



THE EFFECT OF MOTIVATION, WORK DISCIPLINE AND WORK ENVIRONMENT ON EMPLOYEE WORK PRODUCTIVITY AT PDAM GIRI TIRTA GRESIK

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Article info	ABSTRACT (Time new roman 10 PT)
<p>Corresponding Author:</p> <p>Khoirul Anam khoirulanam.260878@gmail.com STIE IBMT, Surabaya, Indonesia</p>	<p>This study aims to determine the effect of motivation, work discipline and work environment on work productivity at PDAM Giri Tirta Gresik. The population in this study were all employees at PDAM Giri Tirta Gresik totaling 318 employees. The sampling technique in this study was non-probability with accidental sampling. The sample was obtained using the slovin formula. The sample in this study amounted to 72 respondents. Data collection techniques were observation, questionnaires, literature studies and interviews. The data analysis method used in this study was Multiple Linear Regression This study aims to determine the effect of motivation, work discipline and work.</p> <p>Keywords: <i>Motivation, Work Discipline, Work Environment, Work Productivity</i></p>
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INTRODUCTION

According to Aviyana & Fatmasari (2019), the success of an organization cannot be separated from the work productivity of its employees. Factors that can influence work productivity include work motivation, work discipline, and the work environment. Good motivation, discipline, and working conditions can support the success of a company in achieving its goals. These three factors can lead to a high level of employee productivity, which in turn supports overall company success.

Based on a preliminary survey at PDAM Giri Tirta Gresik, several phenomena were identified as issues affecting the company's activities. In general, the employees of PDAM Giri Tirta Gresik are divided into 19 divisions, consisting of the board of directors, secretariat, internal audit, research and development, water loss control, finance, customer service, equipment, planning, production, distribution, technical maintenance, city branch, Randu Agung unit, Suci unit, Cabang 13 Creme, Menganti branch, Driyorejo branch, and Perumnas unit. The total number of employees recorded at PDAM Giri Tirta Gresik is 318 people. Given the number of employees, it is not an easy task for management to ensure the productivity of each employee comprehensively.

Based on observations, the clarity of company policies and the reward system for contract-based (honorary) employees, especially permanent employees, are factors that influence employee productivity. This includes their perception of the salary system and promotion system. Another issue affecting company operations is the lack of willingness

among some employees to carry out their duties according to their job descriptions as instructed by their superiors. Additionally, there are still employees who appear to disregard the rules and regulations established at PDAM Giri Tirta Gresik. Lastly, according to the researchers' observations, problems are also found in the work environment, particularly in terms of cleanliness and inadequate or poorly maintained support facilities.

These factors can negatively affect employee productivity. Therefore, this study was conducted to test and analyze whether work motivation, discipline, and the work environment influence employee productivity at PDAM Giri Tirta Gresik.

Work Motivation

Work motivation is the desire that exists within a person which inspires them to act or carry out something that has been planned to achieve a predetermined goal. The factors that influence work motivation according to Sariyani et al. (2020) consist of: Internal factors: level of personal maturity, level of education, personal desires and expectations, needs, fatigue and boredom, and job satisfaction and External factors: working environment conditions, fair compensation, good supervisors, position and responsibility, and flexible regulations. Indicators of Work Motivation According to Kusumawati et al. (2022):

1. Physiological needs: Basic fulfillment such as salary, bonuses, meal allowances, transportation, and accommodation.
2. Safety needs: Protection through insurance, pension funds, and occupational safety institutions.
3. Social needs: The need for interaction, being accepted in a group, and affection.
4. Esteem needs: Recognition of skills and achievements, as well as a sense of being appreciated.
5. Self-actualization: Challenging and meaningful work, and self-development through training and education.

Work Discipline

According to Rivai Veithzal in (Saleh & Utomo, 2018), work discipline is a tool used by managers to communicate with employees so that they are willing to change certain behaviors, and as an effort to increase an individual's awareness and willingness to comply with all company regulations. Factors Influencing Work Discipline According to Aviyana & Fatmasari (2019), factors influencing work discipline are attendance frequency, level of alertness, compliance with work standards, adherence to work regulations, and work ethics.

