performance	0.46**	0.05**
Task performance + contextual performance	0.51**	0.06**
Contextual performance	0.45**	
Contextual performance + task performance	0.51**	

**$p < 0.01$.
$N = 1068$.

General discussion

Job performance is an important theoretical and practical problem in Industrial and Organizational Psychology. From a practical perspective, job performance plays a key role in

personnel decisions, such as merit-based compensation, promotion, and retention. It is also used as an important source of developmental feedback. Many organizations expect to establish a set of methods and tools to scientifically evaluate individual job performance in organizations. From a theoretical perspective, researchers have been interested in understanding predictors of job performance (Scullen *et al.*, 2000). A large body of research has focused on predictors of job performance. Research on personnel selection has paid more attention to the predictors of performance than to the construct of job performance per se (Campbell, 1990). But, it is important to investigate the construct of job performance because an adequate and relatively full understanding of the construct of job performance for a specific job will play a fundamental role not only in understanding job performance per se but also in exploring its predictors of specific performance domains (Motowidlo *et al.*, 1997). The present study contributed to studies on job performance in several respects.

First, we used quantitative and qualitative methods to collect critical behavioural events of job performance and developed a questionnaire to measure job performance for Chinese soldiers. The questionnaire was found to have good reliability and validity. Through CFA of 1068 questionnaires, we found that the construct of job performance of Chinese soldiers contained two components, namely, task performance and contextual performance. Task performance included three factors: military training, task accomplishment and work capability. Contextual performance was composed of four factors: helping others, love of learning, promoting organizational benefit, and self-discipline. Regression analysis results further revealed that task performance and contextual performance made independent contributions to overall job performance. This result was consistent with previous studies (e.g. Borman & Motowidlo, 1993; Borman *et al.*, 1995; Borman & Motowidlo, 1997; Johnson, 2001). Coupled with previous studies, this study suggests that in both China and the West, individual job performance can be separated into two dimensions: task performance and contextual performance. It should be noted that in the current study, there was a highly significant correlation between task performance and contextual performance, a correlation 0.76. This was congruent with the correlation (0.5 to 0.6) reported by Conway (1996). This suggests that task performance and contextual performance are not completely independent.

In contrast, some studies found that performance evaluation in Chinese organizations is likely to be influenced by emotional factors and interpersonal relationships, and contextual performance is given greater weight in performance ratings (Zhou & Wang, 2000). But, according to our results, we found that task performance and contextual performance contributed approximately equally to overall job performance. This may be due to the fact that the soldiers are a special group in which requirements to complete tasks are very clear, thereby increasing the effect of the task performance's overall job performance.

Second, this study examined the construct of contextual performance and found a division of contextual performance into job dedication and personal facilitation not appropriate (Van Scotter, & Motowidlo, 1996). A further analysis of the items of contextual performance may provide an explanation for this particular result. In the context of Chinese military, as interpersonal facilitation is highly valued, it is possible that items belonging to interpersonal facilitation can also fall in the job dedication domain. For example, some items in the 'self-discipline' factor are 'being polite to others', and 'not talking badly about others and superiors behind their backs'. These items also concern interpersonal relationships. Probably because of this, model 4, in which contextual performance was divided into job dedication and interpersonal facilitation, was not as good as model 3, in which contextual performance was not divided. Further study can assess whether this is the case for other jobs in the Chinese context.

When differentiating the concept of task performance from contextual performance, scholars categorized motive as part of the domain of contextual performance (Borman & Motowidlo, 1993). But, actually, it seems difficult to fully separate motives from task performance (Van Scotter & Motowidlo, 1996). From our results, it can be seen that task performance covers motivational factors. For instance, in the subfactor of task performance ('task accomplishment'), items such as 'active completion of the job', and 'working hard to complete the task with high standards', contain elements of motivation. Van Scotter and Motowidlo (1996) proposed that when defining task performance, motivational factors like job dedication need to be considered. The motive to effectively complete job tasks can be demonstrated through persistence and one's own will, whereas in the course of promoting interpersonal, group and organizational objectives, motivation can also be manifested through persistence and one's own will. Hence, there is a factor of motive in both task performance and contextual performance.

References

Ang, S., Van Dyne, L. & Begley, T. M. (2003). The employment relationships of foreign workers versus local employees: A field study of organizational justice, job satisfaction, and OCB. *Journal of Organizational Behaviour, 24,* 561–583.

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, CA: Jossey-Bass.

Borman, W. C. & Motowidlo, S. J. (1997). Task performance and contextual performance: The meaning for personnel selection research. *Human Performance, 10,* 99–109.

Borman, W. C., White, L. A. & Dorsey, D. W. (1995). Effects of ratee task performance and interpersonal factors on supervisor and peer performance ratings. *Journal of Applied Psychology, 80,* 168–177.

Brief, A. P. & Motowidlo, S. J. (1986). Prosocial organizational behaviors. *Academy of Management Review, 11,* 710–725.

