

**THE INTELLECTUAL, SOCIAL, AFFECTIVE ENGAGEMENT SCALE
(ISA ENGAGEMENT SCALE): A VALIDATION STUDY**

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Abstract

The critical role of employee management in organizational development is one of the goals of the organization. This study aims to validate the Intellectual, Social, Affective Engagement Scale (ISA Engagement Scale) instrument developed by Soane et al. (2012) using local samples and the manufacturing and service sectors. Participants in this study were 112 employees who filled out the questionnaire. Determination of a random sample by giving an instrument statement to respondents who are willing to fill in instruments that have been provided by researchers. The data testing method uses exploratory factor analysis (EFA) by first testing the validity and reliability of the instrument. The results showed that it proves that the ISA instrument had three unique factors, namely the cumulative variance extracted rate of 65%. The result indicates that the ISA instrument can be used to measure employee engagement.

Keywords : *Employee Engagement, Validation, Exploratory Factor Analysis.*

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INTRODUCTION

The Technological and knowledge developments make changes in the face of increasingly competitive challenges. One development that needs to be considered and developed is intangible assets. (Teece, 2015; Sidharta & Affandi, 2016). These intangible assets for companies are the main source of drive for the progress of an organization. (Noe, Hollenbeck, Gerhart & Wright, 2017).

One of the main drivers in improving organizational capability is by empowering existing resources within an organization. (Kahn, 1990; Bakker & Shaufeli, 2008) Employees or workers owned by organizations need to develop. An essential concept in employee development is employee empowerment (Bindl & Parker, 2010; Bakker et al., 2011; Parker & Griffin, 2011)

Several studies have shown that employee management has a relationship with performance (Markos & Sridevi, 2010; Anitha, 2014), self-efficacy (Luthans & Peterson, 2002; Salanova, Lorente, Chambel & Martínez, 2011), burnout (Crawford, LePine & Rich, 2002). 2010; Anthony-McMann, Ellinger, Astakhova & Halbesleben, 2017), deviance behavior (Shantz, Alfes, Truss & Soane, 2013; Hur, Moon & Lee, 2018), satisfaction (Harter, Schmidt & Hayes, 2002; Nimon, Shuck & Zigarmi, 2016), leadership (Popli & Rizvi, 2016; Breevaart & Bakker, 2018), organizational citizenship behavior (Matta, Scott, Koopman & Conlon, (2015); Gupta, Agarwal & Khatri, 2016), Positive behavior (Saks, 2006; Shantz, Alfes & Latham, 2016) and commitment (Bal, Kooij & De Jong, 2013; Albrecht & Marty, 2017).

Based on the critical role of employee

engagement, it needs to be studied comprehensively about the concept. What can encourage employees to be empowered and how to empower them. Research on employee engagement measures based on affective aspects (May, Gilson & Harter, 2004; Bakker & Schaufeli, 2008; Rich, Lepine & Crawford, 2010) and cognitive aspects (Kahn, 1990; Schaufeli et al., 2002). While it is still rare that measures social aspects (Soane et al., 2012). This study attempts to validate the Intellectual, Social, Affective Engagement Scale (ISA Engagement Scale) instrument developed by Soane et al., (2012).

There is no validation regarding the ISA Engagement Scale used in Indonesia. That empirical evidence is needed to test whether the instrument can be used in Indonesia with consideration of differences in location and time so that the instrument can adopt in Indonesia.

RESEARCH METHODS

I am testing the validity and reliability by examining the results of participant recapitulation used as a sample in this study. Participants are respondents who are willing to answer the questionnaire given by the researcher. Participants were 112 manufacturing and service, sector workers. Sampling is done randomly by visiting participants who are eager to fill out the questionnaire. The questionnaire was filled in manually by filling in the instrument form provided by first notifying that the respondent's identity was kept confidential and would not be misused other than for research purposes — the statement made so that participants felt comfortable and safe in filling instruments.