According to Putriana & Sahputra (2021), the indicators that influence the level of employee discipline include goals and capabilities, exemplary leadership, remuneration, fairness, attached supervision (Waskat), penalties or punishments, assertiveness, and relationships among employees.

Types and Kinds of Work Discipline According to Aviyana & Fatmasari (2019):

Kinds of Discipline:

1. Time discipline: Being punctual in arriving, leaving, and completing tasks.
2. Behavioral discipline: Complying with organizational rules, such as using safety equipment and wearing uniforms.

Types of Discipline:

1. Preventive discipline: Encouraging employees to be disciplined consciously without coercion.

2. Corrective discipline: Handling violations by imposing sanctions to prevent repeated offenses.
3. Progressive discipline: Providing opportunities to correct mistakes before applying more severe punishment.

Work Environment

According to Hustia (2020), the work environment is the total amount of tools and materials encountered, the environment in which people work, their working methods, and the organization of individual and group work. Menurut Sunyoto (dalam Dewi & Minin, 2021) Factors Affecting the Environment these are relationships between employees, environmental noise levels, work regulations, lighting, air circulation, and environmental safety. Meanwhile, the indicators of the work environment that will affect work productivity include work atmosphere, relationships between employees, and work facilities. According to Nurfarohim & Irawan (2021), the types of work environment consist of:

1. The physical work environment is any physical condition of the workplace that can directly or indirectly affect an employee.
2. The non-physical work environment includes all situations that arise in relation to work relationships, whether with superiors, colleagues, or subordinates, such as a sense of security, loyalty, job satisfaction, and work relationships.

Work Productivity

Productivity is a measure of the quality and quantity of work performed by considering the costs and resources used (Putriana & Sahputra, 2021). Indicators of Work Productivity. According to Saleh & Utomo (2018), the indicators to measure employee work productivity include quantity of work, quality of work, timeliness in completing work, and cooperative attitude or the ability to work together.

Factors Affecting Work Productivity According to Putriana & Sahputra (2021):

1. Internal factors include strong commitment to the company's vision and mission, job structure and design, motivation, discipline, and work ethic, creativity and innovation, pleasant treatment from superiors and colleagues, implementation of management practices by leaders, ergonomic work environment, education, interests, expertise, and skills mastered, and communication that builds cooperation among individuals.
2. External factors include negotiation of regulations, government policies, and political situations, development of partnerships (networking), cultural mindset and the environment surrounding the organization, support from the community and overall stakeholders, level of competition, and the impact of globalization.

The novelty (state of the art) of this research lies in the simultaneous application of three main variables—motivation, work discipline, and work environment—on employee productivity at PDAM Giri Tirta Gresik as a Regional-Owned Enterprise (BUMD). This study employs accidental sampling techniques and multiple linear regression analysis, while adapting the variable indicators to the local context, thus providing a new empirical contribution to the study of human resource management in the public service sector.

METHOD

The research approach in this study is quantitative. The quantitative research approach, as outlined by Sugiyono (2018), is a time-sensitive tactic best characterized as a positivism-based methodology (Febriningrum et al., 2021). The philosophical stream known as

positivism can be traced to findings derived from the investigation of samples and populations. This study seeks to identify the elements that contribute to or hinder employee productivity at PDAM Giri Tirta Gresik. The population in this study is all employees of PDAM Giri Tirta Gresik, totaling 318 people. The sampling was conducted using a non-probability sampling technique with the accidental sampling method, namely the selection of respondents by coincidence who are considered relevant to the focus of the research. The number of samples was determined using the Slovin formula with a margin of error of 10%, resulting in 76 respondents as the research sample.

1. Independent Variable: Work motivation (X_1), Work discipline (X_2), and Work environment (X_3).
2. Dependent Variable: Work productivity (Y).

The data collection technique in this study is observation by the researcher visiting PDAM Giri Tirta Gresik, questionnaire method, and literature study method to collect facts and theories related to the problem being faced.

The sources of data used in this study are primary data, which is information obtained from the original source, and secondary data, which is additional information not obtained from the primary source itself such as books, papers, journals, and theses in accordance with the research topic.

