

Construct Validation of 17-item Utrecht University Work Engagement Scale Amongst the White Collar employees of Malaysian Universities

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Abstract

Primarily, the study investigated the psychometric properties of UWES work engagement scale were assessed in the context of education sector of Malaysia. Staff members from the two public sector universities in the Kedah state were sampled whereby, 205 questionnaires were distributed that resulted in 180 appropriate responses for final data analysis. The results have indicated towards satisfactory level of internal consistency reliability, convergent; as well as discriminant validity. The structural equation modeling has highlighted higher order stabilities for work engagement ranging between 0.803 and 0.838. The findings henceforth, conclude that UWES-17 is construct is robust in assessing work engagement amongst the while collar employees working in the education sector of Malaysia.

Keywords Construct validity, UWES, Work Engagement, Utrecht Work Engagement Scale, Malaysia.

Introduction

Employees and their psychological bond and connection with their work roles has started gaining much popularity and prominence in the 21st century (Bakker & Leiter, 2010) Wealth of empirical knowledge can be found on the concept of work engagement. Not very old concept, work engagement was first coined by Kahn (1990) whereby, he highlighted the idea of individual psychological state that brings a special spark, energy, and vigor. According to Kahn, engagement is about being there in completely i-e physically, emotionally, and cognitively. Several definitions are available, explaining the term and concept of engagement; according to Macey et al., (2009) engagement 'refers to a special focused energy that is significantly headed towards core organizational goals and objectives thus, engaged employees work harder than

the ones who aren't. According to Gallup Incorporation, engagement is individuals' enthusiasm, involvement and satisfaction with the work (Kruegar & Killham, 2006).

One of the highly cited definitions on engagement has come from Schaufeli and colleagues which states that "engagement is a positive state of mind that brings vigor, dedication, and absorption" (Schaufeli et al., 2002; p. 74). Vigor symbolizes to mental resilience with high level of energy in work whereby, dedication denotes to being intensely involved in the work whilst experiencing challenge, enthusiasm and sense of importance. Accordingly, absorption refers to being fully engrossed in work so that times passes quickly (Bakker, 2011). The concept of work engagement is different from job satisfaction, job involvement or commitment (Bakker, 2011; Hallber & Schaufeli, 2006).

Review of the literature has highlighted a few popular scales used for examining and measuring employees' engagement at work such as Gallup Q12 workplace Audit (Harter & Creglow, 1998). The questionnaire has been deployed in notable commercial based studies (Yin-fang & Chun-hua, 2010; Harter et al., 2009). Notably, the 17-item work engagement scale is one of the highly employed scales across popular studies on the topic (Schaufeli & Bakker, 2003). The scale comprises of three dimensions named vigor, dedication, and absorption. Out of the total 17 items, six items relate to vigor, five items to dedication, and the remaining six to absorption. The scale has been positioned to examine the work engagement across numerous occupational settings including dentists, managers, police officers, hospital staff, teachers, police officers (Schaufeli, 2016). Moreover, in terms of demographics, the scale has been translated and validated in numerous countries including Finland, Japan, Norway, Spain, India (Salanova, Agut, & Peiro, 2005; Shimazu et al., 2008; Xanthopoulou et al., 2009; Fong & Ng, 2012; Nerstad, Richardson, & Martinussen, 2010; Chaudhary, Rangnekar, & Barua, 2012). Chughtai and Buckley (2012) used the scale on scientists in Ireland and reported considerable cronbach alpha (.93) for the scale.

Important to note that, it is still not clear as to whether the three dimensional, 17-item UWES (Schaufeli & Bakker, 2003), scale remains same and produces significant results across different demographics, and work settings (Sepalla et al., 2009). Moreover, since the scale has been developed in a Western economy and also validated mostly in European economies (Salanova, Agut, & Peiro, 2005; Xanthopoulou et al., 2009); due to which there are confusions as to what extent the scale would adequately produce responsive results in an Asian economy like Malaysia. Accordingly, there is a paucity of research providing evidence pertaining to the application of UWES scale in the region. Hence, studying the psychometric properties of UWES (Schaufeli & Bakker, 2003) scale in one of the most highly diversified Asian economies like Malaysia would add strengthen its validation, generalization, and application.

Previous Studies on UWES

Prominent studies using UWES-17 scale (Hallberg & Schaufeli, 2006; Schaufeli et al., 2006; Schaufeli & Bakker, 2003) have reported high interrelation amongst the three factors of work engagement. Yet how they would interact and result in other demographics and occupation settings is still a question and warrants further psychometric investigation (Seppala et al., 2009). Hence on ground of the scarcity of research and validation of UWES-17 in the region

followed by suggestions for further investigation, the current study attempted to validate UWES-17 in the higher education sector of Malaysia.

