DEVELOPMENT AND VALIDATION OF TEACHERS PERCEIVED JOB PERFORMANCE SCALE (TPJP) IN HIGHER EDUCATION

Shabir Ahmad Bhat[1] and Anoop Beri[2]

Performance of teachers is of high applicability for both student generations and educational organizations, it is a basic component of education sector, instructional and behavioral research and is considered as fundamental element of educational reform and effective environment. Present paper narrates the development and validation process of teachers perceived job performance, by reviewing available literature and writing of new items. The development and validation process was carried out in different steps using independent sample. Analyzing data of 240 university teachers, investigator found evidence for convergent validity, showing that dimensions viz. Task Performance, Contextual Performance & Adaptive Performance were positively correlated with total score of perceived job performance. The internal consistency indices, alpha coefficient (0.85) is adequate for the entire scale of the (TPJP). Overall results revealed this scale possesses adequate psychometric properties specifying precision and consistency of results. Hence could be considered appropriate self-administered measure assessing perceived job performance among university teachers.

INTRODUCTION

In present era Quality and products of educational society is categorically predisposed by job performance of teachers'. Ineffective performance of teacher will dis-balance the whole educational society. Therefore for the development of a robust educational system, it is obligatory that teachers' must possess dynamic job performance. Definition of performance is very flexible as everyone places the concept that suits best, and letting the context take care of the definition. Job performance commonly deals with the workplace. It commonly refers to whether an employee performs his/her job well. It is one of the vital elements in organizational behavior research, considered as primary indicator for the effective organizations (Yusoff, Ali, & Khan, 2014, p.35). According to Smithikrai (2007) employee's job performance is an important factor of an organization that pushes it forward to be an excellent one. Educational industry is also dependent on the job performance of its employees (teachers), as the enhancement and quality of educational system is greatly influenced by the teachers job performance, hence job performance of a teacher is an important factor which improves not only the educational system but whole society (Yusoff, Khan & Azan, 2013).

[1] Doctoral Fellow, Department of Education, Lovely Professional University (Punjab), *E-Mail: shabirb642@gmail.com*

[2] Assistant Professor, Department of Education, Lovely Professional University (Punjab), *E-mail: anoop.16085@lpu.co.in*

Inspite of lack of definition, performance as criterion is extremely important in relating the organizational outcomes and success. Job performance is an important key component of organizational behavior research, which is considered as an important indicator of effective organizations, thus success and failure of any organization depends on the performance of its employees (Colquitt, Lepine & Wesson. 2009). Job performance is a set of employee behaviour's which can be measured, monitor and assessed achievements in individual (Muchinsky, 2003). Job performance is well explained from behavioral point of view by Grote (2002) when an individual concentrates on job related tasks, he/she is able to evaluate job performance precisely by eliminating rating bias, as it can be achieved only when output criteria of an working environment is clearly defined. Consequently behaviors are consistent with goals of organization, emotions of an employee are the basic factor which controls the behaviour of person and positively impacts on organizational citizenship behaviour and employees performance (Kambiz & Majid 2013).

Performance at job is the joint value of different behavioral episodes of the organization which an employee performed in a fixed time interval, it is an act which involves both process as well as product (Vanderlinde, 2005). Performance is not solely determined by individual actions but also due to certain external factors and performance capacity (Ivancevich, Konoposke & Matteson, 2005). Vishwesvaran *et al.*, (1996) described job performance in terms of observable and non-observable behaviors that can be appraised, while Rothmann and Coetzer (2003) described job performance as a multi-dimensional concept describing how one completes a task, focusing on his skills, efficiency, initiatives and resource utilization. It is divided into two components: Task and Contextual performance. Primary is referred with behaviour's directly connected with job completion and consisted of implementation of technical process, maintenance and services of requirements, while later referred to interpersonal behaviour's or actions that benefit the organization (Motowildo *et al.,* 1997; Kennedy *et al.*, 2001; Hanif, & Pervez, 2004; Greenslade, & Jimmieson, 2007; Johari, & Yahya, 2012; Yusoff *et al.*, 2014). Due to the modernization and dynamic approach of work environment of the modern organizations, employees are supposed to adjust with the work environments and need for adaptive performance became essentially important Pulakos *et al.,* (2000).

