



Assessing Employee Performance Based on Work Motivation and Work Ability

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Abstrak

This study aims to investigate how employee performance at PT. North Sumatra Plantation Simpang Gambir, Mandailing Natal, is affected by work motivation and work ability At PT. North Sumatra Plantation Simpang Gambir, Mandailing Natal. In this study, the author uses both a quantitative and an associative technique. A total of 212 employees of PT. North Sumatra Plantation Simpang Gambir, Mandailing Natal, make up the study's population. Out of this population, 68 employees make up the study's sample. The result show, work motivation has a strong partial impact on performance. Work ability has also strong partial impact on employee performance at PT. North Sumatra Plantation Simpang Gambir, Mandailing Natal, This suggests that the combined impact of work motivation and work ability on performance is substantial. The important implication of the results of this study shows that increasing employee work motivation and work ability at PT. Perkebunan Sumatera Utara Simpang Gambir, Mandailing Natal, will significantly improve employee performance. Therefore, companies should focus on developing training programs and providing appropriate incentives to maximize employee potential.

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1. INTRODUCTION



Since it encourages the desire to accomplish goals through coordinated, methodical, and planned efforts, work motivation is a key factor in the growth of both public and commercial organizations (Berrone et al., 2023). It can be defined as the motivation or drive that piques interest and has the potential to improve a person's conduct (Sulistyan et al., 2019). In essence, work motivation is the process of taking steps to encourage or motivate staff members to perform well in their positions (Latham, 2023). There are two types of motivation for employees: intrinsic motivation, which comes from within the person, and extrinsic motivation, which comes from outside forces that push someone to act in a way that is consistent with their goals (Rizki & Sulistyan, 2022).

Work ability describes a person's ability to carry out duties efficiently in order to maximize work goals while making the fewest compromises possible in relation to the outcomes attained (Hajiali et al., 2022). Better results that meet the company's expectations result from increased work abilities (Chopra & Bhilare, 2020). Essentially, an employee's entire performance is determined by their aggregate work ability, which is formed by their

knowledge and abilities. An employee's prospective accomplishments are reflected in their level of work ability (Cadiz et al., 2022).

Employee performance is likely to improve when work motivation and ability both rise (Chien et al., 2020). Performance is the result of the efforts made by a person or group inside an organization to reach its objectives within a given time period (Sulistyan et al., 2020). It is frequently used as a foundation for assessing individual contributions and reflects how workers do their duties. High performance is essential for reaching personal goals, which makes it a critical component of both corporate and individual success (Ali & Anwar, 2021).

PT. Sumatera Utara Perkebunan A business called Simpang Gambir, Mandailing Natal works in the North Sumatra plantation industry, most especially in the Mandailing Natal area. The company's primary focus is plantation development and management, which includes growing and caring for high-value commodities including rubber and oil palm. PT. Perkebunan Sumatera Utara wants to improve harvest quality and output by utilizing natural resources and contemporary technology. Additionally, the business is committed to advancing environmental sustainability and enhancing community well-being. Furthermore, PT. Perkebunan Sumatera Utara works to integrate sustainable, effective management techniques into all aspects of its plantation operations.

2. METHODS

The author uses both a quantitative and an associative technique in this investigation. The study employs a quantitative approach from the standpoint of the data type and an associative approach from the standpoint of the explanatory method. In quantitative research, data is tested and analyzed using numerical computations, and conclusions are drawn from the findings (Sugiyono, 2016). According to Sugiyono (2016), associative research "aims to determine the relationship between two or more variables." The larger collection of items or people with particular traits that the researcher wants to examine and extrapolate from is referred to as the population. The 212 employees of PT. North Sumatra Plantation Simpang Gambir, Mandailing Natal, make up the population of this study. Sample is a subset or representative of the population under study. Slovin formula is applied to ascertain the number of samples to be chosen.

$$n = \frac{N}{1 + Ne^2}$$

Description: n = sample size, N = population size, e = percentage of inaccuracy due to sampling error that is still tolerable or desired (e.g. 1%, 5%, 10%, etc.)

$$n = \frac{212}{1 + 212 \times 0,01^2} = 68$$

Therefore, 68 employees from the general population made up the study's sample, and a questionnaire was employed to collect data. The following SPSS statistical technique is a conceptual kind of study for testing the research hypothesis.

