Adaptation and Psychometrics of the Indonesian Version of Work and Meaning Inventory (WAMI)

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Abstract
Indonesia nowadays is incessantly encouraging the spirit of work. With the current ASEAN Economic Community (AEC), Indonesia must immediately step up to other countries by enhancing not only the performance but also the well-being of the employees. Meaningful work is one of the antecedents of performance and well-being. That is why it needs to be investigated in Indonesia. Thus, a valid and reliable meaningful work measurement tool is required to be used. A valid and reliable Work and Meaning Inventory (WAMI) is not yet available in Indonesian version and research on meaningful work has also not been conducted much in Indonesia. Thus, the development of WAMI validation and adaptation is a noteworthy effort to be conducted. Objectives - The purpose of this research was to adapt and measure psychometric properties of the Indonesian version of WAMI. Method – A cross-sectional study was conducted. There were 193 respondents obtained from one local bank with a number of branches in Indonesia. Confirmatory factor analysis was tested to examine the scale. The convergent validity was examined by correlating WAMI with Utrecht Work Engagement Scale (UWES) and Job Satisfaction Survey (JSS). Discriminant validity was tested using Perceived Stress Scale (PSS), while reliability was assessed by using AVE and CR. Result – The confirmatory factor analysis revealed the model of the WAMI that fitted the data best. The reliability of the scale was good. Work engagement and job satisfaction were positively associated with meaningful work; perceived stress was negatively associated with meaningful work.

There were no differences across gender, but the differences appeared between group ages and length of work. Conclusions – The finding of the study indicated that WAMI has satisfactory psychometric properties and provided supportive evidence for use in Indonesian context.

Keywords: Work and Meaning Inventory, Validation, Meaningful Work

Adaptación y psicometría de la versión indonesia de Inventario de trabajo y significado (WAMI)

Resumen

Introducción - Indonesia hoy en día está alentando sin cesar el espíritu de trabajo. Con la actual Comunidad Económica de la ASEAN (AEC), Indonesia debe acercarse de inmediato a otros países mejorando no solo el desempeño sino también el bienestar de los empleados. El trabajo significativo es uno de los antecedentes del desempeño y el bienestar. Es por eso que necesita ser investigado en Indonesia. Por lo tanto, se requiere una herramienta de medición de trabajo significativa válida y confiable. Aún no está disponible un Inventario de trabajo y significado (WAMI) válido y confiable en la versión indonesia, y tampoco se ha realizado mucha investigación sobre trabajo significativo en Indonesia. Por lo tanto, el desarrollo de la validación y adaptación de WAMI es un esfuerzo digno de mención. Objetivos: el objetivo de esta investigación fue adaptar y medir las propiedades psicométricas de la versión indonesia de WAMI. Método: se realizó un estudio transversal. Hubo 193 encuestados obtenidos de un banco local con varias sucursales en Indonesia. El análisis factorial confirmatorio se probó para examinar la escala. La validez convergente se examinó correlacionando WAMI con la Utrecht Work Engagement Scale (UWES) y Job Satisfaction Survey (JSS). La validez discriminante se probó usando la Escala de estrés percibido (PSS), mientras que la confiabilidad se evaluó usando AVE y CR. Resultado: el análisis factorial confirmatorio reveló el modelo de WAMI que mejor se ajustaba a los datos. La fiabilidad de la escala fue buena. El compromiso laboral y la satisfacción laboral se asociaron positivamente con el trabajo significativo; El estrés percibido se asoció negativamente con un trabajo significativo. No hubo diferencias entre los géneros, pero las diferencias aparecieron entre las edades del grupo y la duración del trabajo. Conclusiones: el hallazgo del estudio indicó que WAMI tiene propiedades psicométricas satisfactorias y proporcionó evi-

dencia de apoyo para su uso en el contexto indonesio.

