

Employee Performance Improvement at PT Cahaya Abadi Terang Medan Is Based on the Work Environment, Work Motivation, and Work Discipline

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Abstract

This research discusses the partial or simultaneous effect of environment factors, motivation, and discipline on employee performance at PT Cahaya Abadi Terang. A questionnaire was used to gather data from 65 employees of PT Cahaya Abadi Terang. This paper uses multiple linear regression. The study findings demonstrate a substantial simultaneous effect between the three factors and a partly significant influence between environment, motivation, and disciplinary variables on employee performance.

Keywords

environment; motivation; discipline; performance



I. Introduction

Staff are important assets that must be carefully regarded and developed. Thus, businesses must pay attention to every element of human resource development programmes to build competent and highly competitive employees. In the process, the firm's or company's performance has ups and downs that correspond to the ups and downs of the company's personnel performance. Performance is the outcome of effort that must be demonstrated with concrete evidence and may be assessed or compared to predefined criteria (Sedarmayanti, 2011:260). It suggests that workers have a favourable relationship with the firm.

Employee performance at PT Cahaya Abadi Terang is deemed subpar, according to a pre-survey of 65 correspondent workers at PT Cahaya Abadi Terang. The authors discovered a deterioration in the quality of workers' work based on the findings of the pre-survey questionnaire recapitulation on performance. Today, employees are less motivated to get the greatest results at work, owing to poor employee performance. Employees labour just as a routine or responsibility, with little ambition to learn more. Environment variables, motivation, and discipline can all contribute to subpar performance. Organization must have a goal to be achieved by the organizational members (Niati et al., 2021). The success of leadership is partly determined by the ability of leaders to develop their organizational culture. (Arif, 2019).

The environment is one of the elements that influence performance. The work environment is a facility and infrastructure that can affect employee performance, such as the workplace, amenities, lighting, cleanliness, and the working relationships among the individuals (Sedarmayanti, 2011:260). In addition to the surroundings, motivation has an impact on firm performance. Every employee is expected to work energetically to attain high job productivity. Employee motivation gives inspiration and excitement for work, resulting in healthy working relationships between employees and leaders (Hasibuan, 2016: 92).

II. Review of Literature

Performance is the outcome of labour that can be demonstrated concretely based on defined criteria to fulfil organisational goals lawfully, without breaking the law, and according to morals and ethics. Only through the efforts of the actors included inside the organisation can an organisation attain the goals that have been set.

Sedarmayanti (2011) defines the work environment as the tools, materials, surroundings, work habits, and individual and group work arrangements. The work environment is a facility and infrastructure that can affect employee performance, such as the workplace, amenities, lighting, cleanliness, and the working relationships among the individuals. A good work environment may give comfort when doing job activities; nevertheless, a poor work environment can lower employee morale and motivation, causing performance to suffer.

According to Hasibuan (2016), employees are needed to be motivated to work hard to attain high job productivity. Employee motivation may bring inspiration and encouragement, resulting in positive working relationships between employees and leaders. Leaders should attempt to ensure that staff are highly motivated to finish their tasks; here is where motivation plays a vital part in encouraging employee morale.

According to Rivai (2011), work discipline is communication used by managers to employees to raise one's knowledge and willingness to comply with all corporate standards. Organisations should give positive direction by concentrating on human resource development. Good working environment conditions will help humans carry out their jobs successfully, improving organizational productivity and accomplishing objectives

III. Research Method

3.1 Research Methodology

Conceptually, the environment (X₁), motivation (X₂), and discipline (X₃) all influence employee performance (Y) at PT Cahaya Abadi Terang, either entirely or partly. The following is a description of the research framework:

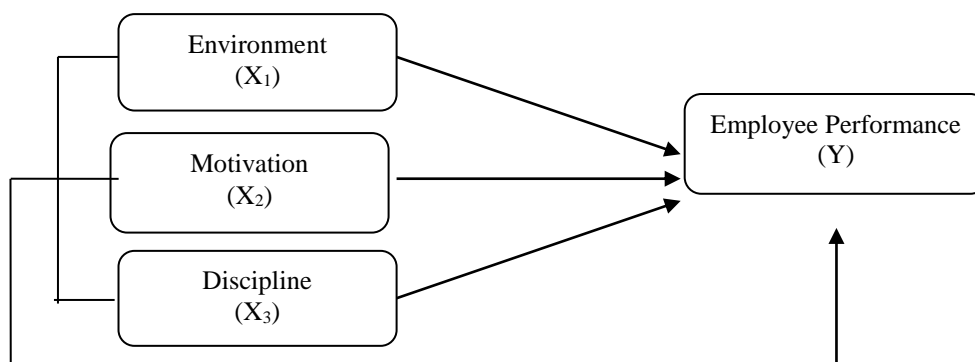


Figure 1. The Conceptual Framework

This research's population consisted of 131 workers of PT Cahaya Abadi Terang. The Slovin formula was used to determine the number of samples. According to this calculation, the number of persons to be sampled is 65. In this study, data was collected

using a questionnaire using a Liker scale consisting of five potential answers, namely:
 The score for of Strongly Agree (SS) is 5.
 The score for Agree (S) is 4.
 The score for Disagreement (KS) is 3.
 The score for Disagreeing (TS) is 2.
 The score for Strongly Disagree (STS) is 1.

3.2 Multiple Regression Analysis

Computer help will be utilised with the SPSS version 20.00 for Windows applications to discover parameters and constants and F-count and t-count values. A regression test is utilised to examine the impact of Environment (X1), Motivation (X2), and Discipline (X3) on Employee Performance (Y) at PT Cahaya Abadi Terang. The following is the regression equation:

$$Y = a + b_1X_1 + b_2X_2 + b_3X_3 + e$$

Y = Employee Performance
 X1 = Environment
 X2 = Motivation
 X3 = Discipline
 b1 = Environment Regression Coefficient
 b2 = Motivation Regression Coefficient
 b3 = Discipline Regression Coefficient
 a = Constant
 e = Error Rate (Standard Error) = 0,05 (5%)

3.3 Hypothesis Examination

The F test (simultaneous test) is used to assess the effect of the independent variables Environment (X1), Motivation (X2), and Discipline (X3) on the dependent variable performance (Y) at the same time (simultaneously). If the F test is successful, the t test will be performed on the value of $F_{\text{count}} > F_{\text{table}}$. The t-test (Partial Test) is used to determine if the independent variable (X) has a partial influence on the dependent variable (Y). The purpose of the t-test is to examine the influence of the independent variables Environment (X1), Motivation (X2), and Discipline (X3) on employee performance at PT Cahaya Abadi Terang.

3.4 Analysis of the Coefficient of Determination

The coefficient of determination (R2) indicates how well the model can explain fluctuations in the dependent variable. A value of R2 near one indicates that the independent variable may give all of the information required to predict the variation of the dependent variable at the same time. The lower value of R2 indicates that the independent variable's capacity to explain the dependent variable is severely restricted.

IV. Discussion

4.1 Validity

A validity test is used to determine whether or not a questionnaire is valid. The tool utilised was a questionnaire tested on 65 employees of PT Cahaya Abadi Terang. This validity test compares the rcount and rtable values for each of the existing statement items. If the value of $r_{\text{count}} > r_{\text{table}}$, the instrument item is considered legitimate. The technique

used to assess the validity employs a product-moment correlation approach with instrument validity requirements if $r_{\text{count}} > r_{\text{table}}$ at $N = 65$. As a result, the r table value is 0.206. The following table shows the validity test results:

Table 1. The Validity Test Results for Instruments of Environment (X1), Motivation (X2), Discipline (X3), and Employee Performance (Y)

