ANALYSIS OF AFFECTING RICE FARMERS INCOME IN KEDUNGPRING VILLAGE KEC. KEDUNGPRING KAB. LAMONGAN

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Abstract. The existence of social and economic factors that are owned by each farmer certainly results in differences. This can be attributed to the capacity of the farmers in producing rice crops and increasing business income in agriculture. The purpose of the study is to explain the analysis that affects the income of rice farmers. The research method used is quantitative method using analytical test tools in the form of T-test, multiple linear regression analysis, Coefficient of Determination Test, and F-test. The results of the data analysis are known that for X2 t test results obtained tcount (3.286) is greater than ttable (1.984) with df = (n-k), at a significant level = 0.05 (0.05/2 = 0.025). So that tcount > ttable then H1 is accepted, which means that there is a significant influence between Economic Factor variables on income, while the results of multiple linear regression tests show that Constant (α) is 0.439, indicating the magnitude of the influence of Social Factors (X1), Economic Factors (X2), to Income (Y) meaning that if the independent variable is a constant, (X1, X2, = 0) then the income is 0.438. For the results of the coefficient of determination are Social Factors (X1), Economic Factors (X2) to the dependent variable, namely Income (Y) is 0.744. This means that 74.6% of the dependent variable, namely income, can be explained by the independent variable, namely social factors, economic factors. And the remaining 25.4% of income can be explained by other variables or other factors, here another factor is the selling price. And for the results of the F-test which shows that the Fcount is 84.568 with a sig level. of 0.000. At the level of significant value = 0.05..

Keywords: income; social factors; economic factors; rice

I. INTRODUCTION

Indonesian agriculture is tropical agriculture because most of its area is in the tropics which is directly influenced by the equator, which cuts Indonesia almost in half. Indonesia is still a country that plays an important role in the overall national economy. One of the food crop commodities in Indonesia is rice whose production is still a staple food. Rice is an agricultural crop and is the world's main crop. The agricultural sector is a sector that has a very important role in the economy of most developing countries. We can see this clearly from the role of the agricultural sector in accommodating the population and providing employment opportunities to the population. Agricultural development needs to get better attention, even though the priority on the industrialization policy has been dropped, the agricultural sector can still have the ability to generate a surplus. This occurs when productivity is increased resulting in higher incomes for farmers and enabling them to save and accumulate capital. Increasing the standard of living is obtained by farmers by increasing their income. To obtain high income they carry out various activities by developing various possibilities for other agricultural commodities (farming diversification) which are economically profitable if the agricultural land allows it. Development of income outside of farming (off farm income) will also greatly help increase welfare because of the limited potential for farming, various studies have shown that increasing income in the agricultural sector will be able to reduce the poverty rate of

farmers (Sudarman **[1]**). the existence of land, especially agricultural land, is becoming increasingly threatened due to the pressing need for more land. Meanwhile, the amount of available land does not increase (Setyoko **[2]**). There are several reasons that can arise, including: (a) the limited availability of labor in the agricultural sector. Such things can actually be overcome mechanically, but not all cultivation activities of food crops or other plants can be overcome mechanically in their management. (b) The low competitiveness of the agricultural sector with non-agricultural sectors. (c) The limited land owned by the majority of farmers so that for farmers with narrow land to meet the economic needs of their households, expansion of land tenure needs to be carried out, either by renting, cultivating, mortgage or by way of boarding. Mudakir **[3]** revealed that the status of land tenure is divided into three parts, namely owner operators, cash tenants and share tenants. Theoretically, different land tenure status will determine different levels of farming diversity, which in this case include different levels of land productivity, income and expenditure. Differences in land tenure status will determine farmers' access to capital. Which in turn will affect the factors of production used and will ultimately affect production. In addition, the level of income and the level of efficiency in their farming will also be different **[4]**.

Rice is the main commodity that plays a role in fulfilling the basic needs of carbohydrates for a number of people in Indonesia. Rice commodity has a basic role as the fulfilment of the main food needs which every year increases

as a result of the large population growth, as well as the development of the food and feed industry according to Yusuf **[5]**. Rice plant according to Oryza sativa L is an important food crop because it produces rice which is a source of staple food, as in Indonesia, rice is the main commodity in supporting people's food which is described in Supriyanti **[6]**. The success of farming is influenced by production factors (capital, land, labour) work). Capital is needed to procure production facilities (seeds, fertilizers, pesticides, and equipment), plant maintenance costs, storage, marketing and transportation costs. Farmers tend to experience obstacles in developing their farm products by increasing the area of land and providing production facilities (Humaedah **[7]**). Capital factors in farming can be classified as a form of wealth, either in the form of money or goods used to produce something either directly or indirectly in a production process. Likewise with the labour factor, the size of the workforce used by an agricultural business will depend on the area of land and the availability of capital. Socio-economic factors such as age, level of education of farmers, duration of farming, number of dependents, area of farming, labour and capital among each farmer are different. This relates to the total income of farmers and their families as an effort to improve the welfare of farmers and their families through increased production.