Palabras clave: inventario de trabajo y significado, validación, trabajo significativo

Introduction
The development of positive psychology is now increasing rapidly. This has led to studies involving variables focusing on strength and good value because psychological strength is also an important thing in human life (Lopez, Snyder, & Rasmussen, 2004). Work that is meaningful, also understood as one of the positive circumstances of a person, is directed by the meaning that emerges as people who can be aware of them (i.e. who they are and their place in the world), develops a sense of purpose (i.e. reference and pursue high values, achieve overall goals), and directly or indirectly provides a larger good (Steger & Dik, 2009).
Meaningful work is related with greater well-being (Arnold, Turner, Barling, Kelloway, & McKee, 2007), which is positively related to work outcomes and individual careers such as work engagement (May, Gilson, & Harter, 2004), feelings of centrality and importance (Harpaz & Fu, 2002), job satisfaction (Steger, Dik, & Duffy, 2012), career development (Duffy & Dik, 2013), and also a decrease in withdrawal behaviors (Steger et al., 2012). This explains why organizations are beginning to realize that developing meaningful work is an important tool for improving work engagement and retaining employees (Deloitte, 2017). Otherwise, when employees experience a deficient meaningful work, they are bound to go through undesirable outcomes, such as stress symptoms (Isaksen, 2000).
Meaningful work increases when people have a clear sense of self, a precise consideration of the nature and expectations of their work environment, and a comprehension on how to perform with their organizations to complete their work purposes. The understanding of the self in work delivers the basis for people to advance a sense of purpose and undertaking about their work that both motivates their engagement and performance and benefits them in exceeding their own direct interests to attain concern for their contributions to their organization and the greater good (Steger & Dik, 2009). Moreover, employees feel a sense of fit or resemblance between their own core values, job requirements, organizational mission, and goals, and perfect comprehension exists when employees' roles contribute to the purpose of the organization (Ghadi, Fernando, & Caputi, 2015).
Steger et al. (2012) suggest a concept of meaningful work containing of

three main aspects i.e. positive meaning, meaning-making through work, and greater good motivation. Firstly, positive meaning in work denotes a subjective experience that work has individual significance. Secondly, meaning-making through work depicts the amount to which life as a whole becomes more meaningful by doing meaningful work. Thirdly, greater good motivation embodies the notion that meaningful work has a positive influence on others.

Indonesia nowadays is continually reassuring the spirit of work. With the current AEC, Indonesia must instantaneously stand alongside other countries by enhancing not only the performance but also the well-being of the employee. Therefore, meaningful work as the antecedent performance and wellbeing needs to be investigated in Indonesia. Thus, a valid and reliable meaningful work measurement tool is essential to be used in Indonesia. Work and Meaning Inventory (WAMI) is readily obtainable (Steger et al., 2012) and available in two languages (English and German) and is currently being developed in Chinese and Dutch. It is not yet available in Indonesian, and there has not been much research conducted on meaningful work in Indonesia. With the prominence of this research being carried out in Indonesia, the development of WAMI validation and adaptation is a significant thing to be conducted.

Regarding previous explanation, the purpose of this study is to adapt and examine the psychometric properties of WAMI for the Indonesian population. This study aims: (1) to adapt the WAMI in the Indonesian version, (2) to test measurement model using confirmatory factor analysis, (3) to confirm the convergent and discriminant validity by examining the relationship between meaningful work with job satisfaction, work engagement, and perceived work stress, and (4) to examine the reliability of the scale. Overall, the hypothesis of this research is that WAMI will show adequate validity and reliability in the Indonesian context.

Methods

Design

The design in this study uses a quantitative research approach, with cross-sectional study.

Sample

234 respondents who were officers of a local bank with diverse positions, but only 193 data can be used. The bank has a number of branches in Indonesia. The scales were submitted to the human resources department.

Then, the human resources department sent them to their branches in Indonesia. Then, each branch was disseminated online through the branch office network to eligible employees through social media applications.

Procedure
Forward translation was completed by an English expert; backward translation was primed by a native English expert. The commission was formed with five experts in Psychology who also have good command in English. The pilot study was conducted two times to find the precise and good items obtained from twenty respondents. After the final scale, the research was conducted using e-form and the distribution was organized by human capital of the company.

