



ANALYSIS OF SOCIAL ECONOMIC FACTORS AFFECTING INCOME OF RICE FARMERS (Case Study: Purbaganda Village, Pematang Bandar District) Simalungun Regency)

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Abstract

This purpose of this study is to analyze the income of rice farmers and to analyze the influence of socio-economic factors on the income of rice farmers in Purbaganda Village, Pematang Bandar District, Simalungun Regency. The research data were obtained from secondary data and primary data. The data analysis method used in this research is to use income analysis and multiple linear regression test. The results showed that the average income of rice farmers was Rp. 43,732,927.78/harvest season and the total expenditure or cost in one production was Rp. 9,223,313.89 and the average income of rice farmers was Rp. 34,509,613. ,89/harvest season. Socio-economic factors that affect the income of rice farmers are the experience factor (X3), land area (X4), labor (X5) and cost (X6) which have a real or significant effect on the income of rice farmers.

Keywords: Socio-Economic, Farmers, Income.

1. Introduction

Agriculture is a strategic sector as well as the sector that absorbs the most labor and is rural based because most of the population lives in rural areas with a livelihood as farmers. The agricultural sector, especially food crops, aims to increase production and expand the diversification of agricultural products. This is useful for meeting domestic food needs and increasing income, standard of living, and welfare of farmers.

Lowland rice farming is a source of income and job opportunities for rural communities, therefore proper management is needed by using production factors efficiently. The use of inefficient production factors in lowland rice farming will result in low production and high costs, which in turn reduces farmers' income.

The success of farming is influenced by production factors (capital, land, labor). 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 farming results by increasing land area and procuring production facilities. If the income obtained by farmers is greater, the welfare of farmers will also increase. Farmers hope to increase their income so that their daily needs can be met (Suratiah, 2018).

The influence of external factors (social factors) and internal factors (economic factors) of farmers will determine whether or not farmers quickly adopt innovations such as the use of superior seeds, organic fertilizers, pesticides, equipment and so on. The economic factors

include the number of dependents in the family, the area of land owned, the use of labor, capital and the presence or absence of a farming business. While social factors include age, education and farming experience.

Farmers are people who depend on agricultural land as their main livelihood. In general, farmers live in rural areas and most of them, especially those who live in densely populated areas in Southeast Asia (Witrianto, 2015).

Lowland rice farmers are actors who carry out farming activities on paddy fields that are managed based on the capabilities of the physical, biological, and socio-economic environment in accordance with their objectives, capabilities and resources to produce lowland rice, as an important commodity in the food crop agricultural sector for the people of Indonesia. Prime, 2019).

Income is needed by farming families to meet the necessities of life that are not fixed but continuous. Therefore, the maximum income is what farmers always expect from farming. Income is production which is expressed in the form of money after deducting the costs incurred during farming activities (Karmini, 2018).

2. Research methods

The research area was determined purposively (deliberately), namely in Purbaganda Village, Pematang Bandar District, Simalungun Regency, with the consideration that this area is a village whose people make a living as rice farmers and is one of the fostered areas of BPTP (Agricultural Technology Assessment Agency) Simalungun Regency. .

The total population in this study was 54 people, namely irrigated rice farmers who have an average land area of more than 1 ha in Purbaganda Village, Pematang Bandar District, Simalungun Regency, North Sumatra Province.

The sampling technique in this study uses probability sampling technique, which is a sampling technique that provides equal opportunities for each element (member) of the population to be selected as a sample member.

The data needed in this study were obtained using 2 ways of collecting data, namely: Primary Data and Secondary Data. Primary data is data obtained directly from the field, using questionnaires that have been prepared previously for the sample, direct interview techniques and direct observations in the field. While secondary data is data obtained from various agencies or institutions related to the substance of the research, such as the Simalungun Regency Agriculture Office, Purbaganda Village Head Office, Agricultural BPP Pematang Bandar District and various other literary sources. Such as books, magazines, newspapers and the internet.

3. Results and Discussion

3.1 Total Farmer's Income and Production

Analysis of the income of rice farmers in Purbaganda Village, Pematang Bandar District, Simalungun Regency, first we must know the total farmers' income and the total cost of farming. Total farmer income can be seen in the following table:

Table 1. Average Total Income of Rice Farmers per Farmer/Hectare.

No	Description	Unit	Average Per Farmer	Average Per Farmer/Ha
1	Production	Kg	10,413	5,944
2	Production Price	Rp	4,200	4,200
Amount		Rp	43,732,928	24,965,547

Table 1 explains that the average income owned by the sample farmers in Purbaganda Village, Pematang Bandar District, Simalungun Regency is Rp. 43,732,928 Per 1 harvest season, while the average income owned by farmers per hectare is Rp. 24,965,547. Before knowing the Total Cost (Total Cost) incurred by the farmer, we must first know how much the production cost per sample farmer is. The production costs of lowland rice farmers can be seen in the following table:

Table 2. Production Costs per One Harvest Season for Rice Farmers

No	Production cost (Rp)	Number of Samples (People)	Percentage (%)
1	2,357,800 – 4,578,500	11	20.4
2	5,251,000 – 7,958,050	13	24.1
3	8,038,750 – 9,771,000	9	16.6
4	11,394,100 – 13,713,900	11	20.4
5	14,006,500 – 16,452,300	10	18.5
Amount		54	100

The data in table 2 shows the most dominant production costs of Rp. 5,251,000 – 7,958,050 with a percentage of 24.1%. Furthermore, after knowing the composition of production costs per sample farmer, we can find out how much the total costs incurred by farmers during 1 harvest season. The total cost (Total Cost) can be seen in the following table:

