

The Effect of Work Environment and Training on Employee Performance with Mediation of Job Satisfaction Sandabi Group

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Abstract

The work environment (WE) and training (TD) can affect the performance (EP) and job satisfaction (JS) of employees, especially the Foremen and Clerks in the palm oil plantation Sandabi Group Bengkulu. To demonstrate this effect, researchers used a structured questionnaire as a survey method, and data from 156 persons Foremen and Clerks in 4 estates belonging to Sandabi Group were analyzed using the structural equation model. The results showed that the work environment has a positive and significant influence on performance through the mediation of job satisfaction. Likewise, training has a positive and significant influence on performance through the mediation of job satisfaction. The effect of job satisfaction can improve employee performance. This means that the improvement of employee performance in this case is the foreman and clerk can be achieved if the work environment policy continues to be improved or can be through increased employee job satisfaction. Furthermore, improved employee performance can be achieved if the training and development programs are implemented consistently or through increased job satisfaction of these employees. In the Anova test (different test), both the status of the employment relationship and the position contribute no different (the same), so it can be said that the contribution to performance is uninfluenced by the status and position of employees in this case are Foremen and Clerks.

Keywords

work environment; training; job satisfaction; employee performance.



I. Introduction

Sandabi Group is a national private company which is an oil palm plantation company covering an area of $\pm 13,000$ Hectares and a palm oil factory (PMKS) located in Bengkulu province. There are 4 oil palm plantations (including 1 newly acquired plantation) and 1 plasma plantation spread across 3 districts, namely: North Bengkulu regency, Central Bengkulu Regency and South Bengkulu Regency with the name of the location is Ketahun estate, plasma estate and Lubuk Banyau estate (North Bengkulu Regency), Seluma estate (South Bengkulu Regency) and Bio estate in Central Bengkulu Regency, employing $\pm 1,500$ workers ranging from Manager level to lower worker in the field.

Employee performance is the process of implementing a job from what is done, how to do it to the results of the process in order to achieve company goals (Chao, et. al. 2015). Employee performance take an important role in achieving organizational goals, so for Sandabi Group management, performance issues are an absolute must to be encouraged continuously in order to achieve improved organizational and individual performance. Factors that influence the achievement of performance according to Mangkunegara (2013) is the ability (ability) and motivation (Motivation). Ability factor consists of potential

ability (IQ) and reality ability (knowledge + skill). This means that an employee who has an IQ above the average with yang adequate education for his position and is skilled in his work, then he will achieve yang the expected performance. Furthermore, the motivation factor is formed from the attitude of employees in dealing with work situations. Motivation is a condition that moves employees who are directed in order to achieve organizational goals. Attitude is mental condition that encourages employees to try to achieve maximum work performance. To measure the performance of employees individually there are several indicators used. According to Dessler (2016) there are eight indicators, namely: job understanding/competence, quality/quantity of work, Planning/Organization, initiative/commitment, problem solving/creativity, teamwork and cooperation, ability tolerate to others, communication (oral and written).

Factors that affect performance in this study is the work environment that is the state around the workplace, both physically and non-physically, which can give the impression of a pleasant, secure, reassuring, and comfortable work (Agung, 2013). Another case as stated by Schultz, Ryan, Niemiec, Legate & Williams (2015) describes that the work environment is related to a clear job description, challenging work targets, effective communication pattern, good work climate and supportive work facilities. The work environment is often associated with characteristics of employee behavior and attitudes associated with various psychological changes that occur in the organization. Andersson (1998) and Lahtinen, Digert and Reijula (2004) explained that the work environment is a series of categories of work, work function, satisfaction and work relationships that appear to be associated with work-related symptoms. to the physical work environment, psychosocial factors such: job categories, work functions, dissatisfaction with superiors and colleagues and lack of job satisfaction appear to be associated with work-related symptoms. Working conditions such as interest in doing work that can arouse enthusiasm, as well as the opportunity for employees to influence their work and how superiors and colleagues help overcome problems in the work is an integral part of other parts of the research on the work environment.

Next up on training according to Gary Dessler's point of view in Gaol. (2014) training is the process of teaching skills that new and old employees need to do their job, while development is an attempt to improve future management achievements by imparting knowledge, behavior change, or skill improvement. According to Khan, Osama, Waseem, Ayaz, Ijaz (2016) there is no doubt that a well-trained and developed staff will be a valuable asset to the company and thus will increase its chances of efficiency and effectiveness in carrying out its duties. On the other hand, development means learning opportunities designed to help employees to grow. Fregonese, Caputo and Langher (2018) explain that professional training is one of the most used organizational tools to improve the ability of employees to overcome yang existing or new challenges, develop resilience and reduce organizational and emotional difficulties. In his research on the evaluation of professional training, using several approaches as follows:

- 1) Based on short-term and long-term evaluation (Wang & Wilcox, 2006).
- 2) Based on the theory of 4 evaluation levels from Kircpatrick (1967), namely the reaction stage, learning stage, application stage and results.
- 3) Based on the theory of Q4TE scale (Questioner for Training Evaluation) of Grohmann and Kauffeld (2013), namely satisfaction, usefulness, application to practice, results of individual organizations and the results of the global organization.