The term performance is often conceptualized in various contexts such as **Job Performance; Employee Performance; Individual Performance; Work Performance; Organizational Performance;** & **Perceived Job Performance.**

RATIONALE OF THE STUDY

From the analysis of literature it is evident that traditional Job Performance was measured on the basis of only two components only Task Performance & Contextual Performance (Motowildo *et al.*, 1997; Kennedy *et al.*, 2001; Hanif, & Pervez,

2004; Greenslade, & Jimmieson, 2007; Johari, & Yahya, 2012; Yusoff *et al.*, 2014) ignoring Adaptive Performance which has become an essential component of Job performance due to dynamic work environments of different organizations (Smith *et al.,* 1997 & Pulakos *et al.,* 2000). The purpose of present scale is to measure the Perceived Job Performance of University teachers, for analyzing and solving various issues related to their profession.

OBJECTIVE OF THE STUDY

Development and validation of job performance scale.

APPROACH FOR CONSTRUCTION

Present scale has been developed by employing deductive approach of scale development. Deductive approach utilizes already explored theoretical definition of construct (Schwab, 1980) and deductive approach is most appropriate for situations where some theory is already present (Hinkin, Tracey, & Enz, 1997). Present scale is based on Job Performance theory proposed by Sonnentag et *al.,* (2008).

Exploratory Factor analysis doesn't test a theory however it specifies the dimensional structure of a construct. The present study has pre-specified constructs in the form of task performance, contextual performance and adaptive performance, therefore there is no need to specify dimensional structure of these constructs in the form of exploratory factor analysis. Similarly Confirmatory Factor Analysis is not applied in standardization process, because after expert opinion and pre-try out only two measured variables were retained in some of the factors measuring different dimensions, which is against the thumb rule 3 of CFA (Hair et al., 2006). Therefore deductive approach of scale development is found most appropriate for construction and validation of present scale.

MEASUREMENT AND CONCEPTUALIZATION PERCEIVED JOB PERFORMANCE

Job Performance concept proposed by various eminent scholars like Campbell (1990); Borman & Motowidlo (1993) & Pulakos et al., (2000) compiled by Sonnentag, Volmer & Spychala (2008), and suggestions proposed by them were kept in forefront and taken as the base for development of present scale. Finally on the basis of theory proposed by Sonnentag, Volmer & Spychala (2008), following three dimensions were finalized for the present scale.

(i) **Task Performance:** Covers a person's contribution to organizational performance, refers to actions that are part of the formal reward system (i.e., technical core), and addresses the requirements as specified in job descriptions (Williams and Karau, 1991). Present component comprises of five factors (Job-specific task proficiency; Non-job-specific task

proficiency; Written and oral communication proficiency; Supervision, in case of leadership position & Partly Management/administration (Campbell, 1990) and statements pertaining predispositions of employee contributing towards the organizational performance.

(ii) Contextual Performance: Consists of behavior that does not directly contribute to organizational performance but supports the organizational, social and psychological environment. It indirectly contributes to an organization's performance by facilitating task performance (Sonnentag *et al.,* 2008 p.428). This aspect comprises of five identified factors (Volunteering for activities beyond a person's formal job requirements; Persistence of enthusiasm & application when needed to complete important task requirements; Assistance to others; Following rules and prescribed procedures even when it is inconvenient; & Openly defending organization objectives. (Borman and Motowidlo, 1993) and statements reflecting indirect contribution of an employee towards the betterment of organization.

(iii) Adaptive Performance: Adaptivity refers to the extent of adaptation to changes at the workplace (Griffin *et al.,* 2007). Present domain includes eight factors (Handling emergencies or crisis situations; Handling work stress; Solving problems creatively; Dealing with uncertain and unpredictable work situations; Learning work tasks, technologies and procedures; Demonstrating interpersonal adaptability; Demonstrating cultural adaptability; & Demonstrating physically oriented adaptability. Pulakos et al., 2000) and statements reflecting the personal adjustment of an employee towards the physical environment of the organization.

