

The Effect of Ability, Motivation, and Leadership against the Performance of Production Workers in East Java

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ABSTRACT

The purpose of this study was to determine the effect of ability, motivation, and leadership both simultaneously and partially on the performance of production workers in East Java, and most dominant variable affecting the performance of production workers in East Java. In this study, there are three independent variables consisting of ability, motivation, and leadership, as well as the dependent variable is the performance of the production workers. The analysis conducted in this study includes the testing of the research instrument, the classical assumption test, multiple linear regression analysis, and hypothesis testing. Multiple linear regression analysis produces multiple determination coefficient $R^2=0.336$ probability calculated F value of $\text{Sig. } F=0.000$. Because $p \neq 0$ and the probability F counties smaller than the test level research ($\text{Sig. } F < \alpha$ ie $0.000 < 0.05$), then H_0 is rejected and H_a accepted which means the simultaneous influence of variables ability, motivation, and leadership on the performance of production workers East Java is significant. Partially, all independent variables consisting of ability, motivation, and leadership partial effect on the dependent variable is the performance of production workers in East Java. The most dominant variable is ability variable with the t value of 5.419, is greater than the value for the other variable.

Keywords: Ability, Motivation, Leadership, Performance

INTRODUCTION

Human resources are one of the main elements that determine the success of the company in achieving its goals. That requires competent human resources, so that it can perform well, so that the company can develop and be able to survive in the increasingly fierce competition. Besides, it takes also a leader who is knowledge able and can align corporate goals and objectives so that employees can achieve a harmonious balance between the employee and the company. In conducting its business enterprise must be supported by competent workers in the field, ranging from workers at the lowest level or labor in the production (Blue Collar) reached the highest level in a company or a top executive.

One of the factors that need attention of the leadership of the organization or company in managing human resources is a matter of ability/skill and motivation which will affect the performance of the workers.

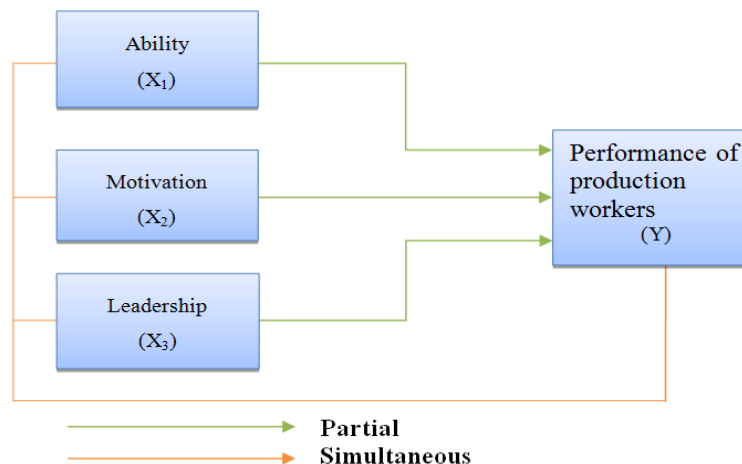
STATEMENT OF THE PROBLEM

Based on the description of the background of the study mentioned above, researchers formulate the problem as follows:

1. Is there a significant effect between ability, motivation and leadership simultaneous on the performance of production workers in East Java?
2. Is there a real effect between ability, motivation and leadership partially on the performance of production workers in East Java?

3. Is there a significant effect of ability, motivation and leadership of the most dominant on the performance of production workers in East Java?

CONCEPTUAL FRAMEWORK



HYPOTHESIS

1. There is the influence of ability, motivation and leadership simultaneously on the performance of production workers in East Java.
2. There is the influence of ability, motivation and leadership partially on the performance of production workers in East Java.
3. There is the influence of ability, motivation and leadership of the most dominant on the performance of production workers in East Java.

RESEARCH METHODOLOGY

Definition Operational Variable

Some of the variables included in this study:

Independent Variable

- I. Ability (X₁), the indicators of ability are: working knowledge, interpersonal skills, Communication, initiatives, teamwork
- II. Motivation (X₂), the indicators of motivations are: promotion, responsibility, salaries and incentives, working conditions, supervision.
- III. Leadership (X₃), the indicators of leadership are: directing, influence, encouraging, controlling, make decisions.

Dependent Variable

Dependent variable is the performance of production workers (Y). The indicators of performance of production workers are: quantity of work, quality of work, speed of time, presence, ability to work together

Population and Sample

The population in this study is the production workers in the province of East Java. In this study, samples were taken at four companies in East Java are located in four cities/ districts namely PTHMS ampoerna in Surabaya, PTInterbat which is located in Sidoarjo, PTGaruda

Food, located in Gresik and PTSungHyun located in Pasuruan. Because the population is very large and not known for certain, the authors define the sample size of 159 people

Technical Analysis

In analyzing and testing hypotheses with respect to the issues in this study, the authors used multiple regression statistical analysis tools with the help of a computer program Statistical Product and Service Solutions (SPSS) 19 for windows.

