ANALYSIS OF FACTORS AFFECTING THE LEVEL OF HARVEST PREMIUMS ON OIL PALM HARVEST EMPLOYEES PT. AGRO SINERGI NUSANTARA BATEE PUTEH PLANTATION AFDELING I

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Abstract

Oil palm (Elaeis guineensis Jacq.) is an oil-producing plantation crop that is a source of non-oil and gas foreign exchange in Indonesia This research was conducted in October-November 2022, the location of this research was carried out in the Batee Puteh plantation, Afdeling 1, West Aceh Regency. The data used in this study used primary data and secondary data. The sampling technique in this study used the saturated sampling method, which is a sampling technique when all populations are used as samples. The results of the data questionnaire were first carried out Validity Test, Normality Test and Multicollinearity Test. The analysis used in this research is multiple linear regression analysis to determine the relationship and influence of harvest premiums (Y) on work quality (X1), work quantity (X2), and attendance (X3). The results showed that the factors that influence the harvest premium on PT ASN oil palm harvest employees based on the t test table 0.05 (1.692) showed an influence on the variable X1 work quantity, X2 work quality where t count was smaller than the table. While the X3 attendance variable does not show an influence where t count is greater than t table. Based on the regression output, the R2 value is 0.622, meaning that the effect of the harvest premium can be explained well through the regression model built in this research by 62.2%.

Keywords: ***Premium, Performance, Harvester***

1. INTRODUCTION

The potential of palm oil commodities in the world vegetable oil trade has encouraged the Indonesian government to develop oil palm plantation areas. The area of oil palm plantations in Indonesia from 2017-2021 reached 15.08 million hectares. The plantation area increased by 1.5% compared to the previous year, which was 1.48 million hectares from 15.08 million hectares with the increase in the area of oil palm plantations also followed by an increase in the amount of oil palm production. The amount of national palm oil production in 2021 was 49.7 million tons, up 2.9% from the previous year of 48.3 million tons. (Directorate General of Plantation 2022). The Batee Puteh Afedeling I unit oil palm plantation of PT Agro Sinergi Nusantara is a subsidiary of PT Perkebunan Nusantara I and PT Perkebunan Nusantara IV which is engaged in producing crude palm oil through sustainably managed plantations. oil palm productivity at the batee puteh plantation in the last 5 years 2017-2021 has increased every year with the highest productivity of 8.36 tons / ha. Meanwhile, the highest production was found in 2020 at 12,823,960 with a number of bunches of 1,776,838 with an average Bjr weight of 8.25. Meanwhile, the highest production was found in 2020 amounting to 12,823,960 with a total number of bunches of 1,776,838 with an average Bjr weight of 8.25. Meanwhile, the lowest production was found in 2017 amounting to 5,879,812 with a total number of bunches of 1,517,238 with an average BJR weight of 3.88.

Oil palm harvesting is one of a series of activities that are very important for producing oil palm companies (Perdamen 2017). Indirectly the amount of Fresh Fruit Bunch (FFB) production produced by oil palm plantations and companies is highly dependent on oil palm harvesters Sunarko (2014) in Prihartini et al. 2019.

Giving premiums to employees is not only a sign of gratitude from the company to employees for exceeding the targets that have been applied but also a way for companies to retain employees. The appropriate premium system is able to improve employee performance, where the provision of premiums is able to boost employee morale, attendance. The company must apply premiums fairly and properly, in the sense that the word fair is the amount of wages received by employees must be adjusted to work performance, type of work, job risks, and employee positions, while proper is the wages received are able to improve employee welfare (Ano 2022). However, the provision of premiums can sometimes affect the satisfaction of employees, both the way premiums are given and the amount of premiums given, so that it can affect employee performance in a company and also affect the quality of employees, quantity of employees and also with employee attendance, usually with satisfaction and the amount of premiums received by employees, the quality and quantity of employees will increase because employees will be more enthusiastic in working and employees will come on time (Daulay and Azis 2022).

2. RESEARCH METHODOLOGY

Place and Time

This research was conducted in October - November 2022, the location of this research was carried out at Batee Puteh Plantation, Afdeling 1 West Aceh Regency.

Data Collection Method

Data collection techniques used in this study used primary data and secondary data. Primary data is data obtained directly from the source (respondent). The way to obtain this primary data is to give respondents questions about harvest premiums received / obtained from employees. The questions that must be filled in by members of the cooperative are in writing in the form of a questionnaire. Secondary data is data obtained from second sources, through written sources (literature study). Secondary data used are company archives, manuals or reading books related to research problems, journals obtained from the internet and previous theses.

