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ANALYSIS OF THE INCOME OF CARROT TRADERS AT PASAR BARU KEFAMENANU

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Abstract

This study aims to determine the income and business feasibility of carrot traders at Pasar Baru Kefamenanu, located in the Timor Tengah Utara Regency, East Nusa Tenggara Province. Carrots are one of the horticultural agricultural commodities that are quite popular among the public. The role of traditional markets as transaction centers makes Pasar Baru Kefamenanu an important place in the distribution and trade of carrots. However, information regarding the income and business feasibility of these traders is still limited. This research uses a descriptive quantitative approach. A total of 30 carrot traders were randomly selected as samples from 120 active traders in the market. Data were collected through observation, interviews, and the distribution of questionnaires to the traders. Data analysis was carried out by calculating costs, revenue, income, and business feasibility using Break Even Point (BEP) analysis and the Revenue/Cost (R/C) ratio.The results show that most carrot traders at Pasar Baru Kefamenanu are in productive age, majority female, and have more than 10 years of trading experience. The analysis revealed that the average daily revenue of carrot traders is Rp 1,010,833, with an average total cost of Rp 649,168, resulting in an average net income of Rp 361,655 per day. Business feasibility was analyzed using BEP and R/C ratio. The results indicate that the BEP for production is 29.9 kg per day, while the average sales volume is 40.4 kg per day, which means the business operates above the break-even point. The BEP price is Rp 288,918, which is lower than the average selling price. Meanwhile, the R/C ratio of 1.55 indicates that the carrot trading business is profitable and financially feasible.

Keywords: *Income, Business Feasibility, Break Even Point, R/C Ratio, Carrot Traders, Pasar Baru Kefamenanu*

INTRODUCTION

Indonesia is a country rich in agriculture, and agriculture is a sector that plays a very important role in the Indonesian economy (Fitria, 2018). This means that most Indonesians earn their income from the agricultural sector. This is because most regions of Indonesia have mountainous topography, which is very suitable for cultivating various types of crops, one of which is horticultural commodities (particularly vegetables) (Suryani, 2018).

Carrots are vegetables that belong to the horticultural sub-sector of agricultural crops. Carrots contain nutrients that are beneficial for human health. The vegetable, scientifically known as Daucus carota L., contains biotin, potassium, vitamin A from beta-carotene, vitamin K1, and vitamin B6. Based on its nutrient composition, carrots contain a large amount of beta-carotene; the higher the beta-carotene content, the deeper the carrot color, ranging from deep yellow to reddish (Styawan et al., 2019).

Information regarding carrot productivity in Kefamenanu is still relatively low compared to the national productivity level as well as that of several other countries. In Indonesia, carrot production in 2021 reached 720,090 tons, and in 2022 production increased to 737,965 tons. However, in 2023 production decreased to 668,046 tons. Moreover, carrot imports in Indonesia have continued to rise since 2017, amounting to 34.68 tons, and then surged in 2020 to 203.19 tons, further increasing in 2021 to 255.58 tons (BPS, 2021).

The main factors causing the decline in carrot production include climatic conditions, particularly unpredictable rainfall, which affects the size of

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cultivated areas, harvested areas, and overall production. To ensure stable carrot production, it must be supported by factors such as the availability of production facilities, farming activities including processing and distribution. In addition, farmers need to evaluate cash flow and their ability to face business challenges. Field realities show that there are several obstacles faced by carrot farmers in TTU, including unpredictable rainfall, limited farmer capital, unstable carrot prices, and rising input costs.

The problems commonly faced by traders generally occur in relation to income, costs incurred for expenses and the purchase of carrots, as well as the purchase volume from farmers (kg), which in turn affects sales and revenue. This is due to relatively high marketing costs and price changes at the consumer level, which are not always immediately transmitted to farmers. In addition, these conditions cause differences in the expenses incurred, thereby affecting the income earned by traders and potentially influencing both prices and profits. Based on the above background, this study seeks to examine: How much income do carrot traders earn at the Kefamenanu New Market, and whether or not carrot trading at Kefamenanu New Market is a feasible business.

Materials and Methods

This research was conducted in June 2025 at Pasar Baru Kefamenanu, Kota Kefamenanu District, Timor Tengah Utara Regency. The sample was taken using random sampling. According to Arikunto (2017), if the population is less than 100 people, then the entire population is taken as the sample, but if the population is more than 100, a sample of 10–15% or 20–25% can be taken. Based on this opinion, since the population exceeded 100 respondents, the researcher took 25% of the total 120 carrot traders, resulting in 30 respondents.