This study uses a Likert scale to assess each indicator of the variable. This scale measures respondents' attitudes toward social phenomena, with the weights: strongly agree (4), agree (3), disagree (2), and strongly disagree (1). Neutral responses are omitted. Data analysis was conducted using multiple linear regression through SPSS version 26, and the results are presented in tabular form.

Before the main analysis, instrument testing was carried out, consisting of validity and reliability tests. This test is important to ensure that the questionnaire is feasible to use.

1. Validity testing aims to ensure that the questionnaire items can measure the variables studied. The instrument is declared valid if the calculated r -value $>$ r -table and the significance $<$ 0.05, using Pearson Product Moment correlation through SPSS.
2. Reliability testing is used to determine the consistency of items in the questionnaire. The questionnaire is declared reliable if the Cronbach's Alpha value $>$ 0.60. This value indicates that the instrument is stable and trustworthy.

Next, classical assumption testing was carried out which included:

1. Normality test using Kolmogorov–Smirnov, with the provision that the data is normally distributed if the significance $>$ 0.05.
2. Multicollinearity tests are carried out to see the relationship between independent variables. There is no multicollinearity if the VIF value $<$ 10.
3. Heteroscedasticity test using Glejser test, and the model is declared free from heteroscedasticity if the significance $>$ 0.05.

Hypothesis is a temporary assumption that is tested for its truth through statistical analysis. This study uses several methods to test the hypothesis, namely multiple linear regression, t-test, F-test, and coefficient of determination (R^2).

1. Multiple linear regression is used to determine the effect of motivation, work discipline, and work environment on employee work productivity simultaneously.

The regression formula used is:

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

with Y as work productivity and X as the independent variables.

2. T-test is used to determine the effect of each independent variable partially on the dependent variable. If the sig value < 0.05 , then the effect is significant.
3. F-test is used to see the effect of independent variables together. If the sig value < 0.05 , then there is a significant simultaneous effect.
4. The coefficient of determination (R^2) measures how much the independent variables explain the variation in the dependent variable. An R^2 value close to 1 indicates that the model explains the dependent variable very well. With this testing, the hypothesis can be statistically proven and support the conclusion of the research.

RESULT AND DISCUSSION

Finding

1. Respondent Characteristics

The respondents in this study amounted to 76 people from a total population of 318 people. In this study, the characteristics to be identified are the gender, age, and education level of the respondents. For more details regarding the respondents' personal data, these characteristics can be seen below in terms of number and percentage.

Table 1.1 Respondent Characteristics Based on Gender.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	61	80.3	80.3	80.3
	Female	15	19.7	19.7	100.0
	Total	76	100.0	100.0	

Source: Processed Data

Based on the table above, the respondents in this study show that there are more males than females. Out of a total of 76 respondents, 80.3% (61 males), and 19.7% (15 females).

Table 1.2 Respondent Characteristics Based on Age.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	21-30 TH	46	60.5	60.5	60.5
	31-40 TH	14	18.4	18.4	78.9
	41-50 TH	11	14.5	14.5	93.4
	>50 TH	5	6.6	6.6	100.0
	Total	76	100.0	100.0	

Source: Processed Data

Based on Table 1.2, the majority of respondents are relatively young. Out of a total of 76 respondents, 60.5% or 46 people are aged 21–30 years, 18.4% or 14 people are aged 31–40 years, 14.5% or 11 people are aged 41–50 years, and 6.6% or 5 people are aged over 50 years.

Table 1.3 Respondent Characteristics Based on Education Level.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	SMU	22	28.9	28.9	28.9
	DIPLOMA	18	23.7	23.7	52.6
	S1	30	39.5	39.5	92.1
	S2	6	7.9	7.9	100.0
	Total	76	100.0	100.0	

Based on Table 1.3, most respondents have a diploma-level educational background. Out of a total of 76 respondents, 28.9% or 22 people have completed senior high school, 23.7% or 18 people hold a diploma, 39.5% or 30 people hold a bachelor's degree (S1), and 7.9% or 6 people hold a master's degree (S2).