Another factor that can affect performance is job satisfaction where work according to Hoppok & Spielgler in Raziq and Maulabakhsh (2015) defines job satisfaction as a device of integrated psychological, physiological, and environmental conditions that

encourage employees to recognize that they are satisfied or happy with their work. Furthermore, the role of employees in the workplace is emphasized because there is an influence of various elements on employees within the organization. Robbins (2015) argues that the factors that determine employee job satisfaction are: mentally challenging work, appropriate rewards, supportive working conditions, supportive co-workers, personal suitability to the job. Chao, Juo, Liao and Kuo (2015) describe that job satisfaction is a form of emotional response shown by individuals regarding everything related to work both extrinsically, and intrinsically.

The authors want to examine the phenomenon of the performance of the foremen and clerks in oil palm plantations through the work environment, training and job satisfaction, so it is hoped that this study ini provides advice/contribution of practical thinking to the management of Sandabi Group.

Research from Chao, Juo, Liao and Kuo (2015) on workplace stress, job satisfaction, job performance, and the desire to quit health workers in rural Taiwan.

The hypotheses of this study are:

H1a: The work environment has a positive influence on employee performance.

H1b: The work environment has a positive influence on job satisfaction.

H2a: Training has a positive influence on employee performance.

H2b: Training has a positive influence on job satisfaction.

H3: Job satisfaction has a positive influence on employee performance.

The employees here in question are Foremen and Clerks in Estate.

II. Research Method

This study was designed using a quantitative approach to see the relationship between the variables of the work environment, training, performance and job satisfaction of the Foreman and Clerk. The variables to be tested in this study will be divided into three groups of variables, namely two independent, variables, one dependent variable, and one mediation variable. Group of independent variables or also called exogenous variables, namely the work environment and training. The dependent variable or also called endogenous variable is performance and the mediation variable is job satisfaction.

III. Result and Discussion

Table 1. Population Data

ESTATE/POSITION	GENDER		I	STATUS				AGE (YEAR)					EDUCATION					YEARS OF SERVICE					
	L	P		CONTRACT		PERMANENT		< 20	21-30	31-40	41-50	> 50	Elementary School	Secondary School/High school	High School/Post-graduate	DA/DA/DA	11	< 1	1-5	6-10	11-15	> 15	
				L	P	L	P																
Kotalakur																							
FOREMAN	45	4	49	11	-	36	2	2	10	26	7	4	1	6	31	1	10	-	14	22	11	2	
CRW	23	6	29	22	-	1	6	-	16	12	1	-	-	1	15	2	11	-	22	5	2	-	
15. Bantulu																							
FOREMAN	26	2	28	7	-	19	2		8	12	5	3	1	2	20	1	4		11	11	4	2	
CRW	6	3	9	1	-	5	3		6	2	1		1	1	5	1	1		1	5	3	-	
Selamat																							
FOREMAN	17	2	19	8	-	9	2		7	7	3	2	-	2	16	-	1		8	9	2	-	
CRW	2	3	5	2	-	-	3		2	1	1	1	-	-	2	-	3		2	2	1	-	
Pleasant																							
FOREMAN	14	-	14	7	-	7	-		6	3	3	-	-	2	10	2	-		5	7	2	-	
CRW	1	2	3	1	-	-	2		1	1	1		-	-	2	1	-		1	2	-	-	
1 FOREMAN	102	8	110	33	-	71	6	2	31	30	18	9	2	13	77	4	15	-	38	49	19	4	
1 CRW	32	14	46	26	-	6	14	-	25	16	4	1	1	2	24	4	15	-	26	14	6	-	

Table 1 above describe composition of the implementing employee population based on gender is as many as 134 male employees and 22 female employees, consists of 110 Foremen (71%) and 46 Crew/Clerk (29%). If the composition of employees based on education is 3 people (1.9%) elementary school education, 16 (people (10.3%) junior high school education/equivalent, 101 people (64.7%) High School Education/Vocational School, 6 people (3.85%) D1 to D3 education, and 30 people (19.2%) Bachelor Degree (S1). While the composition based on length of Service is 64 people (41%) with less than 5 years of Service, 63 people (40.4%) with a length of service between 6-10 years, 25 people (16%) with a length of service of 11-15 years, and 4 people (2.6,6%) with a length of service of more than 15 years. The composition based on employment relationship status is 97 people (62.2%) are permanent employees (PKWTT) and 59 people (37.8%) are contract employees (PKWT).

