

The Influence of Safety Behavior, Motivation and Work Discipline on Employee Performance of PT Dahana Job Site Project PT Antang Gunung Meratus

Muhammad Aminuddin¹, Sulastini², Maskur³

^{1,2,3} Universitas Islam Kalimantan Muhammad Arsyad Al Banjari, Indonesia

Email: aminuddin07.dahana@gmail.com

ABSTRACT

The competition in the era of globalization, marked by the advent of the Industrial Revolution 4.0, has led to increased business competition, making sustainable development essential for companies to survive. The research method used in this study is the Quantitative Method with a Correlational Statistical Technique approach. This study was conducted on the employees of PT Dahana Job Site Project PT Antang Gunung Meratus with a population of 40 people, applying a sample test of 30 due to the small population size of 40 people, thus the entire population of 40 people was used as the sample. The statistical testing tool used is SPSS 29 Version software. The results of this study show that the regression coefficient for the Safety Behavior variable (X1) with a value of 0.376 indicates that Safety Behavior has a positive and significant impact on employee performance. For every unit increase in the Safety Behavior variable (X1), the Employee Performance (Y) at PT Dahana Job Site Project PT Antang Gunung Meratus will increase. The regression coefficient for the Motivation variable (X2) with a value of 0.380 indicates that Motivation has a positive and significant impact on employee performance. For every unit increase in the Motivation variable (X2), the Employee Performance (Y) at PT Dahana Job Site Project PT Antang Gunung Meratus will increase. The regression coefficient for the Work Discipline variable (X3) with a value of 0.352 indicates that Work Discipline has a positive and significant impact on employee performance. For every unit increase in the Work Discipline variable (X3), the Employee Performance (Y) at PT Dahana Job Site Project PT Antang Gunung Meratus will increase. The Safety Behavior (X1), Motivation (X2), and Work Discipline (X3) variables simultaneously have a positive and significant impact on employee performance at PT Dahana Job Site Project PT Antang Gunung Meratus by 77.7%. This means that 77.7% of the dependent variable, employee performance, can be explained by the independent variables of safety behavior, motivation, and work discipline..

KEYWORDS Safety Behavior, Motivation, Work Discipline, Employee Performance

How to cite: Muhammad Aminuddin, Sulastini, Maskur. (2024). The Influence of Safety Behavior, Motivation and Work Discipline on Employee Performance of PT Dahana Job Site Project PT Antang Gunung Meratus. *Journal Eduvest*. 4 (6): 4714-4731
E-ISSN: 2775-3727
Published by: <https://greenpublisher.id/>



This work is licensed under a Creative Commons Attribution-ShareAlike 4.0 International

INTRODUCTION

The competition in the era of globalization, marked by the advent of the Industrial Revolution 4.0, has led to increased business competition, making sustainable development essential for companies to survive. The mining industry is rapidly growing and is a significant sector supporting the economy of the Republic of Indonesia through Non-Tax State Revenues (PNBP) from Natural Resources.

PT Dahana, or “DAHANA,” is a State-Owned Enterprise (BUMN) and a member of the Defense Industry Holding (DEFEND ID), engaged in the field of high-energy materials, providing integrated explosive services for the General Mining, Quarry and Construction, Oil and Gas, and Defense sectors. The increasing competition and more competitive competitors in the mining industry have been anticipated by PT Dahana by implementing a production system in accordance with Indonesian national quality standards and delivering quality work results, aligning with the company's vision to become the leading national industry in the field of high-energy materials, producing highly competitive and environmentally friendly goods and services. In facing this competition, organizations or companies must have resilient resources. The resources needed to run the company cannot be viewed as independent parts but must be seen as a strong unity forming synergy, in which the role of human resources is crucial (Sutrisno, 2017:3).

Human resources are one of the very important factors, even inseparable from an organization, whether it is an institution or a company. Human resources are also the key to determining the development of the company. Essentially, human resources are people employed in an organization as movers, thinkers, and planners to achieve the organization's goals. Employee performance is a reflection or indicator that determines the achievement of the goals expected by a company. Therefore, human resources need to be developed and given attention to, which impacts the company's success.

Employee performance is influenced by how much they contribute to the company, including output quantity, output quality, output timeframe, attendance at the workplace, and cooperative attitude (Robert L. Mathis-John H. Jackson, 2006). The achievement of employee performance can be seen from the assessment standards used. Below are the performance standards that can measure whether the employee performance at PT Dahana is good or poor, as shown in Table 1.1.

Table 1.1 PT Dahana Performance Standards

| No | Score | Score Symbol | Category |
|----|-------|--------------|-----------|
| 1 | >86 | A | Very Good |
| 2 | 76-85 | B | Good |
| 3 | 66-75 | C | Fair |
| 4 | 60-65 | D | Poor |
| 5 | <60 | E | Bad |

Source: PT Dahana *Job Site Project* AGM in 2023

Table 1.1 above explains the performance assessment standards at PT Dahana Job Site Project PT Antang Gunung Meratus. Each employee with a specific functional role has their own assessment criteria, based on the Indonesian Work Competency Standards (SKKNI) 383 Year 2015 for the Mining and Quarrying Category, Major Group of Coal and Lignite Mining, Implementation of Blasting in Open Pit Mines for Minerals and Coal.

