

**THE EFFECT OF OCCUPATIONAL SAFETY AND HEALTH ON EMPLOYEE WORK
MOTIVATION****(CASE STUDY: PT. TROPICA COCOPRIMA LELEMA)***PENGARUH KESELAMATAN DAN KESEHATAN TERHADAP MOTIVASI KERJA KARYAWAN
(STUDY KASUS: PT TROPICA COCOPRIMA LELEMA)*

By:

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Abstract: Employees are very influential in the production of a company. Occupational safety and health greatly affect employee work motivation. To get an excellent product requires employees who have good health and also a good workplace in order to motivate employees. The purpose of this study was to describe Occupational Safety, Occupational Health and Employee Work Motivation and to analyze the effect of Occupational Safety and Health on Employee Work Motivation either partially or simultaneously at PT. Tropica Cocoprime Lelema. Respondents studied were permanent employees who had worked for more than 1 year. The population in this study were 100 permanent employees, the sample in this study used purposive sampling. The analyzer uses multiple linear regression. Hypothesis testing used the t test and F test. The results showed that Occupational Safety had a partial effect on Employee Work Motivation and Occupational Health had a partial effect on Employee Work Motivation. Simultaneously, Occupational Safety and Health have a significant effect on Employee Work Motivation.

Keywords: occupational safety, occupational health, employee work motivation

Abstrak: Karyawan sangat berpengaruh dalam produksi suatu perusahaan. Keselamatan dan kesehatan kerja sangat mempengaruhi motivasi kerja karyawan. Untuk mendapatkan produk unggulan diperlukan karyawan yang memiliki kesehatan yang baik dan juga tempat kerja yang baik agar dapat memotivasi karyawan. Tujuan penelitian ini adalah untuk mendeskripsikan Keselamatan, Kesehatan Kerja dan Motivasi Kerja Karyawan serta untuk menganalisis pengaruh Keselamatan dan Kesehatan Kerja terhadap Motivasi Kerja Karyawan baik secara parsial maupun simultan pada PT. Tropica Cocoprime. Responden yang diteliti adalah pegawai tetap yang telah bekerja lebih dari 1 tahun. Populasi dalam penelitian ini adalah 100 karyawan tetap, sampel dalam penelitian ini menggunakan purposive sampling. Alat analisis ini menggunakan regresi linier berganda. Pengujian hipotesis menggunakan uji t dan uji F. Hasil penelitian menunjukkan bahwa Keselamatan Kerja berpengaruh parsial terhadap Motivasi Kerja Karyawan dan Kesehatan Kerja berpengaruh parsial terhadap Motivasi Kerja Karyawan. Secara simultan Keselamatan dan Kesehatan Kerja berpengaruh signifikan terhadap Motivasi Kerja Karyawan

Kata Kunci: keselamatan kerja, kesehatan kerja, motivasi kerja karyawan

INTRODUCTION

Research Background

Every company both small and large certainly requires human resources to carry out various activities related to the production process of the company. Human resources have an important role in a company as the main asset and the spearhead of the life of a company. Basically, the strength of a company lives in the people who work in the company. Without human resources, the company cannot run. Because this is what will determine the progress or withdrawal of a company. The good performance of the employees can make the company to be able to achieve the goals or objectives of the company and vice versa if the performance of the employees is bad can have an impact on the deterioration of the company. Realizing the importance of human resources in a company, the company is required to manage existing human resources well. If employees are treated appropriately and in accordance with their dignity, the company will be able to achieve the desired goals. Human Resources are people who design and produce goods or services, oversee quality, market products, allocate financial resources, and formulate all organizational strategies and objectives (Samsudin, 2010). So, it can be interpreted that, Human Resources are assets owned by companies or organizations to carry out all operational activities.

Employees as human resources of the company which is a critical success factor in carrying out the vision and mission in achieving the company's targets must get more attention from the company. One of them is by providing occupational safety and health to every employee. Provision of safety and health is because every production activity in a company is always accompanied by risk factors such as accidents or diseases arising from doing the work. Occupational health and safety are the most important thing in a company. Errors in using equipment, lack of equipment for working protective equipment, and also not obeying work rules can cause danger. Occupational accidents can cause negative things in the form of losses in terms of anonymity and can also result in decreased levels of productivity and health levels of employees.