Table 2. Demographic Variable & Chi-Square Test

Demographic Variables		Amount	Chi Square			
			Employee Performance	Working Environment	Training	Job Satisfaction
Gender	Man	134	0,473	0,624	0,07	0,2
	Woman	22				
Age	< 20	2	0,288	0,572	0,7	0,04
	21 – 30	56				
	31 – 40	66				
	41 – 50	22				
	> 51	10				
Last Education	Elementary School	3	0,03	0,454	0,06	0,3
	Secondary School/Equivalent	14				
	High School/Equivalent	101				
	Diploma (D1/2/3)	8				
	Bachelor	30				
Years of Service	1 – 5	64	0,434	0,143	0,04	0,374
	6 – 10	63				
	11 – 15	25				
	> 15	4				
Position						
		Foreman	110			
		Crew	46			
Working Relationship	Contract	59	0,089	0,34	0,602	0,083
	Permanent	97				

In testing One Way Anova (test difference) where the goal is to know that whether there is a difference in the status of the employment relationship between contract and permanent employees (Foreman and Clerk) to its performance, as well as whether the position of Foreman and Clerk has a difference to its performance. Based on the Anova output above, for the status of employment relationship known significance value of $0.941 > 0.05$, so it can be concluded that the average of working relationship status is ‘the same’ (not different) significantly. In the sense that the status of the employment relationship has no effect on performance. As a Foremen or Clerk, both as permanent employees (PKWTT) and contracts (PKWT), do not have a yang different impact on the results of their work. Based on the Anova output above, for the position known significance value of $0.128 > 0.05$, so it can be concluded that the average of the two positions is ‘the same’ (not different) significantly. In his understanding that the position has no effect on performance. An employee who serves as a foreman or clerk, does not have a different impact on the results of his work.

3.1 Data Analysis (Main Test)

Through Outer Model Evaluation, namely conducting several evaluation tests: Discriminant Validty (Cross Loading), Convergent Validity, Construct Reliability.

Cross Loading: All indicators in each block of variables have the highest value in the assessment of the block so that there is no wrong block in the parent variable. The result of the cross loading analysis can be seen in the table 3. Below

Table 3. Cross Loading

Indicators	Job Satisfaction	Employee Performance	Working Environment	Training
WE1	0,434	0,441	0,775	0,400
WE2	0,411	0,498	0,725	0,247
WE3	0,255	0,389	0,701	0,238
WE4	0,514	0,333	0,653	0,429
TD1	0,383	0,332	0,232	0,675
TD2	0,379	0,478	0,383	0,751
TD3	0,391	0,226	0,240	0,697
TD4	0,471	0,482	0,375	0,838
TD5	0,553	0,502	0,376	0,844
TD6	0,637	0,572	0,482	0,828
EP1	0,359	0,660	0,541	0,386
EP2	0,420	0,735	0,563	0,356
EP3	0,317	0,722	0,425	0,334
EP4	0,341	0,664	0,358	0,435
EP5	0,439	0,773	0,371	0,399
EP6	0,406	0,765	0,437	0,398
EP7	0,470	0,708	0,407	0,356
EP8	0,441	0,825	0,460	0,409
EP9	0,487	0,754	0,390	0,595
EP10	0,495	0,796	0,378	0,583
JS1	0,573	0,183	0,327	0,302
JS2	0,767	0,404	0,522	0,439
JS3	0,684	0,551	0,403	0,431
JS4	0,615	0,375	0,293	0,324
JS5	0,634	0,328	0,272	0,491
JS6	0,741	0,439	0,485	0,500
JS7	0,794	0,420	0,470	0,390
JS8	0,772	0,399	0,413	0,564

Convergent validity: the value of the loading factor must be above 0.5 of the data generated all the items in all variables have a value > 0.5 which means that all the values of the loading factor indicators meet the convergent validity requirements or declared significant. Construct reliability: with a cronbach alpha value > 0.6 and composite reliability > 0.8 with AVE (average variance extracted) ≥ 0.5 which means the reliability is quite high.

Table 4. Construct Reliability

Construct Reliability & Validity	AVE	Cronbach's Alpha	Composite Reliability
Working Environment (X1)	0,511	0,682	0,806
Training (X2)	0,601	0,867	0,9
Job Satisfaction (Y1)	0,465	0,834	0,873
Employee Performance (Y2)	0,499	0,887	0,908

3.2 Analysis of Hypothetical Results

According to Ringle, Da Silva, and Bido (2015) mentioned that to analyze the proposed model pattern in a population can be seen from the value of the relationship between one variable with another variable or see the value of the path coefficient (ρ)



Figure 1. Result of Research Models

By looking at the value of the original sample and also the value of T-statistics as a statement of value the level of significance of the relationship between one variable and another, where the hypothesis (Ha) can be accepted if the P-Values < 0.05 or are at a T-Statistic above 1.96.

The results of this research hypothesis testing as the table above, with a description of the explanation as follows:

H1a: The work environment has a positive influence on employee performance.