The functional positions at PT Dahana Job Site Project Antang Gunung Meratus include Operational Supervisor, Technical Supervisor, K3 Supervisor, Blaster, Explosive Material Operator, Mechanic, and Blasting Crew. The assessment is grouped into five categories: 86 and above (very good), 76-85 (good), 60-75 (fair), 60-65 (poor), and below 60 (very poor). Performance is the qualitative and quantitative output achieved by an employee in carrying out their duties in accordance with the responsibilities given (Anwar Prabu Mangkumanegara, 2015). One of the factors affecting performance levels is safety behavior. According to Zin et al. (2012), safety behavior supports safe practices and activities at work, both of which must be accepted by employees as work requirements to avoid accidents.

Research conducted by Andi et al. (2005) states that workplace safety culture factors influence employee safety behavior, which can improve employee performance. Another study by Sulastre Mat Zin & Faridah Ismail et al. (2011) suggests that developing safety behavior is highly recommended for companies as it can enhance employee performance to achieve company goals and prevent accidents.

Another factor affecting employee performance is motivation. Every activity undertaken by an individual is driven by various motives and attitudes that encourage a series of actions known as activities (Sutrisno et al., 2017). Several previous studies show a positive relationship between work motivation and employee performance, such as research conducted by Sunarsi et al. (2021), Aini & Ariefiantoro et al. (2018), and Martha & Maiwan et al. (2020), indicating that motivation has a positive and significant influence on employees.

The next factor that can affect employee performance is work discipline. Singomedjo in Sutrisno et al. (2016) states that discipline is the willingness and willingness of a person to comply with and adhere to the prevailing norms and regulations around them. Research conducted by Hasibuan, Jasman Saripuddin, Silvya et al. (2019) and Prayogi et al. (2019) shows that Work Discipline has a positive and significant impact on Employee Performance.

This planned study will discuss the influence of safety behavior, motivation, and work discipline on employee performance at PT Dahana Job Site Project Antang Gunung Meratus. The research problem formulation includes whether safety behavior, motivation, and work discipline have a significant individual or simultaneous impact on employee performance at the company. The aim of this study is to analyze the impact of each independent variable on employee performance and to provide a deep understanding for practitioners and researchers on how these three factors affect productivity in the work environment, particularly in the mining industry context. This research is expected to provide significant contributions both theoretically and practically, by developing new theoretical

foundations and providing guidance for companies in improving their human resource management.

RESEARCH METHOD

The study employs a quantitative research design with a correlational statistical technique. Quantitative methods, rooted in positivism, are chosen to test predefined hypotheses among specific populations or samples, utilizing instruments for data collection and statistical analysis. The primary aim is to examine the partial relationships of safety behavior, motivation, and work discipline on employee performance and to assess their combined impact at PT Dahana Job Site Project Antang Gunung Meratus (Sugiyono et al., 2015). This methodological choice aligns with the research objectives outlined in Chapter III, aiming to evaluate the direct and simultaneous effects of these factors on employee performance within the specified organizational context. The population under study encompasses all employees at PT Dahana Job Site Project Antang Gunung Meratus, totaling 40 individuals in the year 2023. This includes various roles such as operational supervisors, technicians, safety supervisors, blasters, mechanics, operators, administrative staff, and helpers (PT Dahana Job Site Project AGM, 2023). Sampling methods adhere to the guidelines stipulated by previous studies. Given the population size of 40, the entire population serves as the sample, ensuring comprehensive representation for statistical analysis (Yurdugül et al., 2008; Mills and Airasian, 2009). This approach is deemed appropriate for both descriptive and correlational research, where the sample size meets the recommended threshold for reliable statistical inference (Borg and Gall, 2007; Krejcie and Morgan, 2011). Thus, the research maintains methodological rigor in its sampling strategy to ensure the validity and generalizability of findings within the specified study period and organizational setting. These paragraphs integrate the details regarding research methodology, population, and sampling strategies from the provided research document, citing relevant references to support the methodological approach and decisions made in the study.

RESULT AND DISCUSSION

Data Quality Testing

Validity Test

The validity test is used to measure whether a questionnaire is valid. The testing used 40 respondents to determine the validity of the questionnaires. A questionnaire is considered valid if the calculated R value (R count) is greater than the R table value or is positive. The results of the validity test using SPSS 29 for the questionnaires filled out by respondents are presented in Table 5.9.