With the formula:

$$\text{Multiple regression: } Y = a + b_1x_1 + b_2x_2 + b_3x_3 + e$$

Where:

Y = Performance of production workers, X1 = Capability, X2 = Motivation, X3 = Leadership, a = a constant value, b1, b2, b3 = Coefficient Regression, e = error estimation

RESULT ANALYSIS

Classical Assumption Test

Regression analysis explains the causal relationship between variables. As one of the inference statistical analysis, multiple linear regression analysis in addition to requiring the normality of the data also requires additional requirements, in order to form a model which can be used to explain the effect of the independent variable on the dependent variable, the additional requirements are Multi collinearity, heteroscedasticity and autocorrelation or often referred to as assumptions requirements classic.

Normality Test

Normality test results can be seen in the table below

Table 1. Kolmogorov-Smirnov Normality Test One-Sample Kolmogorov-Smirnov Test

		<i>Un standardized Residual</i>
N		159
Normal Parameters ^{a,b}	Mean	.0000000
	Std. Deviation	.42085790
Most Extreme Differences	Absolute	.076
	Positive	.041
	Negative	-.076
Kolmogorov-Smirnov Z		.955
Asymp. Sig. (2-tailed)		.322

a. Test distribution is Normal, b. Calculated from data

Source: results of the analysis

Normality Test using the One-Sample Kolmogorov-Smirnov Test Kolmogorov-Smirnov obtained value Z = 0955 and the probability Z count Asymp. Sig. (2-tailed) = 0322. Because

the probability of Z count is greater than the test level research ($0.932 > 0.05$), the value of the regression residuals are normally distributed, which means that the data variables X1, X2, X3, and Y are used for multiple linear regression analysis derived from the data are normally distributed variables.

Multicollinearity Test

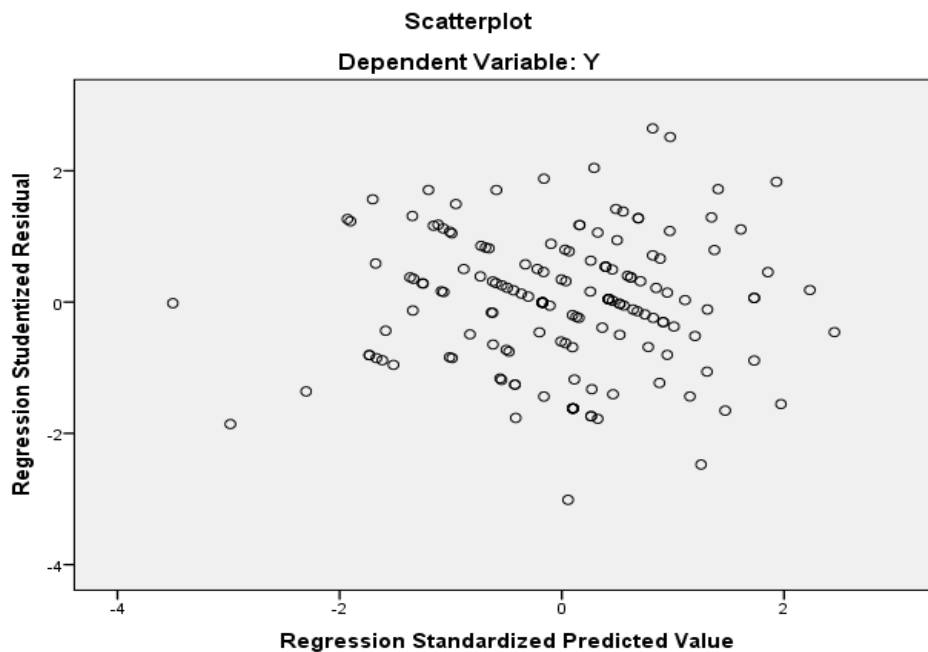
Table 2. Coefficient Collinearity Statistics Coefficients^a

Model	Collinearity Statistics		
	Tolerance	VIF	
1	X1	.874	1.144
	X2	.893	1.120
	X3	.948	1.055

a. Dependent Variable: Y
Source: results of the analysis

Coefficient table above collinearity Statistics are used to test the multi collinearity analysis requirements. From the table it was found that each of the independent variables are ability, motivation, and leadership have VIF values smaller than 5 so that it can be concluded that the multiple linear regression analysis did not have a problem with multi collinearity.

