PERFORMANCE OF AGRIBUSINESS AND SOCIO-ECONOMIC SYSTEMS OF SOYBEAN FARMERS IN NORTH SUMATRA

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Abstract

Many factors must be considered in agricultural development in North Sumatra ranging from farmers as producers, availability of land for production, cultivation of planting, superior seeds, fertilizers, agricultural facilities/tools, infrastructure, post-harvest, distribution, processing of produce, price stability, to fulfilled food at the level of consumption. The purpose of this study is to analyze the performance of agribusiness systems as well as socio-economic factors of soybean farmers in North Sumatra. To assess the performance of agribusiness systems with good criteria, good enough and less good used questionnaire data by shifting the answer score by weight. To test socioeconomic factors, a formula for multiple linear regression is used. The results showed that farmers in carrying out aspects of organizing on average were good (score 31.6). Statistical tests of socio-economic factors of age (X_2), education (X_3), number of dependents (X_5) have no real effect on the income of soybean farmers (Y) while land area (X_1) and experience (X_4) have a real effect on the income of soybean farmers (Y).

Keywords: System Performance, Agribusiness, Social, Farmer Econony

A. Introduction

Soybeans are a superior commodity with various processed products for soybean consumption (Sudaryanto & Swastika, 2007). Soy is known as a source of vegetable protein, generally consumed in the form of processed products in the form of tofu, tempeh, soy sauce, tauco, soy milk and various forms of snacks. The main problems faced by farmers are the relatively low price of soybeans and limited irrigation of low soybean provitas.

Soybeans are one of the multipurpose crops because they can be used as food, feed, and raw materials of various manufacturing and processed industries. The need for soybeans in Indonesia every year always increases along with the increase in population

and improvement of per capita income. Therefore, additional soybean supplies are needed that must be imported because domestic production has not been able to meet these needs (Adisarwanto, 2014). According to the Ministry of Research and Technology, most soybeans in Indonesia on the market are imported soybeans and optimization of local soybean farmers has not been well worked on.

The availability of food to meet food needs is not a simple matter. Many factors must be considered in agricultural development in Indonesia ranging from farmers as producers, availability of land for production, cultivation of planting, superior seeds, fertilizers, agricultural facilities/tools, infrastructure, post-harvest, distribution, processing of products, price stability, to fulfilled food at the level of consumption for every citizen of the nation. (Gardjito, Djuwardi, & Harmayani, 2013)

The issue of imported soybeans has come under widespread scrutiny, therefore the government began to deal with the problem by regulating the volume and timing of soybean distribution, so that the level of selling prices in the market began to improve again, even to a higher price level compared to the previous period. The development of the selling price level will stimulate farmers to get excited again in the field of education. (Suprapto, 1997)

Deli Serdang, Serdang Bedagai, Simalungun and Langkat regencies are soybean development areas in North Sumatra. Based on data from the BPS (Badan Pusat Statistik) in 2017, Deli Serdang District has the largest harvest land of 792 ha. Productivity of soybeans produced amounted to 2.02 tons/ha. The productivity generated has exceeded national productivity but is still below the average optimal productivity according to the Agricultural Research and Development Agency (Balitkabi, 2008), which is 3 tons / ha. Not optimal productivity is suspected because farmers have not used soybean production inputs in accordance with the recommended operational standards of procedures. So there is still the need for efforts in the form of coaching and supervision from related officers so that the increase in soybean productivity can finally be achieved.

B. Method

Research on the sustainability of the condition of the agricultural management system is closely related to the aspects of agriculture so that respondents used the population of 400 KK are farmers who do soybean farming in 4 regencies in North Sumatra. The number of samples taken as many as 120 sample farmers (KK) with each district taken as many as 30 sample farmers (KK).

The data collected in this study is primary data and secondary data. Primary data is obtained from direct interviews to farmers with the help of questionnaires that have been prepared in advance, while secondary data is obtained from the Central Statistics Agency, the Office of Food crops and Horticulture, the Camat Office, the BPP office (Balai Penyuluh Pertanian), the village office, books and journals as literature that supports this research.

All the data that has been collected in this study will be processed and analyzed through several data processing methods grouped into two types of methods, namely: qualitative analysis methods and quantitative analysis methods.

Qualitative analysis aims to look at the insecurity of soybean farming in the research area, which is presented descriptively in the form of a description assisted by tables. This is done by observation, interview and discussion with soybean farmers in the research area.