SCALING OF ITEMS

Mostly Likert scales are used in survey research, including several "points" with a continuum defining amount or levels of attributes or variables to be measured (Hinkin et al., 1997). Therefore summated evaluation technique proposed by Likert (1932) has been equipped for developing present scale. Each statement is rated on five sequential points, **Always, Frequently, Sometimes, Rarely & Never.** It is recommended five or seven consecutive points should be used to scale new items, as a significant variance has been observed among measure possessing five of seven point scale, which is compulsory to examine correlation among items and generate passable internal consistency (Hinkin *et al.,* 1997).

ITEM GENERATION

An initial pool of 84 statements were prepared by discussing and taking opinions from research experts, scholars and university teachers, statements were prepared

in English dialect & were sort in item. Selected items were shown to 14 subject matter experts belonging to eight Universities across India. For the purpose of critical evaluation, accuracy, coverage and relevance of content present in the scale by requesting to adopt following criteria (*"Mark 'R' for Acceptable Item. Mark 'M' for item that needs modification. Mark 'D' for Unacceptable items".*) for evaluation of content validity, based on the feedback of experts 29 items were deleted some were modified and others were retained.

Accordingly primary draft for the purpose of initial try-out was prepared containing 55 statements. Division of the statements in the three selected domains is as follows; (i) Task Performance -18 (ii) Contextual Performance -14 & (iii) Adaptive Performance - 23. Out of 55 statements 41 were of Favorable/Positive nature and 14 statements were of Unfavorable/Negative nature.

INITIAL TRY-OUT

Preliminary draft was administered on a sample of 100 university teachers of various streams from three states (Punjab, Haryana and Jammu & Kashmir) of India out of which only 80 forms were considered and rest were discarded, due to measurement error. The sampling of the initial try-out was carried out by employing convenient sampling technique.

SCORING

Perceived Job Performance is on a five point Likert scale, inorder to obtain value of score for each statement, response category of the present scale is assigned by a number. The total score can be derived from sum total of scores of responses after reversing negative statements. Higher the score obtained by a respondent on all statements higher the perceived job performance is considered.

ITEM EVALUATION

After completing the initial try-out, statements were assigned numbers according to aforementioned scoring procedure and the scores were arranged in descending order. Upper 20 respondents (upper 25%) with highest total score on the scale and lower 20 respondents (lower 25%) with lowest total score on the scale were extracted in order to form criterion groups so that each individual statement of the scale can be evaluated as suggested by Edwards & Kilpatrick, (1948). After the extraction of upper and lower scores the data was analyzed using SPSS 21, by employing independent sample t-test. After observing t-value, only those items were retained having t-value equal or greater than 2, which is significant at 0.05 level of significance with **df = 78** (Garrett & Woodworth, 2007), indicating average responses of lower and upper criterion group for each item varies significantly. Thus out of 55 statements, 12 statements were obliterated and remaining 43 were selected for final try-out.

Accordingly final draft of the present scale was finalized comprising 43 statements out of which 32 are of positive nature and 11 are of negative.

VALIDITY ASSESSMENT

Validity of present scale was established with the help of following procedures:
(i) Content Validity, (ii) Convergent Validity.

    (i) Content validity: Content validity was established at the time of development of the preliminary draft by carrying out critical discussions with the experts. The experts were of the opinion that the statements of scale are completely satisfactory and relevant to measure the Perceived Job Performance of university teachers, and also only those statements were retained in primary draft which had at least 70% - 80% agreement among experts with regard to relevance of items. Thus it can be said the present scale possessed adequate content validity.

    (ii) Convergent Validity: Pearson's coefficient of correlation demonstrated higher levels of significant positive correlations of task performance, contextual performance & adaptive performance with perceived job performance (Overbeek, Scholte, Kemp, & Engels, 2007).

INTERNAL CONSISTENCY

Internal Consistency was established by employing Cronbach's Alfa. After completing aforementioned processes (Initial try-out & Item selection). Final Try out of scale was conducted on a sample of 210 university teachers from three states of India, out of which only 160 forms were considered and rest were discarded due to incomplete information.

According to Gliem & Gilem, (2003) reliability coefficient Alpha 'a' normally ranges from 0 and 1. However there is no lower limit to alpha coefficient. Therefore closer the value of alpha to 1.0 greater will be the internal consistency (p.87). The thumb rule stated by George & Mallery (2003) for the interpretation of Alpha is: **"0.5 < Unacceptable; 0.5 to 0.6 Poor; 0.6 to 0.7 Questionable; 0.7 to 0.8 Acceptable; 0.8 to 0.9 Good; and above 0.9 Excellent"**. For the present scale Alpha has been calculated using SPSS 21, and value of **'a'= 0.85** indicated that scale is internally consistent.

