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Analysis Of The Feasibility Of Corn Farming In Ruguk Village, Ketapang District, South Lampung Regency

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Abstract

This study aims to analyze the feasibility of corn farming in Ruguk Village, Ketapang District, South Lampung Regency. As an agricultural country, Indonesia has an agricultural sector that plays an important role in the economy, where corn is one of the strategic commodities. This study was conducted using a non-discounted business feasibility analysis method, which includes analysis of income, costs, and profits from corn farming.

The results of the study showed that the income from corn farming in Ruguk Village was positive and had the potential to be developed. From the feasibility analysis, the Benefit Cost Ratio (B/C Ratio) value was 2.54, which indicates that every Rp 1 of costs incurred produces a net benefit of Rp 2.54. In addition, the Break Even Point (BEP) in terms of quantity was 4,506.7 kg, and the Return On Investment (ROI) reached 153.3%, which indicates that corn farming in this village is feasible to be further developed.

This study is expected to provide information and input for farmers and the government in developing corn farming businesses, as well as improving the welfare of the community in Ruguk Village.

Keywords : Feasibility, Farming Business, Corn.

INTRODUCTION

Indonesia is an agricultural country, meaning the agricultural sector plays a vital role in Indonesia's livelihoods, development, and economy. According to the Ministry of Agriculture's Agricultural Data and Information System Center (2022), from 2018 to 2021, the agricultural sector (including forestry and fisheries) ranked second after the manufacturing sector, contributing an average of 13.22% to Indonesia's GDP.

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Agricultural development in Indonesia takes place gradually and sustainably with the aim of increasing agricultural yields as much as possible to increase farmers' income, achieve welfare, increase horticultural crop production, and increase farmers' income and welfare. Government together with the community must play an active role in agricultural development as part of these efforts to improve the standard of living and welfare of all Indonesian people (Aksi Agraris Kanisius, 2012).

One of the food crop commodities that is important and plays an important role in the development of the agricultural sector is the corn commodity. Corn is a substitute for rice and sweet potatoes. In addition to corn as a direct consumption item, corn is also widely needed and used as animal feed and ethanol raw materials. Corn is also a staple food for certain regions and is converted into snacks consumed by the community so that the need for corn is always increasing in the community.

The need for corn commodities in Indonesia increases every year. The projected results of corn production and consumption in 2019-2022 increased by 9.29% per year (Saputra et al., 2022). From the Global Change Data Lab (2022), corn commodity production in Indonesia is 22.5 million tons of corn, while the world produces 1.16 billion tons. As a perspective, Indonesia only accounts for 0.02% of the total corn production worldwide. According to BPS (2021), the demand for corn in Indonesia in the last 5 (Five) years (2016-2020) has increased. Where the increase was 21.06% with an average of 4.21%/year. In 2016 the demand for corn in Indonesia was 14,475,776 Kg/week and the demand for corn in Indonesia in 2020 was 17,524,195 Kg/Week. This proves that the increase in corn demand in Indonesia every year makes corn production must also continue to be increased to meet the demand for corn.

This research was conducted to analyze the feasibility of corn farming in Ruguk Village, which is one of the corn production centers in South Lampung Regency.

Table 1. Lampung Province Corn Production by Regency/City (Tons) in Lampung Province, 2019

Kabupaten / kota	Corn Production (Tons)
Lampung Timur	963.909
Lampung Selatan	539.302
Lampung Tengah	325.063
Lampung Utara	212.261
Pesawaran	91.545

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Kabupaten / kota	Corn Production (Tons)
Way Kanan	85.485
Pringsewu	44.694
Tulangbawang	37.312
Pesisir Barat	28.848
Tulangbawang Barat	27.897
Tanggamus	11.388
Kota Metro	3.447
Mesuji	1.847
Kota Bandar Lampung	720
Lampung Barat	666
Lampung	**2.374.384**

Source : Data Survey Processed, 2024

South Lampung Regency is one of the corn production centers in Lampung Province. South Lampung Regency makes the second largest contribution in meeting the needs of corn in Lampung Province with the number of production produced in 2019 reaching 539,302 tons while in the first position is East Lampung Regency with corn production reaching 936,909 tons.

LITERATUR REVIEW

Production describes the relationship between the factors of production and the level of production created. Theory can be expressed in terms of the function of production and the level of production created. The factors of production are also known as inputs, and the amount of production is called Output.

Revenue can be defined in general terms as the result of a company. It is usually measured in units of exchange prices. Revenue is recognized after a significant event or after the sales process has basically been completed. In this practice, income is usually recognized at the time of sale (Anonimusc, 2014).

The financial feasibility of a business activity is calculated on the basis of the amount of expected financial profit. Business activities are said to be feasible if they provide profits (Muljadi Pudjosumarto, 2008:46).

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METHODOLOGY

The research was conducted in Ruguk Village, Ketapang District, South Lampung Regency from November 2023 to October 2024. The data used in this study consisted of primary data and secondary data. The technique to determine the sample hamlet uses the purposive sampling method. There is a condition for consideration in determining the sample hamlet, namely Ruguk Village being the center of corn production with the largest population and the largest area in Ketapang District.