Table 3. Average Total Cost (TC) of Rice Farmers

No	Description	Unit	Average Per Farmer	Average Per Farmer/Ha
1	Total Variable Cost	Rp	8,823,313.89	3,579,171
2	Total Fixed Cost	Rp	400,000	174.489
Amount		Rp	9,223,313.89	3,753,660

Table 3 shows that the average total expenditure incurred by farmers in carrying out lowland rice farming for 1 harvest season is Rp. 9,223,313.89 while the average total expenditure per hectare is Rp. 3,753,660 by adding up the fixed costs and variable costs. The profit or income obtained by rice farmers can be calculated by subtracting the total revenue (total revenue) from the total cost (total cost) or by the formula = TR – TC. We can see the profit or income of rice farmers in the following table:

Table 4. Average Income Earned by Rice Farmers

No	Cost component	Unit	Average Per Farmer	Average Per Farmer/Hectare
1	Total Revenue	Rp	43,732,927.78	24,965,547
2	Total Cost	Rp	9,223,313.89	3,753,660
	Amount	Rp	34,509,613.89	21,211,887

The data in table 4 shows that the average income of rice farmers in Purbaganda Village, Pematang Bandar District, Simalungun Regency is Rp. 34,509,613.89 in 1 harvest season while the average income owned by farmers per hectare is Rp. 21,211,887.

3.2 Socio-Economic Factors Affecting Rice Farmers' Income

The data obtained in the field can be interpreted into the application in order to see the factors that affect the income of rice farmers. The independent variables in this study are age (X1), education (X2), experience (X3), land area (X4), labor (X5) and capital (X6) where these independent variables will be tested using multiple linear regression to see factors that affect income with income as the dependent variable (Y).

1) Effect of Age on Rice Farmers' Income

The results of this study showed that the age of the sample farmers was quite varied, which was between 39 to 72 years old. From all the results of the sample, it is found that both younger and older farmers have high productivity, so that the income of farmers is also relatively the same. So from these results it can be stated that the age of the sample farmers in this study has no significant effect on farmers' income.

2) The Effect of Education on the Income of Rice Farmers

In the results of this study, it was found that the formal education taken by the sample farmers was SD to S1. The highest formal education obtained in this study was D3 and S1 as many as 10 sample farmers. However, farmers with lower levels of education are found to have higher incomes. So it can be stated that the high level of formal education does not affect the income of the sample farmers. Farmers with lower education usually rely more on experience and attend informal education.

3) The Effect of Experience on Rice Farmers' Income

If there is an increase in the experience of farmers for 1 year by assuming other factors remain, there will be an increase in the income of rice farmers in Purbaganda Village, Pematang Bandar District, Simalungun Regency. According to Mulyati Hesti (2014) the results of the study of sample farmers who have long enough farming experience are 22 people (73.33%), while those with farming experience are still low as many as 8 people (26.67%). In farming management the longer the farmer cultivates, the more habits, skills and skills or expertise in carrying out farming activities can affect. This is because the longer the farming experience of a rice farmer, the more knowledge about how to increase production and income.

4) The Effect of Land Area on Rice Farmers' Income

If there is an increase in the farmer's land area of 1 ha by assuming other factors remain, there will be an increase in the income of rice farmers in Purbaganda Village, Pematang Bandar District, Simalungun Regency. This is in accordance with the study of Wulandari D, et al (2018) that the variable of land productivity has a significant effect on the income of lowland rice farming. Land productivity is in accordance with the land's ability to receive inputs to produce outputs. The factor of land productivity has a significant effect on income, this is because if land productivity is high, the income received by farmers is also high.

5) The Effect of Labor on Rice Farmers' Income

If there is an increase in the farmer's workforce by 1 person assuming other factors remain, there will be an increase in the income of rice farmers in Purbaganda Village, Pematang Bandar District, Simalungun Regency. According to Wulansari D, et al. (2018), labor productivity has a significant effect on income, this is because if labor productivity is high, the income received by farmers is also high. The use of machine assistance can increase labor efficiency. With the help of machines, less labor is devoted so that the divisor of the total production will be smaller and get a higher productivity value.

6) Effect of Capital on Rice Farmers' Income

If there is an increase in farmer's capital by 1 rupiah by assuming other factors remain, there will be an increase in the income of rice farmers in Purbaganda Village, Pematang Bandar District, Simalungun Regency. According to Satriani (2020) Capital is spent to encourage higher crop yields, it is hoped that the higher production costs of expenditures used for rice field management trigger the efficiency of rice field management itself, these costs can include purchasing seeds, purchasing fertilizers, purchasing rice field management tools. thereby increasing farmer's income which affects farmer's income. This study is in line with Hakim (2018) which states that capital has a positive effect on farmers' income. Farmers carry out farming with the most efficient cost possible so that by allocating appropriate and efficient costs, the results obtained will be maximized. Thus, there is a need for government

assistance to increase capital for farmers.

4. Conclusion

It was found that the production of lowland rice in Purbaganda Village has an average amount of 10,413 kg/farmer at a price of Rp 4,200/kg. The average area of land owned by farmers is 1.76 ha with an average production cost of Rp. 9,223,313.89 during one harvest season. The average profit or income of each farmer in Purbaganda Village, Pematang Bandar District, Simalungun Regency is IDR 34,509,613.89 in one harvest season. It was found that the characteristics of socio-economic factors, namely, the age factor and the education factor had no significant or significant effect on the income of lowland rice farmers. While the experience factor, land area factor, Labor factors and capital factors have a significant or significant effect on the income of rice farmers in Purbaganda Village, Pematang Bandar District, Simalungun Regency.

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