

## THE EFFECT OF WORK ENVIRONMENT AND MOTIVATION ON EMPLOYEE PERFORMANCE THROUGH WORK ACHIEVEMENT AT THE SUB-DISTRICT OFFICE OF SIPSISPIS, SERDANG BEDAGAI REGENCY

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### Abstract

This research was taken from the background of the initial problem, namely that the work environment can have an influence on performance, such as the room temperature being too hot and making employees who work feel hot so that employee comfort will decrease and poor room layout hinders employee movement, this hinders work performance. From there the need for strong motivation, this research was carried out to determine the influence of the work environment and motivation on employee performance through work performance at the Sipispis Subdistrict office, Serdang Bedagai Regency. The research used quantitative methods with research instruments to test the hypothesis. The population was 22 people and all were samples. 22 people because there are not enough of 100 people data analysis techniques classical assumption test, normality test, multicollinearity test, heteroscedasticity, autocorrelation test and path analysis, with a tolerance value for variable X1 of 0.530, variable (X2) 0.530, variable (Z) 0.998, the value is greater than 0.10. The results of the analysis of the value of  $t_{count} 2.118 > t_{table} 2.109$ , the significance value of the work environment (X1) 0.007 is smaller than 0.05 so that H1 in this study is accepted. The motivation variable (X2) has a significance value of 0.036 which is smaller than 0.05 and the t value is  $3.339 > t_{table} 2.109$  so that H2 in the research is accepted. There is an influence of motivation (X2) on employee performance (Y). Work performance (Z) found that the significance value was  $0.000 < 0.05$  and the tcount value was  $5.888 < t_{table} 2.109$  so that H5 in this study was accepted. The analysis results show that the tcount value is  $12.268 > t_{table} 2.109$  and the work environment significance value (X1) is 0.000, which is smaller than 0.05, so that H3 in this study is accepted. The influence of the work environment (X1) on work performance (Z). The motivation variable (X2) t value is  $6.927 > t_{table} 2.109$  and the significance value of the work performance variable (X2) is 0.000 which is smaller than 0.05 so that the research H4 is accepted. The influence of motivation (X2) on work performance (Z). The results of the analysis of the significance value of X1 and So it is concluded that H6 of the research is accepted, namely that there is a simultaneous influence between work environment variables (X1) and motivation (X2) on employee performance variables (Y). The results of the analysis show that the significance value of X1 and It was concluded that H7 of the research was accepted, namely that there was a simultaneous influence between work environment variables (X1) and motivation (X2) on employee performance variables (Y) with work performance (Z) as the intervening variable.

**Keywords:** Motivation, Performance, Work environment, Work performance

## A. INTRODUCTION

Talking about the work environment, we can make this happen through an organizational system, namely a system for managing and structuring a conducive work environment. So, over time, a conducive work environment can improve employee performance, making it easier for the organization to achieve its goals and employees will be motivated to improve their work performance. The background to the problem at the beginning of the research is that disputes between superiors and employees often occur in an environment that causes employee performance to be less effective in carrying out their work.

The lack of employee performance cannot be separated from the work environment. The problems that exist are that the work environment can have an influence on performance, and the room temperature in the office that is too hot makes employees who work feel hot so that employee comfort will decrease and poor room layout hinders employee movement, this hinders work performance, so from there the need for strong motivation from the leadership. With the initial problems, the researcher wanted to research the influence of the work environment and motivation on employee performance through work performance at the Sipispis Subdistrict Office, Serdang Bedagai Regency. For this reason, it is necessary to analyze the work environment and motivation on employee performance through work performance at the Sipispis Subdistrict Office in serving the community. The purpose of conducting this research is to find out how much influence the work environment and motivation have on employee performance through work performance.

## B. LITERATURE REVIEW

According to Law no. 23 of 1997 in the book Suwardi, et al (2018) the environment is the unity of space with all objects, forces, conditions and living creatures, including humans and their behavior, which influence the sustainability of life and welfare of humans and other living creatures. According to Suwardi, et al (2018) the work environment is the social, psychological and physical life within the company which influences workers in carrying out their duties. According to Darmadi (2020), the work environment includes anything around employees that influences an individual in carrying out the obligations assigned to him, such as air conditioning, good lighting and so on. Sedarmayanti in Wijaya (2016) said that the dimensions of the work environment are divided into two, namely:

### **Physical Work Environment**

The physical work environment is all physical conditions found around the workplace that can affect employees either directly or indirectly. The indicators are lighting, air temperature, noise and work safety.