Based on the results of measurements of T-Statistics and P-Values of work environment variables on employee performance can be seen that the P-Values of $0.018 < 0.05$, the value of the original sample on the line coefficient is positive 0.272 and the value of T-statistics of this hypothesis is positive 2.380, so that the value of T-Statistics 1,96 The statistics show significant and positive, so that this initial hypothesis can be declared acceptable. This implies that the higher the work environment variables, the performance of employees will also increase. The main indicators that contribute the most to the work environment variables are indicators that show that employees in

this case the foremen and Clerks find their work interesting and uplifting (WE.1). Jobs such as fruit harvesting (FFB) activities, spraying activities, fertilizing plants are the main jobs in the plantation world. This job is considered as excellent so many people are interested in becoming a foreman/clerk of the estate.

H1b: The work environment has a positive influence on job satisfaction.

Based on the measurement results can be seen that the P-Values of $0.000 < 0.05$, the value of the original sample on the path coefficient is positive 0.295 and the value of T-statistics of this hypothesis is positive 3.905, so that the value of T-Statistics has met the criteria > 1.96 the number of T-Statistics shows significant and positive, so initial hypothesis declared acceptable, which means that the higher the work environment variables, the Employee Job Satisfaction will also increase. The main indicators that contribute the most to the work environment variables are indicators that show that employees in this case the Foremen and Clerks find their work interesting and uplifting (WE.1). Jobs such as harvesting activities (FFB), spraying activities, fertilizing plants is a staple job in the world of plantations, so it is considered a prima donna that is much in demand by the public to become a foreman/clerk of the estate. Furthermore, with regard to these indicators, the most dominant indicator shown by the variable employee job satisfaction is an indicator that shows that the employees are quite satisfied with the welfare and leave policy of the company (JS.7). From these two it ini can be concluded that most of the foremen and Clerks are quite passionate about working in their fields and

they are quite satisfied with some company policies by covering them with health benefits (including wives and children) and employment such as BPJS employment, BPJS Health and some food packages given before Eid al-Fitr and Eid al-Adha leave policy as well as some company policies stipulated in labor laws.

H2a: Training has a positive influence on employee performance.

Based on the results of measurements of T-Statistics and P-Values of training variables to employee performance can be seen that the P-Values of $0.023 < 0.05$, the value of the original sample on the path coefficient is positive 0.269 and the value of T-statistics of this hypothesis is positive 2.282, so the T-statistic has met criteria $> 1,96$ that the value of T-statistics show significant and positive, so this initial hypothesis can be stated as acceptable, which means that the higher the training variable, the employee's performance will also increase. The main indicator that contributes the most to the training variable is an indicator that shows that employees in this case the Foremen and Clerk feel confident that with the program training program and development of both technical and non-technical will facilitate the implementation of existing systems and work procedures in the estate (TD.5).

H2b: Training has a positive influence on job satisfaction.

Based on the results of measurements of T-Statistics and P-Values of training variables on job satisfaction can be seen that the P-Values of $0.000 < 0.05$, the value of the original sample on the path coefficient is positive 0.477 and the value of T-statistics of this hypothesis is positive 7.508, so that the value T-Statistics $> 1,96$. The statistics show significant and positive, so this initial hypothesis can be stated as acceptable, which means that the higher the training variable, the employee's job satisfaction will also increase. The main indicator that contributes the most to the training variable is an indicator that shows that employees in this case the Foremen and Clerk feel confident that with the program training program and development of both technical and non-technical will facilitate the implementation of existing systems and work procedures in the estate (TD.5). Furthermore, with regard to these indicators, the most dominant indicator shown by the variable employee job satisfaction is an indicator that shows that the employees are quite satisfied with the welfare and some policies of the company (JS.7). From these two it can be concluded that the Foremen and Clerk believe that this training and development program will facilitate the workflow in the estate and also improve their ability to work and they are quite satisfied with some of the company's policies, namely their coverage with health benefits (including wife and child) and employment such as BPJS employment, BPJS Health and some basic food packages given before Eid al-Fitr and work leave policies as well as some company policies stipulated in labor laws.

H3: Job satisfaction has a positive influence on employee performance.

Based on the results of measurements of T-Statistics and P-Values of job satisfaction variables on employee performance can be seen that the P-Values of $0.003 < 0.05$, the value of the original sample on the line coefficient is positive 0.270 and the value of T-statistics of this hypothesis is positive 2.982, so that the value of T-Statistics $> 1,96$. These statistics show significant and positive, so this initial hypothesis can be stated as acceptable, which means that the higher the job satisfaction variable, the employee's performance will also increase. The main indicator that contributes the most to the variable employee job satisfaction is an indicator that shows that the employees are quite satisfied with the welfare and some policies of the company (JS.7). Furthermore, with regard to these indicators, the most dominant indicators shown by employee performance variables are indicators that show that Foremen and Clerk are able to understand about occupational safety and security and health (EP.8). They can provide and are able to provide guidance

on the importance of safety, security and occupational health to the workforce at every morning briefing. From these two it can be concluded that the Foremen and Clerk believe that with the provision of some employee welfare benefits that are tailored to the capabilities of the company, then they will be able to work diligently and always implement safety and security as well as occupational health.