The data used consisted of primary data obtained through field observation and direct interviews, and secondary data sourced from related institutions such as the Department of Agriculture, Market Management Agency, Central Bureau of Statistics (BPS), and journals. Data collection techniques included interviews, documentation, and observation.

The data analysis methods used were as follows:

1. **Income Analysis**
   To answer the first research objective, namely determining the income of carrot traders at Pasar Baru Kefamenanu, income analysis was applied using the following formula (Suratiyah, 2015):

$$\pi = TR - TC$$

Where:

π = total income
TR = total revenue (Rp)
TC = total cost (Rp)

Revenue is calculated by multiplying the production obtained by the selling price (Sadono Sukirno, 2013):

$$TR = Q \times P$$

Where:

TR = total revenue of carrot traders
Q = quantity of products obtained by traders (kg)
P = carrot selling price (Rp/kg)

Total cost (TC) consists of fixed cost (TFC) and variable cost (TVC):

$$TC=TFC+TVC$$

2. **Business Feasibility Analysis**
   To answer the second research objective, namely to determine the feasibility of carrot trading businesses at Pasar Baru Kefamenanu, Break Even Point (BEP) and Revenue/Cost Ratio (R/C) analysis were applied.

   - **BEP Analysis**
     - BEP (unit) = Fixed Cost / (Price per unit – Variable Cost per unit)
     - BEP (revenue) = Fixed Cost / (1 – Variable Cost per unit / Selling Price)
   - **R/C Ratio**

$$R/C=TR/TC$$

Criteria:

- If R/C < 1 → the business is not feasible
- If R/C = 1 → the business breaks even (no profit or loss)
- If R/C > 1 → the business is profitable and feasible to continue

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RESULTS AND DISCUSSION

General Overview of the Location

Pasar Baru Kefamenanu is one of the centers of community economic activity located in Benpasi Village, Kota Kefamenanu District, Timor Tengah Utara Regency, East Nusa Tenggara Province (NTT). This market serves as the main venue for community trading activities, particularly for agricultural commodities, basic necessities, and other local products.

The market functions as a traditional trade hub that caters not only to residents of Kota Kefamenanu but also to communities from surrounding villages, such as Insana, Bikomi, and Miomaffo districts. Market activities take place daily, but they usually peak on designated market days, which are marked by an increase in the number of traders and buyers. Its strategic location in the city center makes Pasar Baru Kefamenanu easily accessible from various directions. Public facilities such as paved roads, a city transportation terminal, as well as clean water and electricity infrastructure support smooth trading activities in this market.

This market plays an important role in improving community income, especially for small traders. The main commodities traded in this market include vegetables (such as carrots, cabbages, and tomatoes), basic necessities, clothing, and daily household goods.

Timor Tengah Utara Regency

The total area of Timor Tengah Utara Regency is approximately 2,669.70 km², or about 5.6% of the total land area of East Nusa Tenggara Province. Geographically, the regency is located between 9°01'06"–9°39'41" South Latitude and 124°05'36"–124°51'14" East Longitude.

Topography

From a topographical perspective, around 177.60 km² (6.63%) has an elevation of less than 100 meters above sea level; 1,449.45 km² (56.17%) lies between 100–500 meters above sea level, and the remaining 993.19 km² (37.20%) lies above 500 meters. Based on topographic data, 2,065.19 km² or 77.4% of the land area has a slope of less than 40°, while the remaining 604.51 km² (22.6%) has a slope greater than 40°. Most of the land with slopes below 40° is at an elevation of less than 500 meters above sea level, covering 1,676.51 km² (62.8%).

Of the 174 villages/urban wards, 9 are categorized as coastal villages—namely Oepuah (Biboki Selatan), Humusu C and Oesoko (Insana Utara), as well as Nonotbatan, Maukabatan, Tuamese, Oemanu, Motadik, and Ponu (Biboki Anleu). The remaining 165 villages are located in 24 non-coastal sub-districts.

Hydrology

Areas rich in springs are found in the northern part of Timor Tengah Utara Regency, directly bordering Ambenu District in Timor Leste. These springs are located on elevated terrain, which is advantageous because the water can flow to lower areas. However, the water discharge is relatively small, limiting use to nearby areas.