Table 5.9 Validity Test Results

| Statement | R count | R table (5% significance) | Remark |
|---------------------------------|----------------|--------------------------------------|---------------|
| Safety Behavior (X1) | | | |
| X1.1 | 0.639 | 0.312 | Valid |
| X1.2 | 0.630 | 0.312 | Valid |
| X1.3 | 0.506 | 0.312 | Valid |
| X1.4 | 0.532 | 0.312 | Valid |
| X1.5 | 0.813 | 0.312 | Valid |
| X1.6 | 0.848 | 0.312 | Valid |
| X1.7 | 0.657 | 0.312 | Valid |
| X1.8 | 0.691 | 0.312 | Valid |
| X1.9 | 0.683 | 0.312 | Valid |
| X1.10 | 0.686 | 0.312 | Valid |
| X1.11 | 0.728 | 0.312 | Valid |
| X1.12 | 0.560 | 0.312 | Valid |
| Work Motivation (X2) | | | |
| X2.1 | 0.593 | 0.312 | Valid |
| X2.2 | 0.804 | 0.312 | Valid |
| X2.3 | 0.778 | 0.312 | Valid |
| X2.4 | 0.712 | 0.312 | Valid |
| X2.5 | 0.854 | 0.312 | Valid |
| X2.6 | 0.654 | 0.312 | Valid |
| X2.7 | 0.631 | 0.312 | Valid |
| X2.8 | 0.775 | 0.312 | Valid |
| X2.9 | 0.733 | 0.312 | Valid |
| X2.10 | 0.830 | 0.312 | Valid |
| X2.11 | 0.872 | 0.312 | Valid |
| X2.12 | 0.804 | 0.312 | Valid |
| Work Discipline (X3) | | | |
| X3.1 | 0.566 | 0.312 | Valid |
| X3.2 | 0.738 | 0.312 | Valid |
| X3.3 | 0.761 | 0.312 | Valid |
| X3.4 | 0.675 | 0.312 | Valid |
| X3.5 | 0.656 | 0.312 | Valid |
| X3.6 | 0.740 | 0.312 | Valid |
| X3.7 | 0.744 | 0.312 | Valid |
| X3.8 | 0.812 | 0.312 | Valid |
| X3.9 | 0.850 | 0.312 | Valid |
| X3.10 | 0.646 | 0.312 | Valid |
| X3.11 | 0.619 | 0.312 | Valid |
| X3.12 | 0.662 | 0.312 | Valid |
| X3.13 | 0.730 | 0.312 | Valid |
| Employee Performance (Y) | | | |

| | | | |
|------|-------|-------|-------|
| Y.1 | 0.692 | 0.312 | Valid |
| Y.2 | 0.552 | 0.312 | Valid |
| Y.3 | 0.630 | 0.312 | Valid |
| Y.4 | 0.685 | 0.312 | Valid |
| Y.5 | 0.711 | 0.312 | Valid |
| Y.6 | 0.802 | 0.312 | Valid |
| Y.7 | 0.481 | 0.312 | Valid |
| Y.8 | 0.722 | 0.312 | Valid |
| Y.9 | 0.604 | 0.312 | Valid |
| Y.10 | 0.648 | 0.312 | Valid |
| Y.11 | 0.645 | 0.312 | Valid |
| Y.12 | 0.671 | 0.312 | Valid |
| Y.13 | 0.714 | 0.312 | Valid |
| Y.14 | 0.664 | 0.312 | Valid |

Source: Processed data, research results 2023

Based on Table 5.9 above, it shows that the R count for each statement for all variables is valid. This can be seen from the R count value of each statement item being greater than the R table value with a significance level of 0.05 for all statement items.

Reliability Test

A questionnaire is considered reliable if the answers of a person to the statements are consistent or stable over time. A variable is considered reliable if it provides a Cronbach's Alpha value > 0.70 (Ghozali, 2018). The results of the reliability test using SPSS 29 for the questionnaires filled out by respondents are presented in Table 5.10.

Table 5.10 Reliability Test Results

| Variable | Cronbach's Alpha | No of Items | Remark |
|----------------------|-------------------------|--------------------|---------------|
| Safety Behavior | 0.884 | 12 | Reliable |
| Work Motivation | 0.929 | 12 | Reliable |
| Work Discipline | 0.910 | 13 | Reliable |
| Employee Performance | 0.897 | 14 | Reliable |

Source: Processed data, research results 2023

The results of the reliability test using SPSS 29 indicate that all research variables have a Cronbach's Alpha value above 0.70, thus it can be said that the statements used in this research questionnaire are reliable.

Classical Assumption Test

Normality Test

The normality test aims to test whether in the regression model, the perturbrating or residual variable has a normal distribution (Ghozali, 2018:164).

P-Plot Normal Curve

Based on the P-Plot Normal Curve Interpretation as can be seen in Figure 5.2, it can be seen that the spread of the points around the line still follows a straight line and does not widen too far. So it was concluded that the assumption model was in accordance with normality and the data was feasible to use.

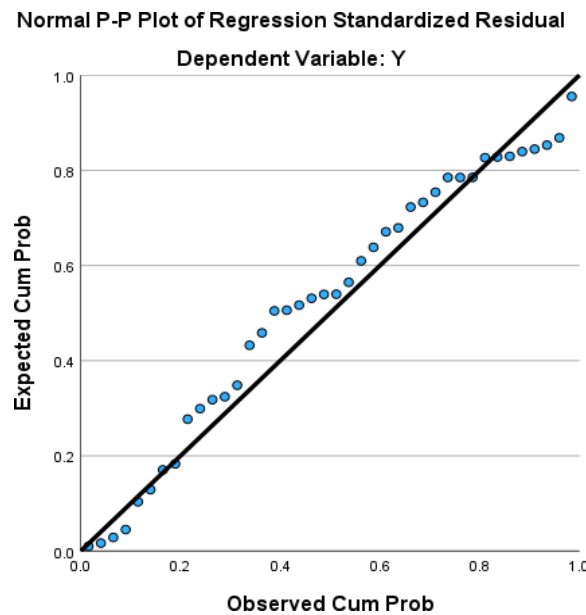


Figure 5.2 Normal Curve of P-Plot
Source: Data processed, 2023 research results

Statistical Normality Test

A statistical test that can be used to test residual normality is the Kolmogorov Smirnov (K-S) non-parametric statistical test. This test is believed to be more accurate than the normality test with graphs, because the normality test with graphs can be misleading, otherwise visually it will look normal (Ghozali, 2018:154). If the significance is more than 0.05, then the residual is distributed normally.