Analysis of Production Functions

Analysis of production functions is used to see the relationship between the factors of production used and the results of production obtained. One type of production function analysis that can be used to see the relationship of non-free parameters and free parameters is *the power function.*.

To analyze the agribusiness performance of soybean farmers using *rating scale,* which is data obtained in the form of numbers then interpreted in a qualitative sense. The first step of assessment is to give weight to every aspect of the assessment. The weight is further divided for each descriptor as follows:

Table 1. Soybean Agribusiness System Performance Assessment Indicator

Aspects	Indicators	Verifer	Variance of Verifer	Score	Weight
I. Planning	Soybean farmers already have documents planning agricultural activities taking into account biophysical conditions, facilities and infrastructure policies or government regulations, as well as soybean markets.	1. There are written and complete documents owned by each in the planning of his agricultural activities	a. Written, complete	2	15
			b. Written, incomplete	1	
			c. There are no documents	0	
		2. Documents compiled by farmers themselves and	a. Arranged with extensionists/ farming groups	2	5
				1	

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Aspects	Indicators	Verifer	Variance of Verifer	Score	Weight
		families, farming groups, or agricultural extension workers	b. Organized with family c. Not organized	0	
		3. Documents have been used by soybean farmers as a reference in their agricultural activities	a. Always used b. Rarely used c. Not using documents	2 1 0	10
	Total				30
II. Organizing	Soybean farmers can prepare all the needs for their farmers and funding, so that all activities in each subsystem run smoothly by adequate facilities and infrastructure.	1. Farmers carry out inventory activities of the type, quality and quality of all production factors that will be used in their farmers.	a. Inventorying the entire b. Inventorying some c. Not inventorying	2 1 0	3
		2. The farmer does a breakdown of the costs that will be incurred in . his farming activities	a. Details of the entire cost b. Partial details of costs c. No perinktorcian costs	2 1 0	2
		3. The source of funds is prepared carefully both from farmers themselves, along with their families, and from loans.	a. From the farmer himself b. From farmers and families or loans c. Not prepared properly	2 1 0	5
		4. All factors of production to be used are available adequately and appropriately at the time needed	a. Available adequately, on time b. Available adequately, not on time c. Inadequate documents	2 1 0	10
	Total				20

Aspects	Indicators	Verifer	Variance of Verifer	Score	Weight
III. Actualization	Farmers conduct production and post-harvest activities well in accordance with standard procedures on soybean farming so as to produce good quality soybean products.	1. Soil management activities are carried out properly, namely the existence of soil smelting activities and the provision of basic fertilizers	a. There, all b. There are, some c. There is no soil processing	2 1 0	5
		2. Use of certified seeds up to five times re-use (F1-F3)	a. Use of certified seeds up to a maximum of F3 b. Use of certified seeds up to more than F3 c. Do not use certified seeds	2 1 0	8
		3. Making a standard planting distance is at least 20 cm x 30 cm and planting holes of 2 -4 cm	a. By standard b. Less standard c. Not up to standard	2 1 0	2
		4. There are fertilization activities carried out according to the schedule and needs of soybean plants	a. Schedule and dosage as needed b. Schedules and doses are not appropriate c. Schedules and doses are not as needed	2 1 0	8
		5. There are integrated pest and disease control activities	a. there is, integrated b. There, not integrated c. No, there is	2 1 0	7
		6. There are continued maintenance activities, namely weeding, as well as growth carried out according to the	a. There, accordingly. b. There, it's not appropriate c. There is none.	2 1 0	5

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Aspects	Indicators	Verifer	Variance of Verifer	Score	Weight
		schedule and needs of soybean plants.			
		7. There are quality selection activities in accordance with the soy products produced	a. Good	2	2
			b. There is, not always	1	
			c. There is none.	0	
		8. There are good packaging and storage activities so that soybeans are not damaged and durable	a. There, well	2	3
			b. There, less good	1	
			c. There is none.	0	
	Total				40
IV. Supervision	The entire soybean agribusiness system which includes pre-production and post-production subsystems is doing well.	1. Jawdal and kegiatan planting runs according to the needs of soybean plants	a. Appropriate	2	4
			b. Less suitable	1	
			c. Not appropriate	0	
		2. There are handling measures against obstacles encountered when providing factors of production of soybean farming	a. There is, always	2	2
			b. There is, not always	1	
			c. None	0	
		3. All production can be marketed according to the needs and demand of soybean products that have been produced	a. Can be marketed entirely	2	2
			b. Can be marketed as	1	
			c. Un marketable	0	
		4. There are anticipatory measures against low soybean prices, such as advanced processing,	a. There is, always	2	2
			b. There is, not always	1	
			c. There is none.	0	

