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Measurement Models of Work Engagement and Job Satisfaction and Determining Factors

Nugrahadi¹, *Masdupi Erni², *Syahrizal³

^{1,2,3}Universitas Negeri Padang, Padang, Indonesia, *Corresponding author. Email: nugra.hadi88@gmail.com

ABSTRACT

This researh aims to examine the impact of communication satisfaction, coworker support, on work engagement and job satisfaction as a mediating variable. This study uses SEM [Structural Equation Model] analysis with 201 samples. The results showed that communication satisfaction and coworker support were directly related to job satisfaction. Job satisfaction is also directly related to work engagement. Job satisfaction has a direct effect on work engagement. Job satisfaction becomes a mediation on the influence of communication satisfaction and co-worker support on work engagement

Keywords: Communication satisfaction, coworker support, work engagement, job satisfaction.

1. INTRODUCTION

Organization is a rational coordination of activities of a number of people to achieve some common goals through the division of work and functions through hierarchy, authority and responsibility. Organizations have certain characteristics, namely having a structure, purpose, interconnecting one part with another and depending on human communication to coordinate activities within the organization.

Likewise, with government organizations that have the main goal of providing excellent service to the community. To achieve this goal, the government must have participants or human resources who are qualified and have work commitments to the organization.

Work engagement has long been an important study in several scientific researches. Because when employees have an emotional attachment to the organization, this will be of positive value for the progress of the organization. Employee attachment is a positive attitude and feeling towards work that can increase motivation and desire to work well despite facing challenges in achieving the goals and values desired by the individual's workplace. So that work attachment is an important factor to be explored further about what factors can influence it.

Work engagement is a high emotional relationship felt by an employee to his organization that affects employees to exert more and more free effort for their work [1]. Jung and Yang also stated Employees with the value of engagement are full-time participation and enthusiastic work. In addition, employee engagement not only enables employees to contribute more, but also makes them more loyal, thereby reducing the desire to voluntarily leave the company.

Employment Engagement according [2] It is a state of psychological stability and is the result of the interaction between the individual and the individual working environment.



At the same time, according to [3], attachment is a multidimensional idea. Employees are restrained emotionally, cognitively, and physically. Attachment occurs when one person is consciously alert and/or emotionally connected with another person.

Work engagement as the amount of effort that is wisdom displayed by employees in their work. Attachment employees are also defined as a positive attitude that is owned by employees towards the organization and its values [4].

Employee engagement as a positive motivational state characterized by vigor, dedication and absorption. Vigor is characterized by high levels of energy, resilience, willingness to try, and not giving up in the face of challenges. Dedication is characterized by feeling valued, enthusiastic, inspiring, valuable and challenging. Absorption is characterized by full concentration on a task [5].

Job engagement consists of individual dimensions, and job satisfaction is result of this dimension [6].

Communication is the process of passing information and understanding from one person to another, and it is also a way to convey ideas, facts, thoughts, feelings and values to others . Communication is required so that the organization can achieve its goals. Employees who are satisfied with communication within an organization have an increase in performance, productivity, profits, and external customer orientation. This indicates that the organization is a unit that has interdependent relationships among the parts of the organization.

According to Down and Hazen in [7] communication satisfaction is the level of individual satisfaction with the aspects of communication where they work.

This definition suggests that Down and Hazen identifies eight dimensions of communication satisfaction organizations, namely: in General Organizational Perspective, Organizational Integration, Feedback. Relationship to Superiors. Horizontal and informally communication, Media Quality, Communication climate, dan Relationship with employee.

An engaged employee is aware of the business context, andwork with colleagues to improve performance on the jobfor the benefit of the organization. Organizations must also work for develop and maintain attachment, which requires two-way

relationship, namely between employer and employee [8].

Communication satisfaction has a positive and significant to job satisfaction. The research also says that The communication that is built between fellow employees determines satisfaction employee dissatisfaction in doing their job [9].

Peer support as the encouragement and assistance participants receive from their colleagues [10]. Peer support reflects the extent to which colleagues behave by optimizing participants using on-the-job learning [11]. Peer support is generally understood as encouraging colleagues to use new learning in the workplace. Peer support reflects the extent to which colleagues behave by optimizing participants using work learning [3]. Kokoroko and Sanda [2019] define peer support as the encouragement and assistance that participants receive from their colleagues.

Measuring variables support from colleagues with three indicators, namely: coworkers listen to complaints when there are work problems, colleagues always help in times of difficulty in carrying out tasks, co-workers always helpful in any situation regarding work [12].

