



IMPACT OF THE COVID-19 PANDEMIC ON VEGETABLE BUSINESS INCOME IN PATTINOANG VILLAGE, GALESONG DISTRICT TAKALAR DISTRICT

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Abstract

This study aims to determine the impact of covid-19 on the income of vegetable farmers before and during the pandemic in Pattinoang Village, Galesong District, Takalar Regency and to find out the difference in the income of vegetable farmers before and during the covid-19 pandemic in Pattinoang Village, Galesong District, Takalar Regency. Sampling in the study was done by simple random sampling technique as many as 15 vegetable farmers from a total population of 103 farmers. The data analysis used is the analysis of production and income as well as the analysis of the t-test (Paired Test). The result showed that the impact of the covid-19 pandemic on the income of vegetable farmers in Pattinoang Village, Galesong District, Takalar Regency decreased. This happens because the costs used in vegetable farming increase while the price of vegetables decreases which result in decreased revenues. Thus, the average income of vegetable farmers before the covid-19 pandemic was IDR 935,495.00 and decreased during the covid-19 pandemic to IDR 729,213.00.

Keywords: Covid-19, vegetables, income.

1. Introduction

The agricultural sector is one of the sectors that provides the largest contribution to gross domestic product (GDP). The agricultural sector is also one of the types of business fields that receive the most workers with an average contribution of 32.21 percent. Meanwhile, the contribution of other sectors is less than 19 percent. Based on these two indicators, it can be concluded that agriculture has a strategic role for the national economy (Ramiayu, 2021).

As we enter 2020, the national economy is under pressure due to the impact of the COVID-19 pandemic. The COVID-19 pandemic has put pressure on the domestic economy so that in 2020 the national economy will experience a growth contraction of -2.07 percent. Despite contracting growth, the GDP of the agricultural sector was still able to grow positively. The positive contribution of the agricultural sector to GDP amid COVID-19 should also have a positive impact on farmers (Ramiayu, 2021).

The agricultural sector has economic value that can make Indonesia survive the threat of a global crisis, including the current crisis caused by COVID-19. This is because the agricultural sector is a daily necessity and the processing time is not too long, it only takes 3 months. The current condition is a momentum to boost agricultural production such as vegetables and plantation commodities to reduce imports. The agricultural sector is the most important thing and becomes a priority because it is related to basic needs and support for human survival.

The impact of the COVID-19 pandemic that has been felt the most by the farming community is the drastic drop in the prices of agricultural products due to the declining purchasing power of the people. This is not comparable to the operational costs incurred by farmers in doing farming which causes many farmers to experience losses. Currently, the government is also making policies such as social distancing, work from home, physical distancing and large-scale social restrictions (PSBB). This policy is considered very difficult for farmers to market their cultivation products. As a result, many agricultural products experience damage and deterioration of quality.

Efforts are being made to support the welfare of farmers, the government should try to reduce the production burden which is the cause of the decline in the farmer's exchange rate (NTP). downstream production to minimize labor costs, especially for the food crops and horticulture sub-sectors. Second, providing seed or seed assistance for food crop and horticulture farmers. Third, to overcome oversupply the government can help BUMDes (Ramiayu, 2021).

Pattinoang Village, Galesong District, Takalar Regency, most of the people work as farmers, some grow vegetables, rice, and also corn. The condition of farmers in Pattinoang Village was classified as prosperous before the COVID-19 pandemic. However, after the corona virus spread in which the village of Pattinoang was also affected, the income of farmers decreased.

A similar impact caused by the COVID-19 pandemic is changes in consumption and employment patterns, causing changes to occur in the food commodity market. The uncertainty of conditions and anxiety related to the level of farmers' welfare, is no exception in Pattinoang Village, Galesong District, Takalar Regency. There are also many farmers in Pattinoang Village who suffer losses due to the disproportionate income with the production costs of their farming. Not a few farmers were forced to stop planting until conditions returned to normal.

Based on the above background, it will be studied further about the income of vegetable farmers in Pttinoang Village. For this reason, the author raised the title "The Effect of the Covid-19 Pandemic on the Income of Vegetable Farmers in Pattinoang Village, Galesong District, Gowa Regency".

2. Methods

2.1 Research Location and Time

This research was conducted in Pattinoang Village, Galesong District, Takalar Regency. This location was chosen because Pattinoang Village is one of the vegetable producing areas in Galesong District. This research starts in December 2021 until January 2022.

2.2 Sampling Technique

The population in this study were all vegetable farmers in Pattinoang Village. The initial survey found that the number of vegetable farmers was 102 people, so the sample in this study was 15 people, namely by taking 15% of the total population (Arikunto, 2006). Determination of the sample is done by simple random sampling technique (simple random) by compiling a sampling frame and then determining the number of samples and then determining the sample determination tool that is by drawing the name that previously became the population.

2.3 Data Types and Sources

The types and sources of data in this study are qualitative and quantitative data.

- a. Qualitative data is in the form of words or explanations, not in the form of numbers. Qualitative data can be obtained by data collection techniques such as interviews, documentation, discussion, observation and analysis.
- b. Quantitative data is the type of data that can be measured or calculated directly as a number or number variable.