Population and Sample

Samples are taking research subjects using part of the existing population. The sample in this study were harvest employees. The sampling technique in this study used the saturated sampling method, which is a sampling technique when all populations are used as samples (Sugiyono, 2017) In determining the sample in this study, researchers obtained population data from the company PT. Agro Sinergi Nusantara, of which there were 37 harvest employees in Afdeling 1 so that there were 37 samples in this study.

Data Analysis Method

The results of distributing questionnaires to respondents were then tabulated so as to produce the frequency and percentage of answers on each indicator of harvest premiums and employee performance in the form of work quantity, work quality and attendance. This indicator can be measured using a Likert scale. According to Sugiyono (2017) with a Likert scale, the variables to be measured are translated into variable indicators, then the indicator is used as a starting point for compiling instrument items which can be in the form of questions or statements. The question statements that must be responded to by respondents with a total of 29 statements The question uses a Likert scale with a score of 1-5. Answers to each Likert scale instrument have gradations from negative to positive and for quantitative analysis purposes, the answers are scored according to the following table:

Table 1. Likert Scale

Answer Options	Score
Strongly disagree	1
Disagree	2
Undecided Undecided	3
Agree	4
Strongly Agree	5

Source: Sugiono (2017).

The Likert scale is used to measure the level of employee performance based on indicators such as: quantity of results, quality of results and attendance obtained from the results of submitting questionnaires to all employees (harvesters) as many as 37 employees. Before the power obtained from the results of the data questionnaire is first carried out Validity Test, Reliability Test and Multicollinearity Test.

Validity Test

According to (Situmorang and Luthfi, 2012 in Lubis 2020) the criteria for determining the validity of a questionnaire are: If r count> r table then the question is valid. If r count < r table then the question is invalid.

Table 2. Validity Test

Variable	r-count	r-table	Description
Work Quality	0,689	0,267	Valid
Work Quantity	0,711	0,267	Valid
Attendance	0,686	0,267	Valid
Premium	0,849	0,267	Valid

Source: Primary Data (processed), 2023 (SPSS 26)

1. The coefficient of correlation of work quality is 0.689 > from r-table 0.267 the questionnaire is declared valid.
2. The coefficient value of the work quantity correlation is 0.711 > from r-table 0.267 the questionnaire is declared valid
3. The coefficient value of the attendance correlation of 0.686 > from r-table 0.267 the questionnaire is declared valid
4. The premium correlation coefficient value of 0.849 > 0.267 questionnaire is declared valid 4.

Reliability Test

According to (Situmorang and Luthfi, 2012 in Lubis 2020). Reliability is stated if the Cronbach Alpha value is> 0.60 or the Cronbach Alpha value is 0.80.

Table 3. Reliability Test

Cronbach's Alpha	N of Items
.792	5

The reliability test results show Cronbach's Alpha of 0.79 <0.60, meaning that the questionnaire used is declared reabel or consistent.

Normality Test

(Situmorang and Luthfi, 2012) in (Lubis 2020). Reliability test is an index that shows the extent to which a measuring device can be trusted or reliable. Reliability is stated if the Cronbach Alpha value is> 0.60.

Multicollinearity Test

Ferdinand (2013) in (Ano 2013) states that the multicolonierity test aims to test whether the regression model found a correlation between independent variables. there is no indication of multicollinearity if the Tolerance value> 0.100 and the VIF value < 10.00. The analysis used in this research is multiple linear regression analysis to determine the relationship and influence of harvest premium (Y) on work quality (X1), work quantity (X2), and attendance (X3). In general, the regression model is as follows:

Y = bo + b1X1 + b2X2 + b3X3

Where:

Y = Harvest Premium

b0, b1, b2, b3 = Regression coefficient

X1 = Quality of work

X2 = Work quantity

X3 = Attendance

Hypothesis testing of factors affecting premium income is analyzed through partial and simultaneous testing. According to Ghozali, 2018 Multiple Linear Regression is a regression model that involves more than one independent variable. Multiple linear regression analysis is performed to determine the direction and how much influence the independent variable has on the dependent variable. The tests used in multiple linear regression are using the t-count, f-count and R^2 tests. The regression equation is carried out at the end of the analysis because the interpretation of the regression equation will be more accurate if the significance is known.

Ha = Work quantity, work quality, attendance affect the harvest premium rate

Ho = Quantity of work, quality of work, attendance do not affect the level of harvest premiums.