DEVELOPMENT OF NORMS

Respondents of the scale was selected from three states of India (Punjab, Haryana & J&K), using convenient sampling technique ensuring that respondents are appropriate in terms of representativeness and adequacy for proposed population.

The range of individual respondents score calculated from raw score on present scale is 43 to 215, on the basis of descriptive statistics, z-score score norms based on 160 responses have been prepared.

APPLICABILITY OF THE SCALE

Present scale is administrable on university teachers, to access their perceived job performance, as it sufficiently fulfills the reliability and validity criteria. The present scale can be employed to compare the Perceived Job Performance of respondents (teachers') classified on the basis of different socio-demographic variables.

RESULTS AND DISCUSSIONS

The term performance is often conceptualized in various contexts by eminent researchers as Job Performance (Smithikrai, 2007; Sonnentag *et al.*, 2008); Employee Performance (Kambiz & Majid 2013; Khan, & Afzal, 2014); Individual Performance (Sonnentag, & Frese, 2001); Work Performance (Loi *et al.,* 2011; Yusoff, Khan, & Azan, 2013); Organizational Performance (Carmeli, Gilat, & Waldman, 2007; Farooq, 2014) & Perceived Job Performance (Bal, & De Lange, 2015; Chung, Lee, & Choi, 2015). PJP is operationalized as multidimensional construct with sub dimensions including (Task Performance, Contextual Performance & Adaptive Performance). The Perceived Job Performance has been empirically validated following the deductive scale development approach (Schwab, 1980).

The purpose of present study was to elucidate the development and validation process of perceived job performance scale. Purpose of this study was to explore psychometric properties of perceived job performance scale developed by investigator. The present study has been used for assessing perceived job performance of 240 university teachers working in different universities across India. Present scale sufficiently determines various psychometric properties, after the utilization of Perceived Job performance scale in pre - test and post - test among various university teachers. Reliability statistics reveals that 43 items possessed adequate Alpha coefficient up to 0.85 indicating evidence of adequate internal consistency of the items, the calculated value of Cronbach's alpha reflects the homogeneity of the scale. Likewise validity statistics content validity revealed that the measure is defect free Correlation among three domains and whole scale which ranged between 0.804, 0.886 & 0.901 justifying 0.01 level of significance. It is clear that present scale can provide consistent and valid results and is therefore it is concluded that present scale can be employed for assessing Perceived Job Performance of University teachers.

Limitations and Future Research

Various limitations of present study offers supplementary research opportunities. The present scale was based on five point Likert scale development on the other hand sampling areas of present study was limited to only three states of North India. Further a sample of 240 university teachers was used in the validation process.

References

Bal, P. M., & De Lange, A. H. (2015). From flexibility human resource management to employee engagement and perceived job performance across the lifespan: A multi sample study. *Journal of Occupational and Organizational Psychology*, *88*(1), 126-154.

Bhatnagar, A. B. & Bhatnagar, A. (2014). *Measurement and Evaluation Tyranny of Testing,* R. Lall Book Depot, Meerut India.

Borman, W. C. & Motowidlo, S. J. (1993). 'Expanding the Criterion Domain to Include Elements of Contextual Performance', in N. Schmitt and W. Borman (eds), *Personnel Selection in Organizations.* New York: Jossey-Bass, pp. 71-98.

Campbell, J. P. (1990). 'Modeling the Performance Prediction Problem in Industrial and Organizational Psychology', in M. D. Dunnette and L. M. Hough (eds), *Handbook of Industrial and Organizational Psychology.* PaloAlto: Consulting Psychologists Press. Vol. 1: pp. 687-732.

Chung, S., Lee, K. Y., & Choi, J. (2015). Exploring digital creativity in the workspace: The role of enterprise mobile applications on perceived job performance and creativity. *Computers in Human Behavior*, *42*, 93-109.

Colquitt, J., Lepine, J. A., & Wesson, M. J. (2009). *Organizational behavior: Improving performance and commitment in the workplace* (pp. 169-174). McGraw-Hill/Irwin.