A data source is something that provides information regarding data based on its source. Data sources are divided into two, namely primary data and secondary data.

- a. Primary data is data obtained through direct interviews with vegetable farmers in Pattinoang Village using a questionnaire as a data collection tool in this research in the form of respondents' identities, costs used in vegetable farming, income and income of vegetable farmers in Pattinoang Village, Galesong District, Takalar Regency.
- b. Secondary data is data that has been collected to solve the problem at hand, besides that this data is easy to obtain quickly. In this study, the secondary data source is data obtained from books and others in the form of geographical conditions and demographic conditions in Pattinoang Village, Galesong District, Takalar Regency.

2.4 Data collection technique

There are three data collection techniques used, namely:

a. Observation

The observation method was carried out to find information on the research location in order to get an overview of the research location and to know the activities of vegetable farming in Pattinoang Village, Galesong District, Takalar Regency.

b. Interview

Interviews were conducted by giving direct questions to the research sample in Pattinoang Village. In addition, researchers also use tools such as questionnaires in which there is a list of questions that will be given to the research sample in order to get answers from samples that match the required data.

c. Documentation

The documentation in this study uses secondary data from the research area such as vegetable crops, monographs of research sites and photos that can support research activities.

2.5 Data analysis technique

The data analysis technique is grouping data based on variables, presenting data based on the variables to be studied and performing calculations to answer the problem formulation. The analytical methods that will be used in this research are:

- a. Analysis of the data used to answer the formulation of the problem by using cost and income analysis. Cost and revenue analysis is used to determine the flow of costs, revenues and income in a business.

According to Suratiah (2015) to calculate the total cost, it is obtained by adding up fixed costs and variable costs with the formula:

$$TC = TFC + TVC \quad (1)$$

Information:

TC = Total Cost / Total Cost

TFC = Total Fixed Cost / Total Fixed Cost

TVC = Total Variable Cost / Total Variable Cost

According to Suratiah (2015) to know the amount of revenue obtained can be known by the formula:

$$TR = P_y \cdot Y \quad (2)$$

Information:

TR = Total Revenue / Total Revenue

P_y = Product Price

Y = Production Quantity

According to Suratiah (2015) income can be calculated using the following formula.

$$I = TR - TC \quad (3)$$

Information:

$I = \text{Income} / \text{Income}$

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

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

- b. Analysis of the data used to answer the second problem formulation is by using a different T-test (Paired Sample Test). The t-test is a test using the t-distribution to the significant difference in a certain mean value of two unrelated sample groups.

3. Results and Discussion

3.1 Reception

Zainuddin Kabai (2015) explains that acceptance is the total income received by producers in the form of money obtained from the sale of goods produced, revenue is an increase from the activities carried out by the company in a certain period.

According to Rahim, A et al (2007) explained that farm income is the product of the multiplication between the production obtained and the selling price. From the results of this study, it can be seen the acceptance of vegetable farming farmers in Pattinoang Village, Galesong District, Takalar Regency before and during the Covid-19 pandemic.

Table 1. Acceptance of Vegetable Farming in Pattinoang Village, Galesong District, Takalar Regency Before and During the Covid-19 Pandemic.

Acceptance of Vegetable Farming Before Covid-19.				
No	Description	Production (Kg)	Price (Rp/Kg)	Revenue (Rp)
1	Water spinach	19	35,000	647,500
2	Spinach	21	30,000	633,000
Total Revenue (Rp)				1,280,500
Acceptance of Vegetable Farming During Covid-19.				
No	Description	Production (Kg/Ha)	Price (Rp/Kg)	Revenue (Rp)
1	Water spinach	19	32,000	592,000
2	Spinach	21	25,000	530,833
Total Revenue (Rp)				1.122.833

Source: Primary Data After Processing, 2022.

Table 1. shows the acceptance of vegetable farming farmers in Pattinoang Village, Galesong District, Takalar Regency before and during the Covid-19 Pandemic. Prior to the Covid-19 pandemic, vegetable farming received an income of Rp 1,280,500 which was obtained from the total receipts of kale and spinach vegetables, each of which the production amount was an average kale production of 19 kg/ha with a selling price of Rp. 35,000/kg. so that the kale revenue is Rp. 647,500, meanwhile the average spinach production is 21 kg/ha with a selling price of Rp. 30,000/kg so that the spinach revenue is Rp. 633,000.

In contrast to the revenue before the Covid-19 pandemic, the income obtained by vegetable farming farmers decreased, the receipt of vegetable farmers during the Covid-19 pandemic was Rp. 1,122,833, which was obtained from the total receipts of kale and spinach vegetables. The average production of kale during the Covid-19 pandemic was 19 kg/ha with a selling price of Rp. 32,000/kg so that an income of Rp. 5492,000 was obtained, the average production of spinach was 21 kg/ha with a selling price of Rp. 25,000/ha. kg so that the receipt of spinach vegetables is Rp. 530,833.