In addition to human resources, work motivation is also one of the most important things in a company. Motivation can be seen as a change in energy in a person which is marked by an emergent feeling and is preceded by a response to the existence of a goal. Work motivation can improve the performance of employees. Employees who have high work motivation will be good for the company because those who have high motivation will work as well as possible and as much as possible to be able to succeed in doing and producing something. The emergence of motivation from a person can occur in a good work environment. Mangkunegara (2005) stated motivation is formed from the attitudes of employees in dealing with work situations in the company (situation). Motivation is a condition or energy that moves employees who are directed or directed to achieve the goals of the organization of the company. The mental attitude of employees who are pro and positive towards work situations is what strengthens their work motivation to achieve maximum performance.

Research Objective

Based on the research problem, this research has several objectives:

1. To reveal the effect of occupational safety on employee work motivation partially.
2. To reveal the effect of health on employee work motivation partially.
3. To reveal the effect of occupational safety and health on employee work motivation simultaneously.

THEORETICAL FRAMEWORK

Human Resource Management

Human resources management is a knowledge or how to manage relationship and roles of employee to help their business gain the competitive advantage. Boxall and Purcell (2011) conceptualized workforce performance as a function of capabilities (skill and knowledge that employee need to do their work).

Occupational Safety and Health

According to Sibarani (2012), Occupational Safety and Health is a thought and effort to ensure the integrity and perfection of both the physical and spiritual workforce in particular, and humans in general, the work and culture of a just and prosperous society"

Safety Work

Swasto (2011) stated that safety work involves the whole process of protecting workers against the possibility of hazards arising in the work environment.

Occupational Health

According to Mangkunegara (2004), occupational health indicates a condition that is free from physical, mental, emotional or pain disorders caused by the work environment. Health risks are factors in a work environment that work beyond a specified period of time, an environment that can create emotional stress or physical disturbance.

Work Motivation

Robbins and Judge (2007) defined motivation as a process that explains the intensity, direction and perseverance of an effort to achieve a goal".

The Relationship between Occupational Safety and Health with Work Motivation

Mangkunegara (2002: 162) stated that apart from aiming to avoid accidents in the company's production process, occupational safety and health also aims to increase the enthusiasm, work harmony and employee work participation. With the increase in enthusiasm, work harmony, and employee participation, it can be ensured that employee motivation can increase.

Previous Research

Ramazan Kaynak, Arzu Tuygun Toklu, Meral Elci, & Ismael Tamer Toklu (2016) investigate Effects of Occupational Health and Safety Practices on Organizational Commitment, Work Alienation, and Job Performance: Using the PLS-SEM Approach. The findings of the analysis suggested that such OHS practices as safety procedures and risk management, safety and health rules, first aid support and training, and organizational safety support had a positive effect on organizational commitment.

Andi Hendrawan (2017) this study aims to determine the level of knowledge of fishermen about occupational safety and health. Based on the research shows that the level of knowledge about occupational health and safety is obtained as large knowledgeable less than 23 people or 76.7%, and that knowledge is quite 6 people or 20% were good only 1 of 3.3%, was obtained as a big nutritional status never experienced itching disease that is 18 or 60% and who had cataract diseased 10 or 33.6% were ever have hypertension/diabetes 2 is 6.7%.

Ismael Cruz, & Raul Huerta-Mercado (2015) defined this study aims to determine the positive effects of occupational accidents and diseases in the workplace. Economic growth and industrial development have been favorable due to implementation of measures that protect workers. This protection is provided by the government and by employers as an integrated system. Since the promulgation of Law 29783, companies have been adapting an occupational safety and health management system that previously had not been paralleled by an adequate inspection system or supervision by the government. Regulatory frameworks mark a turning point, and have led a number of companies to be engaged in the management of occupational safety and health.