Measures
Three components of meaningful work—positive meaning, meaning-making, and greater good motivations was measured with 10-item WAMI (Steger et al., 2012), to assess the degree which participants felt their work is meaningful. Participants responded on a 5-point, ranging from 1 (absolutely untrue) to 5 (absolutely true).
Work Engagement was measured using Indonesian version of Utrecht Work Engagement Scale (UWES). Work engagement indicated by vigor, dedication, and absorption was assessed with UWES short version (9 items). The items of UWES were scored on a 7-point Likert-type scale ranging from 0 ("never") to 6 (always") in both version. Work engagement using UWES was translated and validated by Rahmadani, Schaufeli, Ivanova, & Osin (2019) with cronbach alpha of 0.87. The cronbach alpha for this study was 0.865.
Work stress, an adapted version of the 10-item Perceived Stress Scale (PSS; Cohen & Janicki-Deverts, 2012), was used to assess the degree to which participants felt stressed at work. Participants responded on a 5-point Likert-type scale ranging from never to very often. The research used PSS which was translated by Dwi & Saraswati, (2017), with reliability coefficient of 0.904, with 5 items eliminated. In this study, the reliability coefficient was 0.888, but there was no item eliminated with item-total correlation ranged from 0.385 to 0.742.
Job satisfaction was measured with Job Satisfaction Survey developed by Spector (1985). The 36-item JSS was designed to measure perceptions and attitudes regarding various aspects of an individuals' job. Four subscales comprising four items of which each were selected from this instrument,

which included pay, promotion, fringe benefits and contingent rewards, operating conditions, coworkers, nature of work, and communication. Respondents were required to indicate their responses on a six-point Likert-type scale ranging from 1 (disagree very much) to 6 (agree very much). The research used JSS which was translated and adapted by Azra, Etikariena, & Haryoko (2018) with reliability coefficient of 0.929. The cronbach alpha for this study was 0.921.

Data Analysis

Descriptive statistics was used to depict the socio-demographic of respondents, like gender, age, and length of work. The measured variable was described by the Standard deviation and Mean. Data analysis used confirmatory analysis, correlation analysis, and reliability analysis. To examine the scale, confirmatory factor analysis was tested using Lisrel. The convergent was examined by correlating WAMI with JSS, and UWES. The discriminant validity was tested using Perceived Stress Scale. Reliability was assessed by using CR and AVE by Lisrel.

Ethics

The ethics enforcement of this research is supplemented by Universitas Padjadjaran Research Ethics Committee License no.64/UN6.KEP/EC/2019 and informed consent.

Result

Confirmatory factor analysis was employed with Lisrel to confirm the measurement model. First order and second order confirmatory analysis were performed based on the standardized path diagram shown in Figure 1 (the number of standardized loading factors (SLF) owned per item questionnaire). This number has been tested to have a good number or can be said to be valid because the SLF number owned is ≥0.5. SLF figures can be seen in standardized outputs, with CR and AVE values for reliability testing for positive meaning CR=0.827, AVE=0.738; meaning-making trough work CR=0.877, AVE=0.748; and greater good motivation CR=0.851, AVE=0.749. The loading factor can be seen in Figure 1 as follows:
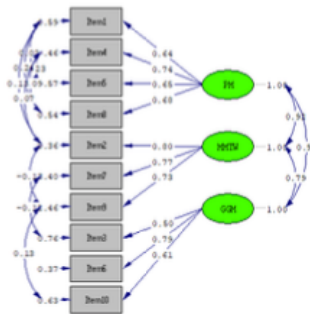
Fig.1. Factor loading and Path Diagram of first order of the 10-item Indonesian Version of WAMI (PM, positive meaning; MMTW, meaning-making trough work; GGM, greater good motivation).

Meanwhile, second order confirmatory was performed based on the standardized path diagram shown in Figure 2 (the number of standardized loading factors (SLF) owned per item questionnaire and dimensions). This number has been tested to have a good number or can be said to be valid because the SLF number owned is ≥0.5. SLF figures can be seen in standardized outputs and CR and AVE values for reliability testing of positive meaning CR=0.828, AVE=0.739; meaning-making trough work CR=0.875, AVE=0.749; greater good motivation CR=0.855, AVE=0.751; and meaningful work, CR=0.871, AVE=0.756. The loading factor can be seen in Figure 2 as follows:
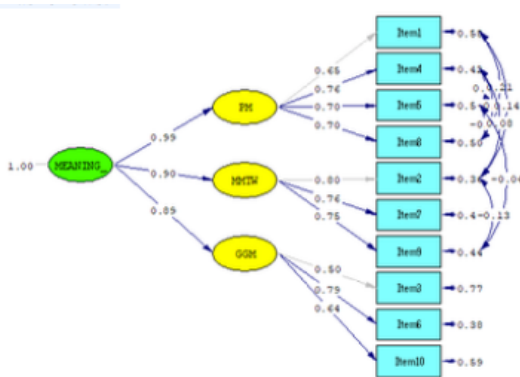

Fig.2. Path Diagram of the second order of the 10-item Indonesian Version of WAMI, (PM, positive meaning; MMTW, meaning making trough work; GGM: greater good motivation).

