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Analysis of Peanut Farming Income in Lanne Village, Tondong Tallasa Subdistrict, Pangkajene and Islands Regency

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Abstract

This study aims to determine the amount of production costs incurred by farmers and analyze the amount of income farmers earn from peanut farming in Lanne Village, Tondong Tallasa District, Pangkajene and Islands Regency. This study was conducted using the simple random sampling method. The research sample was taken randomly in Lanne Village. All peanut farmers who were members of the tanin group were included in the research population. The selection of farmer samples was carried out using a simple random sampling method, resulting in 165 farmers as samples, 24 of whom represented 15%. For data analysis, this study used quantitative descriptive analysis and calculated the analysis of costs, receipts, and income. The results showed that the costs incurred from peanut farming were fixed costs of IDR 3,812,333 and variable costs of IDR 3,020,208. Thus, the total cost of peanut farming was IDR 6,832,542. The revenue from peanut farming is IDR.88,032,466, and the income from peanut farming is IDR. 81,199,925 per planting season. This figure shows that the income obtained from peanut farming is very profitable.

Keywords: Farming, Peanuts, Costs, Revenue, Income

INTRODUCTION

Peanuts are an agricultural product that has considerable economic value and also serves as a source of protein in the diet of the community (Wanra, 2013). Peanuts are a material with great potential for use in the food industry. With proper processing, peanuts can be converted into a variety of food products that have considerable economic value

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(Afrizal, 2016). Peanuts are a type of non-crop plant that has high economic value in agribusiness. In addition, peanuts are an important source of protein in the Indonesian diet. Demand for peanuts continues to grow every year. This is due to population growth, increased nutritional needs, food diversification, and the development of the food industry in Indonesia(Adisarwanto, 2000). One peanut product that contributes significantly to increasing farmers' income and welfare is peanuts (Sinabariba, 2014).

Based on data obtained from the survey, peanut farmers in the study area face many problems that directly affect their yields and income. One of the main challenges they face is the difficulty of obtaining high-quality seeds that can adapt to the surrounding environment and are resistant to pests and diseases. Limited access to quality seeds means that their harvests are not maximized. In addition, attacks from plant pests such as armyworms, aphids, and wilt and leaf rust diseases often occur during critical growth periods, reducing both the quality and quantity of the harvest. A second problem faced by peanut farmers in the research location is a variety of obstacles that directly impact their productivity and income. One of the main problems is the difficulty in obtaining superior seeds that are adaptive to the local environment and resistant to pests and diseases. Limited access to quality seeds results in suboptimal harvests. In addition, attacks by plant pests such as armyworms, aphids, and wilt or leaf rust diseases often occur during the critical growth phase, reducing the quality and quantity of the harvest. Another problem that is becoming increasingly common is unpredictable climate change, such as extreme rainfall or prolonged drought, which disrupts planting cycles and causes stress to crops. These conditions make it difficult for farmers to determine the ideal planting time and increase the risk of crop failure. After harvesting, farmers also face challenges in post-harvest handling, especially in the drying process. Limited processing tools and technology mean that drying is done traditionally, which is highly dependent on the weather, making the harvest susceptible to damage or low quality. These various problems often cause peanut farmers' incomes to fluctuate and even decline, especially when the selling price is not commensurate with production costs and the risks involved. Therefore, technological support, access to quality agricultural inputs, as well as government extension services and policies that favor farmers are needed to improve the sustainability of peanut farming.

In 2022, peanut production in Tondong Tallasa Subdistrict, Pangkajene and Islands Regency, amounted to 255 tons. Then in 2023, there was an increase to 292 tons, followed by a decrease to 277 tons in 2024. These figures show an increase of 0.12% from 2022 to 2023. Meanwhile, from 2023 to 2024, there was a decrease of 0.05%

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(BPS, Tondong Tallasa, Pangkajene and Islands Regency 2024). Changes in peanut productivity are greatly influenced by various factors. These include weather conditions, farming methods used, access to agricultural materials, government regulations, and market movements. Previous research on how peanut farmers adapt in climate-vulnerable areas shows that extreme weather and rainfall uncertainty encourage farmers to change their farming decisions, which in turn affects production yields (Ratna, 2025). Research findings on the elements that influence the price of goods in relation to climate link market movements (costs/rewards) with reactions from production and (both directly and indirectly) efficiency (Nguyen & Randall, 2024).

Based on the background and issues described above, the purpose of this study is to determine the amount of production costs incurred by farmers and analyze the amount of income farmers earn from peanut farming in Lanne Village, Tondong Tallasa District, Pangkajene and Islands Regency.

LITERATURE REVIEW

Peanuts

Peanuts (Arachis hypogaea, L) are the most important agricultural commodity after soybeans, serving strategically as a source of protein and vegetable oil for the national food supply (Kurniawan, 2017). Legumes, especially peanuts, rank second after soybeans (Kasno, 2014).