In addition to springs, many rivers flow throughout the year, although their discharge decreases drastically during the dry season. These rivers include Noeltoko, Nabesi, Taisola, Noel Muti, Haekto, Naen, Maubesi, Mena/Kaubele, Ponu, and several tributaries. Areas with moderate groundwater potential are found sporadically along the northern coast and central parts of the regency, while deeper groundwater reserves exist in the north. Shallow groundwater is generally found in weathered areas. Broader groundwater reserves are found in the southern and eastern parts of the regency, near the Belu Regency border, with yields exceeding 5 liters/second in some areas.

Geology

Based on soil types, Timor Tengah Utara Regency consists of three main soil classes: lithosols, complex soils, and grumusols. Lithosols cover 1,666.96 km² (62.4%), complex soils cover 479.48 km² (18.0%), and grumusols cover 522.26 km² (19.6%).

Effective soil depth distribution is as follows:

- Less than 30 cm: 35,316 ha (13.2%)
- 30–60 cm: 73,201 ha (27.4%)

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- 60–90 cm: 16,354 ha (6.1%)
- Greater than 90 cm: 142,099 ha (53.2%)

Erosion-prone soils cover 105,226 ha (39.4%), while the remaining 161,744 ha (60.6%) have relatively stable soil structure. Unstable erosion-prone soils are concentrated in three sub-districts: Miomaffo Barat (37,921 ha), Biboki Selatan (28,538 ha), and Biboki Utara (28,538 ha).

Climate

Timor Tengah Utara Regency has a tropical savanna climate (Aw), characterized by a very short rainy season and a prolonged dry season (>7 months). With an altitude of approximately 600 meters above sea level, the annual average temperature ranges between 22°C–26°C.
The rainy season usually occurs from December to March with average monthly rainfall above 150 mm, while the dry season extends from early April to October with average rainfall below 100 mm/month. Annual rainfall ranges between 900–1,600 mm with fewer than 140 rainy days, making the region relatively dry.

Kota Kefamenanu District

Geographically, Kota Kefamenanu District is located in the center of Timor Tengah Utara Regency, with the following boundaries:

- To the north: Miomaffo Timur District
- To the south: Bikomi Selatan District
- To the east: Insana Barat and Insana Tengah Districts
- To the west: Bikomi Tengah and Bikomi Selatan Districts

Kota Kefamenanu District is a land area covering 2.77% of the total land area of Timor Tengah Utara Regency, situated at an altitude of about 700 meters above sea level. From a topographical perspective, the district is not a coastal area. The total area of Kota Kefamenanu District is 74.00 km², or 2.77% of Timor Tengah Utara Regency. Among its nine urban villages (kelurahan), Tubuhue and Kefamenanu Utara are the largest, each covering 12.00 km² (about 16.22% of the district's area). The smallest is Maubeli, with an area of 4.00 km² (about 5.40% of the district's area).

The climate in Kota Kefamenanu District is generally similar to that of Timor Tengah Utara Regency, which has a tropical climate with two main seasons: the rainy season and the dry season. In 2013, the district experienced moderate rainfall. Based on data from the Meteorology, Climatology, and Geophysics Agency (BMKG), Lasiana Climatology Station, Kupang, the rainfall in Kota Kefamenanu District in 2013 was 508 mm, with a total of 28 rainy days. The highest rainfall occurred in January, with 11 rainy days recorded.

Benpasi Village

Benpasi Village is part of Kota Kefamenanu District, Timor Tengah Utara Regency. It covers an area of 6 km² and, in 2020, was home to 5,675 people, with a population density of 946 people/km² (Source: Benpasi Village Profile, 2020). The administrative boundaries are as follows:

Table 1. Geographic Boundaries of Benpasi Village, Kota Kefamenanu District

Boundary	Village	District
North	Kefamenanu Utara	Kota Kefamenanu
South	Kefamenanu Selatan	Kota Kefamenanu
East	Bansone	Kota Kefamenanu
West	Aplasi	Kota Kefamenanu

(Source: Benpasi Village Profile, 2020)

The topography of Benpasi Village is generally lowland, flat, and slightly undulating, and it is not located in a coastal area. In general, the village lies at an elevation of 30 meters above sea level, with mostly flat terrain, making it suitable for agricultural use and settlement (Source: Benpasi Village Profile, 2020)

The climate in Benpasi Village is generally the same as in other areas of Timor Island, with two main seasons: the dry season and the rainy season. The dry season usually lasts from June to November, while the rainy season occurs from December to March. Transitional seasons occur twice a year, in

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April–May and October–November (Source: Benpasi Village Profile, 2020).