Based on the results of the Kolmogorov-Smirnov test as can be seen in Table 5.11, it was found that the results of the normality test with the one-sample Kolmogorov Smirnov test method with a significance of 0.087 (Asymp. Sig. (2-tailed)) were greater than 0.05.

Therefore, it is concluded that the residual values are distributed normally and the regression model is suitable to be used to predict independent variables, namely safety behavior, work motivation, and work discipline.

**Tabel 5.11 Hasil Uji Normalitas
One-Sample Kolmogorov-Smirnov Test**

| | | Unstandardized Residual |
|----------------------------------|------|-------------------------|
| N | | 40 |
| Normal Parameters ^{a,b} | Mean | .0000000 |

| | | | |
|--|-------------------------|-------------|------------|
| | Std. Deviation | | 2.40378506 |
| Most Extreme Differences | Absolute | | .130 |
| | Positive | | .097 |
| | Negative | | -.130 |
| Test Statistic | | | .130 |
| Asymp. Sig. (2-tailed) ^c | | | .087 |
| Monte Carlo Sig. (2-tailed) ^d | Sig. | | .090 |
| | 99% Confidence Interval | Lower Bound | .082 |
| | | Upper Bound | .097 |
| a. Test distribution is Normal. | | | |
| b. Calculated from data. | | | |
| c. Lilliefors Significance Correction. | | | |
| d. Lilliefors' method based on 10000 Monte Carlo samples with starting seed 2000000. | | | |

Sumber: Data diolah, hasil penelitian 2023

Heterokedasticity Test

Heterokedasticity Test Graphically

According to Ghozali, (2018; 134) The heteroscedasticity test aims to test whether there is a variance inequality in the regression model from the residual of one observation to another. If the variance from the residual of one observation to another is fixed, then it is called homokedaptity and if it is different it is called heterokedatiness. A good regression model is a regression that is homokedasticity or non-heterokedasticity.

To find out whether or not heterokedasticity exists or not can be done by looking at the presence or absence of a certain pattern in the scatterplot graph between SRESID and ZPRED where the X axis is the predicted one, and the X axis is the residual (Y true Y-prediction) that has been unstandardized.

The results of the test with the scatterplot method can be seen in Figure 5.3 which shows that the distribution of data at the points is randomly spread and scattered both above and below the number 0 on the Y axis and does not form a pattern. So it can be concluded that in this regression model there is no heterokedasticity problem or in other words, the data is homokedasticity.

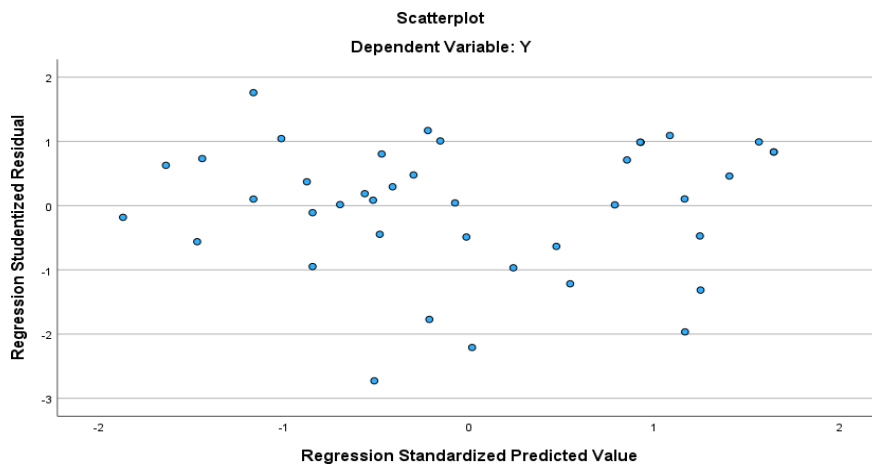


Figure 5.3 Scatter Plot
 Source: Data processed, 2023 research results

Statistical Heterokedasticity Test

In an effort to confirm that the data is free from heterokedasticity, the researcher conducted a glacier test, this test is used to provide more detailed numbers to corroborate whether the data to be processed is heterokedasticity or not.

The existence or absence of heterokedasticity can be seen from the significance value of the free variable to the bound variable. If the results of the glacier test are less than or equal to 0.05, it can be concluded that the data is heterokedasticity and vice versa.

Tabel 5.12
Hasil Uji Heterokedastisitas Glejser

| | | Coefficients ^a | | | | | |
|-------|------------|-----------------------------|------------|---------------------------|-------|------|--|
| | | Unstandardized Coefficients | | Standardized Coefficients | | | |
| Model | | B | Std. Error | Beta | t | Sig. | |
| 1 | (Constant) | -.554 | 3.295 | | -.168 | .867 | |
| | X1 | -.014 | .068 | -.041 | -.202 | .841 | |
| | X2 | .000 | .055 | -.001 | -.004 | .996 | |
| | X3 | .053 | .065 | .192 | .827 | .414 | |

a. Dependent Variable: ABSRES

Source: Data processed, 2023 research results

Based on Table 5.12, it can be seen that the significance value of all independent variables > 0.05, which is indicated by the significance value of safety behavior is 0.841, the significance value of work motivation is 0.996, and the significance value of work discipline is 0.414. Therefore, it can be concluded that there is no heteroscedasticity to the research data.

