

# Exploratory Factors Analysis of Employee Retention at Tertiary Educational Institution: A Case Study of a Private University in East Indonesia

Billy Ivan Tansuria<sup>1</sup>; Melinda Lydia Nelwan<sup>2</sup>

<sup>1,2</sup>Fakultas Ekonomi dan Bisnis, Universitas Klabat  
Jln. Arnold Mononutu, Airmadidi, Minahasa Utara, Sulawesi Utara 95371, Indonesia  
<sup>1</sup>billy\_tansuria@unklab.ac.id; <sup>2</sup>melinda.nelwan@unklab.ac.id

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## ABSTRACT

This research aimed to identify the factors that contributed to the employee retention in the tertiary educational institution in Indonesia. The researchers used a case study of a private university in East Indonesia. This research was an exploratory factor analysis research. The items generated from in-depth interviews were developed into a questionnaire and distributed to 165 employees of the particular university based on purposive sampling method. About 105 respondents were obtained. The researchers utilized SPSS to analyze the data. The result shows that performance management function, organizational culture, employee engagement, social support, and work environment are the main factors contributing to the employee retention in the university. Among those factors, the performance management function is the factor with the highest factor loading.

**Keywords:** exploratory factors analysis, employee retention, tertiary educational institution

## INTRODUCTION

There are many contributing factors to the issues of employee turnover. According to Smith and Macko (2014), the factors on employee turnover might be from the internal and external organization (national and international influences). Those factors have made the issues of turnover very complex and challenging to study. This is because the success or failure of an organization may depend on its employees (Kossivi, Xu, & Kalgora, 2016). Moreover, according to Dickson (2017), employee turnover is expensive since it costs the organization more than double of the annual salary to replace a well-trained employee. Therefore, it is essential for an organization to find ways of reducing the level of turnover. Thus, it creates substantial saving from the employee retention to the organization.

Retaining employees who have good performance is a challenge for every institution whether it is public or private institution particularly in

the tertiary education level. The cost of academic staff turnover can affect the overall academic system. Zhou and Volkwein (2004) stated that, "The costs of turnover, such as subsequent recruiting expenses, disruptions of offered course, discontinuities in departmental and student planning, and loss of graduate student advisors were handled at the individual, departmental, and institutional levels." Furthermore, Pienaar and Bester (2008) argued that several drawbacks might appear as a result of academic staff turnover (e.g. cost of losing experience and as well as knowledge the cost of hiring and training newly hired academics). A similar argument is also asserted by Thaden, Jacobs-Priebe, and Evans (2010). The negative effects on other academic colleagues as well as on students can also be caused by academic staff turnover, particularly if the vacant position is filled with the inexperienced person. Therefore, employee retention in higher education institution is important and should be taken seriously (Selesho & Naile, 2014).

Once a tertiary educational institution has

acquired skilled and intellectual employees, it has to find ways to retain them as long as possible in the institution. The main reason is that the long-run quality and sustainability of an educational institution will not be ensured without devoted and competent academic staffs (Jain, 2013). According to Samuel and Chipunza (2013), the reasons why employees remain in the organization are because of the organization concerns and cares for them. They realize what the organization expects of them. Moreover, the organization assigns responsibilities that match with their qualifications, and regularly provides positive acknowledgment and feedbacks. Selesho and Naile (2014) argued to reduce the rate of employee turnover, the organization had to recognize what factors motivated employees to stay or to leave and whether those factors were related to the nature of the job or the characteristics of the person.

Several researchers have found the factors that affect employee retention. Sinha and Sinha (2012) studied the factors that affected employee retention at two heavy engineering manufacturers in India. Meanwhile, DiPietro and Milman (2008) focused on retention factors of casual employees in restaurants in Central Florida, USA. Similarly, Kumar and Patel (2017) explored factors affecting employee retention, who worked in four and five-star hotels in Ahmedabad, India.

