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THE INFLUENCE OF TOPOGRAPHY, NUMBER OF DEPENDENTS AND AGE OF HARVESTERS ON INCOME SATISFACTION OF PALM PALM HARVESTERS AT PRAPAT RANTAU GARDEN PTPN III

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Abstract

PTPN III Rantauprapat Estate in Labuhan Batu Regency is engaged in plantations that manage the cultivation of oil palm and rubber plants and the Rubber Processing Plant (PPK) industry. Harvesting is one of the most important activities in the cultivation of oil palm plants, therefore the income satisfaction of harvesting employees needs attention from the company. The purpose of this study was to analyze the effect of Topography, Number of dependents and Age of harvesters on Income Satisfaction of Oil Palm Harvesters in the Rantau Prapat PTPN III Plantation. This study uses multiple linear analysis and cross tabulation test analysis between topographic factors, age and number of dependents of harvesters with income satisfaction. The results showed R Square of 0.595 or 59.50% topography variables, age and number of dependents affect income satisfaction. From the results of the analysis it is concluded that the type of topography, age and number of dependents of employees affect the income satisfaction of oil palm harvesters in the Rantauprapat Plantation of PTPN III. The positive work environment of the company as well as the level of experience and the level of expectations have a positive effect on employee income satisfaction.

*Keywords:**Topography, Number of Dependents, Age Income Satisfaction, Oil Palm Harvesters***

1. INTRODUCTION

North Sumatra is one of the plantation center provinces in the country. Plantations in North Sumatra have been open since the Dutch colonial period. Some of North Sumatra's leading plantation commodities include rubber, palm oil, coffee, coconut, cocoa, tobacco and sugar cane. In 2020, the Central Statistics Agency (BPS) recorded the largest area of smallholder oil palm plantations in North Sumatra, namely 440 thousand ha with production reaching 7 million tons (BPS, 2020). As one of the State-Owned Plantation Companies which has been operating in the palm oil and rubber plantations for quite a long time, to date the Company remains focused on these two mainstay business fields. To improve its performance, the company carries out various efforts in addition to increasing the volume and quality of expanding product commodities.

PT Perkebunan Nusantara III (Persero) makes oil and palm kernel the main commodities which make a large contribution to the Company's income. The oil and palm kernel products produced by the Company are well known in local and international markets with timely supply to buyers of the quality produced by Crude Palm Oil (CPO), Palm Kernel Oil (PKO), Palm Kernel (PK) and Palm Kernel Meal (PKM). One of the units of PT. Perkebunan Nusantara III is the Rantau Prapat Plantation located in Labuhan Batu Regency. Kebun Rantau Prapat is a company operating in the plantation sector which manages the cultivation of palm oil and rubber commodities with 6 (six) Afdeling and Rubber Processing Factory (PPK) industries where Ribbed Smoked Sheet (RSS) is the main product. Oil palm cultivation techniques consist of several activities, namely land clearing, oil palm planting, plant maintenance and harvesting. One of the cultivation techniques that is very important in palm oil business is harvesting activities. Harvesting is the cutting of fresh fruit bunches from the tree until transportation to the factory (Palm Oil Research Center, 2006).

This harvest activity requires special techniques to get quality results. The main harvest from oil

palm is oil palm fruit in the form of fresh fruit bunches (FFB). FFB is processed in palm oil mills to obtain vegetable oil. Palm oil harvesting activities are influenced by many factors such as weather, field conditions/topography, harvest density figures, the presence of harvesters, theft, and harvesting facilities. Plantation activities certainly absorb quite a lot of labor in the area around the plantation, with other functions to reduce unemployment in the plantation area and improve employee welfare.

