



## Research Article

# Examining the Economic Impact of Cayenne Pepper in Traditional Markets of Makassar City: A Price Analysis Study

Pipi Diansari<sup>a,1,\*</sup>, Didi Rukmana<sup>a,2</sup>, Wahyudi<sup>a,3</sup>

<sup>a</sup> Agribusiness Department, Faculty of Agriculture, University of Hasanuddin Makassar, 90245, Indonesia

<sup>1</sup>[pipidiansari@gmail.com](mailto:pipidiansari@gmail.com); <sup>2</sup>[drukmana@gmail.com](mailto:drukmana@gmail.com); <sup>3</sup>[wahyuditasrief128@gmail.com](mailto:wahyuditasrief128@gmail.com)

\* corresponding author

### ARTICLE INFO

#### Article history

Received December 30, 2022

Revised March 7, 2023

Accepted March 23, 2023

Published March 30, 2023

#### Keywords

Break Even Point

Cayenne Pepper

Economic Price

### ABSTRACT

The price fluctuation of cayenne pepper has significant impacts on traders' cost performance and income. Therefore, determining the economic price for selling cayenne pepper is crucial. Economic price refers to the fair price for the sale of a commodity or product. This research aims to determine the economic price of cayenne pepper at Kalimbu Market in Makassar City, using 20 traders as respondents and primary data analysis. Cost analysis and break-even point techniques were employed to determine the basic price of cayenne pepper, followed by a switching value analysis to assess the percentage change in costs that could be tolerated. The study findings reveal that the economic price for kiosk cayenne pepper traders is Rp. 57,664/Kg, while the other economic price for kiosk cayenne pepper traders is Rp. 58,068/Kg. These results imply that the selling price set by the cayenne pepper trader is IDR 60,000, resulting in a small profit that is insufficient to meet the personal and family needs of traders.

Copyright © 2023, Diansari et al

This is an open access article under the [CC-BY-SACC-BY-SA](https://creativecommons.org/licenses/by-sa/4.0/) license



## INTRODUCTION

The agricultural sector plays a significant role in the national economy, as it provides employment opportunities and generates non-oil and gas foreign exchange earnings. In 2018, the agricultural sector, including forestry and fisheries, contributed 12.81% to Indonesia's Gross Domestic Product (GDP) at base year prices in 2010. Additionally, the horticultural crop agriculture subsector contributed 1.47% to the overall GDP at base prices in 2010 (Ministry of Agriculture, 2019).

Horticulture is a significant agricultural crop commodity that plays a vital role in meeting national food needs and increasing national income. Horticultural commodities are widely developed by the Indonesian people, and Cayenne pepper is one of the commodities with potential for further development. This type of vegetable is in high demand among consumers and has become a necessary raw material for both household and industrial purposes, given the growth of the national food industry. As a result, numerous producers cultivate Cayenne pepper at various farming scales to meet the increasing demand for chili in Indonesia. The demand for chili in the country has grown every year, in line with population growth and the expansion of the chili processing industry (Septiadi et al., 2020).

Cayenne pepper is a rich source of various compounds such as capsaicin, capsantin, carotenoids, alkaloids, essential oils, resins, and volatile oils, as well as vitamins A and C. Capsaicin, which provides chilies with their characteristic spicy taste and heat, is known for its potential benefits on blood flow and as a skin numbing agent. Additionally, the seeds of cayenne pepper contain Solanine, Solamidine, Solamargine, Solasodine, Solasomine, and Steroid Saponins (Capsisidin), which can serve as an antibiotic. Moreover, cayenne pepper has various health benefits, including reducing the occurrence of blood clots (thrombocytes) and lowering cholesterol. Its high antioxidant content, such as Vitamin C and Beta-carotene, makes it useful in treating infertility and as an aphrodisiac (Lestari, 2021; Nainggolan et al., 2020).

Cayenne pepper is a highly demanded and strategic commodity in Indonesia, playing an essential role in household consumption (Putra et al., 2021). Despite its steady market demand, the production of Cayenne pepper is subject to fluctuations in price due to its susceptibility to damage and sensitivity to seasonal changes, as reported by Junarsih (2018). As a staple food to complement main courses, the volatility in the price of Cayenne pepper raises concerns for consumers. Moreover, various factors contribute to the fluctuation in prices of Cayenne pepper (Viana et al., 2018).