In the context of employee retention, Coetzee and Stoltz (2015) investigated whether career adaptability contributed to employee satisfaction among those who worked in the automotive industry in South Africa. Moreover, Zhang, Luo, Chen, Min, and Fang (2017) studied factors affecting the intention of doctors in a public hospital in Central China to leave their workplace. Meanwhile, Sutanto and Kurniawan (2016) particularly examined how to increase employee retention in the batik industry in Solo, Indonesia. Those researchers have come out with various factors that affect employee retention. Those are satisfaction with working conditions, career opportunities, supervisor support, participation in decision making, compensation and reward, flexible working hours, training and development opportunities, job characteristics, organizational culture, work-life balance, job security, organizational work culture, organizational relationship, and leadership. However, most of them are mainly focused on mainstream organizations such as service and manufacturing companies.

In educational institution setting, there is also some researches regarding factors that affect employee retention. The factors may be different from service and manufacturing companies mentioned before. Theron, Barkhuizen, and Du Plessis (2014) studied retention factors in public higher educational institutions in South Africa. They found the support from manager, satisfaction with institutional practices, and compensation and recognition were the causes of academic staff to retain. Moreover, Garcia (2015) focused on factors that affected faculty and non-faculty staffs' rate of retention in a private college in

Kingdom of Saudi Arabia. The researcher found that career development and performance management were the important factors that retained faculty and non-faculty staffs in their profession.

Mubarak, Wahab, and Khan (2012) suggested that pay satisfaction and the opportunities of growth and learning had a significant impact on retention of 200 full-time faculty members in private higher educational institutions in Pakistan. Then, Chong and Lee (2017) incorporated non-academic and academic staffs from top ten private higher educational institutions in Malaysia. They also found that work-life balance, career development, and employee engagement were significant factors related to employee retention.

Although the research has been conducted to examine factors that affect employee retention in a tertiary educational institution, there is little evidence regarding factors contribute to employee retention in Indonesia's tertiary educational institution. Sukirno (2017) examined whether the reward system, satisfaction, and commitment had an impact on lecturer performance in Indonesia's higher educational institution. Using path analysis, the researcher found that lecturer performance was improved by higher reward, commitment, and satisfaction. However, that particular research does not specifically investigate factors contribute to lecturers' retention. On the other hand, educational institutions may have different values and organizational cultures which can contribute differently to their employee management, and employee retention in particular. Therefore, the research related to employee retention in Indonesia's educational institution is worth to be conducted.

A survey in Indonesia conducted by Towers Watson (2014) show that there is more than 70% of organizations that are struggling to retain critically skilled employees. Moreover, 66% of employees expect to leave their organizations within two years compared to the global average of 54%. Only 34% mention their intention to stay with their current employer. It is significantly lower than the global rate of 46%.

This phenomenon continues to be a challenge in Indonesia as organizations struggle to understand and effectively address the important issues to their staff. Given the fact, it can be argued that educational institution may face a similar challenge. Therefore, this research aims to answer what the factors that contribute to employee retention in tertiary educational institutions in Indonesia. Using a case study of a private university in East Indonesia, exploratory factor analysis is conducted to gather information regarding factors in employee retention. The exploratory factor analysis is utilized based on a consideration that it should be able to identify the unique retention factors to the particular tertiary educational institution. The findings may be utilized by other tertiary educational institutions in Indonesia to improve the institutional practices in retaining employees, as well as to customize the approach towards employee management.

## METHODS

This research used an exploratory factor analysis method to identify factors contributing to employee retention in tertiary educational institutions. The researchers use a private university in East Indonesia as the sample. The exploratory factor analysis is used because tertiary educational institutions may have different nature and values from other similar institutions.

This research uses a self-developed questionnaire as the instrument. In developing the questionnaire, in-depth interviews are randomly conducted with 13 employees of a private educational institutions based on factors that motivate them to stay in the institution as the theme. The interviewees are those who have worked in the institutions for more than ten years.