Employees who work in a company are driven by the desire to satisfy their needs by feeling satisfied with the income they get while working at the company. Employee satisfaction is individual, the level of satisfaction varies between individuals. Usually every individual will feel satisfied with his work, if the work he does is in accordance with his hopes and work goals. According to experts, success in managing human resources is indicated by employee job satisfaction, increased performance and achievement of company goals (Aminah, 2015). Employees certainly prefer work that suits their abilities so that they can be responsible and get good compensation for these responsibilities. A good work environment certainly influences this (Abdul et al, 2003).

Furthermore, the factor of the number of family members as dependents plays a very important role in determining family income. The number of family dependents really determines the amount of family needs. The more family members mean the greater the number of family needs that must be met. Vice versa, fewer family members means fewer needs that must be met by the family. Every individual has their own needs. So in a family with a large number of members the needs will be many. (Rungkat et al, 2020). Based on the above, researchers see that there are problems that occur, namely the type of topography, differences in the number of dependents and the age level of the harvesters can influence the work of harvesting oil palm which of course will affect the level of income satisfaction of oil palm harvesters. For this reason, researchers are interested in conducting research on the influence of topography, number of dependents and age of harvesters on the income satisfaction of oil palm harvesters at PTPN III's Rantau Prapat Plantation.

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2. RESEARCH METHODS

This research was carried out at PTPN III's Rantauprapat Garden. The data used in this research consists of primary data and secondary data. Primary data was obtained by direct interviews with the harvester population as respondents using a questionnaire. Secondary data was obtained from related agencies and written documents to support primary data. The sampling technique was carried out using a total sampling technique to determine a sample of 66 oil palm harvesters. The analytical tools used in this research are descriptive and quantitative analysis. Researchers measure responses from respondents in their attitudes, opinions or perceptions, therefore researchers use a Likert scale. Data analysis in this study used descriptive analysis, Simultaneous Test (F Test), Partial Test (t Test) and Cross Tabulation and Chi Square Tests using the SPSS Version 27 statistical application. After the data was processed, data analysis was then carried out by calculating the proportion of respondents' characteristics. based on the variables used.

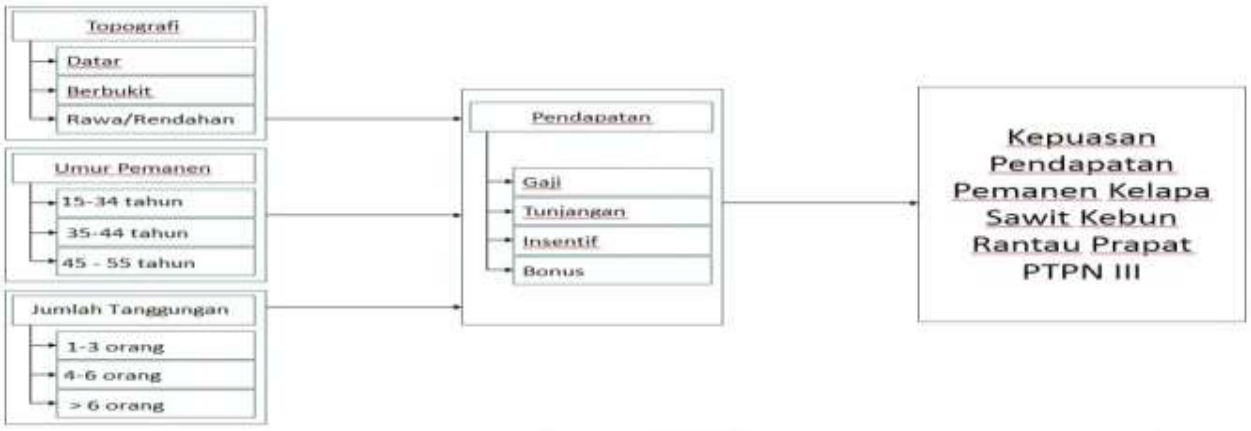

Figure 1. Research Framework Scheme

The hypothesis of this research is:

1. There is an influence between topography and satisfaction with the income of oil palm harvesters in PTPN III's Rantau Prapat Plantation
2. There is an influence between the number of dependents and the income satisfaction of oil palm harvesters at PTPN III's Rantau Prapat Plantation
3. There is an influence between the age of the harvester and the income satisfaction of oil palm harvesters at PTPN III's Rantau Prapat Plantation

3. RESULTS AND DISCUSSION

Research resultshowthat there were 21.20% (14 people) of the respondent population aged 15-34 years, 37.90% (25 people) aged 35-44 years and 40.99% (27 people) aged 45-55 years. Based on data obtained from the questionnaire there were 23 people (34.80%) who worked in flat topography, 29 people (43.90%) who worked in hilly topography and 14 people (21.20%) who worked in low/swamp topography. Likewise, with the number of dependents there are 22 people (33.30%) who have 1-3 dependents, 30 people (45.50%) who have 4-6 dependents and 14 people (21.20%)) from the population of respondents who have more than 6 dependents.

Table 1. Multiple Linear Analysis

Model	*Unstandardized Coefficients*		*Standardized Coefficients*
	B	Std. Error	Beta
(Constant)	26,532	6,052	
Topography (X1)	10,295	2,109	,490
J. Tang-gungan (X2)	5,402	1,877	,254
Age (X3)	,372	,151	,228
a. *Dependent variables:*Income Satisfaction (Y)			

The calculation results in Table 1 show that the coefficients ß1 (X1), ß2 (X2) and ß3 (X3) show that the topographic variables, number of dependents and age have a positive and significant effect.

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Table 2. Coefficient of Determination Test (R2)

R	R Square	*Adjusted R Square*	*Std. Error of Estimate*
. 784a	,614	,595	9.92098
a. Predictors: Constant,Topography (X1), Number of Dependents (X2), Age (X3) *b. Dependent Variable:*Income satisfaction (Y)			

From table 2, it can be seen that the adjusted coefficient of determination (Adjusted R Square) is 0.595 or 59.50%. This shows that 59.50% of topographic variables, number of allowances and age have an influence on income satisfaction.

Table 3. Simultaneous Test (F Test)

Model	*Sum of Squares*	Df	*Mean Square*	F	Sig.
Regression	9706.0	3	3235.3	32,871	,000b
Residual	6102.4	62	98,426		
Total	15808	65			

Based on Table 3, it is known that topographic variables, age and number of dependents have a positive and significant effect on the income satisfaction of PTPN III Rantauprapat Plantation harvester employees. This can be seen from the Fcount value of 32.871 with a probability of 0.000 which is smaller than 0.05 and the Fcount > Ftable value obtained by looking at the F table using a confidence level of 95%, a = 5%, the value of $df1$ = independent variable = 3, and $df2$ =(nk-1)=66-3-1=62 is 2.74. Thus, the value Fcount > Ftable and $H0$ is accepted (32.871 > 2.74). So the hypothesis is accepted.

Table 4. Partial Test (t Test)

Model	Beta	Q	Sig.	*Collinearity Statistics*	
				Tolerance	VIF
Contant		4,384	,000		
X1	,490	4,881	,000	,618	1,617
X2	1,877	2,878	,005	,798	1,254
X3	,228	2,458	.017	,726	1,377
a.Dependent Variable: Income Satisfaction (Y)					

From the table it can be seen that the Topographic Variable (X1) has a calculated t value of 4.881 while the *t*table value is 1.997. Thus, the value of tcount (4.881 > ttable (1.997) with a significance level of 0.000 <0.05. This shows that topography has a positive and significant effect on employee income satisfaction at PTPN III's Rantauprapat Plantation. From the table it can be seen that the variable Number of Dependents (X2) has a calculated t value of 2.878 while the *t*table value is 1.997. Thus the value of tcount > ttable with a significance level of 0.005 <0.05. This shows that the number of dependents has a positive and significant effect on employee income satisfaction at the PTPN III Rantauprapat Plantation. From the table it can be seen that the Age variable (X3) has a calculated t value of 2.458 while the *t*table value is 1.997. Thus, the value of tcount > ttable with a significance level of 0.017 <0.05. This shows that the age of the harvester has a positive and significant effect on employee income satisfaction at PTPN III's Rantauprapat Plantation.