The impact of the COVID-19 pandemic that also attacked Pattinoang Village was the decline in the price of vegetable farming caused by government regulations in the form of restrictions on community activities (PPKM) and social distancing which resulted in some moments when the market was deserted by consumers.

3.2 Income

Sukirno (2006) Income is the amount of income received by farmers for their work during a certain period, either daily, weekly, monthly or yearly. Business activities will ultimately earn income in the form of the value of money received by farmers from the sale of production minus the costs that have been incurred, income is revenue minus the total production costs used during the production process. The income of vegetable farming in Pattinoang Village, Galesong District, Takalar Regency before and during the Covid-19 pandemic can be seen in the following table.

Table 2. Vegetable Farming Income in Pattinongan Village, Galesong District, Takalar Regency Before and During the Covid-19 Pandemic

Vegetable Farming Income Before Covid-19		
No	Description	Average
1	Acceptance (TR) = QP	
	- Kale Production (Q)	19
	- Kangkung Price (P)	35,000
	- Spinach Production (Q)	21
	- Spinach Price (P)	30,000
	Total Vegetable Revenue (Rp)	1,280,500
No	Description	Average
2	Total Cost (TC) = FC + VC	
	- Fixed Cost (FC)	77,061
	- Variable Cost (VC)	269,061
	Total Cost (TC)	345,005
	Revenue (I) = TR – TC	935,495
Vegetable Farming Income During Covid-19		
No	Description	Average
1	Acceptance (TR) = QP	
	- Kale Production (Q)	19
	- Kangkung Price (P)	32,000
	- Spinach Production (Q)	21
	- Spinach Price (P)	25,000
	Total Vegetable Revenue (Rp)	1.122.833
No	Description	Average
2	Total Cost (TC) = FC + VC	
	- Fixed Cost (FC)	78,986
	- Variable Cost (VC)	315,487
	Total Cost (TC)	393,621
	Revenue (I) = TR – TC	729,213

Source: Primary Data After Processing, 2022.

Table 2. shows the income earned by vegetable farming in Pattinoang Village, Galesong District, Takalar Regency before and during the Covid-19 pandemic. The amount of income earned before Covid-19 was Rp 935,495., which was obtained from the result of subtracting between receipts of Rp. 1,280,500., with a total cost of Rp. 345,005.

Vegetable farming income during Covid-19 was Rp. 729,213., which is obtained from the results of a reduction in revenue of Rp. 1,122,833 with a total cost of Rp. 393,621.

The impact of the Covid-19 on vegetable farming in Pattinoang Village is the decrease in income caused by the decrease in the selling price of vegetables while the cost of vegetable farming has increased since the covid-19 pandemic. As a result, farmers experience instability in their farm income as it was previously known that income before the COVID-19 pandemic was higher than during the Covid-19 pandemic.

3.3 T Uji test

This comparative test was conducted to see a comparison of vegetable farming income before and after the Covid-19 pandemic in Pattinoang Village, Galesong District, Takalar Regency. This test uses a paired sample t-Test, with the proposed hypothesis that there is a difference in vegetable farming income between before and after the Covid-19 pandemic in Pattinoang Village, Galesong District, Takalar Regency.

Table 3.T-Test results of differences in vegetable farming income before and after the Covid-19 pandemic in Pattinoang Village, Galesong District, Takalar Regency

No	Description	mean	Standard Error	Sig.
1	Income Before Covid-19	585277.5	810820,18717	0.000
2	Income After Covid-19	313732.8571	415608,41637	0.000

Source: Primary Data After Processing, 2022.

Differences in income were tested statistically using the paired sample t-Test. Based on the results of the t test test in table 12, it can be obtained Sig. (2-tailed) $0.000 < 0.05$. This shows that H_0 is rejected and H_1 is accepted, which means that there is a significant difference between the average income of vegetable farmers before and during Covid-19, while the difference in vegetable farming income before Covid-19 is IDR 935,495.00 and vegetable farming income in the previous year. during Covid-19, which was Rp. 729,213. The impact of the COVID-19 pandemic was felt by vegetable farmers in Pattinoang Village, Galesong District, Takalar Regency because of their declining income.

4. Conclusion

Based on the results of research on the impact of the COVID-19 pandemic on the income of vegetable farmers in Pattinoang Village, Galesong District, Takalar Regency, the following conclusions can be drawn.

1. The impact of the COVID-19 pandemic on the income of vegetable farmers in Pattinoang Village, Galesong District, Takalar Regency has decreased. This is because the cost of vegetable farming since the COVID-19 pandemic has increased, while the price of vegetables has decreased which has caused farm revenues to also decline. Therefore, the income of vegetable farmers in Pattinoang Village has also decreased. This has happened since the implementation of restrictions on community activities and social distancing that hampered community activities.
2. Based on the results of the t test, Sig. (2-tailed) $0.000 < 0.05$, which indicates H_0 is rejected and H_1 is accepted, which means that there is a difference in vegetable farming income before and during Covid -19, while the difference in vegetable farming income

before Covid-19 is Rp 935,495.00 and vegetable farming income during Covid-19 was Rp. 729,213.00.

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