No Questions	r-count (X1)	r-count (X2)	r-count (X3)	r-count (Y)	r table
1	0,353	0,417	0,304	0,434	0,206
2	0,470	0,539	0,617	0,313	0,206
3	0,601	0,565	0,541	0,455	0,206
4	0,796	0,781	0,250	0,286	0,206
5	0,732	0,441	0,259	0,442	0,206
6	0,832	0,809	0,478	0,308	0,206
7	0,748	0,764	0,367	0,551	0,206
8	0,718	0,417	0,542	0,562	0,206
9	0,559	0,648	0,435	0,374	0,206
10	0,493	0,621	0,372	0,446	0,206
11	0,700	0,659	0,366	0,270	0,206
12	0,853	0,782	0,369	0,614	0,206
13	0,772	0,811	0,393	0,451	0,206
14	0,730	0,742	0,347	0,573	0,206
15	0,687	0,557	0,374	0,403	0,206

The validity test on the environment, motivation, and discipline variables, as shown in attachment table 1, shows that all components of the statements in these variables are legitimate. The variable has a r_{count} greater than r_{table} . Because the instrument has satisfied the conditions of $r_{\text{count}} > r_{\text{table}}$. It may be inferred that the environment, motivation, discipline, and performance instruments can be utilised for research purposes.

4.2 Reliability

The validity test findings of environment (X1), motivation (X2), and discipline (X3) on employee performance (Y) at PT Cahaya Abadi Terang can be observed as follows:

Table 2. The Reliability Test Results for Environment (X1), Motivation (X2), Discipline (X3), and Employee Performance (Y)

Variable	Cronbach's Alpha	Conclusion
Environment	0,925	Reliable
Motivation	0,920	Reliable
Discipline	0,773	Reliable
Employee Performance	0,798	Reliable

Table 2 shows the reliability test results for each variable using the Cronbach's Alpha approach. It can be observed that the Cronbach's Alpha value is greater than 0.6 for the environment variable, 0.925 for the motivation variable, 0.920 for discipline variable, and 0.925 for employee performance variable. As a result, the instruments for the four variables are certified trustworthy since they fulfil the Cronbach's Alpha criteria of greater than 0.6.

4.3 Classical Assumption Test

a. Data Normality Test

The data normality test determines whether study samples are regularly distributed. The data were normalized using the one-sample Kolmogorov-Smirnov test and declared normal if the normally distributed residual value was greater than 0.05.

Table 3. The Results of the Data Normality Test

TOTAL_X1 (Unstandardized Residual 1)			TOTAL_X2 (Unstandardized Residual 2)	TOTAL_X3 (Unstandardized Residual 3)	TOTAL_Y (Unstandardized Residual 4)
N		65	65	65	65
Normal Parameters ^{a,b}	Mean	0,000	0,000	0,000	0,000
	Std.Deviation	3.648	2.562	3.582	2.449
Most Extreme Differences	Absolute	0,063	0,064	0,108	0,061
	Positive	0,045	0,060	0,041	0,058
	Negative	-,063	-,064	-,108	-,061
Test Statistic		0,063	0,064	0,108	0,061
Asymp. Sig. (2-tailed)		0,257^c	0,263^c	0,294^c	0,241^c

b. Linearity Test

The linearity test found the regression line equation for Environment (X1), Motivation (X2), and Discipline (X3) on Employee Performance (Y). Using the regression line, a linearity test with a 0.05 significance level verifies the regression line coefficient and its linearity. If two variables' significance (linearity) is higher than 0.05, the linearity test deems them linearly related.

Table 4. The Results of the Linearity Test

Sum of Squares				Df	Mean Square	F	Sig.
Unstandardized Residual Unstandardized Predicted Value	Between Groups	(Combined)	811.5	73	2.59	0.55	0.913
		Linearity	0	3	0	0	1.000
		Deviation from Linearity	706.35	61	2.626	0.56	0.908
	Within Groups		37.667		4.708		
	Total		226.706	64			

The significant linearity value is 1,000, based on the findings of the linearity test between the variables of environment, motivation, discipline, and performance variables in Table 4 above. For example, the significance value is greater than 0.05, implying that the two variables have a linear connection.

c. Multicollinearity Test

A multicollinearity test determines whether a regression model's independent variables are comparable. The regression model has multicollinearity concerns if there's a correlation. Multicollinearity tests employed tolerance and VIF values. If VIF is less than 10 and tolerance is more than 0.10, multicollinearity does not exist.