The price formation of a commodity is influenced by various factors, including supply conditions resulting from the amount of cayenne pepper produced by farmers in certain seasons. In addition, distribution channels also play a role in the fluctuation of cayenne pepper prices due to differences in marketing agency costs, transportation costs, supply chain disruptions, and profit margins at each level of the supply chain. These factors ultimately affect the price that end consumers pay. Consequently, determining the economic price for selling cayenne pepper is crucial (Hanani et al., 2020; Junarsih, 2018).

The economic price, which is regarded as a justifiable price for a commodity or product, is determined based on the same criteria as that of the cost price. As such, the cost of goods is an essential component of the production costs that serves as a criterion for ascertaining the cost of goods produced and sold, thereby guiding the determination of the selling price and facilitating profit planning (Mahyuddin, 2018).

In traditional markets, traders face a fundamental challenge due to their lack of accounting processes and calculations in managing their businesses. Consequently, Cayenne pepper traders still rely on approximations or arbitrary pricing based on the costs incurred. They sell the commodity, deduct the proceeds from the capital invested in purchasing the Cayenne pepper, and then the remaining amount is considered as profit (Mauliyah, 2018).

To create a profitable marketing system, it is crucial to establish conditions that can satisfy all parties involved, including producers, marketing institutions, and consumers. The satisfaction of these parties encompasses factors such as fair pricing for producers, adequate compensation and services for marketing agencies, and satisfactory goods and services for consumers. The flow of goods between producers and consumers typically involves intermediaries, whose services enable consumers to purchase goods according to their preferences. Agricultural commodities like cayenne pepper have dispersed characteristics, necessitating processes such as collection, balancing, and distribution to be part of the marketing process.

Astuti (2018) stated that traditional markets serve as a place for transactions between wholesalers, retailers, and end consumers, including household actors and industries. Kalimbu Market in Makassar City is one of the traditional markets where cayenne pepper traders operate and are involved in large profit margins between the consumer and producer levels. These traders are also affected by price fluctuations that impact their cost and revenue performance. The perishable nature of cayenne pepper affects the capital turnover duration for traders, and the marketing process must be done quickly to ensure that capital is returned in a relatively short time. Retailers' limited capital means that an increase in cayenne pepper prices will affect the amount purchased from collectors and ultimately affect the traders' income.

The research presented in this paper offers a novel contribution through the use of cost analysis, revenue analysis, break-even point analysis, and switching value analysis. These analytical approaches are aligned with the research objectives of this study, which are to identify the cost structure and economic price of cayenne pepper, as well as to determine the maximum level of variable costs that can be tolerated within the cayenne pepper trading business.

## METHOD

The study was conducted in Kalimbu Market, located in Makassar City, South Sulawesi Province, Indonesia. The selection of this research location was purposeful, as Kalimbu Market is a central distribution point for Cayenne pepper in Makassar City and is a hub for marketing activities. The research methodology employed in this study is a case study approach, with Kalimbu Market serving as the case under investigation.

As Respati (2020) explains, a case study is a detailed and intensive research method that provides in-depth analysis of an organization, institution, or phenomenon, whether at the individual or societal level.

The present study utilized primary data obtained from questionnaires and interviews conducted with traders. Respondents were determined through the application of the random sampling method, which is a technique that affords all individuals in the population equal opportunities to be selected as sample members. A total of 20 traders participated in the study, including 10 stall traders and 10 overlay traders.

Quantitative descriptive analysis was used to process primary data obtained from 20 randomly selected traders at the Kalimbu Market in Makassar City. In this study, various analyses such as cost analysis, revenue analysis, break-even point (BEP) analysis, and switching value analysis were conducted to obtain accurate calculations that describe the cost of goods, profits earned, and the extent to which variable costs can be changed in the cayenne pepper trading business.

The initial analytical approach employed in this study is cost analysis, which involves identifying and distinguishing between fixed and variable costs. Fixed costs (FC) are expenses that remain constant, regardless of the number of products sold, such as rent for trading premises, fees, electricity, and depreciation, expressed in rupiah. Conversely, variable costs fluctuate according to the quantity of products sold and include the cost of purchasing vegetables, plastic, transport, labor, and information retrieval. Subsequently, revenue analysis was conducted for the cayenne pepper trading business using the formula:

$$TR = P \times Q$$

Information:

TR = Total Revenue (Rp/Day)

P = Price of cayenne pepper

Q = Number of cayenne pepper sold

The second analytical tool employed in this research is the break-even point (BEP) analysis, which is the point at which total revenue is equal to total cost, resulting in zero profit. BEP is achieved when a company's sales volume covers both fixed and variable costs. However, if sales only cover variable costs and some fixed costs, the company will suffer losses. Conversely, profits can be obtained when sales exceed the variable and fixed costs that must be paid out (Kusumawardani & Alamsyah, 2020).

