

Factors Affecting Labor Productivity of Palm Oil Harvesters at PT. Betami, Rantau District, Aceh Tamiang Regency

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Abstract

Muhammad Ichsan Maulana (2022). The purpose of this study was to analyze the effect of age, work experience, number of dependents, salary of supporting facilities and motivation on work productivity of oil palm harvesters at PT, Betami Kebun Rantau, Aceh Tamiang Regency. The analytical method used is multiple linear regression analysis with SPSS 24.0 tool. The sampling method used the census method and the sample of this study amounted to 35 employees of oil palm harvesters at PT. Betami Overseas Gardens, Aceh Tamiang Regency. Determination of the research area is done purposively. The results of the study concluded that the work productivity of oil palm harvesters was high, i.e., 50,000 – 52,000 Kg/HKP/Month. Factors Age, Work Experience, Number of Dependents, and Motivation have no significant effect on the work productivity of oil palm harvesting employees at PT. Betami Rantau Farms while the Salary and Supporting Facilities have a significant effect on the work productivity of oil palm harvesting employees at PT. Betami Overseas Gardens.

Keywords: Work Productivity, Harvest Employees, Motivation

Introduction

The development of the agricultural sector is an integral part of National Development where agricultural development has sectoral meaning in laying a solid foundation for the nation's economy. To maintain and improve the development of the agricultural sector, of course, cannot be separated from the role of the development of the plantation sub-sector. One of the most important plantation commodities in the Indonesian economy is oil palm. As the main product, oil palm plantations are one of the strategic commodities as the country's main foreign exchange earner from the non-oil and gas sector. Efforts to increase the production of oil palm plantations are directed so that they can actually function as a foreign exchange earner, increase job opportunities and increase farmers' income and standard of living.

Sources of work productivity are humans as workers, both individually and in groups, which are fully focused on efforts to find ways that allow humans to increase their productivity at work, especially with regard to improving the quality of their work (Halimah, 2014).

Literatur Review

Work productivity comes from English, product: result, outcome develops into the word productive, which means to produce, and productivity: having the ability to make or create, creative. The word is used in Indonesian as productivity which means strength or ability to produce something, because it is in an organization. The work that will be produced is the realization of its goals (Anastasia, 2014).

Productivity has two dimensions, namely first, effectiveness which leads to maximum work achievement (achievement of quality, quantity and time targets) and secondly, efficiency related to efforts to compare inputs with the realization of utilization or execution of work. The level of efficiency is determined by the magnitude of the input and output values, while the effectiveness value is largely determined by the achievement of the target (Mahanggoro, 2018).

The Indonesian National Productivity Council has formulated a complete definition of productivity as follows (Fata, 2013):

- a. Productivity is basically a mental attitude that always has the view that the quality of life today is better than yesterday and tomorrow is better than today.

- b. In general, productivity implies a comparison between the results achieved (output) with the overall resources used (input).
- c. Productivity has two dimensions, namely effectiveness which leads to the achievement of maximum performance, namely the achievement of targets related to quality, quantity and time.

Productivity according to (Putti, 2010) is a level of comparison between the amount of output and the amount of input. Thus, it tells us the quantity of output that can be produced from a number of

Implementation Method

Research Time and Place

The research time is planned in January - February in 2022. The research location is determined purposively (deliberately). This research was conducted at PT Betami, Rantau District, Aceh Tamiang Regency based on certain considerations and obtaining permits.

Research Design

This research method uses a survey method. Survey methods are sampling of individual units from a population and related techniques for collecting survey data, such as questionnaires and methods for increasing the number and accuracy of responses in surveys. Survey methodologies include instruments or procedures that ask one or more questions that may or may not be answered.

The research approach uses descriptive quantitative. Quantitative descriptive analysis is analyzing, describing, and summarizing various conditions, situations from various data collected in the form of interviews or observations about the problems studied in the field Made Winartha (2006).

Determination of Population and Sample

Population Determination

Population is a collection of data that has the same characteristics and becomes the object of inference. Inference statistics is based on two basic concepts, the population as a whole data, both real and imaginary, and the sample, as part of the population that is used to make inference (approach / depiction) to the population from which it originates.

According to Sugiyono (2017) population is a generalization area consisting of objects or subjects that have certain qualities and characteristics set by the researcher to be studied and then conclusions are drawn based on this opinion, so the population in this study is the harvester workforce at PT Betami who has a harvesting workforce population of 35 people.