Job satisfaction is an important factor that can affect employee turnover [13]. High job satisfaction is believed to be able to reduce employees' desire to leave the organization where they work. Furthermore, according to Robbins job satisfaction is a regularly occurring mindset closer to a person's job which indicates the distinction between the variety of awards acquired through employees and the quantity they trust they ought to get hold of [14].

Job satisfaction is an individual evaluation of the jask and the work context [15]. Job satisfaction is related to an assessment of Work characteristics, work environment and emotional experience at work. Based on their observations and experience, satisfied employees have a good evaluation of their work. Job satisfaction is a set of attitudes towards tasks and different aspects of the work environment.

Job satisfaction as a feeling of pleasure due to think that a person's work can achieve or allow the realization of that person's important work values [17].

Job satisfaction is an important factor that can affect employee turnover (turn over). High job satisfaction is



believed to be able to reduce the desire of employees to leave the organization where they work [17].

Job satisfaction is an individual's evaluation of the task and context her job. Job satisfaction is related to the assessment of job characteristics, work environment and emotional experiences in workplace [18].

Job satisfaction is influenced by five factors, namely:
1) The work itself 2) Leader 3) Salary/ incentives 4) Position Promotion and 5) Colleagues [19].

The are four factors that influence employee job satisfaction, namely: 1) Allowances/salary 2) Colleagues 3) Work environment Work environment factor 4) Promotion of positions [20]

2. METHOD

This study examines the extent of the influence between communication satisfaction, coworker support, on work engagement with job satisfaction as a mediating variable. The sample in this find out about have been 201 respondents, who were respondents from OPD Bukittingi City. The data analysis used was SEM analysis to see the role of the mediating variables in this study. In a Measurement model, the indicator variables used in the model need to be confirmed whether they can really define a structure. Confirmatory analysis was performed for both exogenous and endogenous variable.

To facilitate the analysis process of measurement models, it is necessary to conclude a research conceptual framework. Based on the theory and the relationship between variables, it can be concluded that an overview of the conceptual framework of the study can be found in the following figure:

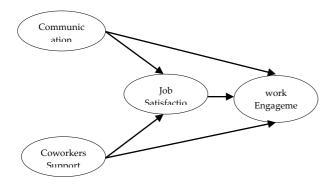


Figure 1 : Conceptual Framework

3. RESULTS AND DISCUSSION

SEM analysis in this study was carried out using the IBM SPSS Amos application. A complete SEM modeling basically consists of a measurement model and a structural model. The measurement model aims to confirm the dimension developed on one factor . The results of measurement model analysis or confirmatory analysis [CFA] for exogenous and endogenous variables can be seen as follows:

The final estimation results of the work engagement variable, all indicators have shown he loading value> 0.5 makes it satisfy the convergence validity, which indicates that the model constructed according to this indicator perfectly explains and defines model built from this indicator perfectly explains and defines the endogenous construct as shown in the following table:

Table 1. Goodness of Fit Indices Work Engagement

Goodness of Fit Indices	Statistics	Cut Off Value	Interpretation
Chi-square	54,597	Highest	Better Fit
Df	25	-	-
Probability	0,001	≥0,05	Better Fit
CMIN/DF	2,184	≤2,00	Better Fit
GFI	0,945	≥0,90	Better Fit
RMSEA	0,077	≤0,08	Better Fit
TLI	0,949	≥0,90	Better Fit
CFI	0,964	≥0,90	Better Fit

From the table above, it can be explained that the Goodness-of-Fit Index for exogenous constructs shows the results in accordance with the recommended cut-off value. Thus, the endogenous variables in the study model can be accepted as a fit model.

The results of data processing related to Goodnessof-Fit from job satisfaction variables can be seen in the following table:

Table 2. Goodness of Fit Indices of Job Satisfaction

Goodness of Fit	Statistics	Cut Off	Interpretation
Indices		Value	
Chi-square	162,004	Highest	Better Fit
Df	78	-	-
Probability	0,000	≥0,05	Marginal
CMIN/DF	2,077	≤2,00	Marginal
GFI	0,909	≥0,90	Better Fit
RMSEA	0,073	≤0,08	Better Fit
TLI	0,936	≥0,90	Better Fit
CFI	0.958	>0.90	Better Fit



From Table 2 it can be explained that the Goodness-of-Fit Index of the exogenous constructs shows the results in accordance with the recommended cut off value. Thus, the exogenous variables in the study model can be accepted as a fit model.