Employee performance is the dependent variable in this study, and work motivation and ability are the independent factors. Each variable has indications, which are compiled in the table below:

Table 1. Operational Variabel

No.	Variables	Indicator	Reference	Scale
1	Work Motivation	Responsibility Work performance Opportunity To Advance Recognition of Performance The Job That Challenge.	(Suwanto, 2020)	Interval
2	Work Ability	Level of formal education ever taken Non-formal education level (courses, training, coaching, etc.) Work experience owned Employee willingness/interest in knowledge	(Amrullah, 2012)	Interval
3	Employee Performance	Quality of Work Quantity Punctuality Effectiveness Independence	(Robbins, 2016)	Interval

Source: Researcher Development (2023)

3. RESULTS AND DISCUSSION

3.1. Results

Classical Assumptions

a. Normality Test

To determine if the data closely resembles or follows a normal distribution, the normality test is performed. This is significant because the assumption that the data is normally distributed is made by many statistical analysis, including parametric tests. Researchers can decide whether to use these statistical techniques or whether non-parametric tests would be more appropriate for the investigation by running a normalcy test.

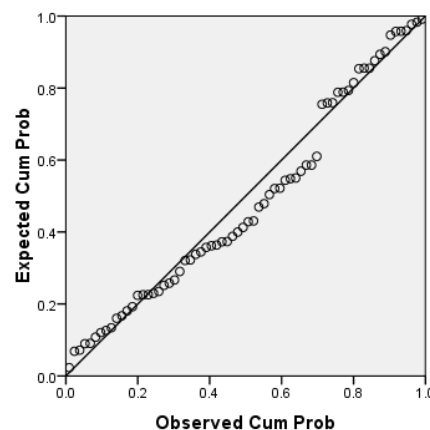


Figure 2. Data Normality Graph

Source: Data Processed (2023)

If the data points on a normal probability plot (like a Q-Q plot) fall roughly along a straight diagonal line, the data is said to be normally distributed. When the observed values match the anticipated values from a normal distribution, this shows that the data distribution is close to a normal distribution. The data may not be normally distributed if there is a large deviation of the points from the diagonal line.

The following are the normalcy test results displayed as a histogram graph:

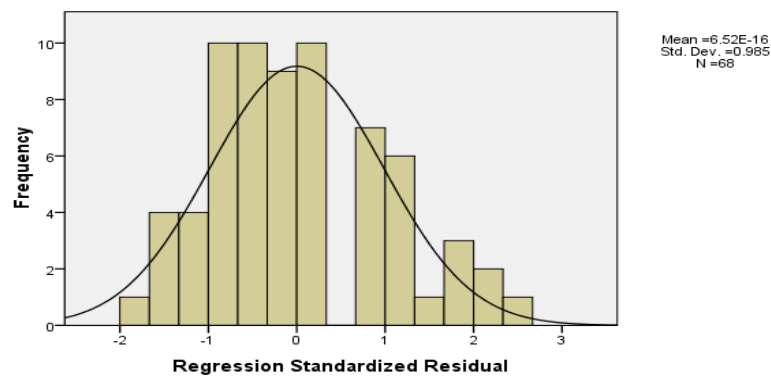


Figure 3. Histogram Graph
Source: Data Processed (2023)

The bell-shaped form of the histogram curve in the graph above indicates that the data has a normal distribution. The data is roughly regularly distributed, according to this visual feature. Consequently, it can be said that the regression model is also normally distributed, which means that parametric statistical tests assuming normality can be performed on it.

b. Multicollinearity Test

To investigate the relationship between the independent variables in a regression model, the multicollinearity test is used. Multicollinearity is present when two or more independent variables have a high correlation with one another. In regression analysis, multicollinearity can lead to issues including difficulty identifying the distinct impact of each independent variable on the dependent variable. To ensure that each predictor offers distinct and useful information in explaining the dependent variable, a well-functioning regression model should have little to no correlation between its independent variables.