2. Frequency Distribution of Respondents' Responses

The following is a summary of the distribution of respondents' answers regarding all research variables:

Frequency Distribution of Responses for the Motivation Variable

Table 2.1 Respondents' Responses to the Motivation Variable (X1)

NO	X1 (MOTIVATION)										Total	%
	X1.1		X1.2		X1.3		X1.4		X1.5			
	X1.1.1	X1.1.2	X1.2.1	X1.2.2	X1.3.1	X1.3.2	X1.4.1	X1.4.2	X1.5.1	X1.5.2		
STS	6	21	7	4	5	1	4	3	9	7	67	9%
TS	34	21	13	23	13	13	15	13	44	40	229	30%
S	11	5	12	10	12	8	18	5	9	9	99	13%
SS	25	29	44	39	46	54	39	55	14	20	365	48%
Total	76	76	76	76	76	76	76	76	76	76	760	100%

Source: Processed Data

Table 2.1 shows that 48% of respondents tend to have a positive attitude or strongly agree with each statement in the Motivation Variable (X1).

Frequency Distribution of Responses for the Work Discipline Variable

Table 2.2 Respondents' Responses to the Work Discipline Variable (X2)

NO	X2 (DISCIPLINE)								Total	%
	X2.1		X2.2		X2.3		X2.4			
	X2.1.1	X2.1.2	X2.2.1	X2.2.2	X2.3.1	X2.3.2	X2.4.1	X2.4.2		
STS	0	2	0	0	3	10	5	9	29	5%
TS	2	3	5	8	35	43	7	47	150	25%
S	18	4	6	16	10	8	8	6	76	13%
SS	56	67	65	52	28	15	56	14	353	58%
Total	76	76	76	76	76	76	76	76	608	100%

Source: Processed Data

Based on Table 2.2, it can be concluded that 58% of respondents tend to have a positive attitude or strongly agree with each statement in the Work Discipline Variable (X2).

Frequency Distribution of Responses for the Work Environment Variable

Table 2.3 Respondents' Responses to the Work Environment Variable (X3)

NO	X3 (WORK ENVIRONMENT)						Total	%
	X3.1		X3.2		X3.3			
	X3.1.1	X3.1.2	X3.2.1	X3.2.2	X3.3.1	X3.3.2		
STS	12	10	11	15	11	9	68	15%
TS	49	51	55	49	44	52	300	66%

S	12	11	8	8	11	6	56	12%
SS	3	4	2	4	10	9	32	7%
Total	76	76	76	76	76	76	456	100%

Source: Processed Data

Based on Table 2.3, it can be concluded that 7% of respondents tend to have a positive attitude or strongly agree with each statement in the Work Environment Variable (X3).

Frequency Distribution of Responses for the Work Productivity Variable

Table 2.4 Respondents' Responses to the Work Productivity Variable (Y)

NO	Y (WORK PRODUCTIVITY)												Total	%
	Y1		Y2		Y3		Y4		Y5		Y6			
	Y1.1	Y1.2	Y2.1	Y2.2	Y3.1	Y3.2	Y4.1	Y4.2	Y5.1	Y5.2	Y6.1	Y6.2		
STS	12	14	11	11	16	11	8	8	13	11	7	12	115	15%
TS	38	39	39	50	41	48	47	54	48	42	48	43	446	59%
S	10	5	7	5	8	5	9	9	7	10	5	5	75	10%
SS	16	18	19	10	11	12	12	5	8	13	16	16	124	16%
Total	76	76	76	76	76	76	76	76	76	76	76	76	760	100%

Source: Processed Data

Based on Table 4.6, it can be concluded that 16% of respondents tend to have a positive attitude or strongly agree with each statement in the Work Productivity Variable (Y).

3. Data Analysis

Instrument Testing

Validity Test

The purpose of the validity test is to ensure the accuracy and appropriateness of each questionnaire item to the greatest extent possible. A questionnaire is considered valid if both the *r-count* (calculated Pearson correlation coefficient) and *r-table* values are positive. If the *r-count* value is equal to or greater than the *r-table* value, then the item in the instrument is considered valid. Conversely, if the *r-count* is smaller than the *r-table*, then the item is not valid. Based on the Pearson Product Moment correlation table with $n = 76$ and degrees of freedom ($df = n - 2 = 76 - 2 = 74$), the value of *r-table* obtained is 0.2287. Furthermore, the comparison between the *r-count* and *r-table* values for each variable can be seen in the following table:

Table 3.1 Validity Test of the Motivation Variable.