Based on data from Benpasi Village, the total population in 2020 was 5,675 people, consisting of 3,175 males (60%) and 2,500 females (40%). This composition shows a male-dominated sex ratio, reflecting a tendency for higher male participation in economic activities in the area, such as trade and services around Pasar Baru Kefamenanu (Source: Benpasi Village Profile, 2020).

Respondents' Characteristics

The characteristics of respondents in this study are presented descriptively based on the data obtained during the research. The data were collected directly from respondents through questionnaires prepared by the researcher. Each respondent provided different answers to the research instruments, requiring classification to generally identify attributes such as gender, age, education level, and number of family dependents. In this study, a total of 30 respondents participated.

Age

Age is one of the respondent characteristics that greatly influences traders' performance in running their businesses. Younger traders generally have greater physical capacity to perform activities required in market trading, such as loading, unloading, and arranging goods, which demand significant physical strength and are ideally carried out by younger individuals.

In addition, younger traders tend to adopt new technologies more quickly, such as using social media for promotion or digital applications for financial recording, compared to older traders. According to the Central Statistics Agency (BPS), the productive age group falls between 15 and 64 years. The characteristics of carrot traders at Pasar Baru Kefamenanu based on age are shown in the table 2 below:

Based on Table 2, out of 30 respondents, the majority of carrot traders (24 people or 80%) were within the productive age range of 15–64 years. This group is considered capable of handling trading activities and more receptive to adopting innovations. Meanwhile, 6 respondents (20%) were above 65 years old, who typically have physical limitations in carrying out activities requiring high mobility and tend to be less responsive to innovations.

Table 2. Characteristics of Respondents by Age

No	Age (years)	Number of Respondents (people)	Percentage (%)
1	<15	0	0
2	15–64	24	80
3	>65	6	20
	Total	**30**	**100**

(*Source: Processed Primary Data, 2025)*

This finding aligns with Umbu Maramba (2018), who stated that older entrepreneurs (>65 years) tend to be slower in adopting new knowledge or innovations and prefer to continue using traditional methods familiar within their community. Therefore, although most carrot traders at Pasar Baru Kefamenanu are at an age conducive to optimizing business operations, the role and contributions of older traders remain important, especially in terms of experience and proven trading strategies.

Gender

Gender refers to a person's identity based on sex as stated in their birth certificate. The results of this study showed that the majority of carrot traders were female, with 28 respondents. Male traders accounted for only 2 respondents. This indicates that men were less involved in trading activities compared to women.

This tendency is consistent with research by Arumsari & Sumaryanto (2020), which found that women play a significant role in trading activities in traditional markets, especially in the agricultural sector. Similarly, Nurjanah (2017) highlighted that women's dominance in agricultural trade in markets is due to flexible time management, social interaction skills, and practical abilities in managing sales transactions in traditional markets.

Education Level

The education level of traders refers to the formal education attained by carrot traders at Pasar Baru Kefamenanu. The higher the level of education, the more ideas and creativity traders tend to have in increasing their income. The

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following are the characteristics of respondents based on their education level.

Table 3. Characteristics of Respondents Based on Education Level

No	Education Level	Number of Respondents (people)	Percentage (%)
1	Elementary School (SD)	13	43.3
2	Junior High School (SMP)	4	13.4
3	Senior High School (SMA)	13	43.3
	Total	**30**	**100.0**

(Source: Processed Primary Data, 2025)

Based on Table 3, the majority of respondents had an education level at the elementary school (SD) level, with 13 respondents (43.3%). Four respondents (13.3%) had junior high school (SMP) education, and 13 respondents (43.3%) had senior high school (SMA) education. This indicates that the education level of traders in Pasar Baru Kefamenanu is relatively low, dominated by elementary and high school graduates.

Gusti et al. (2021) stated that traders with higher education levels generally have a more open mindset in adopting innovations and are quicker in applying new technologies, which can improve and advance agricultural outcomes. This is in line with Soekartawi (2006), who emphasized that education influences farmers' mindset in accepting innovations and implementing new ideas. However, this contrasts with the findings in the study area, where carrot traders at Pasar Baru Kefamenanu generally had low levels of education, with most respondents being only elementary and high school graduates.