Carmeli, A., Gilat, G., & Waldman, D. A. (2007). The Role of Perceived Organizational Performance in Organizational Identification, Adjustment sand Job Performance. *Journal of Management Studies*, *44*(6), 972-992.

Edwards, A. L., & Kilpatrick, F. P. (1948). A technique for the construction of attitude scales. *Journal of Applied Psychology*, *32*(4), 374.

Farooq, R. (2014). A Clever Approach to Measure Organizational Performance: An Overview. *Prabandhan: Indian Journal of Management*, *7*(5), 34-46.

Garrett, H. E. & Woodworth, R. S. (2007). *Statistics in Psychology & Education*. Paragon Publishing House; New Delhi

George, D., & Mallery, P. (2003). SPSS for Windows step by step: A simple guide and reference. 11.0 update (4th ed.). Boston: Allyn & Bacon. Cited in; Gliem, J. A. & Gilem, R. R. (2003). Paper Presented at the Midwest Research-to-Practice Conference in Adult, Continuing, and Community Education, The Ohio State University, Columbus, OH, October 8-10, 2003.

Gliem, J. A. & Gilem, R. R. (2003). Paper Presented at the Midwest Research-to-Practice Conference in Adult, Continuing, and Community Education, The Ohio State University, Columbus, OH, October 8-10, 2003.

Greenslade, J. H., & Jimmieson, N. L. (2007). Distinguishing between task and contextual performance for nurses: development of a job performance scale. *Journal of Advanced Nursing*, *58*(6), 602-611.

Griffin, M. A., Neal, A and Parker, S. K. (2007). A new model of work role performance: Positive behavior in uncertain and interdependent contexts', *Academy of Management Journal, 50*, 327-347.

Grote, D. (2002). The performance Appraisal: Question and Answer Book, New York: Amacon.

Hair, J. F., Black, W. C., Babin, B. J., Anderson, R. E., & Tatham, R. L. (2006). *Multivariate data analysis* (Vol. 6). Upper Saddle River, NJ: Pearson Prentice Hall.

Hanif, R., & Pervez, S. (2004). Development and Validation of Teachers Job Performance Scale. *Pakistan Journal of Psychological Research*, *19*(3-4).

Hinkin, T. R., Tracey, J. B., & Enz, C. A. (1997). Scale construction: Developing reliable and valid measurement instruments. *Journal of Hospitality & Tourism Research*, *21*(1), 100-120.

Ivancevich, J. M., Konopaske, R. & Matteson, M. T. (2005). *Organizational Behavior and Management*. New York: Mc-Graw Hill/ Irwin.

Jacobs, P. A., Tytherleigh, M. Y., Webb, C., & Cooper, C. L. (2007). Predictors of Work Performance Among Higher Education Employees: An examination using the ASSET Model of Stress. *International Journal of Stress Management, 14*(2), 199.

Johari, J. & Yahya, K. K. (2012). An Assessment of the Reliability and Validity of Job Performance Measurement. *Jurnal Pengurusan 36,* 17 - 31

Johnson, J. W. (2000). A heuristic method for estimating the relative weight of predictor variables in multiple regression. *Multivariate Behavioral Research*, *35*(1), 1-19.

Kakayi, S. W. (2013). *Human Resource Practices, Teamwork and Perceived Teacher Performance in Secondary Schools in Kampala and Wakiso Districts* (Doctoral Dissertation): Doi: *http:/ /hdl.handle.net/10570/2870*

Kambiz, H. H. & Majid, M. (2013). A Survey on Impact of Emotional Intelligence, Organizational Citizenship Behaviors and Job Satisfaction on Employees' Performance in Iranian Hotel Industry. *Quarterly Publication, 3*(5), 1395-1402.

Kennedy, K. N., Lassk, F. G., & Burns, M. B. (2001). A scale assessing team-based job performance in a customer-oriented environment. *Journal of Quality Management*, *6*(2), 257-273.

Khan, H. G. A., & Afzal, M. (2014). Impact of Job Satisfaction and Organizational Justice on Employee's Perceived Performance: Evidence from Cellular Sector of Pakistan. *International Journal of Management Sciences 4*(7), 285-289.