Heteroscedasticity



Source: Results of the analysis

Figure 1. Scatter plot Assumption Test for Heteroscedasticity

Scatter Plot of the graph above, it is seen that the points on the calculation (the intersection between residuals and predicted values) relative pre and only above and below the point of origin and does not form a specific pattern. It can be concluded that the multiple regression analysis X1, X2, and X3 to Y absolutely linear because it does not have the problem of heteroscedasticity that multiple linear regression analysis can be continued.

Auto Correlation

Table 3. Model Summary Assumptions Test for Autocorrelation Model Summary^b

<i>Model</i>	<i>Durbin-Watson</i>
1	1.701 ^a

a. Predictors: (Constant), X3, X2, X1, b. Dependent Variable: Y
Source: results of the analysis

Dari Durbin-Watson hasil perhitungan diperoleh sebesar DW = 1.701 yang berarti masih dibawah 5, yang berarti tidak terjadi autokorelasi. Hal ini dapat disimpulkan bahwa analisis regresi linier berganda yang dilakukan tidak memiliki masalah autokorelasi, dengan demikian analisis dapat dilanjutkan.

Regression Analysis Model

The results of multiple regression analysis in this study to test the effect of ability, motivation, and leadership on the performance of production workers are presented in the following table:

Table 4. Multiple Linear Regression Model Summary X1, X2, and X3 to Y Model Summary^b

<i>Model</i>	<i>R</i>	<i>R Square</i>	<i>Adjusted R Square</i>	<i>Std. Error of the Estimate</i>
1	.580 ^a	.336	.323	.42491

a. Predictors: (Constant), X3, X2, X1, b. Dependent Variable: Y
Source: results of the analysis

Table 5. Anova Regression X1, X2, and X3 to Y ANOVA^b

<i>Model</i>	<i>Sum of Squares</i>	<i>Df</i>	<i>Mean Square</i>	<i>F</i>	<i>Sig.</i>
Regression	14.168	3	4.723	26.157	.000 ^a
1 Residual	27.985	155	.181		
Total	42.153	158			

a. Predictors: (Constant), X3, X2, X1, b. Dependent Variable: Y
Source: results of the analysis

Multiple determination coefficient R²=0.336, has a probability value of F calculated by sig. F=0.000. Of multiple determination coefficient R² value can be explained that 33.6% of the variation decision-performance production workers affected jointly by the ability, motivation and leadership while the remaining 66.4% is influenced by other variables not examined.

Table 6. Regression coefficient of X1, X2, and X3, Against Y Coefficients^a

<i>Model</i>	<i>Un standardized Coefficients</i>		<i>Standardized Coefficients</i>	<i>T</i>	<i>Sig.</i>
	<i>B</i>	<i>Std. Error</i>	<i>Beta</i>		
(Constant)	.698	.341		2.044	.043
1 X1	.390	.072	.379	5.419	.000
X2	.245	.070	.244	3.522	.001
X3	.150	.056	.180	2.674	.008

a. Dependent Variable: Y
Source: results of the analysis

From the table calculation results of multiple linear regression analysis above can be formed regression model and its significance as follows:

$$Y = 0698 + 0.390X_1 + 0.245X_2 + 0.150X_3 + e$$

Multiple linear regression model can be interpreted as follows:

constants of $a = 0698$ is significant because the calculated probability value is lower than the test level research ($\text{Sig. } t < \alpha$ or $0.043 < 0.05$) This implies that if the ability, motivation and leadership does not exist or is zero then the performance of production workers It will be positive for 0698

If the ability (X_1) up one unit of the performance of production workers (Y) will increase by 0.390 units assuming other variables constant.

If the motivation (X_2) up one unit of the performance of production workers (Y) will increase by 0245 units assuming other variables constant.

If the leadership (X_3) up one unit of the performance of production workers (Y) will increase by 0.150 units assuming other variables constant.

Hypothesis Testing Results

First Hypothesis Testing

Multiple determination coefficient $R^2=0336$ has a probability value of F calculated by $\text{Sig. } F=0.000$ (in Table .30). Because $p \neq 0$ and the probability F count is smaller than the test level research ($\text{Sig. } F < \alpha$ ie $0.000 < 0.05$), then H_0 is rejected and H_a accepted which means the simultaneous effect of variables ability, motivation, and leadership on the performance of production workers is significant.

Second Hypothesis Testing

Ability Variable (X_1)

Regression coefficient of $b_1=0.390X_1$ has a probability value of significant= 0.000 . Because $b_1 \neq 0$ and the probability is smaller than the test level research ($\text{Sig. } t < \alpha$) or $0.011 < 0.05$), then H_0 rejected and H_a accepted which means that the effect of partially ability (X_1) against the decision of hiring (Y) significant.