Table 2. Multicollinearity Test

Variable	Tolerance	VIF
Work Motivation	0,545	1,836
Work Ability	0,545	1,836

Source: Data Processed (2023)

Testing criteria:

1. Multicollinearity exists if the Tolerance value < 0 or the VIF value > 10.
2. There is no multicollinearity if the Tolerance value > 0 or the VIF value < 10.

According to the following table, the Variance Inflation Factor (VIF) value is less than 10 and the tolerance value is more than 0. These findings suggest that the regression model does not contain multicollinearity. While a VIF value below 10 suggests that the variance of the regression coefficients is not unduly inflated due to multicollinearity, a tolerance value greater than 0 indicates that the independent variables are not substantially associated with one another. Consequently, these findings validate that the model's independent variables do not display serious multicollinearity.

c. Heteroscedasticity Test

Graphical analysis, such as a scatter plot of the residuals against the anticipated values, is commonly used to perform the heteroscedasticity test. If the points in a regression model are dispersed randomly and do not create a clear pattern, the model is said to be heteroscedastic in this kind of analysis. Furthermore, the points on the Y-axis should be equally spaced above and below the zero line. The presence of heteroscedasticity, which denotes that the variance of the errors is not constant throughout the levels of the

independent variable, is indicated if the residuals exhibit a funnel shape or any other systematic pattern (such as a cone or curve). Corrective actions, like data transformation or the use of resilient standard errors, may be required in these situations to solve the issue.

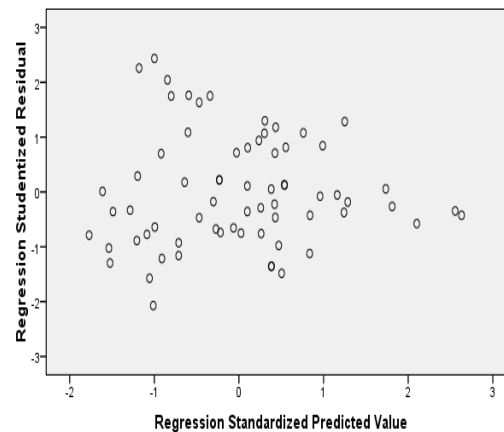


Figure 4. Heteroscedasticity Testing
Source: Data Processed (2023)

The aforementioned graphic illustrates how the points are uniformly distributed above and below the zero line on the Y-axis and are dispersed randomly without creating any discernible pattern. This suggests that the regression model does not contain heteroscedasticity. Because the variance of the residuals remains consistent across all levels of the independent variables, the regression model is deemed appropriate for usage. This implies that the model may be trusted to draw reliable conclusions about the relationship between the dependent and independent variables since the homoscedasticity assumptions are satisfied.

Multiple Linear Regression

The results of data processing using SPSS are as follows:

Table 3. Multiple Linear Regression Results

Variable	B	t	Sig.
Constant	10,530	3,653	0,001
Work Motivation	0,546	4,916	0,000
Work Ability	0,176	2,697	0,015

Source: Data Processed (2023)

From the table above, the regression equation model is:

$$Y = 10.530 + 0.546 X1 + 0.176 X2.$$

Information:

- Y = Employee performance
- X1 = Work motivation
- X2 = Work ability

From this equation it can be explained that:

- a. Employee performance improves when these parameters rise, as evidenced by the positive coefficient direction of the work motivation and work ability variables.
- b. Employee performance should rise when job motivation improves, according to the work motivation coefficient of 0.546. This positive correlation implies that improved performance outcomes are a direct result of increased desire.

- c. Employee performance will rise when work ability improves, according to the work ability coefficient of 0.176, however the effect will be less pronounced than that of work motivation. This implies that performance is positively, albeit less significantly, impacted by work ability.