### **Nonphysical Work Environment**

The non-physical work environment is all conditions that occur related to work relationships, both relationships with superiors and relationships with subordinates. The non-physical work environment is also a group of work environments that cannot be ignored. The indicators are the relationship between employees and superiors and the relationship between employees and employees.

According to Suyanto (2018), motivation discusses how to encourage someone's work enthusiasm, so that they want to work by providing their abilities and expertise optimally to achieve organizational goals. According to Hasibuan in Sitorus (2020) motivation can be classified into 4 parts, namely: positive motivation, negative motivation, internal motivation, external motivation. According to McClelland Anwar Prabu (2011), motivation dimensions and indicators are divided into three, namely:

1. The need for achievement is the drive for achievement, for achievement related to a set

of standards, and striving to succeed.

2. The need for power, namely the need to make other people behave in a way that they would not do without them.
3. The need for affiliation, namely the desire for close friendships and interpersonal relationships.

According to Fahmi (2018). Performance is the result obtained by an organization, whether the organization is profit oriented or non-profit oriented, which is produced over a period of time. Meanwhile, Mangkunegara (2017), there are four dimensions and several indicators of employee performance, namely:

1. Work quantity is the amount of labor that will be carried out in a certain time period. From the results of employees' performance within a certain time and in completing their duties and responsibilities according to the specified time.
2. Collaboration is an activity or effort carried out by two or more people to achieve a common goal.
3. Responsibility is an obligation to carry out every task seriously.
4. Work quality is a result that can be measured by the effectiveness and efficiency of work carried out by employees in achieving the goals of an agency well.
5. Initiative is the ability to take proactive and independent action, in finding solutions to problems or creating new opportunities.

According to Badriyah (2018), work performance is the work results achieved by a person in carrying out the tasks assigned to him, which are based on skills, experience, and seriousness and time. The work performance indicators according to Afandi (2018) are as follows:

1. Dimensions of work results consisting of three indicators, namely quantity of work results,
2. Quality of work results and efficiency in carrying out tasks
3. Work behavior which consists of three indicators, namely work discipline, initiative and thoroughness
4. Personal characteristics consisting of three indicators, namely leadership, honesty and creativity.

Based on the description of the theoretical basis, the hypothesis of this research is: The magnitude of the influence of the work environment and motivation on employee performance through work performance at the Sipispis Subdistrict Office, Serdang Bedagai Regency, the dimensions of the physical work environment and non-physical work environment are determined.

- H1: There is an influence of the work environment on employee performance at the Sipispis Subdistrict Office, Serdang Bedagai Regency.
- H2: There is an influence of motivation on employee performance at the Sipispis Subdistrict Office, Serdang Bedagai Regency.
- H3: There is an influence of the work environment on work performance at the Sipispis sub-district office, Serdang Bedagai district.
- H4: There is an influence of motivation on work performance at the Sipispis Subdistrict Office, Serdang Bedagai Regency.
- H5: There is an influence of work performance on employee performance at the Sipispis Subdistrict Office, Serdang Bedagai Regency.

H6: There is an influence of the work environment and motivation on work performance at the Sipispis Subdistrict Office, Serdang Bedagai Regency.

H7: There is an influence of the work environment and motivation on employee performance through work performance at the Serdang Bedagai District Head Office.

### C. RESEARCH METHODOLOGY

The research uses a quantitative research approach method, Sugiyono (2019: 8), suggests that quantitative research methods can be interpreted as research methods based on the philosophy of positivism, used to research certain populations or samples, data collection using research instruments, data analysis is quantitative/ statistics, with the aim of testing predetermined hypotheses. The samples taken were 22 people from the total population.

Data collection techniques are questionnaire/questionnaire methods, interviews, observation and documentation. Data analysis techniques use validity tests and reliability tests. The classical assumption test uses the data normality test, multicollinearity test, heteroscedasticity test, correlation data test, while hypothesis testing uses the partial test (T test), simultaneous test (F test), coefficient of determination test (R<sup>2</sup>). The variable operational definition table is as follows. :