Motivation Variable (X_2)

Regression coefficient of $b_2=0245X_2$ has a probability value of significant= 0.001 . Because $b_2 \neq 0$ and the probability is smaller than the test level research ($\text{Sig. } t < \alpha$) or $0.001 < 0.05$), then H_0 rejected and H_a accepted which means the partial effect of motivation variables (X_2) on the performance of production workers (Y) significant.

Leadership Variable (X_3)

Regression coefficient= $0.150X_3$ for b_3 has a probability value of significant= 0.008 . Because $b_3 \neq 0$ and the probability is smaller than the test level research ($\text{Sig. } t < \alpha$) or $0.008 < 0.05$), then H_0 rejected and H_a accepted which means partial effect leadership variable (X_3) on the performance of production workers (Y) significant.

Third Hypothesis Testing

Table 7. Summary of Test Results of t

<i>Independent Variables</i>	<i>t Value</i>	<i>Specification</i>
Ability (X1)	5.419	
Motivation (X2)	3.522	Dominant
Leadership (X3)	2.674	

Source: Results of the analysis

DISCUSSION

The results of this study found that, together abilities, motivation, and leadership can affect the performance of production workers in East Java. This is justified by the Sig. F smaller than the test level research. Partially ability, motivation, and leadership can affect the performance of production workers in East Java. This is justified by the Sig. t smaller than the test level research. Samples were taken from the four companies spread across four counties and cities namely PTHMSampoernain Surabaya, PTInterbatin Sidoarjo, PTGaruda Food in Gresik, Indonesia and PTSung Hyunin Pasuruan.

Ability is identical to the competency of which refers to the dimension of the behavior of a role behaviors needed someone to be able to carry out their work satisfactorily. The ability of labor /production workers include the level of understanding of the work as a whole, the level of interpersonal skills possessed, how to communicate well and smoothly both with superiors and with the fellow, initiatives ride as are needed to solve the problems of employment, ability also includes cooperation team, supported by these factors the ability of workers/employees can be increased, if the enhanced ability of the employee's performance will also increase.

Motivation is defined as a process that explains the intensity, direction, persistence of an individual to achieve his goal.

Herzberg's theory states that a person's job satisfaction is influenced by two groups, namely situations: situations that give job satisfaction is named Satisfiers/motivator, motivator needs associated with the work itself consists of promotion, responsibility, etc., and the situation does not provide job satisfaction named dissatisfies/hygiene. While Hygiene factors are factors that proved to be a source of dissatisfaction consist of salaries, incentives, supervision, personal relationships, working conditions and status.

If the motivation of workers is met then it will have an impact on job satisfaction high and will have a positive attitude towards work. With the high job satisfaction and a positive outlook towards work will improve worker performance. Leaders need to know what is the motivation of employees is related to the promotion, responsibility, or salary and other incentive or motivation, in order to support the leadership's decision to increase the performance of employees, which in turn will improve the overall performance of the company as well

This study also resulted in a significant leadership and positive influence on the performance of the production workers. According Ermaya (1999: 11) Leadership is the ability of a leader to control, lead, influence thoughts, feelings or behavior of others to achieve predetermined goals. Leadership can be concluded is the ability to direct, influence, encourage, control

others or subordinates to be able to do any work on consciousness and voluntary in the sense of achieving a particular goal.

Leadership determines the level of performance of its employees, a leader must be able to direct subordinates, should be also affected how employees so harmoniously with the eyes of the company, the leader continues to provide encouragement to his subordinates, controlling subordinate to emphasize the importance of duty and responsibility. So that leaders and subordinates can be balanced to achieve company goals.

CONCLUSION AND RECOMMENDATIONS

Conclusion

Based on the research that has been done, it can be concluded as follows:

1. Calculation of multiple linear regression analysis resulted in the calculated F value is smaller than the test level research (Sig. $F < \alpha$ ie $0.000 < 0.05$), then H_0 is rejected and H_a accepted which means the simultaneous effect of variables ability, motivation, and leadership on the performance of lab or production in eastern Java is significant of 0.000.
2. That the whole partially independent variables, namely the ability, motivation, and leadership partial effect on the dependent variable (performance production workers).
3. The most dominant variable influence is variable ability (X_1) with t value for 5419 is greater than the t of the other independent variables.

Recommendations

Based on these results, three recommendations given is as follows:

1. From the three variables studied, are all positive and significant effect on the performance of production workers companies do not get enough to maintain even the ability variables need to be increased in addition to improving the performance of production workers also to improve the quality of human resources.
2. Approach to production workers need to be considered to determine the motivations which are owned by the workers so that companies can take appropriate measures so that the company's goals and objectives can be aligned employees.
3. For further research that is intended to conduct research on the same topic, it is recommended to further increase the specific variables related to the performance of the production workers.

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