Indikator	<i>Perason Correlation</i>	r tabel	Sig.	Keterangan
X1.1.1	0,534	0,2287	.000	Valid
X1.1.2	0,561	0,2287	.000	Valid
X1.2.1	0,652	0,2287	.000	Valid
X1.2.2	0,563	0,2287	.000	Valid
X1.3.1	0,649	0,2287	.000	Valid
X1.3.2	0,519	0,2287	.000	Valid
X1.4.1	0,665	0,2287	.000	Valid

Source: Processed Data

Table 3.2 Validity Test of the Work Discipline Variable

Indikator	<i>Perason Correlation</i>	r tabel	Sig.	Keterangan
X2.1.1	0,539	0,2287	.000	Valid
X2.1.2	0,536	0,2287	.000	Valid
X2.2.1	0,507	0,2287	.000	Valid
X2.2.2	0,411	0,2287	.000	Valid
X2.3.1	0,539	0,2287	.000	Valid
X2.3.2	0,653	0,2287	.000	Valid
X2.4.1	0,546	0,2287	.000	Valid
X2.4.2	0,657	0,2287	.000	Valid

Source: Processed Data

Table 3.3 Validity Test of the Work Environment Variable

Indikator	<i>Perason Correlation</i>	r tabel	Sig.	Keterangan
X3.1.1	0,582	0,2287	.000	Valid
X3.1.2	0,607	0,2287	.000	Valid
X3.2.1	0,51	0,2287	.000	Valid
X3.2.2	0,519	0,2287	.000	Valid
X3.3.1	0,656	0,2287	.000	Valid
X3.3.2	0,585	0,2287	.000	Valid

Source: Processed Data

Table 3.4 Validity Test of the Work Productivity Variable

Indikator	<i>Perason Correlation</i>	r tabel	Sig.	Keterangan
Y1.1	0,516	0,2287	.000	Valid
Y1.2	0,508	0,2287	.000	Valid
Y2.1	0,538	0,2287	.000	Valid
Y2.2	0,552	0,2287	.000	Valid
Y3.1	0,59	0,2287	.000	Valid
Y3.2	0,51	0,2287	.000	Valid
Y4.1	0,625	0,2287	.000	Valid
Y4.2	0,515	0,2287	.000	Valid
Y5.1	0,549	0,2287	.000	Valid
Y5.2	0,716	0,2287	.000	Valid
Y6.1	0,725	0,2287	.000	Valid
Y6.2	0,718	0,2287	.000	Valid

Source: Processed Data

From the validity test table of the variables Motivation, Work Discipline, Work Environment, and Work Productivity above, it can be seen that all indicators of each variable have a Pearson's correlation value above 0.2287 and a significance value of 0.000. Therefore, it can be stated that all statement indicators of the variables Motivation, Work Discipline, Work Environment, and Work Productivity are valid.

Reliability Test

The reliability test is a tool used in this study to measure the reliability of the questionnaire with consistent results (Rahmawati & Rifandi, 2023). The statistical reliability test known as Cronbach's alpha was used. Cronbach's alpha can be used to determine the reliability and consistency of a questionnaire if the value is greater than 0.60; if it is less than 0.60, the survey is considered unreliable and inconsistent.

Table 3.4 Reliability Test.

Variabel	Cronbach's alpha	Description
Motivation	0.789	Reliable
Work Discipline	0.665	Reliable
Work Environment	0.608	Reliable
Work Productivity	0.825	Reliable

Source: Processed Data

From the table above, all variables have a Cronbach's alpha value greater than 0.60. Therefore, it can be concluded that all variables are reliable.

Classical Assumption Test

Normality Test

The normality test is used to determine whether the regression model has a normal distribution or not. A good regression model is one that has a normal or near-normal distribution so that it is appropriate for statistical testing. The basis for decision-making is based on the probability value (*Asymp. Significance*), where if the probability is greater than 0.05, the data distribution is considered normal. If the probability is less than 0.05, the population is not normally distributed. The Kolmogorov-Smirnov test was used to examine normality.