Table 5. The Results of the Multicollinearity Test

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.	Collinearity Statistics	
B		Std. Error		Beta			Tolerance	VIF
1	(Constant)	17.12	6.73		2.544	0.014		
	TOTAL_X1	0.396	0.247	0.571	1.584	0.123	0.957	1.032
	TOTAL_X2	0.077	0.242	0.115	316	0.753	0.958	1.036
	TOTAL_X3	0.240	0.101	0.212	2.371	0.021	0.955	1.048

According to the findings of the multicollinearity test in Table 5, there is no multicollinearity because the VIF value of environment (X1) is 1.032, motivation (X2) is 1.036, and discipline (X3) is 1.048. the VIF scores was less than 10, it may be stated that there was no multicollinearity in this research.

d. Heteroscedasticity Test

A good regression model has homoscedasticity or none. The heteroscedasticity test examines whether a regression model has inequality invariance across observations; if it persists, it's homoscedasticity; if it differs, it's heteroscedasticity. Glejser test determined heteroscedasticity. If the significant value is less than 0.05, there is heteroscedasticity.

Table 6. The Result of the Heteroscedasticity Test

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
B		Std. Error		Beta		
1	(Constant)	1.193	2.418		0.493	0.62
	TOTAL_X1	0.023	0.043	0.007	0.058	0.95
	TOTAL_X2	0.034	0.052	0.067	0.593	0.56
	TOTAL_X3	0.089	0.052	0.103	0.9	0.37

According to the findings of the heteroscedasticity test in Table 6, there is no heteroscedasticity because the significant are more than 0,05 for environment, motivation, discipline, and performance.

e. Results of Multiple Linear Regression Tests

Table 7. Linear Regression Equation Results

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
B		Std. Error		Beta		
1	(Constant)	17.116	6.729		2.544	0.014
	TOTAL_X1	0.386	0.247	0.571	2.164	0.023
	TOTAL_X2	0.077	0.242	0.115	2.316	0.045
	TOTAL_X3	0.240	0.101	0.212	2.372	0.021

The linear regression equation obtained from Table 7 is $Y = 17.116 + 0.386X1 + 0.077X2 + 0.240X3$. The figures in the preceding equation have the following meaning:

- The environment variable's regression coefficient is positive, precisely 0.386. It indicates that every unit of the environment increased, increasing performance by 0.247.
- The motivation variable's regression coefficient is positive, precisely 0.077. It indicates

- that every unit of the motivation increased, increasing performance by 0.242.
- c. The discipline variable's regression coefficient is positive, precisely 0.240. It indicates that every unit of the discipline increased, increasing performance by 0.101.

f. Determination Test

According to the findings in Table 8, the value of determination or the strength affect of the environment (X1), motivation (X2), and discipline (X3) on the performance (Y) at PT Cahaya Abadi Terang is 0.535 or 53.5 per cent, whereas other variables impact 46.5 per cent (100 per cent - 53.5 per cent).

Table 8. Determination Coefficient

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.731 ^a	0.535	0.512	3.420

g. F-Test

Based on the results in table 10, the F_{count} value of 23.36 is greater than F_{table} value of 2.72. The significance value is 0.00 less than 0.05. It can be concluded that the three independent variables tested, environment (X1), motivation (X2), and discipline (X3), all affect the employee performance at PT Cahaya Abadi Terang.