Sampling

The research sample is part of the population taken as a data source and can represent the entire population of harvesters at PT Betami. The determination of the sample used in this study is the census method based on the provisions put forward by Sugiyono (2002) which says that "saturated sampling is a sampling technique when all members of the population are used as samples. Another term for saturated sample is census. So that the harvester population of 35 people were all used as research samples, the consideration of using the survey method was because the population of employees at PT Betami was small

Result and Discussion

Classic Assumption Test

Normality Test

Normality test is a test carried out with the aim of assessing the distribution of data in a group of data or variables, whether the distribution of the data is normally distributed or not. Normality test is done to see if the error

term is normally distributed or not. The test was carried out using the Kolmogorov Smirnov test. In this test, if the significance value is greater than the value of $\alpha = 0.05$, then the model does not violate the normality assumption. The test results in this study can be seen in Table 4.6

Table 4.6 Normality test

No	Uji	Sig.
1	Kolmogrov-Smirnov	.069 ^c

Source: Primary data processed using SPSS 24, 2022 (Appendix 5).

From the table above, it can be seen that the significance value in the test is 0.69. This value is greater than the value of (0.05), so it can be concluded that there is no violation of the normality assumption in the model used in this study.

Multicollinearity Test

Multicollinearity test to determine the relationship between some or all of the variables that explain in the regression model. If there is multicollinearity in the model, then the model has a large standard error so that the coefficients cannot be estimated with high accuracy. Multicollinearity test is detected by looking at the Tolerance and VIF values. Tolerance values 0.1 and VIF 10, indicating that there is no multicollinearity violation. The test results can be seen in table 4.7.

Table 4.7 Multicollinearity Test Results

No	Variabel Bebas	Tolerance	VIF
1	Umur	0,699	1,430
2	Pengalaman Kerja	0,602	1,660
3	Jumlah Tanggungan	0,594	1,684
4	Gaji	0,481	2,081
5	Sarana Pendukung	0,805	1,242
6	Motivasi	0,741	1,349

Source: Primary data processed using SPSS 24, 2022 (Appendix 5).

Heteroscedasticity Test

The heteroscedasticity test is used to determine whether or not there is a deviation from the classical assumption of heteroscedasticity, namely the existence of an inequality of variance from the residuals for all observations in the

regression model. The results of the heteroscedasticity assumption test using the graphical method are presented in Figure 4.4. shows that the residual variance points are spread out and do not form a clear and systematic pattern. The test results can be seen in the image below.

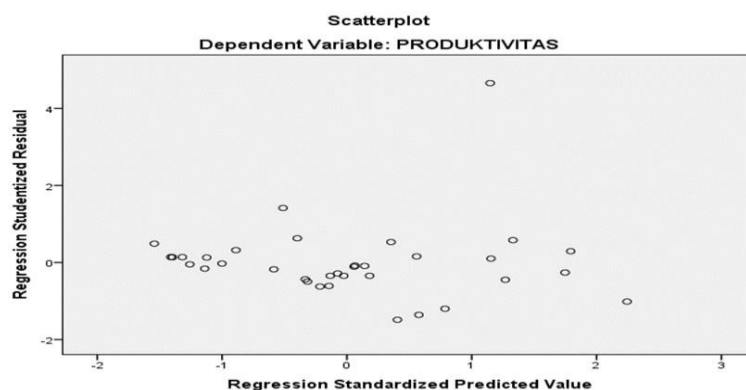


Figure 4.4 Hetroscedasticity Test Results (Appendix 5)

From the picture above, it can be seen that there is no pattern or image formed from the results of the heteroscedasticity test. From this it can be concluded that there is no violation of the assumption of heteroscedasticity.

Conformity Test Results (Goodness Of Fit Test) And Hypothesis Testing Table 4.8 Conformity Test Results and Hypothesis Testing.

Variabel	Koefesien Regresi	Thitung	Sig.	Probabilitas Error
(Constant)	-23451.564	-10.855	0,000	0,005
Umur (X1)	8.219	1.1519	0,123*	
Pengalaman Bekerja (X2)	0,198	0,007	0,995	
Jumlah Tanggungan (X3)	22.032	0,847	0,404	
Gaji (X4)	0,024	32.081	0,000*	

Sarana Pendukung (X5)	245.516	3.360	0,002*
Motivasi (X6)	-9.157	-1.457	0,156*
R ²	0,994		
Fhitung	375.414		0,000*
*Berpengaruh Nyata			

(Source: Data processed from appendix 5)

From Table 4.8 can be written multiple linear regression equation as follows:

$Y = -23,451,564 + 8,219 X_1 + 0,198 X_2 + 22,032 X_3 + 0,024 X_4 + 245,516 X_5 - 9,157 X_6$ Based on the multiple linear regression equation above, the coefficient values can be interpreted as follows:

1. If the independent variables are Age (X1), Work Experience (X2), Number of Dependents (X3), Salary (X4), Supporting Facilities (X5) and Motivation (X6) are equal to 0 then the preference for productivity value is - 23,451,564.
2. If X2, X3, X4, X5 and X6 are considered constant, each age increases by 1 year, productivity will increase by 8,219 Kg/HKP/Month.
3. If X1, X3, X4, X5 and X6 are considered constant, then for every 1 year additional work experience, productivity will increase by 0.198 Kg/HKP/Month.
4. If X1, X2, X4, X5 and X6 are considered fixed, then for every dependents increase by 1 person, the productivity will increase by 22,032 Kg/HKP/month.
5. If X1, X2, X3, X5 and X6 are considered constant, then each salary increase, productivity will increase by 0.024 Kg/HKP/Month.
6. If X1, X2, X3, X4 and X6 are considered fixed, then each harvesting tool used with a complete unit of productivity will increase by 245,516 Kg/HKP/Month.
7. If X1, X2, X3, X4 and X5 are considered constant, then every additional 1 motivation score to the productivity workforce will increase by -9,157Kg/HKP/Month.

Coefficient of Determination R²

From Table 4.8 obtained an R² value of 0.994, which means 99.4% of the labor productivity variables of oil palm harvesters can be explained by the variables Age (X1), Work Experience (X2), Number of Dependents (X3), Salary (X4), Supporting Facilities (X5) and Motivation (X6) and the remaining 0.6% are explained by other variables outside this research model such as premiums and topography.

F Test (United Test)

From Table 4.8, it can be seen that the Fcount value is 375,414 with a significance of 0.000 at the level of = 0.05. This shows that the significance value of F is smaller than the probability value ($0.000 < 0.05$), then H0 is rejected and H1 is accepted. This means that simultaneously the variables of age (X1), work experience (X2), number of dependents (X3) salary (X4), supporting facilities (X5) and motivation (X6) have a very significant effect on labor productivity of oil palm harvesters.

T test (Partial Test)

From Table 4.8 it can be interpreted that the effect of the variables of age, work experience, number of dependents, salary, supporting facilities and motivation partially on the productivity of oil palm harvesters is as follows:

Age (X1)

Statistically the partial test, the results of the analysis of the labor productivity of oil palm harvesters obtained tcount of 1.591 with a significance value of 0.123 at the level of $\alpha = 0.05$. This value indicates that the significance value is greater than the value of $(0.123 > 0.05)$, which means that H_0 is accepted and H_1 is rejected. This means that the age variable partially has no significant effect on labor productivity of oil palm harvesters at PT. Betami Overseas Gardens, Aceh Tamiang Regency. In this study, age did not affect work productivity at all because the overall work ability of employees was almost the same in terms of the harvesting process. The work ability created is based on the work ethic and work discipline that has been set by the company.

The results of this study are not in line with the theory (Jumliati, 2016) which states that the higher the age of a person, the higher the level of productivity, but after the age point is passed, the productivity will decrease with increasing age.

Work Experience (X2)

Statistically the partial test, the results of the analysis of the labor productivity of oil palm harvesters obtained tcount of 0.007 with a significance value of 0.995 at the level of $\alpha = 0.05$. This value indicates that the significance value is greater than the value of $(0.995 > 0.05)$ which means that H_0 is accepted and H_1 is rejected.

This means that the variable of working experience partially does not have a significant effect on the productivity of oil palm harvesters at PT. Betami Overseas Gardens, Aceh Tamiang Regency. In this study, work experience does not affect productivity because work experience will make every worker have the skills and abilities to carry out the work being done.

The results of this study are not in line with the theory (Malik, 2016) which states that the more experienced a worker is, the more skilled his work will be, thus requiring shorter working hours.

Number of Family Dependents (X3)

Statistically the partial test, the results of the analysis of the productivity of oil palm harvesting employees obtained tcount of 0.847 with a significance value of 0.404 at the level of $\alpha = 0.05$. This value indicates that the significance value $(0.404 > 0.05)$ is greater than the value of α , which means that H_0 is accepted and H_1 is rejected. This means that the number of dependents has absolutely no significant effect on the productivity of oil palm harvesting employees at PT. Betami Rantau Estate, Aceh Tamiang Regency at the research site.

The results of this study are in line with the results of research from (Bismar, 2016.) The number of dependents does not significantly affect the work productivity of harvesters.

Wages (X4)

Statistically the partial test, the results of the analysis on labor productivity of oil palm harvesters obtained tcount of 32,081 with a significance value of 0.000 at the level of $\alpha = 0.05$. This value indicates that the significance value is smaller than the value of $(0.000 < 0.05)$, which means that H_0 is rejected and H_1 is accepted. This means that the salary variable partially has a very significant effect on the productivity of oil palm harvesters at PT. Betami Overseas Gardens, Aceh Tamiang Regency. In this study, salary affects productivity because salary is a form of company appreciation for harvest workers who are aware of the importance of productivity and will encourage the workforce concerned to further increase their productivity.

The results of this study are in line with the theory (Setiadi, 2009) which states that the size of the wages given by the company to its workers will affect the level of employee productivity. Whether or not incentives are given to workers will have a positive effect on increasing labor productivity.