II. RESEARCH METHODS

The method used in this study is a survey method by taking primary data and secondary data. Primary data was obtained through a list of questions that had been prepared, while secondary data was obtained from the sub-district office, village office, and related agencies **[8]**. The population in this study is the status of land tenure (own, leased and cultivators) while the sampling method was carried out by stratified random sampling with comparable allocations and from each stratum a sample was drawn. The number of samples in this study will be taken from farmers. The data collection method is the technique or method used by the author to collect data which will later be used by the author to obtain materials, information, and information related to this research. In this study, the authors collect data based on the source. According to Sugiyono **[9]** there are two types of data collection based on the source. Primary sources are data sources that directly provide data to data collectors. Secondary sources are sources that do not directly provide data to data collectors, Sugiyono **[10]** suggests that the sample is part of the number and characteristics possessed by the population. In this study, the authors used nonprobability sampling technique with incidental sampling method to determine the research sample. According to Sugiyono **[9]** nonprobability sampling is a sampling technique that does not provide equal opportunities/opportunities for each element or member of the population to be selected as a sample. Meanwhile, incidental sampling according to Sugiyono **[10]** is a sampling technique based on coincidence, that is, anyone who accidentally/accidentally meets the researcher can be used as a sample, if it is deemed that the person met by chance matches the data source. Roscoe in Sugiyono **[10]** suggests

that a sample size that is appropriate for use in research is between 30 to 500. Based on the type of data obtained by the authors in this study, the authors use a quantitative method using descriptive research methods to describe the results of the research. done. According to Sugiyono **[10]** it is called a quantitative method because the research data is in the form of numbers and analysis uses statistics. According to Siregar **[11]** the problem solving procedure in the descriptive research method is to describe the object of research at the current state based on the facts as they are, then analyze and interpret

III. RESULTS AND DISCUSSION

Gender analysis is processed based on the answers to the questions that can be seen in the table as follows Table 1.

Table 1. Characteristics of Respondents by Gender

No	Gender	Number of Respondents	Presentase %
1	Man	75	83%
2	Woman	15	17%
	Amount	90	100%

Source: primary data results (2022)

Based on the table above, it is known that most of the respondents in this study were male, namely 75 respondents or about 83% while the remaining 15 respondents or 17% were female. From these data it was concluded that the majority of respondents were male.

Characteristics of Respondents Based on Age

Analysis of age based on age can be seen in the following table 2.

Table 2. Characteristics of Respondents by Age

No	Age Type	Number of Respondents	Percentage%
1	< 25 year	6	7%
2	26-35 year	14	15%
3	36-50 year	44	49%
4	> 51 year	26	29%
	Amount	90	100%

Source: results from primary data (2022)

Based on the table above, it can be seen that respondents aged <25 years are 7%, aged 26-35 years are 15%, aged 36-50 years are 49%, aged >51 years are 29%. From these data, it can be seen that most of the respondents are aged 36-50 years.

Multiple Linear Regression

To calculate the magnitude of the influence quantitatively from a change in events (variable X) to other events (variable Y). Statistical calculations in multiple linear regression analysis can be seen in the following table 3.

Table 3 Results of Multiple Linear Regression Analysis Coefficientsa

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	,438	,794		,552	,582
	Social Factor	,170	,062	,192	2,754	,007
	Economic Factor	,226	,068	,223	3,286	,001

a. Dependent Variable: Y1

Source: processed from SPSS version 20 (2022)

Based on the table above describes the multiple linear regression equation as follows: Y = a + b1X1 +b2X2

So that: Y = 0.438 + 0.170 X1 + 0.226 X2

Where:
Y   = Farmer's Income
A   = Constanta
X1 = Social Factor
X2 = Economic Factor

Based on the equation of multiple linear regression can be interpreted as follows:
a. The constant (α) is 0.438, indicating the magnitude of the influence of Social Factors (X1), Economic Factors (X2), on Income (Y) meaning that if the independent variable is constant, (X1, X2, = 0) then income is 0.438.
b. b1 = 0.170, explaining that if the Social Factor (X1) is 0.170, it means that if the social factor increases by 1 unit, the income will increase by 0.170 by assuming that other variables that affect it are considered constant (α1, X2=0)
c. b2 = 0.226, explaining that if the Economic Factor (X2) is 0.226, it means that if the price increases by 1 unit, income will increase by 0.228 with the assumption that other variables that influence are considered constant (α2, X1=0)

Coefficient of Determination R2

Statistical calculations in the Coefficient of Determination analysis in this study are as follows table 4.