To test the effect of independent variables simultaneously on the dependent variable, the F test is used with the test criteria (Ano 2022) as follows:

If F-count ≤ F-table: then accept Ha or reject Ho

If F-count ≥ F-table: then accept Ha or reject Ho

To test the effect of the independent variables partially on the dependent variable, the t test is used with the following test criteria:

If t-count ≤ t-table: then accept Ha or reject Ho

If t-count ≥ t-table: then accept Ha or reject Ho

3. RESULTS AND DISCUSSION

Demographic Conditions of the Research Location

Batee Puteh Plantation is a plantation unit of PTPN-I with a managed land area of 8,649 Ha. Bate Puteh Plantation is located in Aceh Province, West Aceh Regency which consists of Arongan Lambalek and Woyla sub-districts and Aceh Jaya Regency, precisely in Teunom sub-district with the division of land in West Aceh covering 7,465 Ha and Aceh Jaya covering 1,184 Ha. The Batee Puteh Plantation is divided into 3 Afdeling. Afdelin I is 566 hectares with a number of blocks, Afdeling II is 567 hectares and Afdeling III is 582 hectares. In Afdeling I, there are 33 blocks with a land area that has produced 622 hectares and 119 hectares of immature land with a total plant population of 45,005 with an average of 61 plants / ha. Batee Puteh Plantation is located at an altitude of 40 meters above sea level with a slope height of 10 to 25% with a soil type of Podzolic red yellow and sandy loam with climate type A (Wet).

Characteristics of Respondents

The characteristics of respondents in this study are oil palm harvesting employees in Afdeling I of PT Agro Sinergi Nusantara's batee puteh plantation.

Table 4. Distribution of Respondents by Age Level

Age	Total	Percentage
≤30	9	24.32
31-40	14	37.84
41-50	9	24.32
≥50	5	13.51
Total	**37**	**100**

Sumber: Data Primer (Diolah), 2023

Based on Table 4, it can be seen that the largest number of respondents / harvesters age is in the age group range of 31 - 40 with 14 harvesters or 37.84% and the smallest number of harvesters age is in the age group range ≥ 50 years with a total of 5 harvesters or by 10.64%. While harvesters with age ≤ 30 and age 41 - 50 years each mansing 9 people or 24.32%. This shows that workers or employees who harvest are still relatively productive age so that it is expected to be able to produce high productivity for the company. Simamora et al., (2016) in Sari Et al., (2020) they stated that the work of harvesting oil palm is heavy work and requires good physical strength so that many harvesters are filled by productive age groups.

Table 5. Distribution of Respondents' Last Education

Education	Total	Percentage
Elementary	4	10.81
SMP - Sma	31	83.78
Diploma - S1	2	5.41
Total	**37**	**100**

Source: Primary Data (Processed), 2023

The education level of the largest respondents had a junior high school - high school education with a total of 31 harvesters or 83.78% while the rest of the harvesters had a final education of elementary school by 10.81% and Diploma-S1 4.41%. This shows that the level of education has no effect on employment as an oil palm harvester laborer. (Sari et al., 2020) states that plantation companies prioritize the work of technical employees who do not really need theoretical abilities, so that for the type of work in harvesting the company gives more vacancies to employees who have experience regardless of their educational background.

Table 6. Distribution of the number of dependents of the respondents

Dependents	Total	Percentage
≤ 2	9	24.32
3 s/d 5	28	75.68
≥ 5	0	0.00
Total	**37**	**100**

Source: Primary Data (Processed), 2023

The most dependents of respondents ranged from 3 - 5 dependents with 28 harvesters or 75.68% of the rest with dependents ≤ 2 people as many as 9 people or 24.32%.

Table 7. Distribution of Respondents' Experience Level

Experience	Total	Percentage
≤5	11	29.73
6_10	20	54.05
≥10	6	16.22
Total	**37**	**100**

Source: Primary Data (Processed), 2023

The work experience of each harvester is different. Harvesters with the most experience are those with 6-10 years of experience with 20 harvesters or 54.05% of the rest experienced ≤5 years totaling 11 people and ≥10 years totaling 6 people or 21.28%.

Premium Granting System for FFB Harvesters in Batee Puteh Afdeling I Plantation PT. Agro Sinergi Nusantara.

Fresh Fruit Bunch Production Premium (FFB)

FFB production premium is given if the harvester reaches above the borong base of Rp. 60,- / Kg for pure FFB production (without loose fruits) based on the weighing results. Lump Sum Basis is set for service employees and non-service employees.