Multicollinearity Test

This test aims to test whether the regression model finds a correlation between free variables. A good regression model should not have correlations between independent variables. To detect whether or not there is multicollinearity in the regression model, it is by looking at the Variance Inflation Factor (VIF) and Tolerance values. The regression model is said to be free from multicollinearity if the VIF value is ≤ 10 and the tolerance value ≥ 0.10 (Ghozali, 2018:106).

The results of the VIF and Tolerance tests of the regression model can be seen in the following table :

Tabel 5.13
Hasil Uji Multikolinieritas
Coefficients^a

| Model | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. | Collinearity Statistics | |
|-------|-----------------------------|------------|---------------------------|------|-------|-------------------------|-----------|
| | B | Std. Error | Beta | | | Tolerance | VIF |
| 1 | (Constant) | -.200 | 5.328 | | -.038 | .970 | |
| | X1 | .376 | .111 | .313 | 3.391 | .002 | .6711.491 |
| | X2 | .380 | .091 | .406 | 4.191 | <.001 | .6091.642 |
| | X3 | .352 | .107 | .351 | 3.289 | .002 | .5011.997 |

a. Dependent Variable: Y

Source: Data processed, 2023 research results

Through Table 5.13 above, it can be seen that the Variance Inflation Factor (VIF) value for safety behavior is 1.491, work motivation is 1.642, and work discipline is 1.997. This shows that there is no independent variable that has a VIF value of more than 10, while the Tolerance value of all independent variables for safety behavior is 0.671, work motivation is 0.609, and work discipline is 0.501 where all three are greater than 0.10.

Therefore, it can be concluded that there is no multicollinearity between independent variables and regression models in the research conducted.

Hypothesis Testing

Hypothesis testing is used to determine whether or not there is an influence between independent variables on dependent variables, following the types and types of tests carried out:

Partial Significance Test (t-Test)

The t-test serves to show how far an independent variable partially influences in explaining the variation of dependent variables. The t-test is carried out by comparing the t-count and the t-table.

The t-value of the table is calculated using the Microsoft Excel application using the following formula:

$$=TINV(\text{probability}, \text{degree_freedom})$$

Where:

probability = 0,05 (5%)

degree of freedom (df) = n-k = 40-4 = 36 (Tabel 5.6)

Information:

K= number of free and bound variables

N=number of regression-forming samples

Table 5.14 Partial Significance Test (t-Test)

| | | Coefficients ^a | | | | | |
|-------|------------|----------------------------|------------|---------------------------|-------|-------|--|
| Model | | nstandardized Coefficients | | Standardized Coefficients | t | Sig. | |
| | | B | Std. Error | Beta | | | |
| 1 | (Constant) | -.200 | 5.328 | | -.038 | .970 | |
| | X1 | .376 | .111 | .313 | 3.391 | .002 | |
| | X2 | .380 | .091 | .406 | 4.191 | <.001 | |
| | X3 | .352 | .107 | .351 | 3.289 | .002 | |

a. Dependent Variable: Y

Source: Data processed, research results 2023

Through the Microsoft Excel application, it was found that the t-value of the table was 2.028094 or rounded to three numbers after the comma to 2.028.

The conclusion of the results of hypothesis testing in the test in Table 5.14 is as follows:

Effect of Safety Behavior (X1) on Employee Performance (Y)

Hypothesis 1 :

Ho : $\beta_1 = 0$, that there is no effect between safety behavior (X1) and Performance (Y)

Ha : $\beta_1 \neq 0$ there is an intermediate influence between safety behavior (X1) and Performance (Y)

Through Table 5.10, it can be seen that the calculated t value for safety behavior is 3.391. The results of t calculation ($3.391 > t$ table (2.028) and significance values of $0.02 < 0.05$. So the hypothesis that reads that there is an intermediate influence for safety behavior on performance is accepted (Ha is accepted and Ho is rejected), meaning that there is a partial intermediate influence for safety behavior on employee performance.

This result is the same as previous research conducted by Mat Zin, Sulatre and Faridah Ismail et al, (2012) and Dewi, Desak Nyoman Arista Retno and Andhika Alexander Repi et al, (2022). The results of the study show that safety behavior has a positive and significant effect on employee performance. The higher the level for safety behavior, the better the performance of employees of PT *Job Site Project Antang Gunung Meratus*.

Effect of Motivation (X2) on Employee Performance (Y)

Hypothesis 2 :

Ho : $\beta_2 = 0$, that there is no effect between motivation (X2) and Performance (Y)

$H_a : \beta_2 \neq 0$, that there is an effect between motivation (X2) and Performance (Y)

Through Table 5.10, it can be seen that the t-value calculated for motivation is 4.191. The results of t calculation ($4.191 > t$ table (2.028) and significance values of $0.01 < 0.05$. So the hypothesis that reads that there is an influence between motivation on performance is accepted (H_a is accepted and H_o is rejected), meaning that there is a partial influence between motivation and employee performance.

These results are the same as previous research conducted by Martha, Sulatre and Riza Maiwa Putra et al, (2020), Oktavianti, Novi et al, (2020), and Sunarsi et al, (2021). The results of the study show that Motivation has a positive and significant effect on employee performance. The higher the level of motivation, the better the performance of employees of PT *Job Site Project Antang Gunung Meratus*.