Then, the data saturation is the basis for interviewing those interviewees. However, there is no new information found on the 11<sup>th</sup> and 13<sup>th</sup> interviewees. To analyze the interview texts, the researchers use content analysis. It results in 25 variables that are transformed into items in an online questionnaire. The questionnaire utilizes five-points of Likert scale ranging from one for strongly disagree to five for strongly agree.

The population is 199 employees of the private university. Using purposive sampling, the link to the online questionnaire is distributed to 165 employees after excluding those who work for less than two years. From that, 105 responses are received indicating that the response rate is 64%.

In the exploratory factor analysis, there are at least five steps that should be done to establish a clear path in the decision and analysis processes (Williams, Onsmann, & Brown, 2010). First, the researchers should find out whether the factor analysis is appropriate for the data. In this step, the sample, factorability, and respondent data suitability are analyzed. Second, the researchers determine the method to be used in factor extraction. Third, the criteria used in the extraction are analyzed. Fourth, the researchers select the rotational method that gives the best fit and suitable factors. Last, the interpretation process in which characterize variables in each factor is examined.

## RESULTS AND DISCUSSIONS

In this research, the sample size is 105 with the ratio of approximately 4:1 of samples to the number of variables in the questionnaire. Table 1 presents the descriptive statistics of the respondents. The employees are relatively fairly distributed among the age group. The exception is those in the group of 41 to 50 years old which are the biggest group. Female and male employees are also relatively balanced. For the length of service, most of the respondents have been working in the institution between five to ten years. The respondents are mostly faculty members, and most of the respondents possess masters' degrees.

Table 1 Descriptive Statistics

<b>Panel A: Age Group</b>	Frequency	Percentage (%)
< 30 years old	16	15,2
30 - 40 years old	20	19,0
41 - 50 years old	46	43,8
> 50 years old	23	21,9
<b>Panel B: Gender</b>	Frequency	Percentage (%)
Female	47	44,8
Male	58	55,2
<b>Panel C: Length of Service</b>	Frequency	Percentage (%)
2 - 5 years	26	24,8
5 - 10 years	33	31,4
11 - 20 years	24	22,9
> 20 years	22	21,0
<b>Panel D: Position</b>	Frequency	Percentage (%)
Faculty	77	73,3
Staff	28	26,7
<b>Panel E: Level of Education</b>	Frequency	Percentage (%)
Doctorates	12	11,4
Masters	70	66,7
Bachelors	19	18,1
Others	4	3,8

Analyzing the inter-item correlation matrix output, the researchers find that there are 14 items having correlation coefficients larger than 0,30. This indicates that the factor analysis is appropriate to be utilized in this research. Before the factor extraction, Kaiser-Meyer Olkin (KMO) test is performed as the Measure of Sampling Adequacy (MSA). The KMO index is found to be 0,872 indicating the suitability of the data for factor analysis method. In addition, Bartlett's Test of Sphericity ( $\chi^2(300) = 1.632,429$ ) is also significant with the p-value less than 0,001.

Further analysis of the anti-image matrices shows that there are none of the variables in the anti-image correlation having correlation below 0,50. It means that all variables can be utilized. Reliability test has also been performed on the initial 25 variables in the questionnaire using Cronbach's alpha with the result of 0,938. It shows the highly reliable variables.

Then, the principal component analysis is utilized in factor extraction because of the pervasiveness in its use in exploratory factor analysis. Using the cut-off of 1,0 of the eigenvalues, there are five factors extracted. It cumulatively explains 66,495% of the overall variance. The scree plot confirms these findings. The rotated eigenvalues are presented in Table 2. Factor 1 accounts for the highest of all factors with 22,337%, and factor 5 is the smallest factor with 6,579%.