3.3 Mediation Variable Testing

Table 5. Job Satisfaction Variable Mediation Test

Constructs	Mediation	Direct Influence	Indirect Influence	Total Influence	VAF% (II : TI)	T-Statistic	P Value
Work Environment -> Employee Performance	Job Satisfaction	0,272	0,080	0,352	24%	2,554	0,011
Training -> Employee Performance	Job Satisfaction	0,269	0,129	0,398	32%	2,518	0,012

The influence of work environment on employee performance with job satisfaction as a mediation variable.

From the results Table 5 above, it can be analyzed that the statistical $t \ 2.554 > t$ Table 1.96 thus shows a significant influence and the value of the original sample of direct influence of 0.272 shows a positive result, and the value of indirect influence of 0.080 a positive result. So that the total influence obtained was 0.352 positive and the results of VAF by 24% (Partial) so that it can be concluded that the work environment has a significant effect on employee performance with partial mediation of job satisfaction. This means that the improvement of employee performance in this case is the Foreman and Clerk can be achieved if the working environment policy continues to be improved/improved or can be through increased employee job satisfaction. This research is in line with and supports previous research, namely Adriyan's research (2018) and Kiswuryanto's (2014) research which explains that Job Satisfaction has a positive and significant effect in mediating the partial relationship between the Work Environment and Employee Performance.

The influence of the work environment on employee performance with job satisfaction as a mediation variable.

From the results Table 5 above it can be analyzed that the statistical $t \ 2.518 > t$ Table 1.96 thus shows a significant influence and the value of the original sample of direct influence of 0.269 indicates a positive result, and the value of indirect influence of 0.129 positive results. So that the total influence obtained was 0.398 positive and the results of VAF by 32% (partial) so that it can be concluded that training significantly affects employee performance with partial mediation of job satisfaction. This can be interpreted that the improvement of employee performance in this case is the Foreman and Clerk can be achieved if the training and development program is improved or can be through increased job satisfaction of the employee. This research is in line and supports from previous research, namely Ginanti, Muis, Pono (2018) and research from Khan, Osama, Waseem, Ayaz, Ijaz (2016) which states that job satisfaction has a positive and significant effect in partially mediating the relationship between training on employee performance.

3.4 Open Questions Analysis

Open questions is the addition of an explanation of the final part of the questionnaire which aims to obtain more in-depth information related to the variables used in this study. From the open questions the author can get some suggestions and input to improve the

existing conditions in the estate. In this study, the author uses two stages of coding, namely: (1) line-by-line coding: the earliest coding stage by reading one by one each respondent's answer to the variables, from this stage the researcher can obtain general descriptions of the respondents' answers, (2) focused coding: on at this stage, researchers can separate, group and combine large amounts of data. Grouping can be done by observing the prominent data and grouping other data that cannot be categorized in the prominent data Group. The results of coding phase two produces a grouping of answers that can be included in one category of answers.

3.5 Comprehensive Analysis

This figure shows that a Foreman or Clerk who understands the work environment and receives training will improve his performance if the Foreman or Clerk feels job satisfaction. A more detailed explanation shows that the job as a Foreman or Clerk is very interesting, challenging and uplifting because his daily life is always in the field. By debriefing in the form of trainings and directly implemented in the field, it will facilitate the flow of work so that the Foreman or Clerk will provide information about the importance of Occupational Safety and health to reduce work errors to workers in the field. The existence of policies on welfare provision and satisfactory leave programs will further increase the impact of the work environment and training on their performance. In turn, the increase in performance will affect the increase in TBS Sandabi Group production which has not been achieved.

IV. Conclusion

1. Based on the results of the study can be seen the influence of work environment and training on the performance of Sandabi Group employees as follows:
 - a. The work environment has a significant and positive influence on the performance of Sandabi Group employees.
 - b. Training has a significant and positive effect on the performance of Sandabi Group employees.
2. Based on the results of the study can be seen the effect of work environment and training on job satisfaction of Sandabi Group employees as follows:
 - a. The work environment has a significant and positive influence on the job satisfaction of Sandabi Group employees.
 - b. Training has a significant and positive effect on job satisfaction of Sandabi Group employees.
3. Based on the results of the study can be seen the effect of job satisfaction on employee performance, namely:
Employee Job Satisfaction mediates the work environment and training on the performance of Sandabi Group employees.

References

- Adriyan, M. R. (2018). The effect of training and work environment on employee performance with job satisfaction as an intervening variable (case study at Grand Quality Hotel Yogyakarta). Thesis, Faculty of Economics, Islamic University of Indonesia.
- Al-Badriyah, M. (2015). Human Resource Management. Bandung: publisher CV Pustaka Setia.