Table 1. Operational Definition of Variables

No	Title	Variable	Dimensions	Indikator
1	The Influence of the Work Environment and Motivation on Employee Performance Through Work Achievement at the Sipispis Subdistrict Office, Serdang Bedagai Regency	Work Environment (X1) Sedarmayanti in Wijaya (2016)	1. Physical Work Environment	a. Lighting b. Air temperature c. Noise d. Job Security
			2. Non-Physical Work Environment	a. Lighting b. Wall color c. Plants d. Cleanliness Level
2	The Influence of the Work Environment and Motivation on Employee Performance Through Work Achievement at the Sipispis Subdistrict Office, Serdang Bedagai Regency	Motivation (X2) McClelland Anwar Prabu (2011)	1. Need for achievement (Need of Achievement)	a. Self-development b. Has the influence of appreciation c. Enthusiastic d. Good contribution
			2. Need for power	a. Ability will work b. Has the influence of appreciation c. Award d. Persuasive
			3. Need for affiliation (Need of Affiliation)	a. Good relationship b Working together with the team c Take part in activities

ARTICLE

				d. Work Environment
3	The Influence of the Work Environment and Motivation on Employee Performance Through Work Achievement at the Sipispis Subdistrict Office, Serdang Bedagai Regency	Employee Performance (Y) Mangkunegara (2017)	1. Work Quantity	a. Speed in carrying out tasks b. Execution of tasks
			2. Collaboration	a. Harmony b. Respect every decision c. Collaboration
			3. Responsibility	a. Obligation b. Commitment
			4. Quality of Work	a. Capacity b. Competence c. Achievement
			5. Initiative	a. Idea or Idea b. Find business opportunities
4	The Influence of the Work Environment and Motivation on Employee Performance Through Work Achievement at the Sipispis Subdistrict Office, Serdang Bedagai Regency	Work Performance (Z) Afandi (2018)	1. Work Results	a. Quantity of work output b. Quality of work results c. Efficiency in carrying out tasks
			2. Work Behavior	a. Work Discipline b. Initiative c. Accuracy
			3. Personal characteristics	a. Leadership b. Honesty c. Creativity

Source: Processed by Researchers, 2024

## D. RESULT AND DISSCUSSION

### Classical Assumption Test

#### Normality Test

The normality test aims to see whether the data obtained is normally distributed or not between the independent variables and the dependent variable in the regression model. The test is carried out using Normal Probability Plot values using SPSS version 25. If the points are close to or follow a straight line then the data is said to be normally distributed.

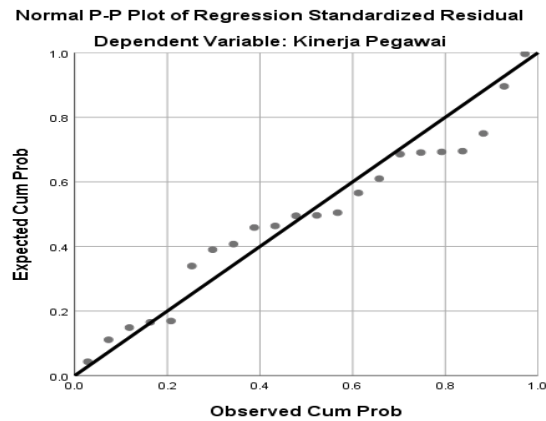


Figure 1. Normality Test Normal Probability-Plot  
Source: SPSS Data Processing Results, 2024

Based on the normality test image above, it shows that the points for each statement item follow a straight line and spread close to and follow the direction of the line so it can be concluded that the data is normally distributed. Thus, the regression model in this study meets the normality requirements.

For more definite results, the non-parametric Kolmogorov-Smirnov (K-S) statistical test will be carried out. Data distribution can be said to be normal if the significance value is > 0.05 (Ghozali, 2021).

Table 2. Kolmogorov-Smirnov Normality Test

One-Sample Kolmogorov-Smirnov Test			Unstandardized Residual
N			22
Normal Parameters <sup>a,b</sup>		Mean	.0000000
		Std. Deviation	4.72737207
Most Differences	Extreme	Absolute	.154
		Positive	.154
		Negative	-.109
Test Statistic			.154
Asymp. Sig. (2-tailed)			.187 <sup>c</sup>
a. Test distribution is Normal.			
b. Calculated from data.			
c. Lilliefors Significance Correction.			

Source: SPSS Data Processing Results, 2024

The results of the One-Sample Kolmogorov-Smirnov test show that the significance value is 0.187, which indicates that the value is greater than 0.05, so it can be concluded that the data is normally distributed. Thus, the regression model in this study meets the normality requirements.