Table 3.5 Normality Test.
One-Sample Kolmogorov-Smirnov Test

		Unstandardized Residual
N		76
Normal Parameters ^{a,b}	Mean	.0000000
	Std. Deviation	1.99114792
Most Extreme Differences	Absolute	.063
	Positive	.058
	Negative	-.063
Test Statistic		.063
Asymp. Sig. (2-tailed)		.200 ^{c,d}

a. Test distribution is Normal.

b. Calculated from data.

c. Lilliefors Significance Correction.

d. This is a lower bound of the true significance.

Source: Processed Data

Based on the statistical normality test in the table above, the *Asymp. Sig. (2-tailed)* value is 0.200, which is greater than 0.05 ($0.200 > 0.05$). The results of the Kolmogorov-Smirnov

normality test indicate that the data are normally distributed. Therefore, the normality assumption of the regression model has been fulfilled.

Multicollinearity Test

Multicollinearity is a situation where some or all independent variables are strongly correlated. If there is strong correlation among the independent variables, the consequences include: regression coefficients become un-estimable, and the standard error of each regression coefficient becomes infinite. The greater the correlation among independent variables, the higher the error level in the regression coefficients, resulting in a larger standard error. Multicollinearity can be identified through the Tolerance and Variance Inflation Factor (VIF) values. If the tolerance is greater than 0.10 and the VIF is less than 10, then multicollinearity does not occur.

Table 3.6 Multicollinearity Test.

Model	Coefficients ^a						
	Unstandardized Coefficients		Standardized Coefficients	T	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
1 (Constant)	33.270	2.031		16.380	.000		
X1	.396	.065	.377	6.131	.000	.967	1.035
X2	.646	.089	.448	7.269	.000	.961	1.041
X3	.985	.087	.691	11.319	.000	.978	1.022

a. Dependent Variable: Y

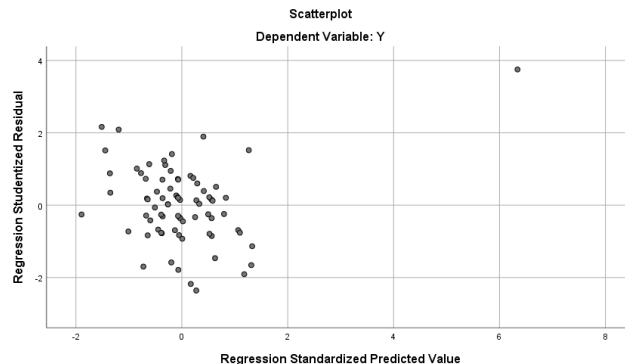
Source: Processed Data

From the output above, the tolerance values of all independent variables are greater than 0.10 (Tolerance ≥ 0.10), and the VIF values are all less than 10 (VIF ≤ 10). Therefore, it can be concluded that there is no multicollinearity in this study.

Heteroscedasticity Test

The purpose of the heteroscedasticity test is to determine whether there is a variance inequality in the regression model from one observation to another (Pebriantari & Andayani, 2021). Heteroscedasticity can be detected by examining whether there is a specific pattern in the scatterplot graph between *SRESID* and *ZPRED*, where the Y-axis is the predicted value (Y), and the X-axis is the studentized residuals (predicted Y – actual Y).

Tabel 3.7 Heteroscedasticity Test.



Source: Processed Data

Based on the figure, there is no clear pattern, and the data points are randomly spread above and below zero on the Y-axis. Therefore, it can be concluded that heteroscedasticity does not occur in the regression model used.

Multiple Linear Regression Test

Regression analysis is used to test the hypothesis regarding the influence of independent variables on the dependent variable.

Table 3.8 Multiple Linear Regression Analysis.