- Ali, M. & Ramya. (2016). Factors affecting consumer buying behavior. *International Journal of Applied Research*, 2 (10), 76-80.
- Andersson, K. (1998). Epidemiological approach to indoor air problems. *Indoor Air* 1998, Suppl. 4, 32-39.
- Arikunto, S. (2010). *Research procedures an approach paktek*. Jakarta: Rineka Cipta.
- Azhari, Z. Resmawan, E., Ikhsan, M. (2021). The effect of job satisfaction on employee performance at the Department of manpower and Transmigration Kabupaten Berau. *Journal Of Economics*, 23 (2), 187-193.
- Azwar, S. (2013). *Research methodspenelitian*. Yogyakarta: Penerbit Pustaka Pelajar.
- Bakan, I., Buyukbese, T., Erhasan, B., Sozbilir, F. (2017) Ethical climate, job satisfication and mobbing. *The Journal of Turk-Islam World Social Studies*, 4 (10), 92-132.
- Bandari, A. S.. (2016). The role of training in improving employee performance in the Planning unit PDAM Tirta Musi Rambutan. Thesis, Sriwijaya State Polytechnic.
- Baron, R. M., & Kenny, D. A. (1986). The moderator-mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology*, 51(6), 1173-1182.
- Basyit, A., Sutikno, B., Dwiharto, J. (2020). The influence of Education Level and work experience on employee performance. *Journal of EMA-Economics Management Accounting*, 5 (1).
- Chao, M.C., C., Jou, R. C., Cing, Liao, C. C., and Kuo, C. W. (2015). Workplace stress, job satisfaction, job performance, and turnover intention of health care workers in rural Taiwan. *Asia-Pacific Journal of Public Health* 2015, 27 (2), 1827–1836.
- Chaudhry, N.I., Jariko, M. A., Mushtaque, T., Mahesar, H. A., & Ghani, Z. (2017). Impact of working environment and training & development on organization performance through mediating role of employee engagement and job satisfaction. *European Journal of Training and Development Studies*, 44 (22), 33–48.
- Chileshe, N., Haupt, T.C. (2010). The effect of age on the job satisfication of construction workers. *Journal of Engineering Design and Technology*, 8 (1), 107-118.
- Citraningtyas, N., Djastuti, I. (2017). The effect of training and work environment on performance with job satisfaction as an intervening variable. *Diponegoro Journal Of Management*, 6 (4), 693-703.
- Cloud, A.G., & Alain, M.T. (2015). Impact of working environment on employee's productivity: A case study of bank and insurance companies in Pakistan. *European Journal of Business and Management*, 7 (1), 329-345.
- Cooper, D. R., Schindler, P. S. (2014). *Business research methods*. New York: McGraw-Hill Education.
- Directorate General Of Plantations, Ministry Of Agriculture. (2020). Oil palm acreage throughout Indonesia according to entrepreneurs. Downloaded November 20, 2020.
- Fregonese, C., Caputo, A., Langher, V. (2018). Italian translation of the questionnaire for professional training evaluation. *International Journal of Training and Development*, 22 (1), 34-50.
- Galuh G. M., Mouse. M., Pono, M. (2018). Analysis of the effect of competence, training and compensation on employee performance with employee job satisfaction as an intervening variable in the Fire and Emergency Services Emergency Response Team in the Working Area of Pt. Valve TBK. *Hasanuddin Journal of Applied Business and Entrepreneurship*.
- Gaol, J.L. (2014). *A to z human capital*. Jakarta: publisher PT. Gramedia Widiasarana Indonesia.
- Ghosh, K. S. S.(2011). Impact of organizational sociotechnical system on managerial

- retention. *Journal of Modelling in Management*, 6 (1), 33–59.
- Ghozali, I. (2011). *Multivariate analysis application with SPSS program*. Semarang: Diponegoro University Publishing Board.
- Great, S. (2013). The effect of work discipline and motivation on employee performance at Kanjuruhan Malang General Hospital. *Journal Of Management Science*, 1 (4), 6-13
- Grohmann, A., Kauffeld, S. (2013). Evaluating training program: Development and correlates of the Questionnaire for Professional Training Evaluation. *International Journal of Training and Development*, 17 (2).
- Hair, J. F., Black, W. C., Babin, B. J., Anderson, R. E. (2019). *Multivariate data analysis*. 7th Edition, Pearson Prentice Hall.
- Hanafi, B. D., Yohana, C. (2017). The effect of motivation and work environment on employee performance with job satisfaction as a mediation variable at PT. BNI Life Insurance. *Journal of Economics and Business Education*, 5 (1).
- Handoko. T.H. (2014). *Management of personnel and human resources*. Yogyakarta: publisher BPFE.
- Hasibuan S. P.M. (2013). *Human Resource Management*. Jakarta: PT. Earth Characters.
- Hidayat, C. N. (2015). The effect of work environment and work motivation on the performance of employees of the Office of PT. Ceramic Diamond Industries. *Journal of the AGORA*, 3 (2).
- Hitalessy, V., Roni, M.A.H., Iswandi, I. (2018). The influence of the level of education, training and work experience on employee performance. *Journal IMAGE*, 7 (1), 38-44.
- Iacob, G. A., Cuza, Al. I. (2010). Factors that determine job performance. *Journal Studies and Scientific Researches-Economic Edition*, 15, 365-372.
- Imran, M., & Tanveer, A. (2015). Impact of training & development employees' performance in banks of pakistan. *European Journal of Training and Development Studies*, 3 (1), 22-44.
- Indrasari, M. (2017) *Job Satisfaction and employee performance a review of the dimensions of organizational climate, individual creativity, and job characteristics*. Kebonagung, Sukodono, Sidoarjo: Publisher Of Indomedia Pustaka Griya.
- Inuwa, M. (2016). Job satisfaction and employee performance: An empirical approach. *Journal of the Millenium University*, 1 (1).
- Jakada, M. B. (2019). Moderating effect of psychological ownership on the relationship between job satisfaction and job performance among academic staff of Federal University, Dutse, Nigeria: Conceptual model. *International Journal of Information, Business and Management*, 11 (1), 40-46.
- Kadiresan, V., Congratulations, M.H., Selladurai, S., Ramendran SPR, C., & Moona, H. M. R. K. (2015). Performance appraisal and training and development of human resource management practices (HRM) on organizational commitment and turnover intention. *Asian Social Science*, 11 (24), 2015.
- Kaswan. (2012). *Human Resource Management for organizational competitive advantage*. Yogyakarta: Graha Ilmu Publisher.
- Khan, A. A., Osama, S. B. H. A., Waseem, R. M., Ayaz, M., Ijaz, M. (2016). Impact of training and development of employees on employee performance through job satisfaction: A study of telecom sector of Pakistan. *Business Management and Strategy*, 7 (1).
- Kiswuryanto, A. (2014). Analysis of the effect of compensation and work environment on employee performance with job satisfaction as an intervening variable. Diponegoro University.