Table 2 Total Variance After Rotation

Factors	Eigenvalues	Variance (%)	Cumulative (%)
Factor 1: Performance Management Function	5,584	22,337	22,337
Factor 2: Organizational Culture	3,693	14,772	37,109
Factor 3: Employee Engagement	3,434	13,734	50,843
Factor 4: Social Support	2,268	9,073	59,916
Factor 5: Work Environment	1,645	6,579	66,495

Table 3 Reliability Test

Factors	Cronbach's alpha
Factor 1: Performance Management Function	0,912
Factor 2: Organizational Culture	0,873
Factor 3: Employee Engagement	0,801
Factor 4: Social Support	0,647
Factor 5: Work Environment	0,612

Table 4 Factor Loading after Varimax Rotation

Variables	Factors				
	1	2	3	4	5
Clear performance measurement tools	<b>0,725</b>	0,089	0,096	0,345	0,291
Appreciation on employees' accomplishments	<b>0,722</b>	0,378	0,224	-0,053	0,001
Considerable work load	<b>0,702</b>	-0,034	0,092	0,249	0,063
Mentoring program	<b>0,691</b>	0,324	-0,028	0,115	0,168
Good corporate culture	<b>0,679</b>	0,393	0,288	0,017	0,251
Fair performance evaluation	<b>0,678</b>	-0,082	0,239	0,256	0,403
Idea recognition	<b>0,670</b>	0,353	0,374	-0,165	-0,067
Promotion based on performance	<b>0,570</b>	0,339	-0,028	0,238	0,017
Care for the employees' needs	<b>0,509</b>	0,363	0,499	-0,003	0,000
Clear career path	<b>0,501</b>	0,360	0,166	0,450	0,178
Clear vision and mission	0,071	<b>0,730</b>	0,069	0,182	0,089
Transparent decisions	0,492	<b>0,703</b>	0,124	0,131	0,030
Good communication between top management and employees	0,432	<b>0,687</b>	0,092	0,206	0,055
Job facilitation	0,540	<b>0,550</b>	0,289	0,159	0,019
Good relation between top management and employees	0,327	<b>0,541</b>	0,195	0,178	0,417
Create employee loyalty	0,173	0,253	<b>0,801</b>	-0,087	0,205
Create sense of ownership	0,163	0,266	<b>0,733</b>	0,155	0,133
Competitive salary	0,042	-0,076	<b>0,659</b>	0,431	0,033
Fair payment	0,398	-0,152	<b>0,616</b>	0,308	0,169
Sense of self-worth	-0,033	0,505	<b>0,540</b>	0,095	0,134
Social gathering facilitation	0,113	0,180	0,104	<b>0,724</b>	0,175
Skills improvement	0,224	0,300	0,176	<b>0,686</b>	0,025
Conducive work environment	0,226	0,310	0,173	0,021	<b>0,726</b>
Clear job description	0,089	-0,046	0,455	0,267	<b>0,574</b>

Factor 1: performance management function, Factor 2: organizational culture, Factor 3: employee engagement, Factor 4: social support, and Factor 5: work environment.



To measure the reliability of those factors, Cronbach's alpha test is performed. The results can be seen in Table 3. It finds that the reliability ranges from the lowest of 0,612 on Factor 5 to the highest of 0,912 on Factor 1. It should be noted that the last two factors have Cronbach's alpha of less than 0,7. It possibly indicates that the variables may not be the correct measurements for the underlying factor. However, the Cronbach's alpha of 0,7 is most commonly used as the lower bound, and the cut-off can be arbitrarily determined. Taber (2017) agreed that 0,6 was considered moderately acceptable by several researches. Therefore, this research opts to retain the two factors because they may enrich the factor contributing to employee retention in tertiary educational institutions.

The rotated factor loadings are presented in Table 4. One variable which is education advancement is removed due to low factor loading ( $r < 0,45$ ). The five factors generated can be decoded as performance management function, organizational culture, employee engagement, social support, and work environment.