The Effect of Work Discipline (X3) on Employee Performance (Y)

Hypothesis 3 :

$H_o : \beta_3 = 0$, that there is no effect between Work Discipline (X3) and Performance (Y)

$H_a : \beta_3 \neq 0$, that there is an influence between Work Discipline (X3) and Performance (Y)

Through Table 5.10, it can be seen that the t-value calculated for motivation is 3.289. The results of t calculation ($3.289 > t$ table (2.028) and significance values of $0.02 < 0.05$. So the hypothesis that reads that there is an influence between work discipline on performance is accepted (H_a accepted and H_o rejected), meaning that there is a partial influence between work discipline on employee performance.

The results of this study are similar to the research conducted by Hasibuan, Jasman Saripuddin, Silvy et al, (2019), Prayogi et al. (2019), and Putri, Atikah et al, (2021) where the results of the study show that Work Discipline has a positive and significant influence on employee performance.

Simultaneous Significance Test (Test F)

Simultaneous hypothesis testing aims to measure the magnitude of the influence of independent variables together on dependent variables.

The F value of the table is calculated using the Microsoft Excel application using the following formula:

=FINV (probability, degree_freedom1, degree_freedom2)

dimana:

probability= 0,05 (5%)

df1=degree of freedom1= $k-1= 4-1 = 3$

df2=degree of freedom2 (df) = $n-k= 40-4= 36$ (Tabel 5.6)

Information:

K= number of independent and bound variables

N=number of regression-forming samples

Table 5.15
Simultaneous Significance Test (Statistical Test F)

| ANOVA ^a | | | | | | |
|--------------------|------------|----------------|----|-------------|--------|--------------------|
| Model | | Sum of Squares | df | Mean Square | F | Sig. |
| 1 | Regression | 870.151 | 3 | 290.050 | 46.336 | <.001 ^b |
| | Residual | 225.349 | 36 | 6.260 | | |
| | Total | 1095.500 | 39 | | | |

a. Dependent Variable: Y

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

Source: Data processed, 2023 research results

Through Table 5.15, the calculation results obtained a significance of 0.001b. Using a significance level of 0.05, the significance value of F of 0.001 indicates less than 0.05 ($0.001 < 0.05$) and the calculated F value is 46.336.

Through the Microsoft Excel application, it was found that the F value of the table was 2,866. Result F calculated $46.336 > F$ table 2.866. Thus, it can be concluded that H_a is accepted and H_o is rejected, so that the hypothesis that there is a significant influence between the variables of Safety Behavior (X1), motivation (X2), and Work Discipline (X3) simultaneously on the variable bound employee performance (Y) can be accepted.

Double Linear Regression Analysis

Testing of the classical requirements of the regression basis analysis that has been carried out previously provides the result that the variables involved in it meet the requirements and assumptions of the classic. This research was continued by testing the significance of the model and interpreting the regression model.

Table 5.16
Results of Double Linear Regression Analysis

| Coefficients ^a | | | | | | | |
|---------------------------|------------|---------------|------------|--------------|--|-------|-------|
| Model | | nstandardized | | Standardized | | t | Sig. |
| | | Coefficients | Std. Error | Beta | | | |
| 1 | (Constant) | -.200 | 5.328 | | | -.038 | .970 |
| | X1 | .376 | .111 | .313 | | 3.391 | .002 |
| | X2 | .380 | .091 | .406 | | 4.191 | <.001 |
| | X3 | .352 | .107 | .351 | | 3.289 | .002 |

a. Dependent Variable: Y

Source: Data processed, 2023 research results

Based on the Table 5.16 above, the multiple linear regression equation is obtained as follows:

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

$$Y = -0.200 + 0.376 X_1 + 0.380 X_2 + 0.352 X_3 + e$$

Where:

Y = Performance

a = Constanta

X1 = Safety Behavior X2 = Motivation
 X3 = Work discipline
 e = Standard error

Referring to the output data of the coefficient results in the t-test with SPSS 29, the following is a discussion of the partial test between safety behavior, motivation, and work discipline on the performance of employees of PT Dahana *Job Site Project* Antang Gunung Meratus. 1) A constant of -0.200 means that if the variables of safety behavior (X1), motivation (X2), and work discipline (X3) are equal to zero (0) or are considered non-existent, then employee performance will decrease.

Negative constants are not a problem and can be ignored as long as the regression model tested has met the assumptions (e.g. validity, reliability, normality, and classical assumption tests), as long as the slope value is not zero, there is no need to care about this negative constant.

Negative constants generally occur if the range is quite far between X (independent variables) and Y (bound variables). Since regression is basically used to predict Y based on the value of change X, it should be the X value, not the constant value.

1. The regression coefficient of the safety behavior variable (X1) of 0.376 states that every addition of the safety behavior variable (X1) by a unit, will improve the performance (Y) of employees of PT Dahana *Job Site Project* Antang Gunung Meratus.
2. The regression coefficient of the motivation variable (X2) of 0.380 states that every addition of the motivation variable (X2) by a unit, will improve the performance (Y) of employees of PT Dahana *Job Site Project* Antang Gunung Meratus.
3. The regression coefficient of the work discipline variable (X3) of 0.352 states that every addition of the work discipline variable (X3) by a unit, will improve the performance (Y) of employees of PT Dahana *Job Site Project* Antang Gunung Meratus.

Determination Coefficient (R2) Results

The determination coefficient aims to find out how much the independent variable is capable of explaining the dependent variable. The results of the determination coefficient test can be seen in Table 5.17.