### Multicollinearity Test

The multicollinearity test aims to find out whether there is a correlation between the independent variables, which in this study are variables

work environment (X1) and motivation variables (X2). Data is said to be good if it is free from symptoms of multicollinearity, or in other words the independent variables have no correlation. The test was carried out using SPSS version 25 by looking if the tolerance value was  $> 0.10$  or the variance inflation factor (VIF) value was  $< 10$ , then multicollinearity did not occur (Ghozali, 2016).

Table 3. Multicollinearity Test

Coefficients <sup>a</sup>								
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	92.991	28.397		3.275	.004		
	Lingkungan Kerja	.271	.678	.129	.400	.694	.530	1.887
	Motivasi	.082	.286	.092	.286	.779	.530	1.888
	Prestasi Kerja	.079	.270	.069	.294	.772	.998	1.002

a. Dependent Variable: Employee Performance

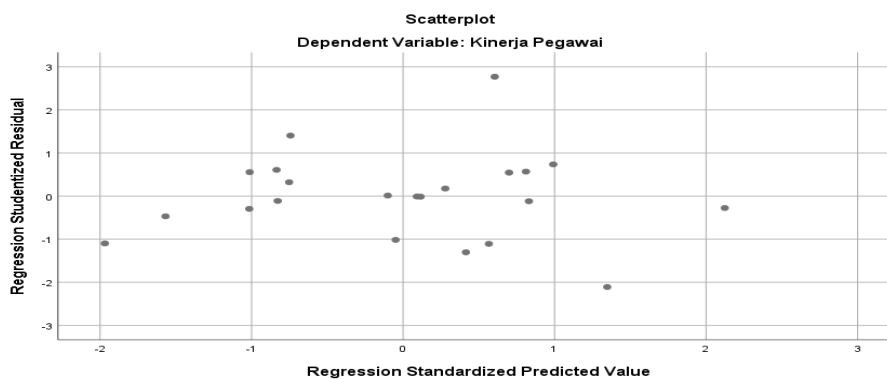
Source: SPSS Data Processing Results, 2024

Based on the results of the test analysis above, it was found that each tolerance value for variable X1 was 0.530, variable X2 was 0.530, and variable Z was 0.998, which means that the value is greater than 0.10. Meanwhile, for the VIF value, it is known that the value of variable X1 is 1.887, variable X2 is 1.888, and variable Z is 1.002, which means that the value is less than 10.

### Heteroscedasticity Test

The heteroscedasticity test aims to determine whether there is an inequality between the regression equation and the variance and residuals of one observation to another. The test was carried out using SPSS version 25 by looking at the pattern of points on the Scatterplot with the criterion that if the points are spread out and do not show a particular pattern then it is said that heteroscedasticity does not occur, and also using the Glejser test with the criterion that if the significance value is  $> 0.05$ , heteroscedasticity does not occur.

Figure 2. Scatterplot Heteroscedasticity Test



Source: SPSS Data Processing Results, 2024

### Autocorrelation Test

The autocorrelation test aims to test whether there is a correlation between residual errors in periods  $t$  and  $t-1$ , or in other words to find out whether the questionnaire was filled in by the same respondent. This test uses the Durbin Watson test (DW test) via SPSS version 25

with conditions (Ghozali dalam Hidayatullah *et al.*, 2023):

- If the value of  $d < dL$  or  $d > (4-dU)$  means autocorrelation occurs.
- If  $dU < d < (4-dU)$  it means that there is no autocorrelation.
- If  $dL < d < dU$  or  $(4-dU) < d < (4-dL)$  it means that it does not produce a conclusion

Table 4. Autocorrelation Test

Model Summary <sup>b</sup>					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.460 <sub>a</sub>	.212	.080	6.38916	1.170
a. Predictors: (Constant), Job Performance, Work Environment, Motivation					
b. Dependent Variable: Employee Performance					

Source: SPSS Data Processing Results, 2024

So the Durbin Watson value is obtained as follows:

Table 5. Test for No Autocorrelation

N	d	dL	dU	4-dL	4-dU
2	1,17	1,05	1,66	2,94	2,33
2	0	3	4	7	6

Source: SPSS Data Processing Results, 2024

## Hypothesis Testing

### Coefficient of Determination Test (R<sup>2</sup>)

This test aims to measure the ability of the regression model to explain how influential the independent and intervening variables simultaneously have on the dependent variable. The higher the R<sup>2</sup>/R Square value, the higher the independent variable explains the emergence of the dependent variable (Ghozali in Hidayatullah *et al.*, 2023). The benchmarks used in this test refer to Chin (1998 in Savitri *et al.*, 2021) where if  $R^2 > 0.67$  is classified as strong,  $0.67 > R^2 > 0.33$  is classified as moderate, and  $0.33 > R^2 > 0.19$  is classified as weak.