Conceptual Framework

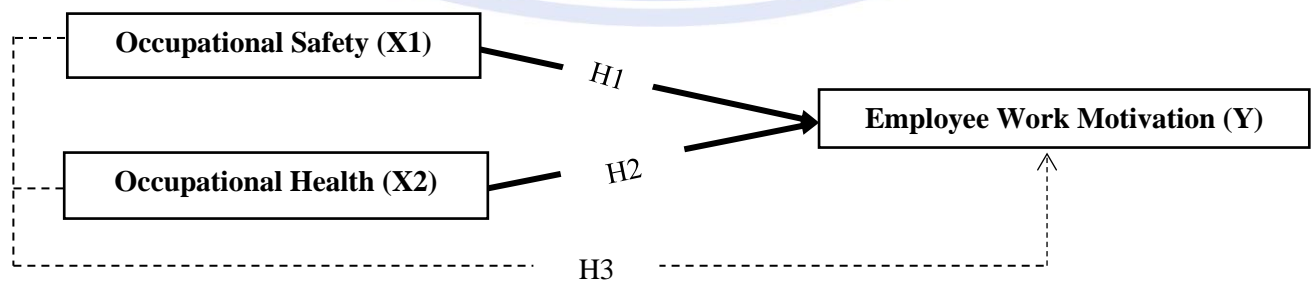


Figure 1. Conceptual Framework

Source: Data Processed, 2021

Research Hypothesis

H1: Occupational safety effect has an impact employee work motivation partially.

H2: Occupational health effect has an impact employee work motivation partially.

RESEARCH METHOD

Research Approach

The approach used in this research is quantitative by collecting data using survey methods. Researchers describe quantitative (numbers) trends, behaviors, or opinions of a population by examining the population sample (Creswell, 2010).

Place and Time of Research

The research will be conducted in PT. Tropica Cocoprime Lelema, Tumpaan, South Minahasa, North Sulawesi, Indonesia using questioner. The study has conducted in February to March 2021.

Population and Sample

This research will be conducted with 100 respondents by permanent employees are workers who have worked for more than 1 year at PT. Tropica Cocoprime Lelema.

Data Analysis Method

Validity and Reliability Test

Validity test is an equation of data reported by researchers with data obtained directly that occur in the research subject (Sugiyono, 2018). According to Muhidin and Abdurahman (2017), an instrument of measurement is said to be reliable if the measurements are consistent and accurate.

Multiple Linear Regression

Linear regression is statistical method used to analyze the relationship between two variables or more, especially to explore relationship patterns for which the model is unknown perfectly, or to find out how to vary some variables independently affect the dependent variable in a complex phenomenon.

The formula of multiple linear regressions as follows:

$$Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \epsilon$$

Where:

- Y : Employee Work Motivation
- α : The Constant
- X1 : Occupational Safety
- X2 : Occupational Health
- ϵ : Error

RESULT AND DISCUSSION

Result

Validity and Reliability Test

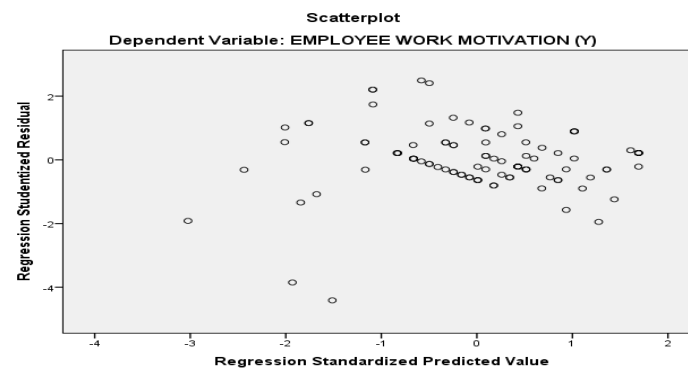
The Pearson Correlation value of every indicators (rcount) of variables Occupational Safety (X1), Occupational Health (X2), and Work Motivation (Y) have higher value than rtable value that is 0.165. It means that every indicator in questionnaire in this research is valid. Reliability is done by determining the value of Cronbach's Alpha. The result shows, the value of Cronbach's Alpha that is > 0.60 which is 0.892. it means the instrument used in this research is reliable or accurate and can be trusted.