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.

Conway, J. M. (1996). Analysis and design of multitrait-multirater performance appraisal studies. *Journal of Management, 22,* 139–162.

Conway, J. M. (1999). Distinguishing contextual performance from task performance for managerial jobs. *Journal of Applied Psychology, 84,* 3–13.

DiStefano, C. (2002). The impact of categorization with confirmatory factor analysis. *Structural Equation Modeling, 9,* 327–346.

George, J. M. & Brief, A. P. (1992). Feeling good-doing good: A conceptual analysis of the mood at work-organizational spontaneity relationship. *Psychological Bulletin, 112,* 310–329.

Giacalone, R. A. & Greenberg, J. (1997). *Antisocial Behaviour in Organizations*. Thousand Oaks, CA: Sage.

Hollinger, R. C. & Clark, J. P. (1983). *Theft by Employees*. Lexington, MA: Heath.

Johnson, J. W. (2001). The relative importance of task and contextual performance dimensions to supervisor judgments of overall performance. *Journal of Applied Psychology, 86,* 984–996.

Katz, D. & Kahn, R. L. (1978). *The Social Psychology of Organizations*, 2nd edn, pp. 87–94. New York: Wiley.

Kwong, J. Y. Y. & Cheung, F. M. (2003). Prediction of performance facets using specific personality traits in the Chinese context. *Journal of Vocational Behaviour, 63,* 99–110.

Medsker, G. J., Williams, L. J. & Holahan, P. J. (1994). A review of current practices for evaluating causal models of organizational behaviour and human resources management research. *Journal of Management, 20,* 429–464.

Motowidlo, S. J., Borman, W. C. & Schmit, M. J. (1997). A theory of individual differences in task and contextual performance. *Human Performance, 10,* 71–83.

Motowidlo, S. J. & Van Scotter, J. R. (1994). Evidence that task performance should be distinguished from contextual performance. *Journal of Applied Psychology, 79,* 475–480.

Organ, D. W. (1988). *Organizational Citizenship Behaviour: The Good Solider Syndrome*. Lexington, MA: Lexington Books.

Rotundo, M. & Sackett, P. R. (2002). The relative importance of task, citizenship, and counterproductive performance to global ratings of job performance: A policy-capturing approach. *Journal of Applied Psychology, 87,* 66–80.

Scullen, S. E., Mount, M. K. & Goff, M. (2000). Understanding the latent structure of job performance ratings. *Journal of Applied Psychology, 85,* 956–970.

Van Scotter, J. R. & Motowidlo, S. J. (1996). Interpersonal facilitation and job dedication as separate facets of contextual performance. *Journal of Applied Psychology, 81,* 525–531.

Zhou, Z. & Wang, E. (2000). Task performance and contextual performance. *Journal of Developments in Psychology, 8,* 54–57 (in Chinese).

Appendix I

Factors and items relating to job performance for Chinese soldiers

Factor 1: Self discipline. Being polite to others and being able to show solidarity with others; being honest and not cheating leaders and comrades in arms; having a sense of solidarity and never talking about comrades in arms and superiors behind their backs; acting in a civilized way outside of the military camp area and not having conflicts with others; being kind to comrades in arms and never beating and scolding comrades in arms; showing respect to leaders and obeying orders; resolute implementation of instructions and requirements of superiors without disputing orders; being strict with oneself and having a good lifestyle; having no bad behaviour and habits like excessive drinking etc.; conscious observation of all rules and regulations of the army; conscious observation of the administration of the squad leader and never contradicting the squad leader.

Factor 2: Task accomplishment. The quantity of work is higher than the average level of soldiers in the same year; the quality of work is better than the average level of soldiers in the same year; the efficiency of work is higher than the average level of the soldiers in the same year; active completion of the task; being careful and dependable and responsible; the standards of work quality are higher than those required; working effectively and with high commitment in different positions.

Factor 3: Helping others. Helping others in the same company with respect to training and work tasks; showing concern and care for others who are sick; showing sympathy and helping others with family difficulties; actively helping others to deal with other problems.

Factor 4: Military training. Excellent scores on physical training; excellent scores on required courses on individual fighting; taking good advantage of weapons; extraordinary professional skills.

Factor 5: Promoting organizational benefit. Valuing and protecting public property of the company; consciously maintaining the good name of the company; taking initiatives to undertake urgent, difficult, and even dangerous tasks, vying for the honour of the company; keeping the

collective in mind and taking the interests of the collective first.

Factor 6: Work capability. Being competent to communicate with others; being able to learn new techniques and new skills; having a strong body; being smart and acting quickly according to the environment; being qualified to complete job tasks.

Factor 7: Love of learning. Using spare time to study hard and to increase one's knowledge and skills; mastering military knowledge and enhancing military skills; actively participating in various types of study and training organized by the company; modestly getting consultation to strengthen professional skills.