Trading Experience

Trading experience is one of the important factors that influence a trader's success in managing their business. The longer the experience, the more knowledge and skills a trader possesses, especially in facing market challenges and making appropriate decisions. Experience also helps traders recognize market demand patterns, manage stock, and apply more efficient sales strategies to increase income. In addition, experienced traders are usually wiser in adopting new technologies and management strategies suited to market and trade conditions (Komendangi et al., 2024).

The length of trading refers to how long a carrot trader has been running their business, thus gaining more experience in the trade sector. In this study, the length of trading was not found to significantly affect income levels.

Table 4. Characteristics of Respondents Based on Trading Experience at Pasar Baru Kefamenanu

No	Trading Experience (Years)	Number of Respondents (people)	Percentage (%)
1	<5	4	13.3
2	5–10	11	36.7
3	>10	15	50.0
	Total	**30**	**100.0**

(Source: Processed Primary Data, 2025)

Based on Table 4, the majority of respondents (50%) had more than 10 years of trading experience, showing that most traders are experienced. Only a small number of respondents had less than 10 years of experience. Soehardjo (2007) classified trading experience into three categories: less experienced (<5 years), moderately experienced (5–10 years), and experienced (>10 years). From the data, most respondents at Pasar Baru Kefamenanu fall into the "experienced" category, with 15 traders (50%) having more than 10 years of trading experience.

Family Dependents

According to Sari et al. (2022), the number of family dependents refers to the number of individuals financially supported by a respondent to meet their daily needs. Family dependents can be categorized into three groups (BPS, 2017): small (1–3 dependents), medium (4–6 dependents), and large (more than 6 dependents).

Based on Table 5, most respondents had 1–3 dependents, totaling 15 respondents (50%). Eleven respondents (37%) had 4–6 dependents, and four respondents (13%) had more than 6 dependents. This indicates that the majority of carrot traders in the study area had a small number of family dependents.

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Table 5 Characteristics of Respondents Based on Number of Family Dependents

No	Number of Dependents	Number of Respondents (people)	Percentage (%)
1	1–3	15	50
2	4–6	11	37
3	>6	4	13
	Total	**30**	**100**

(Source: Processed Primary Data, 2025)

Hana et al. (2023) stated that the number of dependents does not always directly increase income but can motivate traders, since more dependents mean greater daily needs to fulfill. Taralandu and Saragih (2024) noted that family members are not only dependents but can also serve as a source of labor, helping in trade activities such as selling carrots, thus supporting business continuity and improving traders' productivity.

Traders' Income Analysis

Income analysis among carrot traders is needed to determine the difference between the revenue earned and the expenses incurred during trading. Through this analysis, traders can develop better business management strategies. To analyze traders' income, all components of production costs and revenues must first be identified.

Cost Analysis

Business costs for carrot traders consist of total expenditures made to generate profits. These can be divided into fixed costs, which are not affected by production volume, and variable costs, which vary with production levels (Suratiyah, 2011).

Fixed Costs

Fixed costs are expenses incurred by carrot traders that remain constant regardless of production levels. At Pasar Baru Kefamenanu, fixed costs mainly included depreciation of equipment and market fees.

Based on Table 6, the fixed cost components for carrot traders at Pasar Baru Kefamenanu consist of equipment depreciation, namely scales (*dacing*) and tarpaulins used by traders in their activities. The data show that the fixed costs borne by carrot traders at Pasar Baru Kefamenanu include two components: depreciation costs and market fees or tax levies. The depreciation component includes scales with a total cost of Rp. 3,290, averaging Rp. 110 per respondent, and tarpaulins with a cost of Rp. 4,762, averaging Rp. 159 per respondent. Meanwhile, market fees or taxes amounted to Rp. 60,000, averaging Rp. 2,000 per respondent. Thus, the total fixed costs incurred reached Rp. 68,682, with an average of Rp. 2,268 per respondent.