Table 1. The comparison of goodness-of-fit among first and second order CFA

Model	Chi-Square	df	p	RMSEA	NFI	NNFI	CFI	IFI	RFI	RMR	Standardized RMR	GFI	AGFI
First Order CFA	26.08	23	0.297	0.026	0.99	1.00	1.00	1.00	0.97	0.015	0.03	0.97	0.94
Second Order CFA	34.84	24	0.078	0.049	0.98	0.99	0.99	0.99	0.96	0.018	0.036	0.96	0.92

The goodness-of-fit indices among first and second order confirmatory factor analysis can be seen in Table 1 which can conclude that both models fit.

Table 2. Intercorrelation, Convergent, and Discriminant Validity of the WAMI

	1	2	3	4
Meaningful Work				
Positive Meaning				
Meaning Making Through Work	.754**			
Greater Good Motivation	.614**	601**		
Overall Meaningful Work	.923**	889**	.817**	
Work Engagement				
Vigor	.377**	277**	.297**	367**
Dedication	.495**	471**	.422**	529**
Absorption	.389**	409**	.296**	417**
Overall Work Engagement	.505**	461**	.407**	525**
Job Satisfaction				
Pay	.318**	243**	0.084	258**
Promotion	.395**	251**	.174*	326**
Supervision	.470**	343**	.221**	408**
Fringe Benefits	.240**	.143*	0.12	199**
Contingent Rewards	.434**	313**	.331**	417**
Operating Conditions	.399**	317**	.315**	397**
Coworkers	.411**	319**	.279**	391**
Nature of Work	.574**	507**	.542**	618**
Communication	.427**	340**	.385**	440**
Overall Job Satisfaction	.569**	426**	.369**	531**
Perceived Stress				
Perceived Helplessness	-.353**	-303**	-.336**	-377**
Perceived inefficacy	-.349**	-297**	-.437**	-406**
Overall Perceived Stress	-.368**	-315**	-.399**	-409**

N=193 **. Correlation is significant at 0.01 level (2-tailed).

*. Correlation is significant at 0.05 level (2-tailed).

To investigate the construct validity, the relationship between other indicator job satisfaction and work engagement was tested using correlation analysis. The result showed that meaningful work was significant and was positively associated with the overall work engagement (r=0.525, p<0.01)

and overall job satisfaction (r=0.531, p<0.01). The discriminant validity showed meaningful work was negatively associated with perceived stress (r=-0.409, p<0.01).

Correlation coefficient between WAMI sub-scale and other validity sub-scale showed significant level at 0.01, except for pay and fringe benefit. There was no relationship between the sub-scale of greater good motivation and pay, no relationship between the sub-scale of greater good motivation and meaning-making trough work with fringe benefit. Each sub-scale of WAMI had a strong relationship with the total score of the scale, and the relationships between the sub-scales were also significant at the level of 0.01. The detail can be seen in Table 2.

Table 3. Descriptive statistics, t-test, one-way ANOVA, and multiple comparisons of the subscale across demographic variables (N=193)

Demographic Variables	Mean Score (SD)											
	Overall Meaningful Work			Positive Meaning			Meaning Making Through Work			Greater Good Motivation		
Gender												
1) Male (n=83)	3.74	(0.51)	ns	3.63	(0.57)	ns	3.79	(0.59)	ns	3.80	(0.56)	Ns
2) Female (n=110)	3.71	(0.50)		3.58	(0.61)		3.77	(0.57)		3.80	(0.55)	
Age Group (years)												
1) 25-35 (n=86)	3.62	(0.52)	**	3.47	(0.62)	**	3.70	(0.64)	*	3.69	(0.53)	Ns
2) 36-45 (n=89)	3.76	(0.47)		3.66	(0.53)		3.78	(0.51)		3.86	(0.58)	
3) 46-55 (n=18)	4.00	(0.47)		3.93	(0.60)		4.09	(0.53)		3.96	(0.39)	
Post hoc test	1<3			1<3			1<3					
Length of Work												
1) Less than 10 years (n=76)	3.57	(0.52)	**	3.41	(0.62)	*	3.68	(0.64)	ns	3.62	(0.55)	**
1) Between 11 to 20 years (n=94)	3.82	(0.46)		3.72	(0.52)		3.84	(0.51)		3.92	(0.54)	
1) More than 20 years (n=23)	3.82	(0.50)		3.75	(0.61)		3.86	(0.63)		3.86	(0.48)	
Post hoc test	1<2			1<2, 1<3						1<2		

*p value <0.05; **p value<0.01. SD, Standard Deviation; ns, non-significant. Only significant post hoc results are shown in the table.