The Break Even Point (BEP) analysis is a decision-making tool that is valuable when certain basic assumptions are met. In practice, not all assumptions can be fully satisfied, but this does not diminish the validity and utility of the BEP analysis. Rather, some modifications may be necessary in its application. The BEP analysis has many benefits, such as identifying the primary break-even point of a business. By understanding this point, management can determine the quantity of units that need to be produced or sold to avoid losses. However, the BEP analysis is limited to a single type of product that is either produced or sold. The value of the Cost of Goods can be determined using the formula:

$$\text{Price BEP (Rp/Kg)} = TC/Y$$

Information:

TC = Total Cost

Y = Number of Cayenne peppers sold

Thus  $TC = Y \cdot \text{Price BEP}$  or HP

The third analysis employed in this study is sensitivity analysis, which is conducted to determine the extent to which changes in costs can be tolerated without affecting the basic price. The analysis was performed using the Switching Value approach, which calculates the maximum allowable change in an inflow or outflow component while still maintaining the basic price. Mahyuddin (2018) explains that the Switching Value can be determined using a formula:

$$SV = \frac{\pi^+}{\pi^+ - \pi^-} (\Delta P^+ - \Delta P^-) + \Delta P^+$$

Information:

SV = Switching Value

$\pi^+$  = Net income is close to 0

$\pi^-$  = Revenue minus close to 0

$\Delta P^{+}$  = Cost change that generates positive income close to 0  
 $\Delta P^{-}$  = Change in Cost that results in negative revenue close to 0

## RESULTS AND DISCUSSION

### Production Cost Structure of Cayenne Pepper Traders

The present study aims to determine the total production costs of Cayenne pepper traders, which comprises of both fixed and variable costs. Fixed costs are expenses that remain constant regardless of the level of production, whereas variable costs fluctuate in proportion to the volume of activity. The revenue earned by traders selling Cayenne pepper is determined by multiplying the amount of the product sold with its selling price.

The present study involves a comprehensive analysis of the production costs incurred by cayenne pepper traders in the Kalimbu market. To this end, the researchers have examined the various activities involved in the procurement process, as well as those related to marketing. These activities include the purchase of cayenne peppers, sorting, and marketing.

Laili et al. (2021) asserted that various factors could impact the supply of a commodity, including the price of the commodity itself, the price of related goods, production factors, and the number of traders or sellers. In the case of cayenne pepper traders, their costs can be categorized into variable and fixed costs. Variable costs are those incurred for the purchase of cayenne pepper, plastic, and transportation. Conversely, fixed costs are those that are incurred regularly, such as booth rental, equipment depreciation, warehouse rent, electricity, and dues. These expenses are incurred on a periodic basis, such as the cost of buying vegetables that is incurred daily, electricity costs that are incurred monthly, and the cost of renting a place that is paid yearly.

**Table 1.** Average Variable Cost Per Day of Cayenne Pepper Trading Business at Kalimbu Market, Makassar City

Fee Type	Average Cost Per Day (Rp)	
	Stall Trader	Expense Trader
Purchase cayenne pepper	1.650.000	825.000
Plastic cost	20.000	10.000
Freight cost	10.000	5.000
<b>Total</b>	<b>1.680.000</b>	<b>840.000</b>

Source: Primary Data in the Field

The variable costs incurred by Cayenne pepper traders include the costs of purchasing plastic, purchasing Cayenne pepper, and transportation. These costs vary depending on the level of sales. The highest cost incurred by traders is the cost of purchasing Cayenne pepper, which is the primary cost of conducting this trading business. The amount spent on purchasing Cayenne pepper depends on the existing sales level and the price level at the collecting traders. When the price of Cayenne pepper increases, the kiosk traders usually purchase 2 bags of Cayenne pepper per day, costing Rp. 1,650,000.00 per bag with a weight of 15 kg. In contrast, when the price of Cayenne pepper drops, they usually purchase up to 3 bags of Cayenne pepper per day. Spread traders, on the other hand, purchase 1 bag of Cayenne pepper per day if the price of Cayenne pepper rises and 2 bags of Cayenne pepper per day if the price of Cayenne pepper falls.