The results of data processing related to Goodnessof-Fit from the support variables of coworkers can be seen in the following table:

Table 3. Goodness of Fit Indices of Coworkers Support

Goodness of Fit	Statistics	Cut	Interpretation
Indices		OffValue	_
Chi-square	8,193	Highest	Better Fit
Df	8	-	-
Probability	0,415	≥0,05	Marginal
CMIN/DF	1,024	≤2,00	Marginal
GFI	0,987	≥0,90	Better Fit
RMSEA	0,011	≤0,08	Better Fit
TLI	0,999	≥0,90	Marginal
CFI	0,100	≥0,90	Better Fit

Source: Results of AMOS 24 Data Processing

From Table 3 it can be explained that the Goodness-of-Fit Index of the exogenous constructs shows the results in accordance with the recommended cut-off value. Thus, the exogenous variables in the study model can be accepted as a fit model.

Figure 2 Overall Confirmatory Factory Analysis

The results of data processing related to Goodness-of-Fit from communication satisfaction variables can be seen in Table 4:

Table 4. Goodness of Fit Indices of Communication Statisfaction

Goodness of Fit Indices	Statistics	Cut Off Value	Interpretation
Chi-square	0,059	Highest	Better Fit
Df	1	-	-
Probability	0,809	≥0,05	Better Fit
CMIN/DF	0,058	2,00	Marginal
GFI	1,000	≥0,90	Better Fit
RMSEA	0,000	≤0,08	Better Fit
TLI	1,030	≥0,90	Better Fit
CFI	1,000	≥0,90	Better Fit

After the measurement model of each variable was carried out, the next step in this study was to carry out an overall measurement model [overall CFA]. The purpose of this step is to analyze the fit model of the four latent variables simultaneously. If the overall measurement model can meet the requirements of the fit model, the model can be continued at the next stage, namely the structural model.



All indicators on latent variables [work engagement, job satisfaction, coworker support and communication satisfaction] have shown a factor loading value> 0.5 and are significant so that they meet convergent validity, which indicates that statistically the model built from

these indicators perfectly explains and define each of its construct variables. Overall CFA results can be seen in Table 5:

Table 5. Overall CFA

Variable	Indicator	Sl	Smc	Ev	Se	C.r	P
	WE1	0,704	0,50	0,50			
	WE2	0,635	0,40	0,60	0,104	10,084	0,00
	WE3	0,654	0,43	0,57	0,101	9,099	0,00
	WE4	0,755	0,57	0,43	0,116	9,973	0,00
	WE5	0,81	0,66	0,34	0,125	10,65	0,00
Work Engagement	WE6	0,718	0,52	0,48	0,121	9,504	0,00
	WE7	0,567	0,32	0,68	0,148	7,563	0,00
	WE8	0,654	0,43	0,57	0,11	8,691	0,00
	WE9	0,742	0,55	0,45	0,118	9,813	0,00
	Σ	6,24	4,37	4,63			
	Construct Reliability	0,894					
	JS1	0,621	0,39	0,61			
	JS2	0,657	0,43	0,57	0,126	8,984	0,00
	JS3	0,68	0,46	0,54	0,114	9,148	0,00
	JS4	0,618	0,38	0,62	0,116	8,473	0,00
	JS5	0,549	0,30	0,70	0,143	6,641	0,00
	JS6	0,532	0,28	0,72	0,152	6,471	0,00
	JS7	0,481	0,23	0,77	0,15	5,958	0,00
	JS8	0,654	0,43	0,57	0,173	7,62	0,00
Job Satisfaction	JS9	0,583	0,34	0,66	0,156	6,968	0,00
	JS10	0,612	0,37	0,63	0,164	7,236	0,00
	KK11	0,651	0,42	0,58	0,165	6,878	0,00
	KK12	0,596	0,36	0,64	0,153	7,038	0,00
	KK13	0,614	0,38	0,62	0,15	6,881	0,00
	KK14	0,624	0,39	0,61	0,146	7,359	0,00
	KK15	0,568	0,32	0,68	0,139	6,826	0,00
	KK16	0,594	0,35	0,65	0,144	7,039	0,00
	Σ	9,63	5,84	10,16			