Cost

Cost is the sacrifice of economic resources expressed in monetary terms that has occurred or may occur to achieve a specific goal (Nurlela, 2013). Cost that arise or may arise are caused by the low quality of goods or services that have been used to generate income (Siregar, 2013). Total farming costs are calculated using the formula proposed by (Soekartawi, 2006) as follows:

$$TC = TFC + TVC$$

Where:

TC = Total Farming Costs (IDR)
TFC = Total Fixed Costs (IDR)
TVC = Total Variable Costs (IDR)

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Revenue

Revenue can be understood as an increase in assets or a decrease in liabilities or receivables arising from various activities in a specific accounting or budget period (Siregar, 2001). Meanwhile, cash revenue from the agricultural sector is money received by farmers from the sale of their products (Adriansyah, 2020). To calculate farm income (TR), the formula described by (Soekartawi, 2006) is used, namely:

$$TR = P \cdot Q$$

Where:
TR = Total Revenue (IDR)
P = Price (IDR/Kg)
Q = Quantity / Production (Kg)

Income

Income from agricultural businesses is derived from the difference between the amount of money received from the sale of agricultural products and the total expenses required for the production process (Soekartawi, 2006). Income from agricultural businesses is the result of the difference between the money received and all expenses incurred (Soekartawi, 2006), namely:

$$\pi = TR - TC$$

Where:
π = Income
TR = Total Revenue (IDR)
TC = Total Cost (IDR)

RESEARCH METHODS

In this study, the population consisted of 165 peanut farmers. In accordance with this statement, the researcher selected 15% of the total population as the study sample, namely 24 peanut farmers. This study used a random sampling method, whereby samples were randomly selected from the entire population without considering stratification in the main population. The data analysis techniques used in this study are as follows:

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Cost Analysis

The costs covered in this study include all expenses incurred by farmers in carrying out peanut farming activities. Cost calculations were performed to determine the total expenses incurred by peanut farmers (Soekartawi, 2006).

$$TC = TFC + TVC$$

Where:

TC = Total Farming Costs (IDR)
TFC = Total Fixed Costs (IDR)
TVC = Total Variable Costs (IDR)

Revenue

Farmers' revenue is the total monetary value obtained from the sale of agricultural products. It is calculated by multiplying total production by the selling price during a specific period or growing season, whether sold to the market or used for personal consumption (Soekartawi, 2006). This equation uses the following formula:

$$TR = P \cdot Q$$

Where:

TR =Total Revenue (IDR)
P = Price (IDR/Kg)
Q = Quantity/ Production (Kg)

Income

Farm income is the total revenue obtained from farming after deducting all costs incurred in the peanut production process. Net income can be calculated using the following formula (Soekartawi, 2006):

$$\pi = TR - TC$$

Where:

π = Farmer's Income (IDR)
TR = Total Revenue (IDR)
TC = Total Cost (IDR)

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RESULT AND DISCUSSION

Cost Analysis

Cost analysis is important for understanding respondents' expenses during production, divided into fixed costs and variable costs.

Fixed Cost

Fixed cost are costs that do not change in amount, even if there are changes in production. These costs must be paid continuously and include equipment depreciation and land taxes. The fixed costs of peanut farmers can be seen in Table 1 as follows:

Table 1. Fixed Costs of Peanut Farmers in Lanne Village, Tondong Tallasa Subdistrict, Pangkajene and Islands Regency

No.	Types of Fixed Costs	Average (IDR) / Planting Season
1	Depreciation of Equipment	3,412,333
2	Land Tax	400,000
Total		**3,812,333**

Source: Primary Data After Processing, 2025

Table 1 above shows that fixed costs consist of equipment depreciation costs of IDR 3,412,333 and land tax of IDR 400,000. Thus, the total fixed costs amount to IDR 3,812,333. These fixed costs are an important component in the cost structure of peanut farming. The findings of this study are higher than those of a previous study on fixed costs in peanut farming, which amounted to IDR 898,763 (Ricky, 2022). Previous research on fixed costs in peanut farming amounted to IDR. 234,613 (Juniasih, 2022). Another research finding shows that the fixed costs of peanut farming are lower at IDR. 34,365 (Ricky, 2025). There are significant differences in fixed costs between studies, which are thought to be caused by several factors. These factors include differences in ownership and number of production tools, depreciation value of tools, land rental costs, and taxes or land administration costs that vary in each research location. In addition, the scale of the business and the age of the tools used also affect the amount of fixed costs incurred by farmersi.