Aspects	Indicators	Verifer	Variance of Verifer	Score	Weight
		establishing trade noodles and others			
	Total				10
	Total Over				100

For the final value is obtained by switching the answer score by weight. So that the total value is between 0 - 200. Based on the total value is determined performance criteria as follows:

If the value is between   0 - 66 = Poor performance

67 - 133 = Pretty good performance

134 - 200 = Good Performance

To test accepted or rejected hypotheses based on the data obtained, researchers use the following statistical techniques:

1. To test socioeconomic factors (land area, age, education, experience and number of dependents) on the income of soybean farmers in the research area used a multiple linear regression formula with the help of the SPSS program version 20.00 as follows:

$$Y = a + b_1X_1 + b_2X_2 + b_3X_3 + b_4X_4 + b_5X_5 + e$$

Where:

Y   = Farmer's Income (Rp)

a   = Constant

X_1 = Land Area (ha)

X_2 = Age (Years)

X_3 = Education (Year)

X_4 = Experience (Years)

X_5 = Number of Dependents (Souls)

b_1 - b_5 = Regression Coefficient

e   = error term

To find out the income of soybean farmers used the following equation:

$$\pi = TR - TC$$

Information:

π   = Profit

TR   = Total *Revenue* (Total Penerimaan)

TC   = Total *Cost* (Total Biaya)

Profit is Total receipts minus the total cost of production

To test the third hypothesis, it is used business analysis and feasibility test Return Cost Ratio (R / C Ratio). R/C ratio is a comparison between Total Receipts and Total Production Costs. Mathematically, it is formulated as follows:

$$\frac{R}{C} Ratio = \frac{TR}{TC}$$

Where:

TR   = Total Receipts

TC   = Total Cost of Production

If the R/C ratio > 1 then it can be stated that soybean farming is economically viable. If the R/C ratio = 1 then it can be stated that soybean farming is at breakeven (not loss, but also not in a state of profit). If the R/C ratio < 1 then it can be said that soybean farming is at a loss (not economically viable).

C. Results and Discussions

1. Soybean Agribusiness

a. Hulu subsystem

The upstream subsystem is part of the soybean agribusiness system which includes activities related to the procurement and distribution of production facilities such as seeds, fertilizers and agricultural tools that can support the implementation of soybean farming. The quantity and quality of soybean crops is largely determined by the availability of agricultural inputs, especially the use of superior seeds and fertilizers.

b. Soybean Farming Subsystem

Soybean farming in Indonesia is practically entirely owned by farmers not large private property or plantations. Because of its nature, the individual farming of farmers is generally narrow and very rare which exceeds 1 ha, generally less than 0.5 ha. In addition to narrow land ownership, soybean farming in Indonesia is still done traditionally. Therefore, soybean farming is not found in the form of vast expanses but in the form of spots with an area of tens of hectares only. This condition is less favorable for the development of soybeans because coaching is difficult to do (Subandi, Harsono, & Kuntyastuti, 2016).

c. Downstream subsystems and marketing

About 90% of soybeans are available, used as foodstuffs and the rest for animal feed and seeds (FAOSTAT, 2005). Soy processed products, such as tempeh, tofu, soy

sauce, tauco, soy milk and touge are important menus in the consumption patterns of most people, especially as a source of protein that is relatively cheap in price. Tempeh and tofu dominate the utilization of soybeans for food, which is 50% and 40% respectively while the rest is used for the processing of soy milk, soy sauce, touge, tauco, flour and other processed (Silitonga & Djanuwardi, 1996).

To meet the needs of soybeans, efforts are needed to increase domestic production through the use of superior varieties that have high yield potential and according to the quality of their seeds for certain processed products. Since the last 15 years, 37 varieties of soybeans have been released with an average yield potential of > 2 tons / ha (Balitkabi, 2008). However, the adoption of these superior varieties by farmers is relatively slow due to the low access of farmers to superior information and inadequate availability of seeds in the field, so that farmers continue to grow the varieties they have long known.

2. Performance of Soybean Agribusiness System

A good agribusiness system is very important to be applied by farmers in their agricultural activities. If the farmer has a good performance in the soybean agribusiness activities that he runs, it is expected that soybean farmers can improve their welfare. Based on the results of the study in Table 2 below shows the performance of the soybean agribusiness system in North Sumatra which is reviewed from four aspects specified.