Table 6. Determination Coefficient Test

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.837 <sub>a</sub>	.701	.688	5.29067
a. Predictors: (Constant), Motivasi, Lingkungan Kerja				

Source: SPSS Data Processing Results, 2024

The results of the analysis show that the adjusted R square value obtained is 0.688. This shows that the work environment, motivation and work performance have an influence of 68.8% on employee performance variables. Regarding the closeness of the relationship,



judging from the benchmark according to Chin, if the R value is 0.837 or 83.7%, then the influence of the independent variable on the dependent variable in this study is classified as strong because  $R^2 > 0.67$ .

**Partial Test (T Test)**

Table 7. T test

Coefficients <sup>a</sup>						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	107.585	3.157		34.083	.000
	Work environment	.404	.050	.764	8.043	.000

a. Dependent Variable: Employee Performance

Source: SPSS Data Processing Results, 2024

The results of the T test analysis of variable Thus, there is an influence between the work environment (X1) on employee performance (Y).

Table 8. T test

Coefficients <sup>a</sup>						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	124.691	9.695		12.861	.000
	Motivatio n	.590	.137	.536	4.308	.000

a. Dependent Variable: Employee Performance

Source: SPSS Data Processing Results, 2024

The results of the T test analysis of variable It can be concluded that there is an influence between motivation (X2) on employee performance (Y)

Table 9. T Test

Coefficients <sup>a</sup>						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	79.465	2.081		38.184	.000
	Work environment	.320	.033	.819	9.666	.000

a. Dependent Variable: Work Performance

Source: SPSS Data Processing Results, 2024

The results of the T test analysis of variable Thus, there is an influence between the work environment (X1) on work performance (Z).

Table 10. Partial Test (T Test)

Coefficients <sup>a</sup>				
Model	Unstandardized Coefficients	Standardized Coefficients	t	Sig.

ARTICLE

		B	Std. Error	Beta		
1	(Constant)	91.837	7.079		12.973	.000
	Motivatio n	.450	.100	.553	4.507	.000

a. Dependent Variable: Work Performance

Sumber: SPSS Data Processing Results, 2024

The results of the T test analysis of the Motivation variable Thus, there is an influence between motivation (X2) on work performance (Z).

Table 11. Partial Test (T Test)

Coefficients <sup>a</sup>						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	9.199	4.990		1.843	.072
	Work Performance	1.230	.082	.910	14.933	.000

a. Dependent Variable: Employee Performance

Source: SPSS Data Processing Results, 2024

Then the results of the T test analysis of variable Z against Y above show that the tcount value is  $14.933 > t_{table} 2.109$  and the significance value of the work performance variable (Z) is 0.000, which means it is smaller than 0.05 so that H5 in this study is accepted. Thus, there is an influence between work performance (Z) on employee performance (Y).

### Simultaneous Test (F Test)

This test aims to find out whether all the independent variables have an effect on the dependent variable and to prove whether H6 and H7 in this study are accepted or rejected. The test is carried out by looking if  $F_{count} > F_{table}$  or significance value  $< 0.05$  then there is a significant simultaneous influence between the independent variable and the dependent variable.

This formula is used to find out the  $F_{table}$  value. The  $F_{table}$  value obtained at level 3 with order 18 is 3.16. This  $F_{table}$  value will be compared with  $F_{count}$ .

Table 12. Simultaneous Test (F Test)

ANOVA <sup>a</sup>						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1938.345	2	969.172	118.409	.000 <sup>b</sup>
	Residual	368.322	45	8.185		
	Total	2306.667	47			

a. Dependent Variable: Job Performance  
b. Predictors: (Constant), Motivation, Work Environment

Source: SPSS Data Processing Results, 2024

The results of the analysis above show that the significance value of X1 and So it can be concluded that H6 in this study is accepted, namely that there is a simultaneous influence

between work environment variables (X1) and motivation (X2) on employee performance variables (Y)..