Supporting Facilities (X5)

Statistically the partial test, the results of the analysis of the labor productivity of oil palm harvesters obtained tcount of 3.360 with a significance value of 0.02 at the level of $\alpha = 0.05$. This value indicates that the significance value is greater than the value of $(0.02 < 0.05)$, which means that H_0 is rejected and H_1 is accepted. This means that the supporting facilities variable partially has a very significant effect on the productivity of oil palm harvesters at PT. Betami Overseas Gardens, Aceh Tamiang Regency. In this study, the supporting facilities factor affects productivity because in addition to the role of complete supporting facilities, skills are also needed in the use of supporting facilities that have been provided as well as attitudes and work ethics while doing work.

The results of this study are in line with the theory (Gito Sudarmo, 2001) which states that the work facilities provided by the company strongly support employees in their work. These work facilities are tools or facilities and infrastructure to help employees complete their work more easily and employees will be more productive.

Motivation (X6)

Statistically the partial test, the results of the analysis of the motivation of the oil palm harvester workers obtained tcount of -1.457 with a significance value of 0.156 at the level of $\alpha = 0.05$. This value indicates that the significance value is smaller than the value of $(0.156 > 0.05)$ which means that H_0 is accepted and H_1 is rejected. This means that the motivation variable partially has no significant effect on labor productivity of oil palm harvesters at PT. Betami Overseas Gardens, Aceh Tamiang Regency.

The results of this study are not in line with the theory (Daryanto, 2012). Without motivation, a worker cannot complete his duties according to standards because what his motives cannot be fulfilled. Even if someone who has operational skills does not have the motivation to work, the end result of his work will not be in accordance with the goals to be achieved. Productivity is a concept that describes the relationship between the results (the number of goods produced) and the resources (the amount of labor, capital, land, energy, and so on) used to produce these results.

Conclusion

Based on the results of calculations and analyzes that have been carried out, it can be concluded that:

1. Based on the results of the coefficient of determination test, the Adjusted R Square value (Coefficient of determination) is 0.994, which means the ability of the independent variable to explain the dependent variable is 99.4% while the remaining 0.6% is explained by variables outside the study.
2. The estimation results of the F test show that simultaneously the dependent variables such as age (X1), work experience (X2), number of dependents (X3), salary (X4), supporting facilities (X5) and motivation (X6) have a very significant effect on productivity. oil palm harvesters.
3. Based on the t-test estimation results, the salary variable (X4) and supporting facilities (X5) have a very significant effect on the productivity of oil palm harvesters, while the variables of age (X1), work experience (X2), number of dependents (X3) and motivation (X6) absolutely no significant effect on the productivity of oil palm at PT. Betami Overseas Gardens, Aceh Tamiang Regency.

Suggestions

Based on the results of the study, there are things that must be done further, including:

1. To PT. Betami in order to be able to pay attention to the welfare of the workforce can be seen through the influence of increasing age, longer work experience, increasing number of family dependents and motivational

- encouragement from the company is needed by the workforce, so as not to reduce productivity and can encourage workers to be more enthusiastic. achieve the targets set by the company.
2. To harvest workers, harvesters are expected to be able to create good thoughts or ideas that can be useful for efforts to increase labor productivity so as to optimize their skills and abilities in increasing work productivity in order to achieve the targets set by the company. Optimizing labor resources in the family that can help especially for harvesters so that the production produced is more than the productivity target.
 3. To further researchers, it is suggested that they can examine the productivity of oil palm harvesters by using variables not included in this study such as premiums and topography.

References

- Anastasia, R.C. 2014. Labor Productivity. Mercu Buana University Yogyakarta. Yogyakarta.
- Daryanto. 2012. Innovative Learning Models. Yogyakarta. Gava Media.
- Fata, R. 2013. The Relationship between Work Experience and Employee Productivity at Fotuna
- Halimah, S. 2014. Work Productivity. UIN Sunan Ampel Surabaya.
- Plastic Industry Pasuruan. UIN Maulana Malik Ibrahim Malang. Poor.
- Jumliati, 2016. Factors Affecting Labor Productivity of the Maros Bread Industry in Maros Regency. Makassar public university. Makassar.
- Mahanggoro, TP. 2018. Boosting Work Productivity with Synergy
- Malik, N. 2016. Dynamics of the Indonesian Labor Market. UMM Press. Poor.
- Putti, 2010. Understanding Productivity. Publisher's Literature Bodybuilding. Tangerang.
- Setiadi, 2009. Analysis of Factors Affecting Manpower Productivity in the Manufacturing Industry in Semarang City. Diponegoro University. Semarang.
- Sugiyono, 2017. Research methods are quantitative, qualitative and R&D. Alphabeta BETA.