		Coefficients ^a						
		Unstandardized Coefficients		Standardized Coefficients	T	Sig.	Collinearity Statistics	
Model		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	33.270	2.031		16.380	.000		
	X1	.396	.065	.377	6.131	.000	.967	1.035
	X2	.646	.089	.448	7.269	.000	.961	1.041
	X3	.985	.087	.691	11.319	.000	.978	1.022

a. Dependent Variable: Y

Source: Processed Data

The multiple linear regression equation model is derived from the Unstandardized B values of each independent variable listed in the coefficients output table, with a constant value (α) of 1.295. Therefore, the resulting multiple linear regression equation is as follows:
 $Y = a + b_1X_1 + b_2X_2 + b_3X_3 + e$

$$Y = 33,270 + 0,396X_1 + 0,646X_2 + 0,985X_3 + e$$

Description:

α : Constant

$\beta_1, \beta_2, \beta_3$: Regression coefficients of each independent variable

e: Error estimate

Y: Work Productivity

X₁: Work Motivation

X₂: Work Discipline

X₃: Work Environment

Interpretation:

The constant value of **33.270** indicates that the work productivity will remain at **33.270** when motivation, discipline, and work environment are equal to zero.

The regression coefficient of **work motivation** is **0.396**, meaning that an increase of one unit in motivation will increase work productivity by **0.396**, assuming the other variables remain constant.

The regression coefficient of **work discipline** is **0.646**, meaning that an increase of one unit in discipline will increase work productivity by **0.646**, assuming the other variables remain constant.

The regression coefficient of **work environment** is **0.985**, meaning that an increase of one unit in the work environment will increase work productivity by **0.985**, assuming the other variables remain constant.

Hypothesis Testing

T-Test (Partial Test)

The *t*-test (partial) is used to determine the effect of each independent variable on the dependent variable. The decision is based on a comparison between the calculated *t*-value and the *t*-table value at a significant level of 0.05, as well as the probability value shown in the SPSS output.

Table 3.9 t-Test (Partial Test).

Model	Coefficients ^a						
	Unstandardized Coefficients		Standardized Coefficients	T	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
1 (Constant)	33.270	2.031		16.380	.000		
X1	.396	.065	.377	6.131	.000	.967	1.035
X2	.646	.089	.448	7.269	.000	.961	1.041
X3	.985	.087	.691	11.319	.000	.978	1.022

a. Dependent Variable: Y

Source: Processed Data

To obtain the *t*-table value, a two-tailed test is used with $\alpha = 0.05$ and degrees of freedom (df) = $n - k$, where $n = 76$ and $k = 2$, thus $df = 74$. Based on this, the *t*-table value is 1.99254. Based on data analysis using the SPSS program, the results are as follows:

X₁ (Work Motivation): *t*-count 6.131 > *t*-table, sig. 0.000 → significant to Y.

X₂ (Work Discipline): *t*-count 7.269 > *t*-table, sig. 0.000 → significant to Y.

X₃ (Work Environment): *t*-count 11.319 > *t*-table, sig. 0.000 → significant to Y.

F-Test (Simultaneous)

The F-test is used to determine the effect of variables X₁, X₂, and X₃ simultaneously on Y at a 5% significance level ($\alpha = 0.05$).

Table 3.10 F-Test (Simultaneous).

ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	835.426	3	278.475	67.430	.000 ^b
	Residual	297.350	72	4.130		
	Total	1132.776	75			

a. Dependent Variable: Y

b. Predictors: (Constant), X3, X2, X1

Source: Processed Data

F-table = 2.73, F-count = 67.430, sig. = 0.000

Since F-count > F-table and sig. < 0.05, then H₀ is rejected and H_a is accepted. This means that Work Motivation, Work Discipline, and Work Environment simultaneously have a significant effect on Work Productivity.

Coefficient of Determination (R²)

The coefficient of determination (R²) is used to measure how much the dependent variable is explained by the independent variables. An R² value close to 1 indicates a strong relationship, while a value close to 0 indicates a weak relationship.

Table 3.11 Coefficient of Determination.

Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.859 ^a	.738	.727	2.03221

a. Predictors: (Constant), X3, X2, X1

Source: Processed Data

Nilai R Square (R^2) = 0,738 menunjukkan bahwa 73,8% variasi Produktivitas Kerja (Y) dapat dijelaskan oleh Motivasi Kerja (X1), Disiplin Kerja (X2), dan Lingkungan Kerja (X3). Sisanya, 26,2%, dijelaskan oleh variabel lain di luar model. Ini menunjukkan bahwa model regresi memiliki tingkat keakuratan yang tinggi dan layak digunakan.