Hypothesis Testing

Each independent variable's unique impact on the dependent variable is evaluated using the t-statistic test. In particular, taking into account the influence of other factors, it assists in determining if an independent variable has a statistically significant effect on the dependent variable. You can determine whether the coefficient of the independent variable is significantly different from zero by using a t-test, which computes the ratio of the estimated effect to the standard error of that estimate.

The t-test in this study is performed using the SPSS 16.0 software. The t-statistic and related p-value, which can be used to assess whether each independent variable significantly affects the dependent variable, are computed with the use of SPSS. The null hypothesis is rejected if the p-value is less than the significance level (e.g., 0.05), which shows that the independent variable has a substantial impact on the dependent variable.

a). The influence of work motivation on employee performance

Nguyen et al. (2020) explains that performance is the result or results that a person or group of people in an organization can attain in accordance with their individual roles, responsibilities, and authority. This performance is intended to accomplish the organization's objectives in a way that is lawful, compliant with ethical and moral standards, and does not violate any laws.

Hasibuan (2016) "motivation" comes from "movere," a Latin word meaning "to drive" or "to provide a driving force." When it comes to motivating employees, businesses have similar objectives. These include raising employee morale and job satisfaction, boosting employee performance, creating a positive work environment and strong relationships, encouraging loyalty, creativity, and participation, as well as improving employee welfare and encouraging greater responsibility for their responsibilities. These objectives eventually support the organization's expansion and general success. Work ability is a person's ability to carry out different job-related duties.

With a significance level of 0.000 (less than 0.05), the t-count value of 4.916 is higher than the t-table value of 1.668, according to the partial test findings analyzing the impact of work motivation on employee performance. We accept the alternative hypothesis (H_a) and reject the null hypothesis (H_0) since the t-count (4.916) is greater than the t-table (1.668). This indicates that employee performance and work motivation are significantly influenced, albeit partially. These results are consistent with earlier research by Yuniadi Mayowan and Achmad Fadhil (2018), which similarly found that employee performance is greatly impacted by work motivation.

b). The influence of work ability (X_2) on employee performance (Y)

Employee performance is impacted by the work ability variable if the calculated t value is greater than the t table, in which case H_0 is rejected and H_a is approved. To ensure that the work ability variable has no effect on employee performance, H_0 is accepted and H_a is refused if the t-count value is less than the t-table.

With a significance level of 0.001 (less than 0.05), the t-count value of 2.697 is higher than the t-table value of 1.668, according to the partial test findings analyzing the impact of work ability on employee performance. We accept the alternative hypothesis (H_a) and reject the null hypothesis (H_0) since the t-count (2.697) is greater than the t-table (1.668). This suggests that work ability and employee performance have a substantial partial influence.

Coefficient of Determination

A statistical metric known as the coefficient of determination, or R^2 , shows how much of the variance in the dependent variable in a regression model can be accounted for by the independent variable or variables. Stated differently, it demonstrates the extent to which the independent variables account for variations or shifts in the dependent variable.

An R^2 An R^2 number nearer 0 implies that the independent factors have minimal explanatory power, whereas a value nearer 1 shows that the independent variables account for a significant amount of the variance in the dependent variable. This metric aids in evaluating the model's overall fit as well as how well the independent variables predict the dependent variable. The following table illustrates how the R square value determines the value of the coefficient of determination:

Table 4. Determination Test

Model	R	R Square	Adjusted R Square
1	0,721a	0,520	0,505

Source: Data Processed (2023)

The coefficient of determination (R^2), as determined by the computation results, is 0.520. This indicates that the two independent variables, work motivation and work ability, account for 52.0% of the variation in employee performance. Other variables or characteristics not covered in the study account for the remaining 48.0% of the variation in employee performance. This shows that while job motivation and ability together have a considerable explanatory power over employee performance, the results are nevertheless greatly influenced by other external factors.

