



## Production cost and income analysis vegetable business “Prosperous” in the Eligibility of Andasan Ulinnorth

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### ABSTRACT

Analysis of Production Costs and Income in the Makmur Sejahtera Vegetable Farming Group in North Landasan Ulin Village. Under the guidance of: Gusti Marliani, SE., ME and Haris Irawan, SE, M.Sc. Thesis for Undergraduate Development Economics Study Program, Faculty of Economics, Achmad Yani University Banjarmasin in 2022. This study aims to determine the production costs and income of the Makmur Sejahtera Vegetable Farming Group in North Landasan Ulin Village. Data collection used for direct interview techniques with respondents, namely group leaders and members of the prosperous and prosperous vegetable farming group regarding production costs. Determination of respondents is done intentionally, namely with one group leader and other members who are farming. The results showed that the total cost incurred by the Makmur Sejahtera Vegetable Farming Group was Rp.128,746,000 consisting of fixed costs and variable costs. The income obtained by the Makmur Sejahtera Vegetable Farming Group is Rp. 17,029,000.



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## INTRODUCTION

Indonesia is a developing country with the agricultural sector as a source of livelihood for most of its people. Agriculture is the foundation of life for many people, but the more advanced industrial world has a negative impact on agriculture. There is a fundamental problem, namely the increase in the price of agricultural production facilities. While the selling price of agriculture is often not proportional to the production costs incurred, this situation occurs because of the lack of good bargaining power that occurs between people who buy and collect vegetables and farmers, which will result in the ups and downs of farmers' incomes. Banjarbaru City is one of the cities in South Kalimantan which has one sub-district where the majority of the population is engaged in vegetable farming, namely in Liang Anggang District, North Ulin Subdistrict. Below is data on land area, types of vegetables, yields, and selling price per harvest at the Makmur Sejahtera Farming Group in North Landasan Ulin Village:

**Table 1 Land Area, Types of Vegetables, Yield and Selling Price Per Harvest of Makmur Sejahtera Vegetable Farming in North Landasan Ulin Village 2022**

No	Land area (m <sup>2</sup> )	Types of Vegetables	Yields (kg)	Selling Price per harvest (Rp/kg)
1	1800	Cayenne pepper	15.300	50.000
2	540	Mustard	5625	8.000
3	1100	Tomato	19.000	3.000
4	1800	Corn	22.500	10.000
5	1620	Long Beans	12.600	5.000
6	1620	Leek	13.500	10.000
7	1260	Big Chili	12.600	14.000
8	1530	Cucumber	18.000	2.500
9	1080	Water spinach	10.800	5.000

Source: Prosperous Prosperous Farming. Processed Data (2022)

The table above shows that the largest land area is 1800 m<sup>2</sup>, which is planted with corn, cayenne pepper, and large chili, but these types of vegetables have a long harvest period or harvest age of about 86-96 days after planting, and types of vegetables such as mustard greens, tomatoes, corn, beans Like long leeks, this leek has a relatively short harvest period of 25–35 days. One of the factors that can lead to a decrease in the income of the Makmur Sejahtera Vegetable Farming farmers is that land is a problem for farmers there. The land is used for housing construction, which makes the land less and less. Makmur Sejahtera Farmers also still use traditional tools to cultivate their land, which results in additional labor costs. Increasing farmers' income is a necessary condition to improving farmers' welfare. Because it is not known what factors affect the income level of vegetable farmers, this research is important to analyze the determinants of the income level of vegetable farmers in the northern Ulin village base. So, in order to make sure that the business can be run, it's important to grow vegetables.

## RESEARCH METHODS

This research was conducted at Usahatani Makmur Sejahtera, which is located at Jalan Makmur Gang Sejahtera, North Landasan Ulin Village, Lianggang District. Data collection was carried out for 3 months from January to March 2022. The types of data used in this study are primary data and secondary data. Primary data were collected through direct field observations and direct interviews with farmers who became respondents at the Makmur Sejahtera Vegetable Farm. Secondary data was obtained from the literature of various agencies related to research problems, such as the Central Statistics Agency, Agricultural Training Center (BPP), and other related agencies.