Classical Assumption Tests**Multicollinearity Test****Table 1. Collinearity Statistics**

Model	Collinearity Statistics		Status
	Tolerance	VIF	
Occupational Safety	0.670	1.493	No Multicollinearity
Occupational Health	0.670	1.493	No Multicollinearity

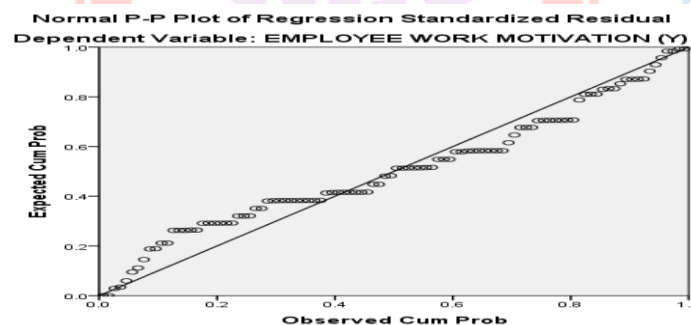
Source: Data Processed, 2021

Based on the result above the VIF value of Occupational Safety (X_1) and Safety Health (X_2) are 1.493 and the tolerance value of Occupational Safety (X_1) and Occupational Health (X_2) are 0.670. The value of VIF < 10 and the tolerance > 0.10. This means that there is no connection between the independent variables and free from multicollinearity.

**Figure 2. Heteroscedasticity Test**

Source: Data Processed, 2021

This result shows that there is no clear pattern, it means that the graph describing the plot spread above and below the number 0 (zero) and the Y-axis. This proves that the independent variable (Occupational Safety and Occupational Health) is free from heteroscedasticity.

Normality Test**Figure 3. Normality Test**

Source: Data Processed, 2021

Figure 3 shows that the dots spread near the line and follow the diagonal line. It means that the data distributed normally.

Autocorrelation Test

The result of Durbin Watson is 1.924. Based on the calculation found that D-W value between dU (1.715) until 4-dU (2.2848) is free of auto correlation. It means that there is no autocorrelation in this research.

Multiple Linear Regression Analysis**Table 2. Multiple Linear Regression**

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	5.566	2.195		2.536	.013
	Occupational Safety	.198	.098	.177	2.028	.045
	Occupational Health	.600	.089	.592	6.771	.000

a. Dependent Variable: Work Motivation

Source: Data Processed, 2021

The result from this table above can be shown through the regression equation as follows:

$$Y = 5.566 + 0.198X_1 + 0.600X_2 + e$$

The interpretation of the equation as follow

1. The constant shows value of 5.566 means if there is no change in Occupational Safety (X1), Occupational Health (X2) or all the variable are zero (0) so value of Employee Work Motivation is in 5.566.
2. Occupational Safety (X1) is 0.198 means that if the Occupational Safety (X1) increase one scale or one unit, then the Employee Work Motivation (Y) is increasing by 0.198 in the condition that the other variable is constant.
3. Occupational Health (X2) is 0.600 means that if the Occupational Health (X2) increase one scale or one unit, then the Employee Work Motivation (Y) is increasing by 0.198 in the condition that the other variables are constant.

Table 3. Multiple Correlation Coefficient and Coefficient of Determination Test

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.580 ^a	.336	.322	2.587

a. Predictors: (Constant), Occupational Safety, Occupational Health

b. Dependent Variable: Employee Work Motivation

Source: Data Processed, 2021

The coefficient correlation (r) is equal to 0.709. It means that the correlation between Occupational Safety (X1) and Occupational Health (X2) to Employee Work Motivation (Y) indicating that there is a positive and strong relationship between independent variables and dependent variable. The coefficient determination (r²) is 0.503, in this study may imply that the Occupational Safety (X1) and Occupational Health (X2) affect Employee Work Motivation 50.3% while the rest 49.8% is affected by other variables.

Table 4. F-Test Result

ANOVA						
Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	555.844	2	277.922	49.092	.000 ^b
	Residual	549.146	97	5.661		
	Total	1104.990	99			

a. Dependent Variable: Employee Work Motivation

b. Predictors: (Constant), Occupational Safety, Occupational Health

Source: Data Processed, 2021

To test the effect of independent variables on the dependent variable jointly or simultaneously, the F test is used. The table above shows the calculated F value of 49,092 with a significant level of 0.000, because the significance level is less than 0.05 (0.000<0.05) and F count is greater than F table (49,092>3.94), then Occupational Safety and Occupational Health simultaneously have a significant effect on Employee Work Motivation so that H3 is accepted.