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Variable Cost

Variable cost are costs that can change according to the amount of production or activity carried out in a business. When production increases, costs will rise, while if production decreases, costs will fall. The average variable costs for peanut farmers can be seen in Table 2 below:

Table 2. Average Variable Costs of Peanut Farmers in Lanne Village, Tondong Tallasa Subdistrict, Pangkajene and Islands Regency

No.	Types of Variable Costs	Average (IDR) / Planting Season
1.	Seeds	1,200,000
2.	Urea	398,958
3.	Phonska	210,833
4.	SP 36	375,417
5.	Sapu Bersih Pesticide	325,833
6.	Pestisida Gramaxon	325,833
7.	Labor	183,333
Total		**3,020,208**

Source: Primary Data After Processing, 2025

Table 2 above shows that the average variable costs for peanut farming during one planting season are as follows: seeds amounting to IDR 1,200,000, urea fertilizer amounting to IDR 398,958, phonska fertilizer amounting to IDR 210,833,SP36 fertilizer amounting to IDR 375,417, sapu bersih pesticide at IDR. 325,833, gramaxon pesticide at IDR. 325,833, and labor at IDR. 183,333. Thus, it can be concluded that peanut farmers must bear an average variable cost of IDR. 3,020,208. Unlike previous studies, this variable cost is lower than the variable cost reported by (Ricky, 2022), which recorded an amount of IDR. 4,303,785. In previous studies, the variable cost was higher, namely IDR. 7,462,115 (Juniasih, 2022). On the other hand, a previous study explained that the variable costs for peanut farming were lower, at IDR. 4,172,000 (Ricky, 2025). The difference in the amount of variable costs is likely due to several factors, such as variations in the price of production inputs, the intensity of production facilities use, the size of the land managed, and the level of labor used in each location and research period. In addition, variations in the application of agricultural technology and agroecological conditions also affect the amount of variable costs in peanut farming.

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Revenue

Agricultural revenue is calculated by multiplying production by selling price. The agricultural revenue of peanut farmers in Tanah Putih Village, Lanne Subdistrict, Tondong Tallasa District, Pangkajene and Islands Regency is shown in Table 3 as follows:

Table 3. Average Farm Income of Peanut Farmers in Lanne Village, Tondong Tallasa District, Pangkajene and Islands Regency

Description	Amount (Kg/IDR)
Production (Kg)	74.900
Price (IDR)	28.208
Total Revenue (TR)	**2.112.779.200**

Source: Primary Data After Processing, 2025

Table 3 above shows that the total income from peanut farming is IDR.2,112,779,200. This income is derived from a production yield of 74,900 kg per planting season multiplied by a selling price of IDR. 28,208 per kilogram. Thus, the income earned by peanut farmers in Lanne Village, Tondong Tallasa Subdistrict, Pangkajene and Islands Regency is IDR. 2,112,779,200 during one planting season.The amount of income is influenced by the level of production and the selling price of peanuts applicable in the research location.

The results of this study are higher than those of the study by Aziziah, (2020) In the peanut farming business in Kertajaya Village, Mangunjaya District, Pangandaran Regency, the income was IDR. 9,909,196.74 per hectare per planting season. Furthermore, Juniasih, (2022) study showed a peanut farming income of IDR. 20,116,440. Gunari, (2023) research obtained an income of IDR 16,800,000 per hectare, while Ricky's, (2025) research showed that the income from peanut farming was lower, namely IDR 16,500,000. The higher findings of this study are thought to be influenced by several factors, including differences in land area, more optimal use of production inputs, productivity levels, and relatively better peanut selling prices at the time of the study. In addition, the application of more efficient cultivation techniques and better production cost management also contributed to the increase in peanut farming income.

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Income

Income is the result of total revenue minus total expenses incurred in agriculture (Mawuntu, 2024). The income from peanut farming in Lanne Village, Tondong Tallasa District, Pangkajene and Islands Regency is shown in Table 4 as follows:

Table 4. Average Income of Peanut Farmers in Lanne Village, Tondong Tallasa Subdistrict, Pangkajene and Islands Regency

Description	Value (IDR)
Revenue	2,112,779,200
Total Cost	163,981,000
Income	**1,948,798,200**

Source: Primary Data After Processing, 2025

Table 4 above shows that the revenue of IDR. 2,112,779,200 was obtained from the sale of peanut farmers' harvest per planting season. Meanwhile, the total costs incurred in peanut farming activities amounted to IDR. 163,981,000. Thus, the income amounted to IDR. 1,948,798,200. This income shows that peanut farming in Lanne Village is profitable and able to make a positive contribution to the income of these farmers' households. Previous research found that the income obtained was higher than that reported by Aziziah, (2020) on peanut farming in Kertajaya Village, Mangunjaya District, Pangandaran Regency, which earned an income of IDR. 28,867,874.22 per hectare per planting season. Furthermore, Juniasih, (2022) research found that the income from peanut farming was IDR. 12,419,712.00, while Gunari, (2023) research stated that the income was IDR. 8,555,193.46. Another study conducted by Ricky, (2025) shows a higher peanut farming income of IDR. 43,905,838.04 per hectare per planting season.

CONCLUSION

The costs incurred by peanut farmers can be calculated based on two main types of costs incurred in peanut farming, namely fixed costs and variable costs. The total costs incurred in peanut farming activities amounted to IDR. 163,981,000. Peanut farmers' income amounted to IDR. 1,948,798,200 per planting season. This figure shows that the income obtained was a profit from farming activities carried out in Lanne Village, Tondong Tallasa District, Pangkajene and Islands Regency.

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