Table 8. FFB Production Premium

Description	Lump Sum Basis (kg)	
	Service employee	Non-employee
TT 2012 & 2013	500	400
TT 2014	500	400

Source: Secondary Data, (PT. Agro Sinergi Nusantara) 2022

The predetermined borong basis is calculated on a daily basis. If the harvest production in a day does not reach or below the lump sum basis (Kg) then the shortage of the lump sum basis becomes a fine, if the harvester's production in a day reaches or is above the lump sum basis (Kg) then in addition to being given a wage plus giving a premium. Meanwhile, the premium for collecting loose fruit for harvesters is paid at IDR 150, - / Kg, where the calculation is based on the results of the scales at the Collection Place (TPH).

The harvester craft premium is given if the production of FFB plus loose fruit reaches the provisions according to the table as follows.

Table 9. Harvesting Craft Premium

Service employee		Non-employee	
Lump Sum Basis (kg)	Craft Premium	Lump Sum Basis (kg)	Craft Premium
≥ 160%	Rp 50.000,-	≥130%	Rp 30.000,-
≥ 200%	Rp 67.000,-	≥160%	Rp 50.000,-

Source: Secondary Data, (PT. Agro Sinergi Nusantara) 2022

Factors Affecting Employee Performance on Premium Receipts

Multicolenierity Test

According to (Imam Ghozali 2011 in Lubis 2020) there is no indication of multicollinearity if the Tolerance value is> 0.100 and the VIF value is < 10.00.

Table 10. Multicollinearity Test

Variabel	Tolerance	VIF
Quality of work	0,688	1,454
Quantity of work	0,729	1,372
Attendance	0,903	1,107

Source: Primary Data (processed), 2023 (SPSS 26)

The multicollinearity test results show that there are no multicollinearity symptoms in the regression above, where the tolerance value of all variables is> 0.10 and the VIF test value is < 10.0.

Coefficient of Determination (R^2)

The coefficient of determination is used to determine the level of influence of independent variables such as work quantity (X1), work quality (X2), and attendance (X3) and the level of influence on the harvest premium variable (Y) of oil palm harvesters. Clearly the results of the coefficient of determination analysis are presented in Table 11.

Table 11. Analysis of the Coefficient of Determination

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.622[a]	.387	.331	1.87858

Source: Primary Data (processed), 2023 (SPSS 26)

Based on Table 11, the accuracy of the regression model used can be shown by the coefficient of determination (R^2) value obtained, which is 0.331, which shows the value of the harvest premium variable by 33.1%.

F-Test Results The significance value for the effect of Variables X1, X2, and X3 on Variable Y can be seen in Table 12.

Table 12. F Test

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	73.433	3	24.478	6.936	.001[b]
	Residual	116.459	33	3.529		
	Total	189.892	36			

Source: Primary Data (processed), 2023 (SPSS 26)

The output of the statistical test results shows the significance value for the simultaneous influence of X1, X2, and X3 on Y where F count 0.05> F table 0.05 (6.936> 2.89). This value implies that all independent variables are simultaneously declared to have a significant influence on the receipt of oil palm harvest premiums.

This analysis is used to see the effect of each independent variable individually on the dependent variable can be seen in Table 13.

Table 13. t test

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	21.332	6.543		3.260	.003
	Work quality	.133	.265	.083	.503	.618
	Work Quantity	.536	.242	.354	2.217	.034
	Attendance	.520	.193	.387	2.697	.011

Source: Primary Data (processed), 2023 (SPSS 26)

From the results of data analysis, the regression equation can be obtained as follows:

Y= 6,543. 0,265 X1+ 0,242X2+ 0,193X3

Based on Table 13, we can explain some of the t-test results that have an individual effect as follows.

1. Work Quality (X1)
   The significance value for the effect of X1 on Y is 0.618 > 0.05 and the calculated t-value is 0.503 < t-table 1.692 Because t-count < t-table, Ho is accepted and Hi is rejected. This shows that the variable Quantity of work has no real effect on the receipt of Harvest Premiums.
2. Work Quantity (X2)
   The significance value for the effect of the harvest premium on the quality of work is 0.034 <0.05 and the calculated t value is 2.217 < t table 1.692, because t-count < t-table, then Ho is rejected and Ha is accepted. This shows that the quality of work affects the receipt of Harvest Premiums. The regression coefficient value is positive, meaning that the quality of work variable X2 affects the premium variable (Y).
3. Attendance (X3)
   The significance value for the effect of harvest premium on attendance is 0.011 < 0.05 and the t-count value is 2.697 > t-table 1.692, because t-count > t-table, Ho is rejected and Ha is accepted. This shows that the attendance variable has a real effect on the premium income of FFB harvesters. The regression coefficient is positive, meaning that the harvest premium variable (X3) affects the premium variable (Y).