First, performance management is related to, "The continuous process of identifying, measuring, and developing the performance of individuals and teams, and aligning their performance with the organization's goals" (Dessler, 2017). This factor captures a function in human resource management which is crucial in retaining the employees. Analyzing the Maslow's hierarchy of needs theory, employees are supposed to fulfill their basic needs to acquire self-esteem. Being acknowledged for their performance can be considered a part of the fulfillment of these higher needs. Therefore, facilitating continuous improvement of the employees may motivate them to stay within the organization. Poor performance is one of the factors that can cause an involuntary turnover (Phillips & Gully, 2012).

Variables included in this factor are directly or indirectly related to employee performance. Among those that directly affect employee performance are clear performance measurement tools, appreciation of employees' accomplishments, fair performance evaluation, and promotion based on performance. They are related to the identification and measurement of employee performance. Variables such as considerable workload, mentoring program, good corporate culture, idea recognition, care for employees' needs, and a clear career path indirectly contribute to employee performance. For instance, by providing feedback and reviews through the mentoring program, a supervisor can facilitate the improvement of his or her employee performance.

Second, Ghapanchi and Aurum (2011) and Ghosh, Satyawadi, Joshi, and Shadman (2013) had found that organizational culture was one factor that contributed to employee retention. Mondy and Martocchio (2016), in particular, defined organizational culture as, "The system of shared values, beliefs, and habits within an organization that interacted with the

formal structure to produce behavioral norms." An institution may have distinct values that are shared across levels. Those are supposedly declared in the vision and mission of the organization. Therefore, for that reason, clear vision and mission have the highest factor loading among other variables in Factor 2.

The values that become the foundation of the organization may form the organizational culture. Consequently, the organization believes its practices will undoubtedly contribute to employee retention. Therefore, employees whose values, beliefs, and habits are aligned with the organization will most likely stay longer in the organization.

Third, variables in Factor 3 are closely related to what is described as employee engagement. Dessler (2017) defined employee engagement as, "Being psychologically involved in, connected to, and committed to getting one's jobs done." Similarly, according to Anitha (2014), employee engagement is, "The level of commitment and involvement that an employee has towards their organization and its values." Hence, variables such as creating employee loyalty and creating the sense of ownership and the sense of self-worth can be considered as the outcome of an engagement.

On the other hand, variables such as competitive salary and fair payment can be the aspects that determine employee engagement. Employee engagement is commonly associated with strategies that can enhance the connection between the organization and its employees, such as development and recognition program. However, the employee engagement can also be determined by employee satisfaction towards compensation. Indeed, Joshi and Sodhi (2011) found that compensation was one of the six factors that determined the engagement of Indian executives.

Fourth, in social support, this factor consists only of two variables. Those are social gathering facilitation and skills improvement. It is evident that the support of the organization for a social relationship of its employees plays a role in retention. Kossivi, Xu, and Kalgora (2016) associated social support with the cordial relationships among employees. Thus, initiatives taken by the organization in facilitating good relationship nurtured in the organization is more likely to increase employee satisfaction which can contribute to retention. Likewise, facilitating employees to improve their skills is arguably a form of social support that the organization can provide. Employees with good skills may socialize better because they will have more self-confidence. In addition, Guclu and Guney (2017) found that motivation given by supervisors to the subordinates could bring out skills and potentials to the level where employees were happier and more satisfied with their jobs. It was aside from the organization and social life which would be more efficient.

Fifth, the last factor (work environment) also consists of two variables. Those are conducive work environment and clear job description. This research categorizes those two variables into the work

environment factor. Kossivi, Xu, and Kalgora (2016) specifically mentioned that one of the crucial factors in employee retention was a conducive work environment. They described it as, "A flexible atmosphere where working experience was enjoyable, and the resources were adequately provided." Nevertheless, the clear job description can also contribute to creating an enjoyable work environment. Jacobson, Trojanowski, and Dewa (2012) identified that a job description that was poorly defined might hinder the health of the workers to integrate to their workplace and perform their duties successfully. Therefore, it can be argued that these two factors can complement each other side by side.

## CONCLUSIONS

Employee turnover is an issue and a challenge for every public or private institution. This issue is very important to be considered since the cost of losing the best employees is very high, especially in the educational institution. Therefore, every educational institution has to find the best ways to retain their employees. This research aims to examine the factors contributing to the employee retention in tertiary educational institutions using a private university in East Indonesia.