Table 5.17
Determination Coefficient Test Results

| Model Summary | | | |
|---------------------------------------|-------------------|----------|---|
| Model | R | R Square | Adjusted R Square . Error of the Estimate |
| 1 | .891 ^a | .794 | .7772.502 |
| a. Predictors: (Constant), X3, X1, X2 | | | |
| b. Dependent Variable: Y | | | |

Source: Data processed, 2023 research results

Referring to Table 5.17 above, the *Adjusted R Square figure* is 0.777. This means that 77.7% of the dependent variables of employee performance can be explained by independent variables of safety behavior, motivation, and work discipline. While the rest (100% - 77.7% = 22.3%) was explained by other variables that were not studied in the study.

Discussion

Based on the results of the calculation as a whole, it can be concluded objectively as follows:

Effect of Safety Behavior (X1) on Employee Performance (Y)

Through Table 5.10, it can be seen that the calculated t value for safety behavior is 3.391. The results of t calculation (3.391) > t table (2.028) and significance values of 0.02 < 0.05. So the hypothesis that reads that there is an intermediate influence for safety behavior on performance is accepted (Ha is accepted and Ho is rejected), meaning that there is a partial intermediate influence for safety behavior on employee performance.

This result is the same as previous research conducted by Mat Zin, Sulatre and Faridah Ismail et al, (2012) and Dewi, Desak Nyoman Arista Retno and Andhika Alexander Repi et al, (2022). The results of the study show that safety behavior has a positive and significant effect on employee performance. The higher the level for safety behavior, the better the performance of PT Job Site Project Antang Gunung Meratus employees.

Effect of Motivation (X2) on Employee Performance (Y)

Through Table 5.10, it can be seen that the t-value calculated for motivation is 4.191. The results of t calculation (4.191) > t table (2.028) and significance values of 0.01 < 0.05. So the hypothesis that reads that there is an influence between motivation on performance is accepted (Ha is accepted and Ho is rejected), meaning that there is a partial influence between motivation and employee performance.

These results are the same as previous research conducted by Martha, Sulatre and Riza Maiwa Putra et al, (2020), Oktavianti, Novi et al, (2020), and Sunarsi et al, (2021). The results of the study show that Motivation has a positive and significant effect on employee performance. The higher the level of motivation, the better the performance of PT Job Site Project Antang Gunung Meratus employees.

The Effect of Work Discipline (X3) on Employee Performance (Y)

Through Table 5.10, it can be seen that the t-value calculated for work discipline is 3.289. The results of t calculation (3.289) > t table (2.028) and significance values of 0.02 < 0.05. So the hypothesis that reads that there is an influence between work discipline on performance is accepted (Ha accepted and Ho rejected), meaning that there is a partial influence between work discipline on employee performance.

The results of this study are similar to the research conducted by Hasibuan,

Jasman Saripuddin, Silvy et al, (2019), Prayogi et al. (2019), and Putri, Atikah et al, (2021) where the results of the study show that Work Discipline has a positive and significant influence on employee performance.

Implications of Research Results

Implications of Research Results on the Impact of Safety Behavior on Employee Performance

Research shows that good safety behavior has a positive impact on employee performance, with various important implications for companies, employees, and the government.

For Companies:

- Companies can increase productivity as employees who avoid work accidents and injuries are more efficient.
- Costs associated with accidents and injuries can be minimized, and the company will gain a better reputation.
- Additionally, employee morale improves when they feel safe, motivating them to work better.

For Employees:

- Employee awareness of the importance of safety behavior increases, making them more cautious at work.
- A safe work environment makes employees feel comfortable and calm, helping to maintain their health and well-being.

For the Government:

- The government can enhance public awareness of workplace safety and develop more effective safety policies based on this research.

Implications of Research Results on the Impact of Motivation on Employee Performance

Research shows that high motivation has a positive impact on employee performance, with important implications for companies, employees, and the government.

For Companies:

- High work motivation can increase productivity and the quality of employees' work.
- Motivated employees tend to stay longer with the company, which also enhances the company's profits.

For Employees:

- Work motivation increases job satisfaction and employee well-being, making them feel valued and having a clear purpose in life.
- This also facilitates career advancement as they are more driven to learn and grow.

For the Government:

- High work motivation within companies can increase the nation's competitiveness in the global market and reduce unemployment by creating more job opportunities.

Implications of Research Results on the Impact of Work Discipline on Employee Performance

This research shows that good work discipline has a positive impact on employee performance, with important implications for companies, employees, and the government.

For Companies:

- Work discipline boosts productivity because organized and efficient employees can complete their tasks well.
- The quality of work also improves, ultimately increasing the company's profits and creating a conducive work environment.

For Employees:

- Disciplined employees are more confident and satisfied with their jobs, and they have better chances of promotion as they are considered reliable and responsible.

For the Government:

- Companies with disciplined employees will be more competitive in the global market, potentially reducing unemployment by creating more job opportunities.

Research Limitations

Based on the direct experience of researchers in this research process, there are several limitations experienced and can be several factors that can be paid more attention to future researchers in further perfecting their research because this research itself certainly has shortcomings that need to be continuously improved in future researches. Some of the limitations in the study include:

1. The number of respondents, which is only 40 people, is of course still not enough to describe the real situation.
2. In the process of collecting data, the information provided by respondents through questionnaires sometimes does not show the actual opinion of the respondents, this happens because sometimes there are differences in thoughts, assumptions and understandings that are different for each respondent, as well as other factors such as the factor of honesty in filling in the opinions of respondents in the questionnaire.