The cost of plastic, which is used as packaging for cayenne pepper to facilitate ease of handling, constitutes a variable cost for traders. The quantity of plastic used daily by kiosk traders does not exceed 2 packs, while overlay traders use only 1 pack per day. The price per pack of plastic employed by traders is subject to variation based on quality, ranging between Rp. 10,000.00 – Rp. 8,000.00 per pack.

The costs associated with transporting cayenne pepper to the point of sale are known as freight costs. These costs vary depending on the quantity of cayenne pepper being transported. On average, kiosk traders incur a transportation fee of Rp. 20,000.00 while overlay traders incur a fee of Rp. 5,000.00. Trishaws are used to transport the cayenne pepper to the point of sale, and the estimated cost for transportation is Rp. 5,000.00 per bag. This is consistent with the findings of Puspitasari's (2020) study, which indicated that retailers typically purchase cayenne pepper directly from wholesalers at the main market. As a result, transportation costs are typically the responsibility of the retailer.

**Table 2.** Average Fixed Cost Per Day of Cayenne Pepper Trading Business at Kalimbu Market, Makassar City

Fee Type	Average Cost Per Day (Rp)	
	Stall Trader	Expansive Trader
Rent a stall	41.096	13.699
Electricity	1.833	0
Warehouse rent	0	12.329
Dues	7.000	6.000
<b>Total</b>	<b>49.929</b>	<b>31.027</b>

Source: Primary Data in the Field

Table 2 reveals that kiosk traders incur a daily cost of Rp. 13,698. The rental rates for stalls at the Kalimbu Market vary based on their size. The kiosk traders occupy stalls with an area of approximately 6 x 5 square meters, equipped with storage facilities and electricity. On the other hand, the overlay traders rent shanties with an area of about 3 x 2 square meters, which lack storage facilities and electricity, requiring them to rent a warehouse at a cost of approximately IDR 4,500,000.00 per year, equivalent to an average daily cost of IDR 12,329. Puspitasari (2020) also found that the storage function is necessary, as the production of agricultural commodities is seasonal, while consumption patterns remain relatively constant. The storage function results in additional time and costs, as red cayenne pepper needs to be stored until it can be sold, either at the kiosks or at rented warehouses.

The contribution fee is a mandatory payment made by traders to market officials for security and cleaning purposes. The fee varies between stall and overlay traders and is paid on a daily basis. Specifically, stall traders pay a fee of IDR 7,000.00 per day while overlay traders pay IDR 6,000.00 per day. In addition to this, stall traders also incur an electricity cost of Rp. 55,000.00 per month, while overlay traders do not bear any electricity costs as the stalls they rent do not have electricity.

The total production costs of the cayenne pepper trader business at Kalimbu Market in Makassar City can be calculated by adding the total variable costs and fixed costs. The corresponding figures are presented in the table below:

**Table 3.** Total Production Cost of Cayenne Pepper Trading Business in Kalimbu Market, Makassar City

Fee Type	Stall Traders	Expansive Traders
Variable Cost	1.680.000	840.000
Fixed Cost	49.929	31.027
<b>Total Cost</b>	<b>1.729.929</b>	<b>871.027</b>

Source: Primary Data in the Field

Table 3 displays the total costs incurred by kiosk traders and overlay traders, which are IDR 1,729,929 and IDR 871,027 per day, respectively. Revenue is the product of total chili sold and the selling price, representing the total sales generated by traders without considering the incurred costs. The profitability of a business can be evaluated using multiple factors, including the amount of profit earned. Jaya et al. (2021) state that income should be sufficient to support the trader's own livelihood and that of their family. Table 4 shows the earnings of cayenne pepper traders at Kalimbu Market in Makassar City.

**Table 4.** Total Receipts and Amount of Production of Cayenne Pepper Trading Business at Kalimbu Market, Makassar City

Komponent	Stall Traders	Expansive Traders
Number of Cayenne Pepper (Kg)	30	15
Selling Price (Rp)	60.000	60.000
<b>Reseption (Rp)</b>	<b>1.800.000</b>	<b>900.000</b>

Source: Primary Data in the Field

The income of the trading business can be determined by multiplying the production quantity with the selling price (Afrizal et al., 2023). The table presents the average daily revenue of kiosk traders from the sale of cayenne pepper, which is IDR 1,800,000, with a volume of 30 kg sold at a price of IDR 60,000 per kilogram. On the other hand, the average daily revenue of overlay traders from the sale of cayenne pepper is IDR 900,000, with a volume of 15 kg sold at IDR 60,000 per kilogram.