### Data analysis

Data analysis is defined as the effort of data that is already available and then processed with statistics and can be used to answer the problem formulation in research with the aim of processing the data to answer the problem formulation. (Sujarweni, 2015:121)

- a) Total Cost/Total Cost (TC), a technique to determine production costs using the production cost method or total cost (total cost) is the sum of fixed costs and variable costs, mathematically formulated as follows (Sadono Sukirno, 2015:211):

$$TC = TFC + TVC$$

Where :

$$TC = \text{Total Cost}$$

$$TFC = \text{Total Fixed (Rp)}$$

$$TVC = \text{Total Variable Cost (Rp)}$$

- b) Total Revenue / Total Revenue (TR), In general, the calculation of total revenue (Total Revenue / TR) is the multiplication of the amount of production (Y) with the selling price (Py) and is expressed by the formula below (Rahim, 2007:165):

$$TR = P_y \cdot Y$$

Where :

$$TR = \text{Total Revenue}$$

$$P_y = \text{Product Price}$$

$$Y = \text{Production Quantity}$$

- c) Income, a technique to determine income using the method of income analysis. This analysis is used to determine total revenue and net income, which means gross income or total revenue minus total costs. According to Suratiah in Yus Rahman (2016:3), income is the difference between revenue (TR) and total cost (TC) and is expressed by the formula:

$$I = TR - TC$$

Where :

$$I = \text{Income}$$

$$TR = \text{Total Revenue}$$

$$TC = \text{Total Cost}$$

- d) R/C analysis, Suratiah in Yus Rahman (2016:3), R/C is a comparison between revenue and total costs.  $\frac{R}{C} = \frac{TR}{TC}$

Where :

$$TR = \text{The amount of revenue earned}$$

$$TC = \text{The amount of expenses incurred}$$

There are three criteria in the calculation, namely:

- a) If the  $R/C > 1$  means that the farm is profitable.
- b) If  $R/C = 1$ , it means that the farm is breaking even
- c) If  $R/C < 1$ , it means that the farm is losing.

## RESULTS AND DISCUSSION

### An Analysis of the Cost and Income of Prosperous Vegetable Farming

#### Fixed Costs (Fixed Costs)

Fixed costs are costs that users do not run out of in one production period. Fixed costs incurred by farming Makmur Sejahtetera include the cost of tools used to cultivate the land. Table 2: Prosperous and Prosperous Farming Fixed Costs

**Table 2 Fixed Costs for Prosperous and Prosperous Farming**

No	Component	Total	Price (Rp)	Total
1	Hoe	18	160.000	2.880.000
2	Spray Machine	18	650.000	11.700.000
<b>Total</b>				<b>14.580.000</b>

Source: Primary Data. Processed (2022)

#### Variable Cost

Variable costs are the overall costs incurred to obtain factors of production and can change according to the number of products to be produced or costs that are easily exhausted in one production period. Variable costs incurred by prosperous farming include fertilizer costs, seed costs, pest medicine costs, and farmer's wages.

**Table 3 Variable / Variable Costs**

No	Component	Unit	Total Price (Rp)
1	Fertilizer Cost	Rp/Kg	8.260.000
2	Seed Cost	Rp/Kg	31.758.000
3	Pest Medicine Cost	Rp	7.200.000
4	Fuel Cost	Rp/L	648.000
4	Labor costs	Rp/Hk	66.300.000
<b>Total</b>			<b>114.166.000</b>

Source: Primary Data. Processed (2022)

#### Total Cost

Total costs are all production costs incurred during production or all production costs incurred total costs obtained from fixed costs and variable / variable costs.

**Table 4 Total Cost**

No	Keterangan	Total Biaya (Rp)
1	Total Fixed Cost	14.580.000
2	Total Variable Cost	114.166.000
<b>Total</b>		<b>128.746.000</b>

Source: Primary Data. Processed (2022)

The following can be calculated using the following calculation formula:

$$TC = TFC + TVC$$

$$TC = 14.580.000 + 114.166.000$$

$$TC = 128.746.000$$

The total cost incurred by Usahatani Makmur Sejahtera during one production period is Rp.128.746.000.

## Reception

Revenue is the product of the price and quantity of the number of products produced by the company in a certain period of time. This shows that the size of the revenue will depend on the high and low prices prevailing at the time of selling the product.