3.1 The influence of topography on the income satisfaction of oil palm harvesters in PTPN III's Rantau Prapat Plantation

Based on the coefficient ß1 (X1) = 10.295 (Table 1.) This shows that the topography variable has a positive and significant effect on the income satisfaction of harvester employees at PTPN III's Rantauprapat Plantation.

Table 5. Topographic Chi Square Test (X1) with Income Satisfaction (Y)

	Value	*Df*	*Asymptotic Significance (2-sided)*
Pearson Chi-Square	.703a	2	,004
Likelihood Ratio	1,063	2	,588
Linear-by-Linear Association	,572	1	,449
N of Valid Cases	66		

Likewise with the asymp value. sig (Table 5) on Pearson chi-square is 0.004, namely <0.05, indicating that it is significant, namely that there is a relationship between topographic variables and income satisfaction.

Table 6. Topographic Cross Tabulation Test (X1) with Income Satisfaction (Y)

Y	Topography (X1)			Total
	Flat	Hilly	Lowland/Swamp	
Low	8	0	0	8 (12.12%)
Currently	6	27	13	46 (69.70%)
Tall	0	2	10	12 (18.18%)
Total	14	29	23	66 (100%)

Low income satisfaction was 12.12%, all of whom worked in areas with flat topography. Based on the results of the crosstab test, it is known that the majority of respondents have moderate income satisfaction of 69.70% or 46 respondents, the majority of whom work in hilly topography. Meanwhile, satisfaction with high income was 18.18% or 12 respondents who worked in low-income areas. This is because the majority of respondents work in hilly areas, so it shows that income satisfaction is more positive in areas with hilly topography. According to researchers, the majority of harvesters in this hilly area are supported in their work by aspects of their work such as facilities so that they feel satisfied with the income they receive.

This is in accordance with research by Elvira (2009) which states that employees will feel satisfied at work if the work and individual aspects support each other so that it can be said that job satisfaction is related to a person's feelings about whether or not the employee's work is enjoyable. The results of these data tests are in line with Plalangiten's research (2013) which states that there is a positive influence between the work environment and job satisfaction. The work environment influences employee job satisfaction. Then Koesoemaningsih, et al (2013) also found the same results, namely that the work environment partially had a significant effect on job satisfaction. Thus, the better the work environment, the higher employee job satisfaction will be.

3.2 The influence of the number of dependents on the income satisfaction of oil palm harvesters in PTPN III's Rantau Prapat Plantation

Based on the coefficient ß2 (X2) = 5.402 (Table 1). This shows that the variable Number of Dependents has a positive effect on the income satisfaction of harvester employees at PTPN III's Rantauprapat Plantation.

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Table 9. Chi Square Test for Number of Dependents (X2) with Income Satisfaction (Y)

	Value	*Df*	*Asymptotic Significance (2-sided)*
Pearson Chi-Square	32.492a	2	,000
Likelihood Ratio	7,591	2	,022
Linear-by-Linear Association	21,121	1	,000
N of Valid Cases	66		

Likewise with the asymp value. The sig on the Pearson chi-square is 0.000, namely <0.05, indicating that it is significant, namely that there is a relationship between the variable number of dependents and income satisfaction. The relationship between these variables shows that the large number of dependents will influence income satisfaction because they will expect more income for an increasing number of dependents. This is in line with the statement of Rungkat et al (2020) that the large number of family dependents will affect income because the increasing number of family dependents who participate in meals will indirectly force the workforce to seek additional income. So it can be concluded that for people who have a large number of family dependents, the amount of income required will also be greater, if the income required is not sufficient then poverty will occur.