Through an analysis of the average quantity of cayenne pepper sold, the average selling price at Kalimbu Market, as well as the average variable and fixed costs incurred by cayenne pepper traders, this study was able to determine the utilization of fees and revenues for both kiosk and overlay traders.

**Table 5.** Production Costs, Total Production and Acceptance of Cayenne Pepper Traders at Kalimbu Market, Makassar City

No	Component	Mark	
		Expense Traders	Stall Traders
1	Purchase of Cayenne Pepper	825.000	1.650.000
2	Plastic Cost	10.000	20.000
3	Freight Cost	5.000	10.000
	<b>Total Variable Cost</b>	<b>840.000</b>	<b>1.680.000</b>
4	Rent a stall	13.699	41.096
5	Electricity	0	1.833
6	Warehouse rent	12.329	0
7	Dues	5.000	7.000
	<b>Total Fixed Cost</b>	<b>31.027</b>	<b>49.929</b>
8	<b>Total Cost</b>	<b>871.027</b>	<b>1.729.929</b>
9	<b>Production</b>	<b>15</b>	<b>30</b>
10	<b>Selling Price</b>	<b>60.000</b>	<b>60.000</b>
11	<b>Reception</b>	<b>900.000</b>	<b>1.800.000</b>
12	<b>Profit</b>	<b>28.973</b>	<b>70.071</b>

Based on the table, it can be observed that kiosk traders sell 30 kg of cayenne pepper at IDR 60,000 per kilogram, resulting in a daily income of IDR 1,800,000. The difference between income and total costs represents the net profit or income generated by cayenne pepper traders. The profit earned by kiosk traders from the sale of cayenne pepper is IDR 70,071 per day.

According to the table, overlay traders have 15 kg of cayenne pepper ready to be sold at a price of Rp. 60,000 per kilogram, resulting in an income of Rp. 900,000 per day. The difference between receipts and total costs represents the net profit or income earned by cayenne pepper traders. Overlay traders earn a profit of IDR 28,973 per day from selling cayenne pepper. This income is deemed insufficient to meet the traders' living expenses and those of their families. In certain situations, if the cayenne pepper is unsold, traders will sort it. Sorting is the process of selecting what is needed and removing what is not required, or it refers to the process of selecting/sorting cayenne pepper. Spoiled cayenne pepper will be sold for half the price of fresh cayenne pepper.

According to the findings, kiosk traders tend to earn more profits than overlay traders, potentially due to the fact that they have access to electricity and storage facilities, allowing them to sell their products later into the evening. This observation is consistent with Nadia's (2021) assertion that working hours are a significant factor in determining traders' income. Traders are free to determine their own working hours, and sometimes buyers have established subscriptions, leading to the possibility that traders who work longer hours may not earn more than those who work shorter hours.

### The Economic Price of Cayenne Pepper

The determination of a fair price for a product or commodity can be referred to as the economic price. The cost of cayenne pepper is an essential indicator in measuring its economic price. The cost analysis of cayenne pepper can be determined by calculating the break-even point analysis. The cost price reflects the minimum limit where cayenne pepper traders commence to earn profits. Based on the calculations, it was observed that the kiosk traders' break-even point for the price of cayenne pepper was IDR 57,664 per kilogram, 28.83 kilograms for production, and IDR 1,729,929 for receipts. A selling price of IDR 60,000 would cover the total costs incurred by traders, specifically IDR 1,729,929. With revenues amounting to IDR 1,590,396, the trader attains a break-even point, signifying a situation where the trader neither experiences losses nor profit but can cover the total production costs.

The economic analysis of cayenne pepper trading shows that overlay traders have a break-even point at IDR 58,068 per kilogram, with a production break-even point of 14.52 kilograms and revenue break-even point of IDR 871,027. When a trader sells 14.52 kilograms of cayenne pepper at a price of IDR 60,000, the total cost of production, amounting to IDR 871,027, is covered by revenue. As such, the trader achieves a break-even point where neither profit nor loss is incurred. These findings suggest that the high market price of cayenne pepper is largely determined by the costs borne by the traders. In setting their prices, traders consider the need to generate profits from their trading activities.