Table 2. Performance of Soybean Farmers Agribusiness System in Research Area

Aspects	Verifer	Variance of verifer	Population (KK)
I. Planning	1. There is a written and complete management owned by each farmer in the planning of his agricultural activities	a. Written, Complete	0 (0,00%)
		b. Written, incomplete	0 (0,00%)
		c. There are no documents	120 (100,00%)
	2. Documents compiled by farmers themselves and families, farming groups, or agricultural extension workers	a. Compiled with extensionists/ farming groups	0 (0,00%)
		b. Arranged with family	0 (0,00%)
		c. Not arranged	120 (100,00%)

	3. Documents have been used by rice field soybean farmers as a reference in their agricultural activities.	a. Always worn	0 (0,00%)
		b. Rarely used	0 (0,00%)
		c. Not used	120 (100,00%)
II. Organizing	1. Farmers carry out inventory activities of the type, quantity and quality of all factors of production that will be used in their farmers.	a. Inventorying the entirety	72 (60,00%)
		b. Invetarization	48 (40,00%)
		c. Not Inventorying	0 (0,00%)
	2. Farmers do details of the costs that will be incurred in their agricultural activities	a. Details of the entire cost	20 (16,68%)
		b. Partial details of costs	65 (54,16%)
		c. No details of the cost.	35 (29,16%)
	3. The source of funds is prepared carefully both from farmers themselves, along with family, and from loans	a. From the farmer himself	72 (60,00%)
		b. From farmers and families or loans.	30 (25,00%)
		c. Not prepared properly	18 (15,00%)
	4. All factors of production to be used are available adequately and appropriately at the time needed	a. Available adequately, on time	98 (81,67%)
		b. Available adequately, not on time	22 (18,33%)
		c. Not adequately available	0 (0,00%)
III. Actualization	1. Soil processing activities are carried out well, namely the existence of soil processing activities, the manufacture of irrigation canals and the provision of basic fertilizers.	a. There, all	95 (79,17%)
		b. There are some	25 (20,83%)
		c. There is no soil processing	0 (0,00%)
	2. Maximum use of certified seeds up to two re-uses (F1-F2)	a. Use of certified seeds up to a maximum of F2	78, (65,00%)
		b. Use of certified seeds up to more than F2	32 (26,67%)
		c. Not using certified seeds	10 (8,30%)

	3. Planting is done with tugal with a distance of 20 cm x 30 cm, two seeds need to be cut	a. By standard b. Less standard c. Not up to standard	120 (100,00%) 0 (0. 00%) 0 (0,00%)
	4. There are fertilization activities carried out according to the schedule and needs of soybean plants	a. According to schedule and dosage b. As scheduled, the dose is not appropriate. c. Schedules and doses are not as needed	86 (71,67%) 34 (28,33%) 0 (0,00%)
	5. There are integrated pest and disease control activities	a. There, integrated b. There, not integrated c. There is none.	96 (80,00%) 24 (20,00%) 0 (0,00%)
	6. There are further voting activities, namely weeding and growing that are carried out according to the schedule and needs of soybean plants.	a. There is, according to b. There is, not appropriate c. There is none.	87 (72,50%) 33 (27,50%) 0 (0,00%)
	7. There are quality selection activities or management in accordance with the soybean products produced	a. There, always b. There is, not always c. There is none.	120 (100,00%) 0 (0,00%) 0 (0,00%)
	8. There are good drying and irregularity activities so that soybeans are not damaged and durable.	a. There, well b. There's less good c. There is none.	49. (40,83%) 71 (59,17%) 0 (0,00%)
IV. Supervision	1. Schedule and planting activities run according to the needs of soybean plants	a. Appropriate b. Less suitable c. Not appropriate	87 (72,50%) 33 (27,50%) 0 (0,00%)
	2. There are handling measures against the constraints encountered when providing factors of production of soybean crops	a. There is, always b. There is, not always c. There is none.	120 (100,00%) 0 (0,00%) 0 (0,00%)

3. All production can be marketed according to the needs and demand of soybean products that have been produced	a. Can be marketed entirely	72 (60,00%)	
	b. Partially marketable	48 (40,00%)	
	c. Un marketable.	0 (0,00%)	
4. There are anticipatory measures against low soybean prices, such as advanced processing, establishing trading partners and others	a. There is, always	20 (16,67%)	
	b. There is, not always	32 (26,66%)	
	c. None	68 (56,67)	

The performance of agribusiness systems in the research area on average is quite good, but there are some aspects of agribusiness management and subsystems that have not been run properly and have not even been implemented at all. Important activities in agribusiness that have not been implemented properly are the planning of agricultural activities in writing and thoroughly, the use of superior and certified seeds and a broad marketing scope. If all activities from all aspects of management are carried out properly farmers can increase their income and welfare.