- Malik, M. I., Ahmad, A., Gomez, S. F., Ali, M. (2011). A study of work environment and employees' performance in Pakistan. *African Journal of Business Management*, 5 (34), 13227-13232.
- Management. Bandung: Penerbit Remaja Rosdakarya.
- Mangkunegara. (2012). *Enterprise Human Resource Management*. Bandung: Penerbit Remaja Rosdakarya.
- Mangkunegara. (2013). *Enterprise Human Resource*
- Marpaung, J. (2019). *Palmoil, crude palm oil (CPO)*. Economic News.
- Meithiana, I. (2017). *Job satisfaction and employee performance*. Sidoarjo: Publisher Of Indo Pustaka.
- Melani, T. and Suhaji. (2012). Factors affecting job satisfaction (study on employees of the College of Pharmaceutical Sciences" YAYASAN PHARMASI " Semarang). *Journal of Accounting and Business Studies*, 1 (1), 2012.
- Muchson, M. (2017). *Descriptive statistics*. Bogor: Publisher Guepedia.
- Mukaffi, Z., Daughter, E.M., Vivin, M., Supriyanto, A. S. (2019). The effect of work environment on employee performance through work discipline. *International Journal of Research – GRANTHAALAYAH*, 7 (4), 132-140.
- Nabawi, R. (2019). Influence of work environment, job satisfaction and workload on employee performance. *Scientific Journal Of Masters In Management*, 2 (2), 170-183.
- Ningrum, L. N., Prasetya, A., Riza, M. F. (2014). The influence of work environment on Employee Performance (Study on employee Auto 2000 breadfruit Malang). *Journal Of Business Administration*, 11 (1), 1-9.
- Nuraini. (2013). *Human Resource Management*. Pekanbaru: Publisher Of Aini Syam Foundation.
- Parvin, M. M., and Kabir, M. M.N (2011). Factors affecting employee job satisfaction of pharmaceutical. *Australian Journal of Business and Management Research*, 1 (9), 113-123.
- Patarai, I., Mustari, Azis, M. (2018). Teaching motivation, professional competence and educational level of teacher performance. *Journal Of Mirai Management*. 3 (2), 120-133.
- Praise, L. E. (2019). *Seminar dan workshop penelitian*. Open University Subject Matter Book.
- Prasetya, A. (2018). Analysis of factors that influence employee performance (Study on Permanent Employees in Operational Section of PT WIMCycle Indonesia-Surabaya). *Profit Journal*, 12 (1), 1-12.
- Prasetyo, E. T., Marlina, P. (2019). Pengaruh disiplin kerja dan kepuasan kerja terhadap kinerja karyawan. *Journal of business and management inspiration*. 3 (1), 21-30.
- Prieto, I. M., Santana, M. P. P. (2014). Managing innovative work behavior: The role of human resource practices. *Personnel Review*, 43 (2), 184-208.
- Ramli, A. H. (2018). Compensation, job satisfaction and employee performance in health services. *Business and Entrepreneurial Review*, 18 (2), 177–186.
- Ramli, A. H. (2019). Work environment, job satisfaction and employee performance in health services. *Business and Entrepreneurial Review*, 19 (1), 29–42.
- Rani, I. H. & Mayasari, M. (2015). The effect of performance appraisal on employee performance with motivation as a moderation variable. *Journal of Accounting, Economics and Business Management*, 3 (2), 164-170.
- Raziq, A., Maulabakhsha, R. (2015). Impact of working environment on job satisfaction. *Journal Procedia Economics & Finance*, 23 (2015), 717–725.