Table 6 Average Fixed Costs of Carrot Traders at Pasar Baru Kefamenanu

No	Fixed Cost Component	Total (Rp)	Average (Rp)
1	Depreciation:		
	- Scale	3,290	110
	- Tarpaulin	4,762	159
2	Market fee (ticket)	60,000	2,000
	Total	**68,682**	**2,268**

(Source: Processed Primary Data, 2025)

Variable Costs

In addition to fixed costs, there are also variable costs incurred by carrot traders at Pasar Baru Kefamenanu. These include carrot purchase costs, transportation costs, and packaging costs (plastic bags). Variable costs are expenses that are not fixed but instead depend on production levels. The average variable costs of carrot traders at Pasar Baru Kefamenanu can be seen in Table 4.7 below:

Table 7. Average Variable Costs of Carrot Traders at Pasar Baru Kefamenanu

No	Variable Cost Component	Total (Rp)	Average (Rp)
1	Transportation	1,620,000	54,000
2	Carrot purchase	17,520,000	548,000
3	Plastic bags	267,000	8,900
	Total	**19,407,000**	**610,900**

(Source: Processed Primary Data, 2025)

Based on Table 7, the data present the components of variable costs incurred by carrot traders in running their businesses at Pasar Baru Kefamenanu. Variable costs are expenses that change depending on the production volume or sales of carrots. These include transportation costs, carrot purchase costs, and plastic bag costs. The data were collected from 30 respondents, providing an average picture of the traders' conditions at Pasar Baru Kefamenanu.

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The transportation cost amounted to a total of Rp. 1,620,000, with an average of Rp. 54,000 per trader, used to transport carrots from the purchase location to the market. The cost of purchasing carrots, with a total production volume of 1,213 kg, averaged 40 kg per trader, at a purchase price of Rp. 15,000 per kilogram, leading to a total purchase cost of Rp. 17,520,000 (for all 30 traders), or an average of Rp. 584,000 per respondent. Meanwhile, the cost of plastic bags amounted to 89 units in total, averaging 3 units per trader, with a price of Rp. 3,000 per unit. This resulted in a total plastic bag cost of Rp. 267,000, averaging Rp. 8,900 per trader. Thus, the total variable costs reached Rp. 19,407,000, with an average of Rp. 610,900 per respondent.

Revenue of Carrot Traders at Pasar Baru Kefamenanu

Revenue is the total value of production obtained from an activity at the prevailing price. In the context of carrot trading, revenue refers to the total sales value of carrots within a certain period, expressed in monetary terms. Revenue is calculated by multiplying the volume of carrots sold by the selling price per unit.

This serves as a key indicator for measuring the financial performance of carrot trading businesses. If revenue is greater than total costs, traders earn a profit. Conversely, if revenue is less than costs, traders incur a loss. Therefore, the amount of revenue is strongly influenced by sales volume and price fluctuations in the market.

Table 8. Average Revenue of Carrot Traders at Pasar Baru Kefamenanu

Description	Production (Kg)	Price (Rp)	Revenue (Rp)
Total	1,213 Kg	25,000	30,325,000
Average	40.4 Kg	25,000	1,010,833

(Source: Processed Primary Data, 2025)

Based on Table 8, the data present the components of variable costs incurred by carrot traders in running their businesses at Pasar Baru Kefamenanu. Variable costs are expenses that change depending on the production volume or sales of carrots. These include transportation costs, carrot purchase costs, and plastic bag costs. The data were collected from 30 respondents, providing an average picture of the traders' conditions at Pasar Baru Kefamenanu.

The transportation cost amounted to a total of Rp. 1,620,000, with an average of Rp. 54,000 per trader, used to transport carrots from the purchase location to the market. The cost of purchasing carrots, with a total production volume of 1,213 kg, averaged 40 kg per trader, at a purchase price of Rp. 15,000 per kilogram, leading to a total purchase cost of Rp. 17,520,000 (for all 30 traders), or an average of Rp. 584,000 per respondent. Meanwhile, the cost of plastic bags amounted to 89 units in total, averaging 3 units per trader, with a price of Rp. 3,000 per unit. This resulted in a total plastic bag cost of Rp. 267,000, averaging Rp. 8,900 per trader. Thus, the total variable costs reached Rp. 19,407,000, with an average of Rp. 610,900 per respondent.

Income of Carrot Traders at Pasar Baru Kefamenanu

Revenue is the total value of production obtained from an activity at the prevailing price. In the context of carrot trading, revenue refers to the total sales value of carrots within a certain period, expressed in monetary terms. Revenue is calculated by multiplying the volume of carrots sold by the selling price per unit.