Based on the overall series of implementation of soybean crop agribusiness activities, the state of the performance of the soybean agribusiness system illustrates a fairly good performance with a total score of 13,902 out of 120 samples with an average of 115.85. The table of performance states can be viewed as follows based on the tenth of the sample circumstances:

Table 3. Performance of Soybean Farmers Agribusiness System

No. Sample	Total Score	Performance
1-10	1143	Pretty Good
11-20	1156	Pretty Good
21-30	1132	Pretty Good
31-40	1177	Pretty Good
41-50	1217	Pretty Good
51-60	1225	Pretty Good
61-70	1086	Pretty Good
71-80	1215	Pretty Good
81-90	1169	Pretty Good
91-100	1132	Pretty Good
101-110	1108	Pretty Good
111-120	1142	Pretty Good
Total	**13.902**	
Average	**115.85**	Pretty Good

Farmers in the research area in the implementation of organizing aspects on average have been good (score 31.6). Although the planning of farmers' performance is not good enough, farmers can provide all the factors of production that they need in a timely manner in accordance with the needs of their farmers. One of the factors that becomes a factor in the smoothness of organizing activities is the availability of facilities that support and can be reached by farmers. For agricultural tools, farmers already own most of the equipment. Equipment for soybean farming is mostly the same as other farming equipment, there is almost no special equipment that is difficult to obtain. As for agricultural materials such as fertilizers and medicines are available adequately. In the research area there are many fertilizer stalls and pesticides that sell fertilizer needs including subsidized fertilizers and other medicines. For funds or costs needed, especially the cost of principal in the farm. Sources of financing can come from farmers themselves as well as loans obtained by collectors and entrepreneurs.

Multiple Linear Regression Analysis

The results used in hypothesis testing in this study were the result of multiple linear regressions. Hypothesis testing is done with *SPSS software* version 20.00. The results of the test can be found in Table 4. next:

Table 4. Multiple Linear Regression Results

Number	Variable	Local Rubber Farm		
		Coefficient	t_{count}	t_{table}
1.	Constant	243863.426	0.729	
2.	Land Area (X_1)	5214557.551	22.291	
3.	Age (X_2)	10074.217	1,652	2.506
4.	Education (X_3)	9253.228	0,727	
5.	Experience (X_4)	19198.534	2.750	
6.	Cost of Fertilizer (X_5)	39210.451	1,129	
	R^2	0.908		
	R Square	0.825		
	Ajusted R Square	0.817		
	F_{count}	107.353		
	F_{table}	2.36		
	Standard Error	362873.013		

Multiple Linear Regression Model

From Table 4 above, the regression model is obtained as follows:

Y   =   243863.426+5214557,551 X_1 +10074,217 X_2 +   9253,228X_3 +19198,534 X_4 39210.451+ X_5 + e

Where:

Y   = Income (Rp)

X_1 = Land Area (Ha)

X_2 = Age (Years)

X_3 = Education (Year)

X_4 = Experience (Years)

X_5 = Number of Dependents (Souls)

Regression Model Test

1. Test t

This t test is used to partially test the effect of independent variables on dependent variables. The tests in this study used a significant level of α = 0.05 and a total of 120 data. Partial test results using the t test are as follows:

a. Effect of Variable Land Area ($X_{1)}$on Soybean Farmers' Income

Based on the results of multiple linear regressions it can be determined that the Variable Land Area$_{(X1)}$has a real effect on farmers' income from the results obtained value T $_{calculated}$> T_{table} (22,291 > 2,506) which means H_1 is accepted and H_0 is rejected with a confidence level of 95%. It is stated that the area of land affects the income of soybean farmers, the wider the land, the higher production.

b. Effect of Age Variables ($X_{2)}$on Soybean Farmers' Income

Based on the results of multiple linear regressions it can be determined that the Age variable$_{(X2)}$has no real effect on farmers' income from the results obtained by the value T $_{calculated}$< T_{table} (1,652 < 2,506) which means H_0 is accepted and H_1 is rejected with a confidence level of 95%. It is stated that age has no effect on the income of soybean farmers, namely the older the age does not increase soybean production and farmers' income.