Instrument testing is an Intellectual, Social, Affective Engagement Scale (ISA

Engagement Scale) developed by Soane et al. (2012) there are nine items of disclosure with 7 Likert scales that have been developed by them in companies in the United Kingdom. Before the instrument needs to be validated, whether the instrument is suitable if it used in specific regions and sectors. Therefore this study was conducted to test the validity and reliability of ISA instruments.

Before testing, the validity and reliability of the data tested first. The criteria used for validity refer to the internal correlation between the items of the statement, with the condition that the correlation value is > 0.3 and the Cronbach Alpha (CA) value is > 0.7 . The results of the validity and reliability of the instrument indicate that the corrected value of the total correlation item is a statement with a correlation between 0.418 -0.620, and a Cronbach alpha value between 0.798-0.819 as shown in Table 1.

The testing tool uses SPSS with Exploratory Factor Analysis (EFA) method. EFA testing is done to validate the unidimensional or multidimensional construct used in the preparation of the instrument.

Table 1. Validity and Reliability of Instruments.

Instru ment	Corrected Item-Total Correlation	Cronbach's Alpha
Item1	0.516	0.810
Item2	0.539	0.809
Item3	0.620	0.800
Item4	0.538	0.806
Item5	0.614	0.798
Item6	0.540	0.814
Item7	0.418	0.819
Item8	0.620	0.799
Item9	0.513	0.809

Table 2 Result of Anti-image Correlation Matrices

Anti-image Matrices									
Anti-image Correlation	Item1	Item2	Item3	Item4	Item5	Item6	Item7	Item8	Item9
Item1	.735 ^a	-.601	-.158	.185	-.133	.047	-.245	.144	-.176
Item2	-.601	.704 ^a	-.424	-.123	.054	.053	.232	-.211	.111
Item3	-.158	-.424	.846 ^a	-.183	.131	-.191	-.118	-.055	-.037
Item4	.185	-.123	-.183	.659 ^a	-.695	.000	.118	-.068	.098
Item5	-.133	.054	.131	-.695	.657 ^a	-.383	-.184	.066	-.106
Item6	.047	.053	-.191	.000	-.383	.820 ^a	.134	-.162	-.050
Item7	-.245	.232	-.118	.118	-.184	.134	.709 ^a	-.415	-.016
Item8	.144	-.211	-.055	-.068	.066	-.162	-.415	.747 ^a	-.508
Item9	-.176	.111	-.037	.098	-.106	-.050	-.016	-.508	.785 ^a

Measures of Sampling Adequacy (MSA)

Table 3 Result of Residual of observed and reproduced correlations

Residuals									
Residual	Item1	Item2	Item3	Item4	Item5	Item6	Item7	Item8	Item9
Item1		.005	.000	-.029	.044	-.022	.056	-.058	.018
Item2	.005		-.005	.009	-.004	-.010	-.044	.038	-.004
Item3	.000	-.005		.020	-.045	.044	.007	.003	-.012
Item4	-.029	.009	.020		.008	-.024	-.009	.027	-.015
Item5	.044	-.004	-.045	.008		.011	.048	-.040	.003
Item6	-.022	-.010	.044	-.024	.011		-.056	.015	.022
Item7	.056	-.044	.007	-.009	.048	-.056		.012	-.025
Item8	-.058	.038	.003	.027	-.040	.015	.012		.010
Item9	.018	-.004	-.012	-.015	.003	.022	-.025	.010	

Extraction Method: Principal Axis Factoring.

Residuals are computed between observed and reproduced correlations. There are 3 (8.0%) nonredundant residuals with absolute values greater than 0.05.

RESULTS AND DISCUSSION

The total items tested were nine items using Principal Axis Factoring (PAF) with oblimin rotation and using SPSS tools. To find out the factors that form ISA Engagement Scale, first look at the results of the correlation matrix. Correlation matrix results show numbers above 0.3. The Bartlett test was significant at $p < 0.05$ with the Kaiser-Meyer-Olkin Measure of Sampling Adequacy value. (KMO) of 0.737, which means that factor analysis can continue because it already has a reasonably good model.