Table 10. Cross Tabulation Test for Number of Dependents (X2) with Y Income Satisfaction

Y	Number of Dependents (X2)			Total
	1-3 people	4-6 people	>6 people	
Low	2	6	0	8 12.12%
Currently	12	20	14	46 69.70%
Tall	0	4	8	12 18.18%
Total	14	30	22	66

The lowest income satisfaction was 12.12% and medium income satisfaction was 69.70%, the majority of whom had 4-6 dependents, indicating that the greater the number of family dependents, the greater the need for income. If the income received is insufficient, it will certainly affect the family situation. This is in line with Widayjono (2009) who says that if there is insufficient income to meet their needs and the family is in a state of imbalance or poverty (Widarjono, 2009).

3.3 The influence of harvester age on income satisfaction of oil palm harvesters at PTPN III's Rantau Prapat Plantation

Based on the ß3 (X3) coefficient = 0.372 (Table 1). This shows that the harvester age variable has a positive and significant effect on the income satisfaction of harvester employees at PTPN III's Rantauprapat Plantation.

Table 7. Chi Square Test for Age (X3) with Income Satisfaction (Y)

	Value	*Df*	*Asymptotic Significance (2-sided)*
Pearson Chi-Square	2.927a	2	,025
Likelihood Ratio	2,758	2	,252
Linear-by-Linear Association	,610	1	,435
N of Valid Cases	66		

Likewise with the asymp value. The sig on Pearson chi-square is 0.025, namely <0.05, indicating a negative correlation, namely a weak relationship between age and income satisfaction, but it is still significant because there is a relationship between the harvester age variable and income satisfaction. According to researchers, this could be because older harvesters already have experience and self-actualization in this field so they enjoy their work more and feel satisfied with the income they receive. The results of this research are in line with research by Wijono (2014), adding that many older employees tend to have greater opportunities for fulfillment and self-actualization. This condition makes it possible for older employees to get better jobs than younger employees. The longer an employee has been in a company, it is assumed that their experience and knowledge about their work will be broader and they will have a higher level of job satisfaction.

Table 8. Cross Tabulation Test of Age (X3) with Income Satisfaction (Y)

Y	Age (X3) (Years)			Total
	15-34	35-44	45-55	
Low	6	2	0	8 12.12%
Currently	8	20	18	46 69.70%
Tall	0	3	9	12 18.18%
Total	14	25	27	66

Low income satisfaction was 12.12% or 8 respondents, mostly aged 15-34 years. Based on the results of the crosstab test, it is known that the majority of respondents have moderate income satisfaction of 46 respondents, the majority of whom are aged 35 - 44 years. Meanwhile, satisfaction with income was high, namely 12 respondents, the majority of whom were aged 45-55 years. These results show differences in income satisfaction for young and old employees which are of course influenced by many factors. This is in line with research by Handoko (2012), which states that there are several reasons why older employees tend to be more satisfied, namely lower expectations and longer experience which makes employees have better adjustments to work situations.

4. CONCLUSION

Based on the research results, the type of topography of the working area, the number of family dependents and the age level of the harvesters have an influence on the income satisfaction of oil palm harvester employees at Rantauprapat Plantation PTPN III. A positive work environment from the company has a positive effect on the income satisfaction of harvesting employees as well as the self-actualization, experience and level of hope of palm oil harvesting employees at PTPN III's Rantauprapat Plantation. Based on the results of the research that has been carried out, there are several suggestions from researchers for the PTPN III Rantauprapat Garden to increase employee income satisfaction by paying attention to the topography of the area, age and number of dependents. So companies are advised to improve supporting factors for harvesters in the field as well as adequate facilities in order to achieve higher income satisfaction for harvesting employees. Apart from that, it is hoped that further research will be carried out by adding other variables not included in this research so that more comprehensive research results related to employee performance can be obtained.

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