**Table 6.** Basic Prices and Profits Per Day of Cayenne Pepper Trading Business at Kalimbu Market, Makassar City

Description	Basic Price and Profit Per Day	
	Stall Traders	Expense Traders
BEP Reseption (Rp)	1.729.929	871.027
BEP Production (Kg)	28,83	14,52
BEP Price (Rp)	57.664	58.068
Selling Price (Rp/Kg)	60.000	60.000
Revenue (Rp/Kg)	2.336	1.931,51

The sale of cayenne pepper provides benefits to traders due to the higher selling price of cayenne pepper than its basic price. In the case of kiosk traders, their profit is derived from the difference between the selling price and basic price, which is IDR 2,336 per kilogram. On the other hand, overlay traders obtain a profit of IDR 1,951.51 per kilogram of cayenne pepper sold. These findings align research, which suggests that the profit generated from cayenne pepper sales is relatively small but still sufficient to cover the costs incurred.

### Sensitivity Analysis and Switching Value of Cayenne Pepper

A sensitivity analysis and switching value were performed to assess the susceptibility of the cayenne pepper trading enterprise at Kalimbu Market in Makassar City to price fluctuations. Uncertainty is a significant factor when predicting future cash flow, as it can cause discrepancies between projected and actual outcomes. This unpredictability poses a challenge to a business's profitability and ability to operate successfully.

In this study, sensitivity analysis using switching value was conducted to assess the impact of price changes and variable costs on the cayenne pepper trading business at Kalimbu Market, Makassar City, particularly with respect to inflation. The switching value analysis aimed to identify the maximum level of change in variable costs that the business could tolerate. One of the most critical factors in operating a cayenne pepper trading business is the increase in variable costs, which includes the cost of purchasing cayenne peppers from collectors. It is essential to consider the impact of variable costs on the business's profitability and sustainability, especially in an environment where price changes and inflation are prevalent.

**Table 7.** Analysis of Switching Value Increase in Variable Costs of Cayenne Pepper Trading Business at Kalimbu Market, Makassar City

Description	Stall Traders		Expense Traders	
	4%	5%	3%	4%
<b>Reception</b>	<b>1.800.000</b>	<b>1.800.000</b>	<b>900.000</b>	<b>900.000</b>
<b>Production Cost</b>				
Rent a stall				
Electricity	41.096	41.096	13.699	13.699
Warehouse rent	7.000	7.000	5.000	5.000
Dues	1.833	1.833		
Rent a stall			12.329	12.329
<b>Total Fixed Cost</b>	<b>49.929</b>	<b>49.929</b>	<b>31.028</b>	<b>31.028</b>
Purchase of Cayenne Pepper				
Plastic Cost	1.716.000	1.732.500	849.750	858.000
Freight Cost	20.800	21.000	10300	10.400
Purchase of Cayenne Pepper	10.400	5.250	5150	5.200
<b>Total Variable Cost</b>	<b>1.747.200</b>	<b>1.758.750</b>	<b>865.200</b>	<b>873.600</b>
<b>Total Cost</b>	<b>1.797.129</b>	<b>1.808.679</b>	<b>896.228</b>	<b>904.628</b>
<b>Revenue</b>	<b>2.871</b>	<b>-8.679</b>	<b>3.772</b>	<b>-4.628</b>
<b>Switching Value</b>	<b>4,25%</b>		<b>3,45%</b>	

Switching value analysis was conducted based on the assumption that a 4% increase in variable costs for kiosk traders resulted in an income of IDR 2,871. It was concluded that a 4% increase in variable costs can be tolerated as it still yields profits. However, an increase of 5% cannot be tolerated as it will result in losses. The switching value analysis yielded a figure of 4.25% for cayenne pepper traders. This indicates that when all variable cost prices increase by 4.25%, the sales of cayenne pepper will neither gain nor lose. These findings highlight the importance of considering the impact of variable costs on the profitability of the cayenne pepper trading business.

The switching value analysis was conducted to assess the sensitivity of bird's eye cayenne pepper traders in the face of an increase in variable costs. Assuming a 3% increase in variable costs, the analysis showed that traders could still generate profits, indicating that this level of cost increase could be tolerated. However, if variable costs increase by 4%, traders will experience losses. The switching value analysis indicated a

threshold of 3.45%, meaning that if all variable costs increase by this amount, traders will break even. These findings underscore the impact of even a slight increase in food costs on traders' income. To maintain profitability, traders will increase their selling price, as confirmed, who noted that higher cost levels lead to decreased business sensitivity. Thus, daily costs significantly affect traders' income, with a 1% increase in costs leading to reduced business income at the same price.