Method

UWES-17 (Schaufeli et al., 2002) was adopted in the present study whereby, university staff was targeted from the two public sector universities in the Kedah state of Malaysia. Krejcie and Morgan (1970) table was used for sample selection from the total 447 staff level employees. As per the table, 205 was the minimum sample required for the study. Questionnaires were distributed through using simple random technique during the month of December 2015. A total of 193 questionnaires were received back out of which 13 were discarded. Remaining 180 responses were taken for final results and data analysis.

Results

Confirmatory factor analysis was assessed using SmartPLS 2.0 (Ringle, Wende, & Will, 2005) for the purpose of UWES-17 construct validation in Malaysia. PLS algorithm (Henseler, Ringle, & Sinkovics, 2009) was assessed in order to ascertain internal consistency reliability, convergent validity, and discriminant validity (Geladi & Kowalskim, 1986). It should be noted that item 1, coded as AB1 from *absorption*; item 2, coded as VI2 from *vigor* and item 6, coded as DE6 from *dedication* were deleted due to factor loadings lower than 0.5 (Esposito Vinzi et al., 2010). Results pertaining to confirmatory factor are underlined in the below table:

Table 1 Confirmatory Factor Analysis

CONSTRUCT	ITEM	LOADING	AVE	CR
Absorption			0.51068	0.803184
	AB2	0.523		
	AB3	0.780		
	AB6	0.781		
	AB5	0.742		
Vigor			0.511093	0.833556
	V11	0.590		
	V13	0.728		
	V14	0.706		
	V15	0.727		
	V16	0.778		
Dedication			0.502354	0.83861
	DE3	0.693		
	DE4	0.750		
	DE5	0.620		
	DE1	0.781		
	DE2	0.720		

The table draws UWES with three dimensions as a result of CFA. Based on the recommendations of Hair, Ringle and Sarstedt (2011), composite reliability coefficient was ascertained to ensure composite reliability. According to Hair and colleagues, the minimum cut off for in this regard is 0.70. Table 1 highlight that composite reliability for the current study has ranged in between 0.803 to 0.838 hence, exceeding the minimum threshold. This therefore suggests that the present study has satisfactory level of internal consistency reliability.

Furthermore, convergent validity was examined based on the recommendations of Fornell and Larcker (1981). According to Chin (1998) the AVE (average variance extracted) of every latent construct should be higher than 0.5. Results in table 1 highlight that all the three dimensions have resulted in acceptable values in this regard. Henceforth, all the dimensions of UWES have responsively met the convergent validity criterion.

Discriminant Validity Assessment

In the views of Fornell and Larcker (1981) the square root of AVE should exceed the correlations amongst the latent constructs. Table 2 hence shows that UWES has acceptable discriminant validity thus suggests sufficient psychometric properties of the scale dimensions.

Table 2 Discriminant Validity

Latent Variable	AB	DE	VI
Absorption	0.714619		
Dedication	0.640529	0.714908	
Vigor	0.642745	0.603348	0.708769

Discussion and Conclusion

Work engagement is an important concept pertaining to employees` work well-being and accordingly, UWES has been responsively used in this regard. The present study has produced new knowledge pertaining to UWES measurement and validity. Firstly, the study has resulted that UWES consists of three correlated factors known as vigor, dedication, and absorption. Results of CFA have concluded that UWES (Schaufeli & Bakker, 2003) is a multidimensional construct with three dimensions namely absorption, vigor, and dedication. The current study has provided evidence which confirms that 17-item UWES scale is appropriate to measure work engagement in Malaysia, and so in the higher education sector.

Based on the coefficients results (0.803 to 0.838), the results have indicated robustness and stability of the UWES scale which can be seen in parallel to popular studies like Schaufeli et al., (2006). Since the concept of occupational well-being is relatively new, very few consistent measures are available. The current study has concluded that UWES is a sound measure for the empirical testing of work engagement in Malaysia.

Study Limitations and Scope for Further Research

Some of the important limitations need to be addressed. For instance, the study focused on two public sector universities` staff level employees who were mainly white collar workers. This hence limits the generalizability of the findings for Malaysian white collar employees only. Further study therefore may be carried out on blue collar employees as well. Accordingly, the shorter version of UWES scale has also been used widely and therefore future studies may also consider investigating UWES-9 as well.