- Reinaldi, E.T., Haryanti, K., Fauzi, A. (2019). Kepuasan kerja ditinjau dari usia, status perkawinan, tenure dan prior experience. *Journal Of The Faculty Of Psychology, Soegijapranata University*, 1-5.
- Rivai, V., Ramly. M., Mutis, T., Arafat, W. (2015). *Human Resource Management for companies from theory to practice*, third edition. Jakarta: PT Raja Grafindo Persada.
- Robbins, S.P., & Judge, T. (2015). *Organizational behavior*, (14th edition.). New Jersey: Prentice Hall.
- Robert, F. (2018). Impact of workplace bullying on job performance and job stress. *Journal of Management Info*, 5 (3), 12-15.
- Rosmayanti. (2020). Indonesia the champion of CPO exports, the destination country?. *Economic News Editor Online*.
- Salunke, G. (2015). Work environment and its effect on job satisfaction in cooperative sugar factories in Maharashtra, India. *Abhinav International Monthly Refereed Journal Of Research in Management & Technology*, 4 (5), 21-31.
- Samson, G. N., Waiganjo, M., Koima, J. (2015). Effect of workplace environment on the perfomance of commercial bank employees in Nakuru Town. *International Journal of Managerial Studies and Research (IJMSR)* 3 (12), 76-89.
- Schultz, P. P., Ryan, R.M., Niemiec, C.P., Legate, N., & Williams, G.C. (2015). Mindfulness, work climate, and psychological need satisfaction in employee well-being. *Springer Science + Business Media New York*, 6 (5), 971-985.
- Sedarmayanti. (2011). *Human resources and work productivity*. Jakarta: Penerbit Mandar Maju.
- Sedarmayanti. (2013). *Human Resource Management*. Bandung: Publisher Refika Aditama.
- Sesepamardi (2018). *Employee performance indicators*. BPAKHM Padang State University.
- Shaheen, A., Naqvi, S. M. H., Khan, M. A.(2013). Employees training and organization performance: meditation by employees performance, interdisciplinaty. *Journal of Contemporary Research in Businees*, 5 (4), 490-503.
- Shaju. M., Subhasini. D. (2017). A study on the impact of job satisfication on job performance of employees working in automobile industry, Punjab, India. *Journal of Management Research*, 9 (1), 117-130.
- Soegandhi, V. M., Sutanto, E. M., Setiawan, R.(2013). Effect of job satisfaction and job loyalty. terhadap organizational citizenship behavior pada karyawan PT. Surya Timur Sakti East Java. *Agora*, 1 (1).
- Sugiharjo, R. J. (2020). Influence of leadership and organizational citizenship behaviour (OCB) on employee performance. *Journal of Resources Development and Management*, 62, 42-50.
- Sugiyono. (2014). *Metode penelitian pendidikan pendekatan kualitatif, kuantitatif dan r&d*. Bandung: Publisher Alfabeta.
- Sukanto, A. M. (2013). The influence of physical and non-physical work environment on the performance of employees at the Food Security Agency and regional extension implementers Samarinda. *EJournal Administrative Reform*, 1 (2), 431-443.
- Sukmarwati, A., Suryaningsih, M., Come On, I. (2013). Employee performance in the district Gunungpati Semarang. *Jurnal of Public Policy & Management Review*. 2 (4), 1-8.
- Sulistiyani, A. T. (2011). *Memahami good governance: Dalam perspektif. human resources*. Yogyakarta: Publisher Of Gava Media.
- Vasudevan, H. (2014). Examining the relationship of training on job satisfaction and organizational effectiveness. *International Journal Managemenst Business*, 4 (3),

185-202.

- Wake Up, W. (2012). Human Resource Management. Jakarta: Publisher Erlangga.
- Widiastuti, J, N. M. (2020). ASN work motivation on technical training to improve staff performance at the Office of Mora Bima city (in terms of Generation X and Generation Y). Journal of Science and Humanities Research and development, Undiksha.
- Widodo, D. S. (2014). Influence of leadership and work environment to job satisfaction and impact to employee performance (Study on industrial manufacture in West Java). Journal of Economics and Sustainable Development, 5 (26).
- Widodo, S. (2015). Human Resource Development Management. Yogyakarta: Penerbit Pustaka Pelajar.
- Worlu, O. (2017). Influence of training and development, employee performance on job satisfaction among the staff of school of technology management and logistics, Universiti Utara Malaysia (STML, UUM). Journal of Technology Management and Business, 4 (1), 1-16.
- Zein, D.R.P., Setyaningrum, R., Marlinae, R. (2016). The effect of age, education and Social Security on job satisfaction of employees of the operator at PT. Son Horizon Together. Journal Of Indonesian Public Health Publications, 3 (2), 38-44.
- Zulkifli, A. (2014). Fundamentals of Environmental Science. Jakarta: Publisher Salemba Teknika.