Tabel 9. The Result of F-Test

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	811,496	3	270,499	23,360	,000 ^a
	Residual	706,350	61	11,580		
	Total	1517,846	64			

h. 8 t-Test

Based on the data in table 7, the t_{count} value is 2.164, which is more than the t_{table} value is 1.999 and the significance value is 0.023 less than 0.05. It can be concluded that the environment (X1) influences employee performance at PT Cahaya Abadi Terang. The motivation value has a t_{count} of 2,316, which is more than the t_{table} value is 1.999, and the significance value is 0.045 less than 0.05. It can be stated that the motivation (X2) influences employee performance at PT Cahaya Abadi Terang Medan. The discipline has a t_{count} value of 2.372, greater than t_{table} value is 1.999, and the significance value is 0.021 less than 0.05, it can be stated that the discipline (X3) influences employee performance at PT Cahaya Abadi Terang Medan.

i. The Effect of the Environment on Employee Performance

The findings revealed that the environment of PT. Cahaya Abadi Terang Medan has an impact on employee performance. Multiple linear regression analysis and t-test give results positive regression with a t_{count} of 2.164 and a sig. of 0.023. Based on these findings, it is possible to infer that Hypothesis 1 (one) was examined and approved in this research. The positive trend indicates any improvement in the work environment implemented at PT. Cahaya Abadi Terang Medan will result in higher employee performance at PT Cahaya Abadi Terang of the Field is 0.386 units. In other words, when the environment at PT. Cahaya Abadi Terang Medan improves, including the workplace, facilities, cleanliness, lighting, tranquilly, and the working relationships between the people who work there and

the performance at PT Cahaya Abadi Terang improves as well. According to the findings of this research, the environment has a positive and significant impact on employee performance.

The findings of this study support the research goal of determining if the work environment has a positive and substantial influence on employee performance at PT Cahaya Abadi Terang has been attained.

j. The Effect of Motivation on Employee Performance

The findings revealed employee motivation at PT. Cahaya Abadi Terang Medan has an impact on employee performance. Multiple linear regression analysis and t-test give results positive regression with a t_{count} of 2,316 and a significance of 0.023. Based on these findings, it is possible to infer that Hypothesis 2 (two) was examined and approved in this research. The positive trend indicates any boost in work motivation carried out by PT. Cahaya Abadi Terang Medan would result in enhanced employee performance at PT Cahaya Abadi Terang is 0.077 units. In other words, if motivation at PT. Cahaya Abadi Terang Medan increases (through physiological, security, social, appreciation, and self-actualisation), increasing employee performance at PT Cahaya Abadi Terang. According to the findings of this research, motivation has a positive and significant impact on employee performance.

The findings of this study are consistent with the research objective of determining whether work motivation has a positive and significant effect on employee performance at PT. Cahaya Abadi Terang Medan has been carried out while also resolving/answering the problems identified, namely employees who are less enthusiastic and enthusiastic in carrying out their work.

k. The Effect of Discipline and Employee Performance

The findings revealed employee discipline at PT. Cahaya Abadi Terang Medan has an impact on employee performance.. Multiple linear regression analysis and t-test give results positive regression with a t_{count} of 2,372 and a significance of 0.021. These findings indicate that Hypothesis 3 (three) was examined and accepted in this study. The positive direction indicates a relationship between discipline and performance at PT. Cahaya Abadi Terang Medan, as seen by the employee performance of PT Cahaya Abadi Terang is 0.240 units. In other words, when disciplined at PT. Cahaya Abadi Terang Medan improves, so it will increase the employee performance at PT Cahaya Abadi Terang. According to the findings of this study, discipline has a positive and significant impact on on employee performance.

The findings of this study support the research goal of determining if work discipline has a good and substantial influence on employee performance at PT Cahaya Abadi Terang has been attained.

V. Conclusion

Several conclusions may be taken from the initial data analysis and discussion, including that the environment, motivation, and discipline have a positive and significant impact on employee performance at PT Cahaya Abadi Terang. Providing a nice and comfortable work environment will increase employee performance at PT Cahaya Abadi Terang. Providing good motivation at PT. Cahaya Abadi Terang Medan will increase performance in the organization. The presence of excellent work discipline will affect employee performance improvement.

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