Using exploratory factor analysis, the researchers find at least five contributing factors on employee retention of the private university. Those factors are performance management function, organizational culture, employee engagement, social support, and work environment. The results are supposed to provide some implications. First, because performance management function is the factor with the highest factor loading, the management of the university should pay more attention to whether it is performed effectively and efficiently. This factor should not be neglected if the university wants to make sure that the employees stay in the organization because it is one of the basic functions in human resource management. Second, given that organizational culture is effective in retaining the employees, the university should stay true to its values as reflected in the vision and mission and maintain the positive cultural practices. Third, facilitating employees to be engaged in the organization is equally important as this factor contributes to the retention. The university should ensure that there are taken initiatives to facilitate and to enhance employee engagement. Fourth, it is crucial for the institution to provide social support to the employees. In striving to achieve its goals, the university should recognize that overburdened employees will not perform their duties effectively and efficiently. To some extent, this may cause involuntary separation. Therefore, ensuring the employees to have work-life balance may contribute to their retention. Lastly, employees will be more motivated to work if they have a good work environment. Hence, it will be beneficial for the university to ensure that its employees are working in a good work environment to perform well.

This research has a limitation that the subject is limited only to a private university in East Indonesia. There are many educational institutions with different levels in different parts of Indonesia. Therefore, to increase the external validity of this research, the future researcher can investigate whether the different levels of educational institutions will generate different factors in employee retention in other educational institutions. Additionally, it is suggested to conduct empirical research using factors generated by this research to confirm their impact on employee retention or whether these factors contribute to job satisfaction. Another limitation of this research is that it only focuses on factors that contribute to retention and not necessarily on employee performance. Other human resource functions can be investigated by future researchers to focus more on employee and institutional performance.

## REFERENCES

- Anitha, J. (2014). Determinants of employee engagement and their impact on employee performance. *International Journal of Productivity and Performance Management*, 63(3), 308-323.
- Coetzee, M., & Stoltz, E. (2015). Employees' satisfaction with retention factors: Exploring the role of career adaptability. *Journal of Vocational Behavior*, 89(August), 83-91.
- Chong, C. Y., & Lee, S. T. (2017). Employee retention and job performance attributes in private institutions of higher education. *International Journal of Business and Administrative Studies*, 3(5), 158-165.
- Dessler, G. (2017). *Human resource management* (15<sup>th</sup> ed.). USA: Pearson Education, Inc.
- Dickson, G. (2017). *20 surprising employee retention statistics you need to know*. Retrieved March 14<sup>th</sup>, 2018, from <https://blog.bonus.ly/10-surprising-employee-retention-statistics-you-need-to-know>
- DiPietro, R., & Milman, A. (2008). Retention factors of tipped hourly employees in the casual dining restaurant segment: Exploratory research in Central Florida. *International Journal of Hospitality & Tourism Administration*, 9(3), 244-266.
- Garcia, P. R. B. (2015). Factors affecting job retention: Basis for retention management model. *International Journal of Education and Research*, 3(4), 381-392.
- Ghapanchi, A. H., & Aurum, A. (2011). Antecedents to IT personnel's intentions to leave: A systematic literature review. *Journal of Systems and Software*, 84(2), 238-249.
- Ghosh, P., Satyawadi, R., Joshi, J. P., & Shadman, M. (2013). Who stays with you? Factors predicting employees' intention to stay. *International Journal of Organizational Analysis*, 21(3), 288-312.
- Guclu, H., & Guney, S. (2017). The effect of the motivation techniques used by managers to increase the productivity of their workers and an application. *Business Management Dynamics*, 6(7), 1-18.