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Table 9. Average Income of Carrot Traders at Pasar Baru Kefamenanu

No	Description	Total Cost (Rp)	Average (Rp)/Respondent
1	Revenue (TR)	30,325,000	1,010,833
2	Costs (TC)	19,475,051	649,168
	Income (π)	**10,849,949**	**361,655**

(Source: Processed Primary Data, 2025)

Based on Table 9, the data show the total and average revenue, total costs, and income of carrot traders at Pasar Baru Kefamenanu. The total

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revenue earned by traders from carrot sales amounted to Rp. 30,325,000, with an average revenue of Rp. 1,010,833 per respondent. Meanwhile, the total costs incurred by traders for trading expenses reached Rp. 19,475,051, with an average cost of Rp. 649,168.

The income received by traders was calculated as the difference between total revenue and total costs. Thus, the total net income earned by respondents was Rp. 10,849,949, with an average income of Rp. 361,655 per respondent. The results of this study indicate differences in income compared to the study conducted by Saragih et al. (2022). In that study, the income per respondent was smaller, at only Rp. 649,168 of the total income.

Feasibility Analysis of Traders' Businesses

The purpose of feasibility analysis is to assess whether a business activity is viable to operate from financial, technical, market, and management perspectives. The feasibility of carrot traders' businesses was analyzed from an economic-financial standpoint, focusing on efficiency and profitability indicators, namely the Break-Even Point (BEP) and the Revenue-Cost (R/C) Ratio.

***Break-Even Point* (BEP)**

The Break-Even Point (BEP) represents the point at which carrot traders neither gain profit nor incur a loss, meaning total revenue equals total costs. BEP is divided into production break-even and price break-even.

Table 10. Break-Even Point of Carrot Traders at Pasar Baru Kefamenanu

No	Description	Value (Rp)
1	BEP Production (Kg) = FC / (P – VC)	29.9 Kg
2	BEP Price (Rp/Kg) = FC / (1 – VC/P)	288,918.133

(Source: Processed Primary Data, 2025)

Based on Table 10, the BEP production value of 29.9 kg is smaller than the average production of 40.4 kg, indicating that carrot trading is profitable and feasible. Carrot traders have also surpassed the break-even point in terms of price, with a minimum revenue of Rp. 288,918.133. This shows that traders bear relatively high cost structures, which make the BEP appear large. Nevertheless, carrot trading remains profitable and feasible. In contrast, previous studies showed BEP production and BEP price values that were closer to the target production and set prices.

R/C Ratio

In business feasibility analysis, the Revenue-Cost (R/C) Ratio is one of the most common indicators used to evaluate efficiency and profitability. The R/C Ratio shows the comparison between total revenue and total operating costs.

The criteria for interpreting the R/C Ratio are as follows:

- If R/C > 1, the business is profitable and feasible.
- If R/C = 1, the business is at break-even (no profit, no loss).
- If R/C < 1, the business is not feasible and operates at a loss.

The R/C Ratio analysis provides an overview of the sustainability of carrot trading. If the R/C Ratio value is greater than 1, carrot trading is considered feasible. The R/C Ratio is calculated by dividing the total revenue by the total costs incurred by traders. By increasing total revenue and reducing total production costs, carrot traders can achieve higher R/C Ratio values.

Table 11. Feasibility of Carrot Traders at Pasar Baru Kefamenanu

No	Description	Value (Rp)
1	Avg. Revenue (TR)	1,010,833
2	Avg. Costs (TC)	649,168
	R/C Ratio (TR/TC)	**1.55**

(Source: Processed Primary Data, 2025)

Based on Table 11, it can be seen that carrot traders at Pasar Baru Kefamenanu are financially feasible. The average total revenue was Rp. 1,010,833, while the average total cost was Rp. 649,168, resulting in a revenue-to-cost ratio of 1.55. Since the R/C Ratio is greater than 1, carrot trading at Pasar Baru Kefamenanu is feasible to operate.

In previous studies reviewed (Marhawati et al., Ismail et al., and Amiruddin et al.), the R/C Ratio ranged from 1.13 to 2.15, which also indicated that carrot trading was feasible, though with relatively small profit margins. Meanwhile, in this study at Pasar Baru Kefamenanu, the R/C Ratio was 1.55, which is well above the feasibility threshold (>1). Thus, carrot trading at Pasar Baru Kefamenanu is financially feasible and profitable.