## CONCLUSION

The profitability of the cayenne pepper trading business has been analyzed based on its cost structure. Despite generating profit for traders, the amount remains relatively low, especially for overlay traders. The economic price of cayenne pepper trading is calculated to be IDR 57,664/kg and IDR 58,068/kg for kiosk and overlay traders, respectively. This price represents the minimum amount that traders need to set in order to make a profit. However, it is found that a 4% increase in costs would result in a loss for kiosk traders, while a 3% increase in costs would lead to a loss for overlay traders.

## REFERENCES

- Afrizal. A, Nurhayati, Susanti. 2023. Income Analysis and Feasibility of Farming Business with Cayenne Pepper Intercropping System in Rokan Hulu Regency. *Jurnal Aksara*. Vol 9 (1)
- Astuti. R, dkk. 2018. Analisis Biaya dan Pendapatan Usaha Dagang Sayuran di Pasar Tamin Kota Bandar Lampung. *Lampung. JIIA*, Vol. 6 No. 3
- Hanani. A. A, Rani. A, Rini. M. 2020. Analysis of market integration cayenne pepper (*capsicum frutescens* L.) In malang district. *Agricultural Socio-Economics Journal*. Volume XX. No,1 :23-30
- Jaya. M. I. 2019. Analisis Biaya dan Pendapatan Usaha Pedagang Sayuran (Studi Kasus: Kecamatan Lubuk Pakam Kabupaten Deli Serdang). Universitas Muhammadiyah Sumatra Utara. Medan.
- Juniarsih Tiara. 2016. Faktor-Faktor yang Mempengaruhi Harga Cabai Merah di Sumatera Utara. Universitas Sumatera Utara. Medan.
- Kusumawardani. A and Alamsyah. M. I. 2020. Analisis Perhitungan Bep (Break-Even Point) Dan Margin Of Safety Dalam Penentuan Harga Jual Pada Usaha Kecil Menengah. *Jurnal Ilmu Keuangan dan Perbankan (JIKA)*. Vol. 9 No. 2.
- Laili. N, Sri. H, Dwi. S. 2021. Analysis of factor effecting the price fluctuation cayenne pepper in malang regency. *Jurnal Agrisocionomics*. 5(1): 19:26.
- Lestari Peni. 2021. Fungsi Capcaisin Pada Cabai di Masa Pandemi. *Pusat Riset Biologi*. Badan Riset dan Inovasi Nasional. Jawa Barat.
- Mahyuddin. 2018. Laporan Penelitian Identifikasi Harga Keekonomian dan Faktor Pembentukan Harga Beberapa Komoditas Inflasi. Makassar. Fakultas Pertanian. Universitas Hasanuddin. Sulawesi Selatan
- Mauliyah. N, I, 2018. Strategi Penentuan Harga Jual Sayuran Pada Pedagang Pasar Tradisional. Universitas Islam Blitar.
- Nainggolan. T. V, Adi. S, Josua.P. H. 2019. Analisis Pemasaran Dan Transmisi Harga Cabai Rawit Di Kabupaten Kubu Raya. Universitas Tanjung Putra.
- Putra. J. E, Hani. P, Jamhari. 2021. Forecasting The Price Of Cayenne Pepper In The Surabaya City. *Buletin Penelitian Sosial Ekonomi Penelitian*. 23(1) :27-36
- Puspitasari. A, Rudi. P, Dedi. S. 2020. Struktur, Perilaku Dan Kinerja Pemasaran Cabai Rawit Merah di Kecamatan Cigalontang. *Agibussines System Scientific Journal*. Vol 1. No.1
- Respati. A. B. 2020. Analisis Saluran Pemasaran Komoditi Padi. *Agroinfo Galuh*. Vol. 7. No. 1.
- Septiadi D. 2020. Analisis Permintaan Konsumsi Cabai Rawit pada Rumah Tangga di Kota Mataram. *Agrimor*. *Jurnal Agribisnis Lahan Kering*.
- Viana C. D. N., Slamet, H., & Lestari, R. W. 2018. Volatility Analysis On Producer Price Of Red Pepper And Cayenne Pepper In West Java Province Indonesia. *Jurnal Agro Ekonomi*. Vol. 28/No. 2