Variable	Indicator	SI	Smc	Ev	Se	C.r	P
	Construct Reliability	0,901					
	KK1	0,41	0,17	0,83			
	KK2	0,66	0,44	0,56	0,15	7,70	0,00
	KK3	0,46	0,21	0,79	0,14	5,72	0,00
	KK4	0,75	0,56	0,44	0,26	5,35	0,00
Job Satisfaction	KK5	0,83	0,69	0,31	0,24	6,12	0,00
300 Satisfaction	KK6	0,96	0,92	0,08	0,32	6,30	0,00
	KK7	0,65	0,42	0,58	0,30	5,27	0,00
	KK8	0,89	0,79	0,21	0,29	6,21	0,00
	Σ	5,61	4,20	3,80			
	Construct Reliability	0,892					
	DRK1	0,716	0,51	0,49			
	DRK2	0,741	0,55	0,45	0,088	12,228	0,00
	DRK3	0,455	0,21	0,79	0,093	5,98	0,00
Coworkes Support	DRK4	0,736	0,54	0,46	0,091	9,51	0,00
Coworkes Support	DRK5	0,784	0,61	0,39	0,095	10,059	0,00
	DRK6	0,479	0,23	0,77	0,094	6,282	0,00
	Σ	3,91	2,65	3,35			
	Construct Reliability	0,821					
	KKO1	0,489	0,24	0,76			
Communication	KKO2	0,699	0,49	0,51	0,374	4,894	0,00
	KKO3	0,651	0,42	0,58	0,336	4,732	0,00
Satisfaction	KKO4	0,554	0,31	0,69	0,179	6,389	0,00
	Σ	2,39	1,46	2,54	-,	- ,	.,
	Construct Reliability	0,693		,			

To find out whether the overall CFA model that is built statistically can be supported and is in accordance with the established fit model, the following is a comparison of the models built with the requirements of Goodness-Of-Fit Indices. The results of data processing related to Goodness-Of-Fit from the overall CFA can be seen in Table 6:



Table 6. Goodness of Fit Indices dari Overall	Table 6.	it Indices dari Overall (CFA
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Goodness of Fit Indices	Statistics	Cut Off Value	Interpretation
Chi-square [x ²]	1042,596	Highest	Better fit
Df	577	-	-
Probability[pvalue]	0,000	≥ 0,05	Marginal
CMIN/DF	2,017	≤ 2,00	Better fit
GFI	0,783	≥ 0,90	Marginal
RMSEA	0,071	\leq 0,08	Better Fit
TLI	0,856	≥ 0,90	Better Fit
CFI	0,875	≥ 0,90	Better Fit

4. CONCLUSIONS

Work engagement is a very important study in a study. Employees who have a work engagement will have a positive impact on the progress of the organization. Work engagement is a perfect relationship between employees and organizations that support each other, as well as a positive attitude shown by employees towards the organization so that individuals express themselves physically and emotionally to give their best efforts in their work. As illustrated in this article, work engagement is influenced by several factors such as job satisfaction, coworker support and communication satisfaction. This article also offers a conceptual model of the influence between communication satisfaction and coworker support on work engagement Taking job satisfaction as a mediating variable. This illustrates that communication satisfaction has a positive affect on job attractiveness through job satisfaction. Organizational support also has a positive impact on work input through job satisfaction.

REFERENCES

- [1] Jung, H. S. and Yoon, H. H. [2015] International Journal of Hospitality Management Understanding pay satisfaction: The impacts of pay satisfaction on employees 'job engagement and withdrawal in deluxe hotel □', *International Journal of Hospitality Management*. Elsevier Ltd, 48, pp. 22–26. doi: 10.1016/j.ijhm.2015.04.004.
- [2] Cahill, K. E. et al. [2015] 'Journal of Behavioral and Experimental Economics Linking shifts in

- the national economy with changes in job satisfaction, employee engagement and work life balance', Journal of Behavioral and Experimental Economics. Elsevier Ltd., 56, pp. 40–54. doi: 10.1016/j.socec.2015.03.002.
- [3] Karatepe, O. M. [2010] 'Do Core Self-Evaluations Mediate the Effect of Coworker Support on Work Engagement? A Study of Hotel Employees in Iran', *Journal of Hospitality and Tourism Management*. CAUTHE, 17[1], pp. 62–71. doi: 10.1375/jhtm.17.1.62.
- [4] Wen, X., Gu, L. and Wen, S. (2018) "Job satisfaction and job engagement: Empirical evidence from food safety regulators in Guangdong, China", Journal of Cleaner Production. Elsevier Ltd. doi: 10.1016/j.jclepro.2018.10.089.
- [5] Walker, A. and Campbell, K. (2013) ,Nurse Education Today Work readiness of graduate nurses and the impact on job satisfaction , work engagement and intention to remain", YNEDT. Elsevier Ltd, pp. 6–11. doi: 10.1016/j.nedt.2013.05.008.
- [6] Hup, S. et al. [2016] 'Understanding the link between communication satisfaction, perceived justice and organizational citizenship behavior', Journal of Business Research. Elsevier Inc. doi:10.1016/j.jbusres. 2016 08 017
- [7] Vermeir, P. et al. [2018] 'Intensive & Critical Care Nursing Communication satisfaction and job satisfaction among critical care nurses and their impact on burnout and intention to leave:

 A questionnaire study', Intensive & Critical Care Nursing. Elsevier Ltd. doi: 10.1016/j.iccn.2018.07.001.



- [8] Orgambídez-ramos, A. and Almeida, H. De (2017) "Work engagement, social support, and job satisfaction in Portuguese nursing staff: A winning combination", Applied Nursing Research. Elsevier Inc., 36, pp. 37–41. doi: 10.1016/j.apnr.2017.05.012.
- [9] Vukonjanski, J., Nedeljkovi, M. and Had', O. (2013) "The impact of internal communication satisfaction dimensions on job satisfaction dimensions and the moderating role of LMX", 39, pp. 563–565. doi: 10.1016/j.pubrev.2013.09.002.
- [10] Guo, M. *et al.* [2019] 'Supervisory and coworker support for safety: Bu ff ers between job insecurity and safety performance of high-speed railway drivers in China', *Safety Science*. Elsevier, 117[July 2018], pp. 290–298. doi: 10.1016/j.ssci.2019.04.017.
- [11] Limpanitgul, T., Boonchoo, P. and Photiyarach, S. [2014] 'Journal of Hospitality and Tourism Management Coworker support and organisational commitment: A comparative study of Thai employees working in Thai and American airlines', *Journal of Hospitality and Tourism Management*. Elsevier Ltd, 21, pp. 00–107. doi: 10.1016/j.jhtm.2014.08.002.
- [12] Yang, T. et al. (2016) "Effects of Co-Worker and Supervisor Support on Job Stress and Presenteeism in an Aging Workforce: A StructuralEquation Modelling Approach", pp. 1–15. doi: 10.3390/ijerph13010072.
- [13] Kokoroko, E. and Sanda, M. A. [2019] 'Effect of Workload on Job Stress of Ghanaian OPD Nurses: The Role of Coworker Support', *Safety and Health at Work*. Elsevier Ltd, 10[3], pp. 341–346. doi: 10.1016/j.shaw.2019.04.002.
- [14] Gon, W. and Brymer, R. A. [2011] International Journal of Hospitality Management The effects of ethical leadership on manager job satisfaction , commitment , behavioral outcomes , and firm performance', *International Journal of Hospitality Management*. Elsevier Ltd, 30[4],pp.10201026.doi:10.1016/j.ijhm.2011.03.008.
- [15] Lachowski, S., Florek-łuszczki, M. and Zagórski, J. [2018] 'Satisfaction with

- interpersonal relations among employees of State Forests in Poland', 25[2], pp. 300–306. doi: 10.26444/aaem/82539.
- [16] Nathans, L. et al. (2019) "Children and Youth Services Review Home visitor readiness, job support, and job satisfaction across three home visitation programs: A Retrospective Analysis", Children and Youth Services Review. Elsevier, 106(June), p. 104388. doi: 10.1016/j.childyouth.2019.104388.
- [17] Walker, A. and Campbell, K. (2013) ,Nurse Education Today Work readiness of graduate nurses and the impact on job satisfaction , work engagement and intention to remain", YNEDT. Elsevier Ltd,pp.6–11.doi: 0.1016/j.nedt.2013.05.008.
- [18] Lachowski, S., Florek-łuszczki, M. And Zagórski, J. (2018) "Satisfaction with interpersonal relations among employees of State Forests in Poland", 25(2), pp. 300–306. doi: 10.26444/aaem/82539.
- [19] Saeed, H. M. I. and Nasir, N. (2016) "Work Environment on Job Satisfaction with mediating effect of Motivation among School Teachers in Lahore, Pakistan", 564(2015).
- [20] Frempong, L. N., Agbenyo, W. and Darko, P. A. (2018) "The Impact of Job Satisfaction on Employees "Loyalty and Commitment: A Comparative Study Among Some Selected Sectors in Ghana", 10(12), pp. 95–105.