Discussion

1. The Relationship Between Work Discipline and Employee Performance

Based on the findings of the partial test (t-test), the influence of the Work Discipline variable (X1) on Employee Performance (Y) has a t-count value of 2.132 with a significance level of 0.037. Because t-count (2.132) > t-table (2.00172) and the significance level < 0.05, it indicates that the Work Discipline variable (X1) partially has a significant effect on Employee Performance (Y).

According to Hasanuddin et al. (2022), employee indiscipline often occurs due to the weak system that regulates employee discipline, the lack of personal awareness of the employees themselves, the absence of supervision from leaders regarding employee discipline, and the lack of strict sanctions imposed by the company when employees are undisciplined.

The reality related to work discipline at PT. Karana Line Surabaya has not yet fulfilled good regulations, such as employees still arriving late, employees playing on social media during working hours, and some employees working less effectively. Even though these regulations have been established as company commitments, they have not been properly implemented.

This research result is in line with research conducted by (Ridwan & Anwar, 2022), (Maizar et al., 2023), (Pokhrel, 2024), and (Assa & Dachi, 2023), which explains that the work discipline variable has a positive and significant effect on employee performance.

Thus, the first hypothesis proposed by the researcher states that work discipline is presumed to have a positive and significant effect on employee performance at PT. Karana Line Surabaya.

2. The Relationship Between Leadership Style and Employee Performance

Based on the findings of the partial test (t-test), the influence of Leadership Style (X2) on Employee Performance (Y) has a t-count value of 3.584 with a significance level of 0.001. Because t-count (3.584) > t-table (2.00172) and the significance level < 0.05, it indicates that the Leadership Style variable (X2) partially has a significant effect on Employee Performance (Y).

The reality of the leadership style at PT. Karana Line Surabaya is less than optimal. This is because the company's leadership still shows a lack of engagement in various activities carried out by employees both outside and inside the office. In addition, every time the company leadership organizes an activity, it is done without involving other members (socializing). Moreover, the company leadership lacks motivation towards employees in improving their work ethic, as there are still employees who arrive late, employees who complain when given many tasks, and ineffective implementation of tasks such as planning and execution.

This research result is in line with research conducted by (Ridwan & Anwar, 2022), (Maizar et al., 2023), (Pokhrel, 2024), and (Assa & Dachi, 2023), which explains that the work discipline variable has a positive and significant effect on employee performance.

Thus, the first hypothesis proposed by the researcher, which states that leadership style is presumed to have a positive and significant effect on employee performance at PT. Karana Line Surabaya.

3. The Relationship Between Work Discipline and Leadership Style on Employee Performance

Based on the results of the simultaneous test (F-test), the influence of work discipline (X1) and leadership style (X2) on employee performance (Y) obtained an F-count value of $16.001 > F\text{-table } 3.16$ and $\text{sig} < \alpha (0.05)$, thus H_0 is rejected, and H_a is accepted. This means that simultaneously work discipline (X1) and leadership style (X2) have a significant effect on employee performance (Y).

This research result is also in line with the research conducted by (Ridwan & Anwar, 2022), (Pokhrel, 2024), and (Assa & Dachi, 2023), which explains that work discipline has a positive and significant effect on the quality of financial reports.

Thus, the third hypothesis proposed by the researcher which states that information technology, education level, and accounting understanding are suspected to have a positive and significant effect on the quality of financial reports at MSMEs in Surabaya has been proven to be true, so that the fourth hypothesis can be accepted.

4. The Influence of the Most Dominant Variable on the Employee Performance Variable

Based on the research results, it shows that the Beta coefficient value for the work discipline variable is 0.349; and the leadership style variable is 0.533. This indicates that the leadership style variable is the most dominant variable influencing employee performance among other variables. The leadership style variable influences 0.533 or 53.3% of the employee performance variable, which means that if the value is increased by 1 unit, it will affect employee performance by 53.3% assuming the other variables remain constant.

CONCLUSION

Based on the data that has been collected and the results of the analysis conducted, it can be concluded that work discipline and leadership style have both partial and simultaneous effects on employee performance at PT. Karana Line Surabaya. Among the two variables, leadership style is the variable that has the most dominant influence on improving employee performance in the company.

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