Table 3 shows the descriptive statistics of the WAMI by demographic subgroups. Regarding gender, no significant differences were found between male and female in total score (t=0.363, p=0.717>0.05), no significant differences were found between male and female for positive meaning subscale (t=0.644, p=0.520>0.05), meaning-making through work (t=0.242,

p=0.809>0.05), and greater good motivation (t=0.053, p=0.958>0.05). On the contrary, regarding age group, a significant difference was found between group in total score (F=1.847, p=0.010<0.05), also for positive meaning subscale (F=5.468, p=0.005<0.05) and meaning-making through work (F=3.384, p=0.036<0.05). However, no significant differences were found for greater good motivation sub-scale (F=3.033, p=0.051>0.05). The post hoc Bonferroni test showed that the higher age group had significant total score of meaningful work compared with group aged 46-55 and 25-35 years old (p<0.05), the differences also revealed a comparison of group aged 46-55 and 25-35 years old for positive meaning subscale (p<0.01) and meaning making through work (p<0.05). Regarding length of work, a significant difference was found between group in total score (F=6.218, p=0.002<0.05), also for positive meaning subscale (F=6.940, p=0.001<0.01), and greater good motivation sub-scale (F=6.771, p=0.001<0.01). However, no significant differences were found for meaning-making through work (F=1.881, p=0.155>0.05). The post hoc Bonferroni test showed that the higher length of group had significant total score of meaningful work compared with less than 10 years of group aged 10-20 years old (p<0.01). The differences also revealed a comparison with less than 10 years of group aged 10-20 years old (p<0.01) for positive meaning subscale (p<0.01). Then, the difference was also shown in group aged 10-20 years old and less than 10 years group (p<0.01) for greater good motivation subscale (p<0.01). But there were no differences in the subscale of meaning-making though work.

Discussion

The current study tested the psychometric properties of Indonesian version of the WAMI in a sample of local bank employees in Indonesia. Confirmatory factor analysis was examined, convergent and discriminant validities were tested. The result showed the same model of WAMI developed by Steger. The scale revealed a satisfaction of psychometric properties, so that it can be implied that all of the items can be measured in Indonesian context.

Consistent with the prior study, meaningful work positively correlated with work engagement and job satisfaction, and negatively correlated with perceived stress (Isaksen, 2000; Steger et al., 2012). The significant positive correlation also was revealed between the subscale score of each convergent validity variable, except for correlation of pay on greater good motivation subscale, fringe benefits with meaning-making through work

subscale, and greater good motivation subscale.

When exploring demographic characteristic, there were no differences between male and female. This finding is consistent with the prior study (Steger et al., 2012), aside from the fact that older worker and longer working years have higher score meaningful work. But the differences were only shown on groups aged 25-35 and 46-55 years old for overall meaningful work, positive meaning subscale, and meaning-making through work subscale. However, there were no differences between age group for greater good motivation, so that it could be implied that greater good motivation is the same for all off employees based on age group.

The differences can also be shown between lengths of work, except for meaning-making through work subscale. These subscales revealed the same score, so that it could be implied that meaning-making through work is the same although the employees have different duration of work. The differences can be seen between the length of less than 10 years of work group with group aged 10-20 years old, and more for total meaningful work and positive meaning. However, for greater good motivation subscale the difference can be seen between the length of less than 10 years of work with between group aged 10-20 years old.

Limitation

There are several limitations of the study; the sample of the study was bank employees only, with minimum undergraduate level of education. Further study should examine larger amount of data from many occupational corporations and companies with several levels of education.

Conclusion

In conclusion, the study confirmed that the WAMI has satisfactory psychometric properties and can be used in Indonesian context. The availability of the scale could be used for further research of positive psychology in organizational setting and be compared with other international research.

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