**Table 5 Selling price for one harvest**

No	Land area (m <sup>2</sup> )	Types of Vegetables	Yields (kg)	Selling Price per Harvest (Rp/kg)	Total Receipt(Rp/Kg)
1	236	Mustard	1500	8.000	12.000.000
2	281	Cayenne pepper	600	50.000	30.000.000
3	163	Tomato	4500	5.000	22.500.000
4	66	Corn	1050	8.000	8.400.000
5	146	Long beans	2100	5.000	10.500.000
6	1000	Leek	750	30.000	22.500.000
7	260	Big Chili	650	30.000	19.500.000
8	92	Cucumber	4950	2.500	12.375.000
9	91	Water spinach	1000	8.000	8.000.000
<b>Total</b>					<b>145.775.000</b>

Source: Primary Data. Processed (2022)

Here is the calculation of Revenue;

TR = P.Q

P = Product Price (Selling Price Per Harvest (Rp/Kg))

Q = Number of Products (Yield (Kg))

TR<sub>Mustard</sub> = Rp. 8.000 x 1.500 Kg = Rp. 12.000.000/Kg

TR<sub>Cayenne pepper</sub> = Rp. 50.000 x 600 Kg = Rp. 30.000.000/Kg

TR<sub>Tomato</sub> = Rp. 5.000 x 4.500 Kg = Rp. 22.500.000/Kg

TR<sub>Corn</sub> = Rp. 8.000 x 1050 Kg = Rp. 8.400.000/Kg

TR<sub>Long Beans</sub> = Rp. 5.000 x 2100 Kg = Rp. 10.500.000/Kg

TR<sub>Leek</sub> = Rp. 30.000 x 750 Kg = Rp. 22.500.000/Kg

TR<sub>Big Chili</sub> = Rp. 30.000 x 650 Kg = Rp. 19.500.000/Kg

TR<sub>Cucumber</sub> = Rp. 2.500 x 4950 Kg = Rp. 12.375.000/Kg

TR<sub>Water Spinach</sub> = Rp. 8.000 x 1000 Kg = Rp. 8.000.000

Table 5 shows Total Revenue is the Selling Price received for one production period. The cost received for one production period is Rp. 145,775,000.

## Profit

Profit is the value obtained by calculating the difference between total revenue and production costs incurred during one production.

**Table 6 Prosperous Prosperous Farming Benefits**

No	Description	Total Difference (Rp)
1	Total Receipt	145.775.000
2	Total Production Cost	128.746.000
<b>Total</b>		<b>17.029.000</b>

Source: Primary Data. Processed Data (2022)

The following can be calculated with the following calculations:

$I = TR - TC$

$I = 145.775.000 - 128.746.000$

$I = 17.029.000$

From the table above, it can be seen that the total income of Makmur Sejahtera Farming is Rp. 17,029.000.

### Ratio Cost(R/C) Analysis

Cost Ratio Analysis or comparison (Ratio between revenue and total cost)

**Table 7 Analysis of Prosperous Prosperous Farming Cost Ratio**

No	Description	Total Difference (Rp)
1	Total Receipt (TR)	145.775.000
2	Total Production Cost (TC)	128.746.000

Source: Primary Data. Processed Data (2022).

The following can be calculated with the following calculations:

$$R/C = \frac{TR}{TC}$$
$$R/C = \frac{145.775.000}{128.746.000}$$
$$R/C = 1,132268187$$
$$R/C = 1,13$$

The R/C value of 1.13 means that the total revenue is Rp. 145,775,000 with a total production cost of Rp. 128,746,000 resulted in a comparison of 1.13. According to Soekartawi in Rahim (2007:116) this shows that the comparison results in a value above 1 (R/C analysis > 1 means that Prosperous Prosperous Vegetable Farming is profitable to cultivate).

### CONCLUSION

Prosperous vegetable farming based on the costs incurred and the income received can be considered still profitable as long as the R/C value > 1 but if the R/C results in a number below 0.5, it can mean that the farming is profitable but the amount of profit is inadequate from the capital invested. used for the farm. This can be seen from the results of R/C = 1.13 (R/C > 1 = Favorable and a value of 0.13 indicates that the profits obtained are still small).

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