Table 13. Simultaneous Test (F Test)

ANOVA <sup>a</sup>						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	3498.675	3	1166.225	71.888	.000 <sup>b</sup>
	Residual	713.804	44	16.223		
	Total	4212.479	47			
a. Dependent Variable: Employee Performance						
b. Predictors: (Constant), Job Performance, Motivation, Work Environment						

Source: SPSS Data Processing Results, 2024

The results of the analysis above show that the significance value of X1 and So it can be concluded that H7 in this research is accepted, namely that there is a simultaneous influence between work environment variables (X1) and motivation (X2) on employee performance variables (Y) with work performance (Z) as the intervening variable.

## E. CONCLUSIONS

Based on the results of the research that has been carried out, the conclusions from this research are as follows:

Based on the results of the T test for variable X1 against Y, it was found that the value of tcount was  $8.043 > t_{table} 2.109$ . Therefore, it can be concluded that the work environment has a significant influence of 57.5% on employee performance at the Sipispis District Head Office, so that H1 of this research is accepted.

Based on the results of the T test for variable X2 against Y, it was found that the value of tcount was  $4.308 > t_{table} 2.109$ . Therefore, it can be concluded that motivation has a significant influence of 27.2% on employee performance at the Sipispis District Head Office, so that H2 of this research is accepted.

Based on the results of the T test for variable X1 against Z, it was found that the tcount value was  $9.666 > t_{table} 2.109$ . Therefore, it can be concluded that the work environment has a significant influence of 66.3% on employee work performance at the Sipispis Subdistrict Office, so that H3 of this research is accepted.

Based on the results of the T test for variable X2 against Z, it was found that the value of tcount was  $4.507 > t_{table} 2.109$ . Therefore, it can be concluded that motivation has a significant influence of 29.1% on employee work performance at the Sipispis Subdistrict Office, so that H4 of this research is accepted.

Based on the results of the T test for variable Z against Y, it was found that the value tcount  $14,933 > t_{table} 2,109$ . Therefore, it can be concluded that work performance has a significant influence of 82.5% on employee performance at the Sipispis Subdistrict Office, so that H5 of this research is accepted.

Based on the results of the F test for variables X1 and Therefore, it can be concluded that the work environment and motivation have 68.8% influence on employee performance at the Sipispis Subdistrict Office, so that H6 of this research is accepted.

Based on the results of the F test for variables X1, Therefore, it can be concluded that the work environment and motivation have an influence of 81.9% on employee performance at the Sipispis Subdistrict Office with work performance as the intervening variable, so that H7 of this research is accepted.

## REFERENSI

- Badriyah, (2018). *Manajemen Sumber Daya Manusia, Cetakan I. Bandung: Cv.*
- Darmadi, (2020;242). *Pengaruh Lingkungan Kerja Dan Disiplin Kerja Terhadap Kinerja Karyawan Pada Indomaret Cabang Kelapa Dua Gading Serpong Kabupaten Tangerang.* Jurnal Ilmiah Manajemen Forkamma, 3(3), 240-247.
- Fahmi, (2018). *Manajemen Kinerja, Alfabeta, Bandung.*
- Greenberg & Baron W (2019), *Behavior in Organizations Under Standing and Managing The Human Side of Work.*
- Kasmir. (2019). *Manajemen Sumber daya Manusia (Teori dan Praktik).* Depok: PT. Rajagrafindo persada.
- Mangkunegara. (2017). *Manajemen Sumber Daya Manusia Perusahaan,* Bandung: Remaja Rosdakarya.
- McClelland Anwar Prabu. (2011). *Manajemen sumber daya manusia.* Salem empat.
- Sedarmayanti. 2017. *Perencanaan dan Pengembangan SDM untuk Meningkatkan Kompetensi, Kinerja dan Produktivitas Kerja.* PT Refika Aditama. Bandung
- Sugiyono, (2019:32). *Metode Penelitian Kuantitatif, Kualitatif, dan R&D.* Bandung:Alfabeta.
- Sugiyono, (2019:65). *Metode Penelitian Kuantitatif, Kualitatif & RND.* Bandung: Alfabeta.
- Sutrisno, (2019:151). *Manajemen Sumber Daya Manusia.* Cetak ke sebelas. Prananda Media Group, Jakarta.
- Suwardi, dkk (2018). *Pedoman Praktis K3LH Keselamatan dan Kesehatan Kerja dan Lingkungan Kerja.* Yogyakarta: Gava Media.
- Suyanto, (2018:93). *Pengantar Hukum Pidana, Deepublish, Jakarta.*