References

- Bakker, A. B. (2011). An evidence-based model of work engagement. *Current Directions in Psychological Science*, 20(4), 265-269.
- Bakker, A. B., & Leiter, M. P. (2010). *Work engagement: A handbook of essential theory and research*: Psychology Press.
- Chaudhary, R., Rangnekar, S., & Barua, M. K. (2012). *Human resource development climate in India: An empirical analysis*. Paper presented at the National conference on emerging challenges for sustainable business.
- Chin, W. W. (1998). The partial least squares approach to structural equation modeling. *Modern methods for business research*, 295(2), 295-336.
- Chughtai, A. A., & Buckley, F. (2013). Exploring the impact of trust on research scientists' work engagement: Evidence from Irish science research centres. *Personnel Review*, 42(4), 396-421.
- Esposito Vinzi, V., Chin, W. W., Henseler, J., & Wang, H. (2010). *Handbook of partial least squares: Concepts, methods and applications*.
- Fong, T. C.-t., & Ng, S.-m. (2012). Measuring engagement at work: validation of the Chinese version of the Utrecht Work Engagement Scale. *International journal of behavioral medicine*, 19(3), 391-397.
- Fornell, C., & Larcker, D. F. (1981). Structural equation models with unobservable variables and measurement error: Algebra and statistics. *Journal of marketing research*, 382-388.
- Geladi, P., & Kowalski, B. R. (1986). Partial least-squares regression: a tutorial. *Analytica chimica acta*, 185, 1-17.
- Hair, J. F., Ringle, C. M., & Sarstedt, M. (2011). PLS-SEM: Indeed a silver bullet. *Journal of Marketing Theory and Practice*, 19(2), 139-152.
- Hallberg, U. E., & Schaufeli, W. B. (2006). "Same same" but different? Can work engagement be discriminated from job involvement and organizational commitment? *European Psychologist*, 11(2), 119-127.
- Hallberg, U. E., & Schaufeli, W. B. (2006). "Same same" but different? Can work engagement be discriminated from job involvement and organizational commitment? *European Psychologist*, 11(2), 119-127.
- Harter, J. K., Schmidt, F. L., Killham, E. A., & Agrawal, S. (2009). Q12 meta-analysis: The relationship between engagement at work and organizational outcomes. *Omaha, NE: Gallup*.
- Harter, J., & Creglow, A. (1998). A meta-analysis and utility analysis of the relationship between core GWA employee perceptions and business outcomes: Lincoln, NE: The Gallup Organization.
- Henseler, J., Ringle, C. M., & Sinkovics, R. R. (2009). The use of partial least squares path modeling in international marketing. *Advances in international marketing*, 20(1), 277-319.
- Kahn, W. A. (1990). Psychological conditions of personal engagement and disengagement at work. *Academy of management journal*, 33(4), 692-724.
- Krueger, J., & Killham, E. (2006). Why Dilbert is right. *Gallup Management Journal*, 9.

- Krueger, J., & Killham, E. (2006). Why Dilbert is right. *Gallup Management Journal*, 9.
- Macey, W.H., Schneider, B., Barbera, K., & Young, S.A. (2009). Employee engagement: Tools for analysis, practice, and competitive advantage. London, England: Blackwell.
- Nerstad, C. G., Richardsen, A. M., & Martinussen, M. (2010). Factorial validity of the Utrecht Work Engagement Scale (UWES) across occupational groups in Norway. *Scandinavian Journal of Psychology*, 51(4), 326-333.
- Ringle, C. M., Wende, S., & Will, A. (2005). SmartPLS 2.0 (beta): Hamburg.
- Salanova, M., Agut, S., & Peiró, J. M. (2005). Linking organizational resources and work engagement to employee performance and customer loyalty: the mediation of service climate. *Journal of Applied Psychology*, 90(6), 1217.
- Schaufeli, W. B., & Bakker, A. B. (2003). Utrecht work engagement scale: Preliminary manual. *Occupational Health Psychology Unit, Utrecht University, Utrecht*.
- Schaufeli, W. B., Bakker, A. B., & Salanova, M. (2006). The measurement of work engagement with a short questionnaire a cross-national study. *Educational and psychological measurement*, 66(4), 701-716.
- Seppälä, P., Mauno, S., Feldt, T., Hakanen, J., Kinnunen, U., Tolvanen, A., & Schaufeli, W. (2009). The construct validity of the Utrecht Work Engagement Scale: Multisample and longitudinal evidence. *Journal of Happiness studies*, 10(4), 459-481.
- Shimazu, A., Schaufeli, W., Kosugi, S., Suzuki, A., Nashiwa, H., Kato, A., . . . Hirohata, K. (2008). Work engagement in Japan: validation of the Japanese version of the Utrecht Work Engagement Scale. *Applied Psychology*, 57(3), 510-523.
- Xanthopoulou, D., Bakker, A. B., Demerouti, E., & Schaufeli, W. B. (2009). Work engagement and financial returns: A diary study on the role of job and personal resources. *Journal of occupational and organizational psychology*, 82(1), 183-200.
- Yin-fang, X., & Chun-hua, L. (2010). Analysis and Related Countermeasures of Nursing Occupational Environment [J]. *Nursing Journal of Chinese People's Liberation Army*, 10.