c. Effect of Educational Variables (X_3) on Soybean Farmers' Income

Based on the results of multiple linear regressions it can be determined that the farmer's education variable$_{(X3)}$has no real effect on farmers' income from the results obtained by the T $_{count}$< T_{table} (0.727 < 2,506) which means H_0 is accepted and H_1 is rejected with a confidence level of 95%. It is stated that education has no effect on the

income of soybean farmers, namely it is said that the education owned by farmers is low so that it does not affect soybean production and farmers' income.

d. Effect of Experience Variables (X_4) on Soybean Farmers' Income

Based on the results of multiple linear regressions it can be determined that the experience variable$_{(X4)}$has a real effect on farmers' income from the results obtained by the value T $_{calculated}$ > T$_{table}$ (2,750 > 2,506) which means H_1 is accepted and H_0 is rejected with a confidence level of 95%. It is stated that the experience affects the income of soybean farmers, namely it is said that the experience of farmers is good enough that farmers are more skilled in carrying out their agricultural activities so as to affect soybean production and farmers' incomes.

e. Variable Effect of Dependent Number (X_5) on Soybean Farmers' Income

Based on the results of multiple linear regressions it can be determined that the variable Number of Dependents$_{(X5)}$has no real effect on the income of farmers from the results obtained value T $_{calculated}$ < T$_{table}$ (1,129 < 2,506) which means H_0 is accepted and H_1 is rejected with a confidence level of 95%. It is stated that the number of dependents has no effect on the income of soybean farmers. The number of dependents in the research area is still in the medium category, namely with an average number of dependents as many as 3 people.

2. F Test

This test is used to test the meaning of regression ability together or simultaneously between variables of land area, age, education, experience and number of dependents to farmer income variables.

The tests in this study were conducted with the help of *SPSS software for Windows* 20.00 with a significance level of α = 0.05 and the number of sample data 120. The value F calculates (107.353) > the table F (2.36) means that together the variable (X) affects the dependent variable (Y) or the significance value of 0.000 is less than α = 0.05.

Revenue Analysis

The analysis of farmers' income is the result of a reduction between the total receipts received by farmers per harvest and the total costs incurred by farmers per planting season. The amount of income per soybean farmer varies from one farmer to another depending on the amount of receipts, the amount of production, the amount of land area and the amount of agricultural costs of the soybean farming business that is cultivated.

The income of soybean farmers per growing season is as follows:

π = TR - TC

π = Rp. 3.654.000 - Rp. 1.077.916

π = Rp. 2.594.325

The average land area of soybean farmers is 0.49 ha per person, so the average income of farmers is Rp. 2.594.325 / growing season. This farmer's income is the net income of farmers or can also be said to be a benefit for farmers in running soybean farming businesses that are cultivated.

R/C Ratio

Business feasibility analysis can be calculated using the *return cost ratio (R/*C) formula where to calculate R/C is done to divide between the receipts received by soybean farmers and the costs incurred by farmers for soybean farming. In this study, the cost in question is operational costs beyond the investment costs of farmers. The calculation of R/C Ratio is as follows:

$$\frac{R}{C} rasio = \frac{TR}{TC}$$

$$\frac{R}{C} = \frac{Rp. 3.654.000}{Rp. 1.077.916}$$

$$= 3.38$$

From this study the results of R/C is the average farmer's acceptance divided by the average cost incurred by farmers so that the value of R/C. The ratio is 3.38, meaning that every cost incurred as much as Rp. 1.077.916 will result in an acceptance of Rp. 3.654.000 so that soybean farmers get profits.

D. Conclusion

1. Farmers have not had a good performance in terms of planning soybean farming activities. Farmers in implementing the aspect of organizing on average have been good (score 31.6). The aspect of supervision carried out by farmers on average is still not good enough. supervision and handling actions carried out only on the provision of factors of production. There are no handling actions on planting activities that do not run according to the schedule and low soybean prices.

2. Simultaneously (Test F) affects the income of soybean farmers, namely F count (107,353) > F table (2.36). While partially (Test T) that socio-economic factors of age (X_2), education (X_3), the number of dependents (X_5) have no real effect on the income

of soybean farmers (Y) while land area (X_1) and experience (X_4) have a real effect on the income of soybean farmers (Y).

3. The average acceptance of soybean farming is Rp. 3.654.000, while the average cost incurred is Rp. 1.077.916 thus the average income obtained is Rp. 2.594.325.

4. Analysis of R/C Ratio on soybean farming of 3.38, meaning that every cost incurred as much as Rp. 1.077.916 will result in receipts of Rp. 3.654.000 so that soybean farming businesses benefit.

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