Koul, L. (2009). *Methodology of Educational Research* (4th revised edition). New Delhi: Vikas Publishing House Pvt. Ltd

Likert, R. A. (1932). A Technique for the Measurement of Attitudes. *Archives of Psychology,* No. 140.

Lin, C. W., Chen, S. L., & Wang, R. Y. (2011). Savouring and Perceived Job Performance in Positive Psychology: Moderating role of positive affectivity. *Asian Journal of Social Psychology*, *14*(3), 165-175.

Loi, R., Ngo, H. Y., Zhang, L., & Lau, V. P. (2011). The interaction between leader–member exchange and perceived job security in predicting employee altruism and work performance. *Journal of Occupational and Organizational Psychology*, *84*(4), 669-685.

Motowildo, S. J., Borman, W. C. & Schmit, M. J. (1997). A Theory of Individual Differences in Task and Contextual Performance. *Journal of Human Performance, 10*, 71-83.

Muchinsky, P. M. (2003). *Psychology Applied to Work* (7th ed.). Belmont, CA: Wadsworth.

Overbeek, G., Ha, T., Scholte, R., de Kemp, R., & Engels, R. C. (2007). Brief report: Intimacy, passion, and commitment in romantic relationships—Validation of a 'triangular love scale for adolescents. *Journal of adolescence*, *30*(3), 523-528.

Pulakos, E. D., Arad, S., Donovan, M. A. & Plamondon, K. E. (2000) 'Adaptability in the workplace: Development of a taxonomy of adaptive performance', *Journal of Applied Psychology, 85*, 612-624.

Rothmann, S. & Coetzer, E. P. (2003). The Big Five Personality Dimensions and Job Performance: *South African Journal of Industrial Psychology*, *29*(1), 68-74.

Schwab, D.P. (1980). *Construct validity in organization behavior.* In B.M. Staw & L.L. Cummings (eds.) Research in organizational behavior (Vol. 2, 3-43). Greenwich, CT: JAl Press. Cited in Hinkin, T. R., Tracey, J. B., & Enz, C. A. (1997). Scale construction: Developing reliable and valid measurement instruments. *Journal of Hospitality & Tourism Research*, *21*(1), 100-120.

Smith, E. M., Ford, J. K., Kozlowski, S. W. J., Quinones, M. A. and Ehrenstein, A. (1997) 'Building Adaptive Expertise: Implications for Training Design Strategies', in Training for a Rapidly Changing Workplace: Applications of Psychological Research. Washington, Dc: *American Psychological Association,* pp. 89-118.

Smithikrai, C. (2007). *Recruitment, Selecting, and Appraisal,* (2nd ed.). Bangkok: V Print, In Thai

Sonnentag, S., & Frese, M. (2001). *Psychological Management of Individual Performance*. Edited by Sabine Sonnentag. 2002 John Wiley & Sons, Ltd.

Sonnentag, S., Volmer, J., & Spychala, A. (2008). Job performance. *The Sage handbook of organizational behavior*, *1*, 427-447.

Vanderlinde, E. (2005). The Relationship between Personality Traits and Work Performance of Call Centre Agents. Masters Dissertation, Retrieved from http://uir.unisa.ac.za/handle/10500/1853 Theses and Dissertations (Industrial and Organizational Psychology) 243: URL: http://hdl.handle.net/10500/1853

Veloutsou, C. A. & Panigyrakis, G. G. (2004). Consumer brand managers' job stress, job satisfaction, perceived performance and intention to leave. *Journal of Marketing Management*, *20*(1-2), 105-131.

Viswesvaran, C., Ones, D. S., & Schmidt, F. L. (1996). Comparative analysis of the reliability of job performance ratings. *Journal of Applied Psychology*, *81*(5), 557.

Williams, K. D. and Karau, S. J. (1991) 'Social loafing and social compensation: The effects of expectations of co-worker performance', *Journal of Personality and Social Psychology, 61*, 570-581.

Yusoff, R. B. M., Ali, M. A & Khan, A. (2014). Assessing Reliability and Validity of Job Performance Scale among University Teachers, *Journal of Basic and Applied Scientific Research, 4*(1), 35-41.

Yusoff, Khan, & Azam. (2013). Job Stress, Performance and Emotional Intelligence in Academia, *J. Basic & Applied Science Research, 3*(6), 1-8.