This study is quantitative descriptive so that the researcher determines the number of samples of 25% of the population with a calculation of 25% x 61 = 15.25 Based on the calculation of the number of samples determined, the result is 15.25 so that the specified sample is 15 corn farmers. Data analysis in this study uses an analysis of the profits and feasibility of corn farming businesses. A business that will be carried out is considered to be able to provide profits or be acceptable if a business feasibility analysis is carried out, business feasibility can be determined by the *Benefif Cost Ratio* (B/C Ratio), *Break Event Point* (BEP), *Return On Investment* (ROI) approach, while for profit analysis using revenue analysis minus cost analysis.

RESULTS AND DISCUSSION

Ruguk Village is one of 17 villages/sub-districts in Ketapang sub-district. Geographically, Ruguk Village is a coastal area with an eastern route and mountains/plains with an altitude of 300 meters above sea level consisting of rice fields and plantations. Ruguk Village has an area of 32.5 km2 with a distance to the sub-district capital of about 13 km and has 13 hamlets and 30 Rt.

Land use in Ruguk Village consists of farms/moors, rice fields, and the coast. Most of the land use in Ruguk Village is for farmland/moorland, which is used as a place to cultivate corn, bananas, coconuts and rice fields for rice cultivation. In addition, it is also in coastal areas as fish and seaweed cultivation (Ruguk, 2024). Land use in Ruguk Village consists of farms/moors, rice fields, and the coast. Most of the land use in Ruguk Village is for farmland/moorland, which is used as a place to cultivate corn, bananas, coconuts and rice fields for rice cultivation. In addition, it is also in coastal areas as fish and seaweed cultivation (Ruguk, 2024).

The respondents in this study were corn farmers from Ruguk Village, Ketapang District, South Lampung Regency, Ruguk Village itself consists of several hamlets, one of which is Pepandu Hamlet which is a sample hamlet of Ruguk Village, 15 farmers from Pepandu hamlet are the sample representing Ruguk Village

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Table 2. Sample of Corn Farmers in Ruguk Village, Ketapang District, South Lampung Regency.

No	Respondent Name	Land area (Ha)
1	Paiman suyitno	1
2	Wayan sukanaya	0.5
3	Ketut mediana	0.5
4	Made sarta	1
5	Made bawe	1
6	Ketut ngertiyase	1
7	Kasman	1.5
8	Jainal mutakin	2
9	Rosikin	2.5
10	Prihartanto	2
11	Ketutu kencana	2
12	Nyoman sumadin	2.5
13	Made warje	3
14	I ketut handoko	3
15	Wayan budiane	4
Total	**15**	**27.5**

Source: Ruguk Village Survey, 2024

From the table above, there are 15 farmers who are samples to represent Ruguk village, each farmer has a different land area, wayan budiane is the farmer with the largest land area, which is 4 Ha, Jainal mutakin 2 Ha, and Paiman Suyitno with an area of 1 Ha.

Farming costs are classified into two, namely fixed costs and variable costs. The following is the total cost incurred by farmers from pre-harvest to post-harvest.

Table 3. Total Costs Incurred by Corn Farmers in Ruguk Village, Ketapang District, South Lampung Regency (in Rupiah)

No	Respondent's Name	Total Cost
1	Paiman suyitno	10.995.800
2	Wayan sukanaya	9.974.800
3	Ketut mediana	10.318.800
4	Made sarta	12.481.800

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5	Made bawe	13.014.800
6	Ketut ngertiyase	13.827.800
7	Kasman	17.886.800
8	Jainal mutakin	23.269.475
9	Rosikin	28.221.600
10	Prihartanto	25.525.800
11	Ketutu kencana	26.925.600
12	Nyoman sumadin	32.660.800
13	Made warje	36.966.400
14	I ketut handoko	38.407.600
15	Wayan budiane	49.997.266
Total		**350.475.141**
Average		**23.365.009**

Source: Survey Data Processed, 2024

The total cost incurred is different for each respondent depending on the land owned. The amount of fixed costs incurred by all respondents is Rp.2,560,000 while the variable cost amount is Rp.347.915.141. With a total cost of Rp.350,475,141 The average total cost incurred by farmers is **Rp.23,365,009**

Business revenue is the result that farmers receive from the production obtained. The revenue is the result of the ratio between the total physical production obtained in one planting season and the result of the unit price of production. Spradley (Sugiyono, 2015): Stating that analysis is an activity to look for patterns, which in the context of receipts, means looking for patterns in the income stream received.