CONCLUSION

Based on the results of research and discussion on the influence of safety behavior, motivation, and work discipline on employee performance of PT Dahana Job Site Project Antang Gunung Meratus, it can be concluded that these three variables have a positive and significant effect on employee performance. Together, safety behavior, motivation, and work discipline make an important contribution to improving performance in the work environment. Based on these findings, the researcher provides advice to companies to improve governance in terms of sustainability and transparent management, as well as to academics to develop further research by considering additional variables that can affect employee

performance.

REFERENCES

- Martha Lidya dan Riza Maiwan Putra. (2020). Pengaruh Motivasi, Kepuasan Kerja dan Disiplin Kerja Terhadap Kinerja Karyawan Pada PT. Japfa Comfeed Indonesia Tbk. Unit Padang. Jurnal Pundi, Vol. 04, No. 01, Maret 2020.
- Mustovani, Ivan. (2019). Pengaruh K3, Disiplin Kerja Dan Motivasi Terhadap Kinerja Karyawan. Jurnal Ilmu dan Riset Manajemen: Volume 8, Nomor 8, Agustus 2019
- Octaningrum, Alvinna Ayu dkk. (2022). Pengaruh Keselamatan Kesehatan Kerja (K3) dan Disiplin Kerja Terhadap Kinerja Karyawan (Studi Pada Bagian Produksi PT. Wonojati Wijoyo). Jurnal Mahasiswa Manajemen UNITA Vol. 1, No. 1, Tahun 2022
- Oktavianti, Novi. (2020). Pengaruh Motivasi dan Kepuasan Kerja terhadap Kinerja Kerja Karyawan PT. DEW Indonesia. Jurnal Ilmiah, Manajemen Sumber Daya Manusia, JENIUS Vol. 3, No. 2, Januari 2020
- Prof. Dr. H. Edy Sutrisno, M.Si. (2017). Manajemen Sumber Daya Manusia. Cetakan ke-9. Jakarta: Kencana Prenada Media Group.
- Prof. Dr. Sugiyono. (2018). Prof. Dr. Sugiyono. 2018. Metode Penelitian Kuantitatif, Kualitatif, dan R&D. Bandung: Alfabeta.
- Putri, Atikah. (2021). Pengaruh Keselamatan Kesehatan Kerja (K3), Motivasi Kerja dan Disiplin Kerja Terhadap Kinerja Karyawan PT Inkabiz Indonesi. Universitas Ilam Negeri Syarif Hidayatullah. Jakarat
- Zin, Sulastre Mat, Faridah Ismail. (2010). *Employers' Behavioural Safety Compliance Factors toward Occupational, Safety and Health Improvement in the Construction Industry. Procedia - Social and Behavioral Sciences 36 (2012) 742 – 751. Procedia - Social and Behavioral Sciences 36 (2012) 742 – 751. Bandung: ASEAN Conference on Environment-Behaviour Studies, Savoy Homann Bidakara Bandung Hotel, Bandung, Indonesia, 15-17 June 2011*
- Sejati, Sendang. (2017). Hirarki Kebutuhan Menurut Abraham H. Maslow dan Relevansinya Dengan Kebutuhan Anak Usia Dini Dalam Pendidikan Islam. Bengkulu: Institut Agama Islam Negeri (IAIN)
- Sunarsi. (2021). *Effect of Motivation and Discipline on Employee Performance in Yogyakarta Tourism Office. The First International Conference on Government Education Management and Tourism (ICoGEMT) Bandung, Indonesia, January 9 th, 2021*
- Wahyudin, Imam. (2021). Pengaruh Motivasi dan Disiplin Kerja Terhadap Kinerja Pegawai di Pemerintah Kerja Kecamatan Lau Kabupaten Maros. Makassar: Politeknik STIA LAN Makassar
- Aini dan Ariefiantoro. (2018). Pengaruh Motivasi, Lingkungan Kerja dan Disiplin Kerja terhadap Kinerja Karyawan PT. Perkebunan Nusantara IX SEMARANG (Studi pada karyawan Bagian Produksi Karet Kebun Sukamangli di PT. Perkebunan Nusantara IX Semarang). Majalah Ilmiah Solusi Vol. 16, No. 4 Oktober 2018 ISSN
- Faisahal, Muhammad, B Lena Nuryanti S & M. Masharyono. (2019). Peranan

- Disiplin Kerja dan Keselamatan & Kesehatan Kerja (K3) dalam Meningkatkan Kinerja Karyawan. *Journal of Business Management Education* Volume 4, Number 3, December 2019, page. 1-8.
- Ghozali, Imam. (2018). *Aplikasi Analisis Multivariete Dengan Program IBM SPSS 23*. Semarang: universitas Diponegoro .
- Grisma, Ilfani. (2013). *Analisis Pengaruh Keselamatan Dan Kesehatan Kerja Terhadap Kinerja Karyawan (Studi Pada Pt. Apac Inti Corpora Bawen Jawa Tengah Unit Spinning 2)*. Semarang: Universitas Semarang
- Hasibuan, Jasman Saripuddin. Silvy, Bebi. (2019). “Pengaruh Disiplin Kerja Dan Motivasi Terhadap Kinerja Karyawan.” *Prosiding Seminar Nasional Multidisiplin Ilmu* 2:136.
- Arikunto, Suharsimi. (2010). *Prosedur Penelitian: Suatu Pendekatan Praktik*. Edisi Revisi 2010. Jakarta: Rineka Cipta.