Table 5. T-Test Result

	Model	T	t _{table}	Sig.	Status
1	(Constant)	2.536		.013	
	Occupational Safety	2.028	1.984	.045	Accepted
	Occupational Health	6.771	1.984	.000	Accepted

a. Dependent Variable: Employee Work Motivation

Source: Data Processed, 2021

The interpretation as follows:

1. tcount for Occupational Safety 2.028 greater than the value of ttable 1.984 with sig. level smaller than 0.05 at 0.000. Means that Ha accepted and Occupational Safety have a significance effect on Employee Work Motivation.
2. tcount for Occupational Health 6.771 greater than the value of ttable 1.984 with sig. level smaller than 0.05 at 0.011. Means that Ha accepted and Occupational Health have a significance effect on Employee Work Motivation.

Discussion

The guarantee of occupational safety is a factor in increasing the work motivation of employees. Even though people who work in the field usually have a higher risk compared to people who work in the office, occupational safety must still be applied to avoid work accidents while doing a job. There must be protection in doing a job because employees or laborers are a valuable asset for the company. Because if there are no employees or laborers, a company cannot run its business. And if there is no occupational safety in doing work, it will have an impact on the company such as resulting in losses. Occupational safety is very important when carrying out a job, especially for employees or workers who work at a company that uses heavy equipment to do a job. Workers who work directly in the field of work are more likely to have accidents and not only accidents but also can threaten their safety at any time. Even workers who work in offices can experience work accidents such as mistakes in operating a machine. That can have a big impact on the company because it can result in work accidents for other workers. The existence of work safety can be one of the efforts of the company in preventing the risk of work accidents for workers while doing work. Occupational safety is also related to work locations, machines or heavy equipment, materials, processes, and things related to the work environment of employees that can threaten their safety. To protect and prevent workers from work accidents, companies must provide occupational safety equipment such as helmets, gloves, protective goggles, and so on. The provision of occupational safety equipment in addition to preventing work accidents can also generate work motivation from workers and can also motivate them to do their job as well as possible without having to worry about doing work because of work safety equipment. With the provision of work safety equipment, employees will feel safe and comfortable in doing their work and can motivate workers to work more effectively and efficiently. Also work can be completed quickly and with good results. And so, the company will be able to achieve its goals if you pay attention to the occupational safety of its employees.

Motivation is a power resource that can drive and control a person's behavior. Motivation can also provide encouragement to someone to take the desired action. Because a person's behavior tends to be goal-oriented and driven by a desire to achieve certain goals. Motivation can be said to be one of the important factors to encourage employees to do a job. If someone is motivated to do something then automatically will do the job as strong and as possible. Apart from motivation, human resources are a determining factor for the success of a company. Therefore, motivation and human resources have a close relationship to do a job. It takes a motivation to be a driving force for human resources to do a job well and in accordance with the goals of the company. If employees work with motivation, it will have a positive impact on the company because that way employees will be able to do their job optimally and also be able to produce a product according to the company's targets. This can be an advantage for the company. Therefore, companies must pay special attention to their employees so that they can continue to be motivated to do a job. The factors for the emergence of work motivation from employees are caused by the presence of a healthy body, a good emotional level, and also the existence of supporting occupational safety when doing a job. Employees will be able to do a job if they are healthy and fit, so that they can do a job enthusiastically and can produce a good job and can achieve the company's targets. However, if the employee is in a physical condition or condition that is not good and continues to do a job then this can have an impact on the results later and there will be no motivation to work and this can also affect other employees so that this can also cause losses for the company. Not only are they in good physical condition, but also mental and emotional

conditions can influence employees to motivate them. Even though an employee is in good physical condition but mentally he is not well, this will also have an impact on his job. These employees will not be motivated and will not work optimally and can cause work accidents in the company. Therefore, companies must pay more attention to the health of their employees when they do work to avoid losses and work accidents.

Apart from occupational health, one thing that can lead to work motivation in employees is occupational safety. Likewise, with occupational safety, if employees do not work using safety equipment it will be bad for themselves. What the company must do is to provide training for employees so that they can understand the importance of occupational safety equipment because sometimes employees are often negligent about these safety tools and so that they continue to comply with the Company's Operating Standards. Because work accidents can happen anywhere and anytime. Therefore, employees must follow the safety instructions given by the company to avoid bad things at work. These two variables, namely occupational safety and health, are very influential in motivating employees to work. If an accident occurs while doing a job, it will affect the health of the employee and vice versa, if the employee's health is disturbed, there is the potential for an accident to occur while doing a job.