Table 4. Total Revenue Issued by Corn Farmers in Ruguk Village, Ketapang District, South Lampung Regency (in Rupiah)

No	Name	Corn Sales		
		Production (Kg)	Price (Rp)	Acceptance (Rp)
1	Paiman Suyitno	3.000	5.400	16.200.000
2	Wayan Sukanaya	3.000	5.400	16.200.000
3	Ketut Mediana	4.000	5.400	21.600.000
4	Made Sarta	5.000	4.900	24.500.000
5	Made Bawe	6.000	4.900	29.400.000

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6	Ketut Ngertiyase	6.000	4.900	29.400.000
7	Kasman	7.000	4.900	34.300.000
8	Jainal Mutakin	10.000	4.900	49.000.000
9	Rosikin	12.000	5.400	64.800.000
10	Prihartanto	13.000	5.400	70.200.000
11	Ketut Kencana	14.000	5.400	75.600.000
12	Nyoman Sumadin	17.000	5.400	91.800.000
13	Made Warje	18.000	5.400	97.200.000
14	I Ketut Handoko	20.000	5.400	108.000.000
15	Wayan Budiane	28.000	5.400	151.200.000
Total		**166.000**		**879.400.000**
Average		**11.006,6**	**5.326,5**	**58.626.666,6**

Source: Survey Data Processed, 2024

From the table above, it can be seen that the total corn receipts from 15 farmers who were sampled in Ruguk Village amounted to Rp. 879,400,000 and the total production amount was 166,000 Kg. With a total revenue of Rp. 879,400,000, the average farmer revenue was Rp. 58,626,666.6

Profit analysis is an evaluation process that aims to measure and understand the profitability of a business or investment. Profit analysis According to Suratiyah (2015), profit is the difference between revenue (TR) and total cost (TC)

Table 5. Profits Received by Corn Farmers in Ruguk Village, Ketapang District, South Lampung Regency (in Rupiah)

Total Cost (Rp)	Total Revenue (Rp)	Advantage (Rp)
350.475.141	879.400.000	528.924.859
Friendly		**35.261.657,2**

Source: Survey Data Processed, 2024

From the table above, the profit obtained by farmers amounted to Rp.533,824,859 with a total revenue of Rp. 879,400,000 and a total cost incurred by farmers of Rp.350,475,141. From the profit of Rp.528,924,859, the average profit of corn farmers in Ruguk Village is Rp.35,261,657.2. Based on the above analysis, farmers' profits show positive results, they can

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The non-discounted business feasibility analysis is used to analyze the business financially in the short term so that in this analysis it is not too important to the value of money that changes in the analysis process.

Table 6. Profit and Loss Report Per Planting Season Sample Company.

No	Description	Average
1	Acceptance	
	1. Production (kg)	11.006
	2. Price (Rp)	5.326,5
	Total Revenue (Rp)	**58.626.666,6**
2	Cost (Rp)	
	a. Fixed Cost (land tax)	170.667
	b. Variable Cost	
	1.Seed Cost	4.180.000
	2.Land Cultivation Costs	716.667
	3.Planting Costs	1.520.000
	4.Weeding Costs	293.333
	5.Drug Cost	1.986.667
	6.Fertilization Costs	4.940.000
	7.Spraying Costs	733.333
	8.Cost of Disposable Equipment	881.333
	9.Harvesting Costs	7.832.267
	Total Variable Cost	23.194.342
	Total Cost	**23.365.009**
4	**Advantage (Rp)**	**35.261.657,6**

Source: Survey Data Processed, 2024

Benefit Cost Ratio (B/C Ratio)

Based on calculations, the result was a benefit cost ratio of 2.50. This means that every Rp. 1 cost incurred produces a net benefit of Rp. 2.50. The B/C Ratio value is more than 1, which means that the corn business in Ruguk village, Ketapang district, South Lampung regency is feasible to develop. (Source: Appendix 15)

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Break Event Point (BEP)

Based on the calculation of BEP in terms of quantity worth 4,386.5 Kg. This illustrates that the main return point occurs when sales reach 4,386.5 Kg of corn, at that point the value of TR = TC. This means that farmers must sell as much as 4,386.5 kg to return their business capital. The lower the number of units, the faster the main return point of a business. As for BEP in terms of price value, at the time of sale, it produced a price of Rp 2,112.9-, based on the results of the BEP that has been obtained, it can be concluded that the corn farming business in Ruguk village, Ketapang district, South Lampung regency is worthy of development. (Source: Appendix 15)

Return On Invesment

Based on the calculation, the ROI value was obtained of 150.9% percent, this shows the percentage of return on profits obtained compared to the amount of capital investment of 150.9% percent. The greater the ROI value, the greater the profit obtained, From the results of a very high ROI, the corn farming business in Ruguk village, Ketapang district, South Lampung Regency is worthy of development. (Source: Appendix 15)

CONCLUSIONS

Based on the results of the analysis in the research and discussion that has been presented in the previous chapter, it can be concluded that the income of corn products in Ruguk Village, Ketapang District, South Lampung Regency is positive (+) and has the potential to be developed. Based on the calculation of the feasibility analysis of the non-discounted corn cultivation business in Ruguk Village, Ketapang District, South Lampung Regency, the results of the B/C Ratio > 1, BEP reached break-even, and an ROI of 150.9% which means that the corn cultivation business is profitable and worthy of further development.

From the results of the research that has been carried out, it is necessary to pay attention to the company's administration, so that the accounting of cash flows in and out can be recorded properly. So that it can be used as a guideline to see business prospects in the future and used as a basis for decision-making for business development. Further research is needed related to the feasibility study of corn cultivation with more intensive management, both from a larger production volume, better maintenance techniques and more effective corn harvesting techniques.

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