Table 4. Results of Model Determination Coefficient Test Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistic				
					R Square Change	F Change	df1	df2	Sig. F Change
1	,862 ª	,744	,736	,763	,742	84,568	3 ª	86	,000

a. Predictors: (Constant), X2, X1

b. Dependent Variable: Y1

Source: processed from SPSS version 20

From the above data processing, it can be seen that the contribution of the independent variables, namely Social Factors (X1), Economic Factors (X2) to the dependent variable, namely Income (Y) is 0.744. This means that 74.6% of the dependent variable, namely income, can be explained by the independent variable, namely social factors, economic factors. And the remaining 25.4% of income can be explained by other variables or other factors, here another factor is the selling price.

t test (Partial Test)

The t-test basically shows whether the independent variable partially (individually) has a significant effect on the dependent variable.

Table 5. Test Statistics t (Partial Hypothesis Testing) coefficientsa

Model		Sum of Square	df	Mean Square	F	Sig.
1	Regression	148,546	3	49,515	84,568	,000 ᵇ
	Residual	50.352	85	,585		
	Total	198,898	88			

a. Dependent Variable: Y1

b. Predictors: (Constant), X3, X2, X1

Source: processed from SPSS version 20 (2022)

Based on the table above, it can be explained that the significant results of the t statistical test are as from the results of the t test, it was obtained that tcount (2.754) was greater than ttable (1.984) with df = (n-k), at a significant level = 0.05 (0.05/2 = 0.025). So that tcount > ttable then H1 is accepted, which means that there is a significant influence between social factors variables on income. And for X2, the results of the t-test are obtained, tcount (3.286) is greater than ttable (1.984) with df = (n-k), at significant level = 0.05 (0.05/2=0.025). So that tcount > ttable then H1 is accepted, which means that there is a significant influence between the variables of Economic Factors on income Based on the table above, it can be explained that the significant results of the t statistical test are as from the results of the t test, it was obtained that tcount (2.754) was greater than ttable (1.984) with df = (n-k), at a significant level = 0.05 (0.05/2 = 0.025). So that tcount > ttable then H1 is accepted, which means that there is a significant influence between social factors variables on income. And for X2, the results of the t-test are obtained, tcount (3.286) is greater than ttable (1.984) with df = (n-k), at significant level = 0.05 (0.05/2=0.025). So that tcount > ttable then H1 is accepted, which means that there is a significant influence between the variables of Economic Factors on income

F Uji test

The coefficient value of the F statistical test results is obtained from ANOVA and multiple linear regression in the following column F table 6.

Table 6. The coefficient value of the F statistical test results

	Model	Sum of Square	df	Mean Square	F	Sig.
1	Regression	148,546	3	49,515	84,568	,000 [b]
	Residual	50.352	85	,585		
	Total	198,898	88			

a. Dependent Variable: Y1
b. Predictors: (Constant), X3, X2, X1

Source: processed from SPSS version 20

From the results in the F-test table which shows that Fcount is 84.568 with a sig level. of 0.000. At the level of significant value = 0.05 with df1 = k-1=4-1, df2 = n-k= 90-4=96, then Fcount > Ftable (84.568> 2.70) and sig, < 0.05 (0.000 <0.05) then HO is rejected and Ha is accepted. Thus it can be interpreted that the hypothesis that simultaneously states the independent variables consisting of social factors and economic factors has a significant effect on the dependent variable of Farmer's Income can be accepted or proven true.

IV. CONCLUSION

From the results of the t test, it was obtained that tcount (2.754) was greater than ttable (1.984) with df = (n-k), at a significant level = 0.05 (0.05/2 = 0.025). So that tcount > ttable then H1 is accepted, which means that there is a significant influence between the variables of social factors on income. And for X2, the t-test results obtained that tcount (3.286) is greater than ttable (1.984) with df = (n-k), at a significant level = 0.05 (0.05/2 = 0.025). So that tcount > ttable then H1 is accepted, which means that there is a significant influence between the variables of Economic Factors on income From the results in the F-test table which shows that Fcount is 84.568 with a sig level. of 0.000. At the significant value level = 0.05 with df1 = k-1=4-1, df2 = n-k= 90-4=96, then Fcount > Ftable (84.568 > 2.70) and sig, < 0.05 (0.000 <0.05) then HO is rejected and Ha is accepted. Thus it can be interpreted that the hypothesis that simultaneously states the independent variables consisting of social factors and economic factors has a significant effect on the dependent variable of Farmer's Income can be accepted or proven true. Based on the equation of the multiple linear regression line, it can be interpreted as follows: Constant (α) of 0.439, indicates the magnitude of the influence of Social Factors (X1), Economic Factors (X2), on Income (Y) meaning that if the independent variable is constant, (X1, X2, = 0) then income is 0.438 b1 = 0.170, explaining that if the Social Factor (X1) is 0.170, it means that if the social factor increases by 1 unit, the income will increase by 0.170 by assuming that other variables that influence are considered constant (α1, X2=0), b2 = 0.226, explaining that if the Economic Factor (X2) is 0.226, it means that if the price increases by 1 unit, income will increase by 0.228 with the assumption that other variables that influence are considered constant (α2, X1=0).

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