Similarly, the results of Bartlett's Test of Sphericity were significant at 0,000. The

results of the anti-image matrix show there is no multicollinearity indicated by the correlation value below 0.5. Calculation results can see in table 2.

The value of communalities shows a number > 0.4 with acceptable criteria, and only 8% of non-redundant is greater than 0.05, as shown in Table 3, this shows the model is relatively good. So it can be said that the model meets the criteria.

EFA iteration is done only once, which forms into three factors with the oblimin rotation method. Results the total cumulative variance of 65.43% means that the tested model has 65.43%, with a factor of 1 at 40.97%, a factor of 2 of 14.84% and a factor

Table 4 Result of Pattern Matrix, Communalities and Correlation Matrix

Item*	Factor 1	Factor 2	Factor 3	Communalities
Saya berkonsentrasi pada pekerjaan saya.	1.000			.711
Saya fokus pada pekerjaan saya.	.779			.660
Saya banyak memperhatikan pekerjaan saya.	.700			.611
Saya berbagi tujuan kerja yang sama dengan rekan kerja saya.		.921		.683
Saya berbagi nilai kerja yang sama dengan rekan kerja saya.		.854		.633
Saya memiliki sikap kerja yang sama dengan rekan kerja saya.		.572		.426
Saya merasa energik dalam melakukan pekerjaan saya.			.857	.597
Saya antusias dalam pekerjaan saya.			.721	.476
Saya merasa positif tentang pekerjaan saya.			.615	.407
Correlation Matrix	Factor 1	Factor 2	Factor 3	
Factor 1	1.000			
Factor 2	.333	1.000		
Factor 3	.511	.375	1.000	
Item* in Indonesian Version				

of 3 of 9.62% in explaining the factors formed by acceptable model criteria that can be defined by the measuring instrument. The overall result of the Exploratory Factor Analysis (EFA) calculation model can see in table 4.

Based on the results of data processing, it known that it has good internal consistency and is proven to be able to explain three factors, namely intellectual engagement, social engagement, and affective engagement. The implication of this research to contribute to the research that wants to measure employee engagement

using ISA Engagement Scale, which has been proven validated through this research. Previous studies have confirmed Employee Engagement instruments such as the Utrecht Work Engagement Scale (UWES) (Vazquez, Magnan, Pacico, Hutz & Schaufeli, 2015; Zecca, Györkös, Becker, Massoudi, de Bruin & Rossier, 2015; Sidharta, 2018).

Research that validates Intellectual, Social, Affective Engagement Scale (ISA Engagement Scale) instruments such as research conducted by Mañas-Rodríguez, Alcaraz-Pardo, Pecino-Medina & Limbert (2016) held in Spain. The study conducted

by Sharma (2016) conducted in India. Likewise research conducted by Khodakarami, Dirani & Rezaei (2018) with a multi-criteria decision-making (MCDM) approach. Stoeber, Townley & Davis (2013) who compared UWES and ISA instruments using two samples of employees from a British company and student. Thus the results of this study can bridge the gap between instruments developed outside with local conditions.

CONCLUSIONS AND SUGGESTIONS

Testing of Intellectual, Social, Affective Engagement Scale (ISA Engagement Scale) instruments shows that it is proven to be valid and reliable as well as forming three unique factors namely Intellectual engagement, Social engagement, and Affective engagement.

The results of this study contribute to research on the theme of employee engagement. However, there are still some limitations to this study. The results of the study cannot yet be generalized to various sectors so that further testing is needed by involving multiple areas. This research is only to validate the factors forming employee engagement and do not do further questioning regarding the best model testing. For this reason, further research is needed using the confirmatory factor analysis approach.

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