4. CONCLUSION

The results showed that the quality of work (X1) has no effect on the level of harvest premium (Y) with a sig value of 0.618> 0.05 and a calculated t value of 0.503 < t-table 1.692. Work quantity (X2) has an effect on the harvest premium rate (Y) with a sig value of 0.034 < 0.05 and a t value of 2.217 < t table 1.692. Attendance (X3) effect on the level of harvest premium (Y) is 0.011 < 0.05 and the value of t-count 2.697 > t-table 1.692. This shows that the variable Quantity of work (X1) has no real effect on the receipt of Harvest Premium (Y). The variable quality of work (X2) and attendance (X3) has a real effect on the receipt of harvest premiums (Y).

REFERENCES

Ano M. E. 2022. Pengaruh Sistem Panen 8/10 dan Premi Panen Terhadap Kinerja Karyawan Pemanen Kelapa Sawit Di Kebun Rambutan PT. Perkebunan Nusantara III (Persero). [Tesis]. Program Magister Agribisnis Pascasarjana Universitas Medan Area. Medan

Daulay, P, A. 2022. Pengaruh Premi Panen dan Kepuasan Karyawan Panen Terhadap Kinerja Karyawan Panen Kelapa Sawit (Elaeis guineensis Jacq) Di Afdeling Damar Condong I PT. Sulaiman Saleh, Kecamatan Pematang Raya, Kabupaten Langkat. [Skripsi] Fakultas Pertanian Universitas Islam Sumatera Utara. Medan

Dewi, S. R., Bagio, B. (2022). Pengaruh Pendapatan Karyawan Pemanen Kelapa Sawit Terhadap Pengeluaran Keluarga Di Afdeling I Dan Afdeling Ii Di Kebun Krueng Luas PT Agro Sinergi Nusantara (ASN). Serambi Journal of Agricultural Technology. Vol 4, No 2. Hal 60-67. DOI: https://doi.org/10.32672/sjat.v4i2.4813

[Ditjenbun] Direktorat Jendral Perkebunan. 2016. Statistik Perkebunan Indonesia 2015-2017. Http://Ditjenbun.Pertanian.Go.Id/Tinymcpuk/Gambar/File/Statistik/2017/ Kelapa-Sawit- 20152017. Pdf. [30 Januari 2023]

Ghozali, Imam. 2018. Aplikasi Analisis Multivariate Dengan Program IBM SPSS 25. Badan Penerbit Universitas Diponogoro: Semarang

Harahap R F. 2021. Pengaruh Premi Panen Terhadap Kinerja Karyawan PT. Perkebunan Nusantara III (Persero) Kebun Sisumut Kota Pinang Kabupaten Labuhan Batu Selatan [Skripsi]. Fakultas Pertanian Universitas Muhammadiyah Sumatera Utara. Meda

Lubis, F.A.F. 2020. Analisis Sistem Premi Panen Kelapa Sawit Terhadap Kinerja Dan Kepuasan Kerja Karyawan (Studi Kasus: Unit Kebun Rambutan Perkebunan Nusantara III Kecamatan Paya Bagas, Kabupaten Serdang Bedagai). Program Studi Agribisnis Fakultas Pertanian Universitas Medan Area [Skripsi] Medan

Maruli, P. 2017. Kupas Tuntas Agribisnis Kelapa Sawit. Penebar Swadaya. Jakarta

Perdamen. 2017. Mengelola Kebun dan Pabrik Kelapa Sawit Secara Efektif dan Efisien. Jakarta Timur: Penebar Swadaya.

Prihartini M, Fadli M, Rossy M. 2019. Hubungan Pemberian Premi Panen Kelapa Sawit Dengan Motivasi Kerja Karyawan Panen Di Pt. Niagamas Gemilang Kabupaten Kutai Kartanegara Provinsi Kalimantan Timur. Jurnal Agriment 4(2):113-118

Romano, R., Ramayana, R., Putri Lestari, P.., Tambarta Kembaren, E. ., & Bagio, B. (2022). Oil Palm Fresh Fruits (FFB) Rendement In The East Region Of Aceh Province. International Journal of Social Science, Educational, Economics, Agriculture Research and Technology (IJSET), 2(1), 897–908. https://doi.org/10.54443/ijset.v2i1.100

Sari. B. I, Rusli. A, Rusmini. 2020. Evaluasi Sistem Premi Panen Terhadap Kinerja Karyawan Panen Pada Perkebunan Kelapa Sawit (Elaeis Guineensis Jacq.) di PT. Sentosa Kalimantan Jaya. Jurnal Agriment 5(2): 123-131

Sugiyono. 2017. Metode Penelitian Bisnis. Bandung : CV Alfabeta.