- Jacobson, N., Trojanowski, L., & Dewa, C. S. (2012). What do peer support workers do? A job description. *BMC Health Services Research*, 12(1), 205-215.
- Jain, S. (2013). The causes of turnover intention in the employees of educational institutes: An observation. *Tactful Management Research Journal*, 1(7), 1-4.
- Joshi, R. J., & Sodhi, J. S. (2011). Drivers of employee engagement in Indian organizations. *Indian Journal of Industrial Relations*, 47(1), 162-182.
- Kossivi, B., Xu, M., & Kalgora, B. (2016). Study on determining factors of employee retention. *Open Journal of Social Sciences*, 4(05), 261-268.
- Kumar, S. V., & Patel, H. J. (2017). Exploratory factor analysis for employees retention in four and five star hotels of Ahmedabad. *JOHAR: Journal of Hospitality Application and Research*, 12(1), 21-34.
- Mondy, R. W. D., & Martocchio, J. J. (2016). *Human resource management* (14<sup>th</sup> ed.). Harlow: Pearson.
- Mubarak, R., Wahab, Z., & Khan, N. (2012). Faculty retention in higher education institutions of Pakistan. *Journal of Theories and Research in Education*, 7(2), 65-78.
- Phillips, J., & Gully, S. M. (2012). *Strategic staffing*. Upper Saddle River: Pearson Prentice Hall.
- Pienaar, C., & Bester, C. L. (2008). The retention of academics in the early career phase: Empirical research. *SA Journal of Human Resource Management*, 6(2), 32-41.
- Samuel, M. O., & Chipunza, C. (2013). Attrition and retention of senior academics at institutions of higher learning in South Africa: The strategies, complexities and realities. *Journal of Social Sciences*, 35(2), 97-109.
- Selesho, J. M., & Naile, I. (2014). Academic staff retention as a human resource factor: University perspective. *The International Business & Economics Research Journal*, 13(2), 295-304.
- Sinha, C., & Sinha, R. (2012). Factors affecting employee retention: A comparative analysis of two organizations from heavy engineering industry. *European Journal of Business and Management*, 4(3), 145-162.
- Smith, J., & Macko, N. (2014). Exploring the relationship between employee engagement and employee turnover. *Annamalai International Journal of Business Studies & Research*, 6(1), 56-69.
- Sukirno. (2017). Modeling academic professional performance in higher education. *International Journal of Environmental & Science Education*, 12(8), 1689-1708.
- Sutanto, E. M., & Kurniawan, M. (2016). The impact of recruitment, employee retention and labor relations to employee performance on batik industry in Solo city, Indonesia. *International Journal of Business and Society*, 17(2), 375-390.
- Taber, K. S. (2017). The use of Cronbach's alpha when developing and reporting research instruments in science education. *Research in Science Education*, 1-24.
- Thaden, E., Jacobs-Priebe, L., & Evans, S. (2010). Understanding attrition and predicting employment durations of former staff in a public social service organization. *Journal of Social Work*, 10(4), 407-435.
- Theron, M., Barkhuizen, N., & Du Plessis, Y. (2014). Managing the academic talent void: Investigating factors in academic turnover and retention in South Africa. *SA Journal of Industrial Psychology*, 40(1), 01-14.
- Towers Watson. (2014). *Indonesian organizations struggling to attract and retain key talent*. Retrieved from <https://www.towerswatson.com/en/Press/2014/11/Indonesian-organizations-struggling-to-attract-and-retain-key-talent>
- Williams, B., Onsmann, A., & Brown, T. (2010). Exploratory factor analysis: A five-step guide for novices. *Australasian Journal of Paramedicine*, 8(3), 1-13.
- Zhang, F., Luo, Z., Chen, T., Min, R., & Fang, P. (2017). Factors affecting turnover intentions among public hospital doctors in a middle-level city in central China. *Australian Health Review*, 41(2), 214-221.
- Zhou, Y., & Volkwein, J. F. (2004). Examining the influences on faculty departure intentions: A comparison of tenured versus nontenured faculty at research universities using NSOPF-99. *Research in Higher Education*, 45(2), 139-176.