CONCLUSION AND RECOMMENDATIONS

Conclusion

1. The Occupational Safety is partly affected by Employee Work Motivation. Occupational Safety is something that is very important for employees, especially for employees who use heavy equipment. Which can encourage motivating employees to work better with work safety tools. With the provision of work safety equipment, employees must be very helpful and feel comfortable in doing their job and can motivate employees to work better and more efficiently.
2. The Occupational Health is partly affected by Employee Work Motivation. Occupational health is very important for anyone, including employees. Healthy employees do a good job. In a pandemic like this the company should pay more attention to its employees and check the health of employees. Health is very influential on employee motivation. If employees have the motivation to work, the company will achieve optimal targets. For that health insurance also affects the work motivation of employees.
3. Occupational Safety and Occupational Health have a significant effect on Employee Work Motivation simultaneously. For companies that provide safety tools for employees to work and that provide health insurance, they must have motivated employees. Especially during a pandemic like this the company wants to have employees who are highly motivated to make the company's economy stable.

Recommendations

1. Companies that have implemented Occupational Safety must continue to do so that employees feel safe while working. Support for the implementation of Occupational Safety must be increased and expanded. So that many employees respect and adhere to work safety programs. And also, the Occupational Safety program should be extended not only to production employees, but also to office staff.
2. Companies need to improve Occupational Health policies that have been discussed together with the aim of providing a sense of security to employees in doing their work so that employees can feel calm at work, to get better employees.
3. To the company to keep improving and maintaining occupational safety and health. For management, don't forget to spend time with employees because this can also increase motivation for employees to work better.

REFERENCES

- Boxall, P., and Purcell, J. (2011). *Strategy and Human Resource Management*. Macmillan International Higher Education.
- Creswell, J.W. (2010). *Research Design Pendekatan Kualitatif, Kuantitatif, dan Mixed*. Yogyakarta: Pustaka Pelajar.

Cruz, I., and Huerta-Mercado, R. (2015). *Occupational Safety and Health in Peru*. *Annals of global health*, 81(4), 568-575. <https://pubmed.ncbi.nlm.nih.gov/26709289/>. Accessed on September 11, 2020

Hendrawan, A. (2017). *Analisa Keselamatan dan Kesehatan Kerja pada Nelayan*. *Saintara: Jurnal Ilmiah Ilmu-Ilmu Maritim*, 2(1), 12-23. https://www.researchgate.net/publication/330386024_ANALISA_KESELAMATAN_DAN_KESEHATAN_KERJA_PADA_NELAYAN. Accessed on September 11, 2020.

Kaynak, R., Toklu, A.T., Elci, M., and Toklu, I.T. (2016). *Effects of occupational health and safety practices on organizational commitment, work alienation, and job performance: Using the PLS-SEM approach*. *International Journal of Business and Management*, 11(5), 146-166. https://www.researchgate.net/publication/339133208_EFFECT_OF_OCCUPATIONAL_SAFETY_AND_HEALTH_ON_PERFORMANCE_AN_EMPIRICAL_INVESTIGATION. Accessed on September 11, 2020.

Mangkunegara, A.P., and Prabu, A. (2002). *Manajemen Sumber Daya Manusia Perusahaan*. Bandung: PT. Remaja Rosdakarya.

Mangkunegara, A. P., and Prabu A. (2004). *Manajemen Sumber Daya Manusia*. Bandung: Remaja Rosda Karya.

Mangkunegara, A. P., and Prabu A. (2005). *Manajemen Sumber Daya Manusia*. Bandung: Remaja Rosda Karya.

Priyastama, R. (2017). *Buku Sakti Kuasai SPSS Pegolahan Data & Analisis Data*. Yogyakarta: PT Anak Hebat Indonesia.

Robbins, S.P., and Judge, T. (2007). *Organizational Behavior*. UpperSaddleRiver, NJ: PearsonPrenticeHall.

Sibarani, P.M. (2012). *Manajemen Sumber Daya Manusia*. Ghalia Indonesia, Bogor.

Sugiyono (2018). *Metode Penelitian Kuantitatif*. Bandung: CV Alfabeta.

Swasto, B. (2011). *Manajemen Sumber Daya Manusia*. Malang: UB Press