3.2. Discussion

In statistical testing, simulation techniques-more especially, bootstrapping analysis on the sample data-are used to assess each proposed association. By repeatedly selecting random samples from the original data, a resampling technique known as bootstrapping makes it possible to estimate the sampling distribution with greater accuracy.

The study's findings suggest that enhancing employee performance is positively impacted by both work motivation and job ability. This indicates that greater performance is the result of both work ability, which measures an employee's adherence to work norms and requirements, and work motivation, which originates from within the individual. When workers are driven and equipped with the skills they need, they are more likely to work hard, which boosts output and success. Thus, improved performance and success in the job are the outcome of the interplay between internal drive and rule-following skills.

Employee performance is somewhat more impacted by work motivation. The results of this study demonstrate that employee performance improves in tandem with a rise in work motivation. The following are the study's main conclusions: (1) A major factor in raising employee performance is work motivation. (2) Increasing job motivation is one efficient strategy to improve employee performance. (3) This finding lends credence to the idea that a key element affecting an individual's performance is work motivation. With a probability of sig 0.007, which is less than 0.05, the computed t value from the table on the impact of work motivation on performance is $4.916 > t_{table} 1.997$. This indicates that work motivation affects performance and that the null hypothesis (H_0) is rejected.

The t value is derived from the table that shows how work ability affects performance. With a chance of sig 0.000, which is less than 0.05, count $2.697 > t_{table} 1.997$. Thus, it may be said that work ability affects performance and that the null hypothesis (H_0) is rejected.

Since it encourages people to be more innovative and use their full ability to provide the best results, work motivation is crucial for attaining high performance. This is consistent with McClelland's theory, which holds that the need for power, affiliation, and achievement

are important motivators that enable people to accomplish their objectives. These demands are the cornerstone for inspiring workers to give their best effort, which eventually helps the company and the individual succeed. The following provides a more thorough explanation of the test's analysis results:

- a. The regression coefficient of 0.564 with a significant value of $\text{sig}0.000 < 0.05$ indicates that variable X1 (work motivation) has a positive and significant influence on variable Y (performance). This suggests that the more motivated one is at work, the better. The workers of PT. North Sumatra Plantation Simpang Gambir Mandailing Natal will perform better as a result.
- b. The regression coefficient of 0.176 with a significant value of $\text{sig}0.000 < 0.05$ indicates that variable X2 (work ability) has a positive and significant influence on variable Y (performance). This demonstrates that PT. North Sumatra Plantation Simpang Gambir Mandailing Natal staff perform better the more capable they are at their jobs.
- c. The calculated R-Square value is 0.520, or 9.29%, indicating that work motivation (X1) and work ability (X2) affect approximately 9.29% of the performance variable (Y). Additionally, other factors that are not examined have an impact on the remaining 48.0.

The study's hypothesis-that work motivation (X1) and work ability (X2) significantly impact PT. North Sumatra Plantation Simpang Gambir Mandailing Natal's performance (Y)-is approved. A comprehensive picture of the complete PT. North Sumatra Plantation Simpang Gambir Mandailing Natal is given by the significant effect found in this study, which indicates a positive influence with an impact of 52.0%. Based on the results of this study and earlier research, it can be said that employees are more likely to succeed in their work if they are highly motivated to complete the tasks given to them and follow the rules and procedures defined in the work process. This implies that both drive and adherence.

4. CONCLUSION

These findings imply that both work motivation and work ability are important factors in raising employee performance at the organization, both separately and in tandem. Both elements have a substantial impact on employee performance, according to the case study's conclusion on the relationship between work motivation and work ability at PT. North Sumatra Plantation Simpang Gambir Mandailing Natal. Increased productivity and better employee morale are the results of high levels of work motivation, which can be fueled by rewards, acknowledgment, and a positive work atmosphere. In a similar vein, attaining the best performance outcomes also requires having sufficient work ability, which includes the required technical abilities and knowledge.

Employee performance is improved when these two elements-high motivation and great work ability-combine to establish a potent synergy. In addition to increasing individual productivity, this synergy is essential to accomplishing the organization's larger objectives.

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