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CONCLUSION AND RECOMMENDATION

Based on the analysis and discussion, the following conclusions can be drawn:

1. The income of carrot traders at Pasar Baru Kefamenanu is profitable. The average net income obtained from carrot sales was Rp. 361,655 per day, with an average total revenue of Rp. 1,010,833 and an average total cost of Rp. 649,168 per trader.
2. Carrot trading at Pasar Baru Kefamenanu is financially feasible. Based on the Break-Even Point (BEP) analysis, traders have exceeded the production break-even point (29.9 kg) with an average production of 40.4 kg. Meanwhile, the R/C Ratio analysis showed a value of 1.55, meaning that for every Rp. 1 of cost incurred, traders earned Rp. 1.55 in revenue, or a surplus of 25%. Therefore, this business is feasible to continue and develop

1. **For Traders**
   - It is recommended to continue developing business strategies to increase income, such as expanding marketing networks and maintaining the quality of products sold.
   - Utilize simple technology, such as digital financial recording, to manage income and expenses more efficiently.
2. **For the Government**
   - Entrepreneurship training, financial management workshops, and access to capital should be provided to market traders, especially those with lower education levels.
   - Provide supporting facilities in markets, such as proper storage areas and transportation subsidies, to reduce distribution costs.
3. **For Future Researchers**
   - Future studies should expand the scope, for example, by comparing carrot traders with other commodity traders or other traditional markets in the TTU region.
   - Additional variables such as price fluctuations, planting seasons, or the impact of government policies on traders' income could also be included.

REFERENCES

Arikunto, S. (2017). *Prosedur Penelitian: Suatu Pendekatan Praktik.* Rineka Cipta.

Arumsari, I. A., & Sumaryanto. (2020). The Role of Women in Trading Activities in Traditional Markets. *Journal of Agricultural Socio-Economics.*

Badan Pusat Statistik (BPS). (2017). *Indikator Kesejahteraan Rakyat Indonesia.* Jakarta: BPS.

Badan Pusat Statistik (BPS). (2021). *Statistik Produksi Hortikultura Indonesia.* Jakarta: BPS.

Badan Pusat Statistik Kabupaten Timor Tengah Utara. (2017). *Kabupaten TTU dalam Angka 2017.* Kefamenanu: BPS.

Fitria. (2018). The Contribution of Agriculture to the Indonesian Economy. *Journal of Agricultural Economics.*

Gusti, I. K., et al. (2021). The Effect of Education on the Adoption of Agricultural Innovation. *Journal of Agricultural Extension.*

Hana, N., et al. (2023). Relationship Between Number of Family Dependents and Household Income. *Journal of Socio-Economics.*

Komendangi, R., et al. (2024). Business Experience and Market Traders' Success. *Journal of Agribusiness Management.*

Maramba, U. (2018). Innovation Adoption Among Elderly Entrepreneurs. *Journal of Economics and Business.*

Marhawati, N., Ismail, M., & Amiruddin, A. (2021). Feasibility Analysis of Horticultural Traders. *Journal of Indonesian Agribusiness.*

Nurjanah. (2017). The Role of Women in Agricultural Trade. *Journal of Rural Sociology.*

Sadono, S. (2013). *Pengantar Teori Mikroekonomi.* Jakarta: Rajawali Pers.

Sari, D., et al. (2022). The Effect of Number of Dependents on Household Welfare. *Journal of Family Economics.*

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http://e-journal.unmas.ac.id/index.php/agrimeta
Vol 15 No 2 (Oktober 2025) 52-62 e-ISSN : 2721-2556 ; p-ISSN : 2088-2531

Soekartawi. (2006). *Farm Business Analysis.* Jakarta: UI Press.

Soehardjo. (2007). *Trade Business Management.* Yogyakarta: Andi Offset.

Styawan, A., et al. (2019). Beta-Carotene Content in Carrots (*Daucus carota L.*). *Journal of Nutrition and Food.*

Suratiyah, K. (2011). *Farm Business Science.* Jakarta: Penebar Swadaya.

Suratiyah, K. (2015). *Farm Business Science (Revised Edition).* Jakarta: Penebar Swadaya.

Suryani. (2018). The Role of Horticultural Agriculture in Indonesia. *Journal of Nusantara Agronomy.*

Taralandu, H., & Saragih, R. (2024). Number of Dependents and Work Motivation of Market Traders. *Journal of Regional Economics.*