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Strategy to Strengthen the Income of Forest Farmers' Group on Coffee Commodities in Mekakau Ilir District, South OKU Regency

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ABSTRACT

This study aims to determine strategies for increasing the income of coffee farmers in Mekakau Ilir District, OKU Selatan Regency. The quantitative analysis used in this research is regression analysis. The results of this study in the form of a strategy to increase coffee farmers' income based on internal and external results showed that the main strategies are optimizing weaknesses and overcoming various threats by reducing land conversion by providing capital, reactivating Gapoktan, optimizing fertilizer use, overcoming the problem of increasing input prices to increase cooperation between extension workers and Gapoktan in Mekakau Ilir District, OKU Selatan Regency.

Contribution to Sustainable Development Goals
SDG 1: No Poverty
SDG 2: Zero Hunger
SDG 8: Decent Work and Economic Growth
SDG 12: Responsible Consumption and Production
SDG 15: Life on Land

1. INTRODUCTION

1.1. Research Background

The agricultural sector, especially the plantation subsector, is among the majority business sectors of the Indonesian population [1]. One of the agricultural subsectors that influence the economy is plantations. For plantation commodities, coffee is quite important. Coffee is one of the commodities from the plantation subsector which plays an important role in the national economy, especially as a source of foreign exchange, providing employment opportunities, and a source of income for farmers and other economic actors involved in the cultivation, processing, and marketing of coffee products, especially in the region's coffee production centers areas such as South Sumatra, Lampung, North Sumatra, and East Java [2].

The results of the 2023 BPS Agricultural Census show that the area of coffee plants cultivated/managed in South Sumatra is 252.90 thousand hectares. Based on data from the South Sumatra Province Plantation Service, in 2012 coffee production was 143.33 thousand tons. When compared with other coffee-producing countries such as Vietnam and Brazil, this coffee production is still less competitive. The problem faced in developing coffee plantations is that productivity and product quality are still low.

This is due to the lack of optimal management of coffee plantations in the application of advanced technology, especially the use of quality superior seeds, fertilizer, control of pests, diseases, and weeds, as well as harvest and post-harvest handling. Apart from the low level of human resource capacity and weak existing farmer institutions, the unstable average marketing price of coffee is also a problem in the development of coffee plants. The type most widely cultivated in South Sumatra is robusta coffee, and on the world market robusta coffee is flooding the market, especially robusta coffee produced in Brazil and Vietnam [3]. Unstable selling prices mean that the development of coffee plants is still not very significant.

The ST 2023 results show that the majority of coffee plantations are cultivated by traditional agricultural households.

The development of coffee in South Sumatra is quite good, as indicated by the increasing number of plants cultivated. Of the total number of trees cultivated/managed in 2023, 92.01 percent will be plants that are already producing or bearing fruit. This shows that the coffee plant in South Sumatra is a productive plant that provides quite large production [4].

1.2. Literature Review

The agricultural sector is still seen as a place of employment in South Ogan Komering Ulu Regency. This reflects that the agricultural sector is the largest labor-absorbing sector in South Ogan Komering Ulu Regency. The agricultural sector is the main support for the lives of Indonesian people and this sector is also one of the main components in government programs and strategies to eradicate poverty.

The problem of poverty and development cannot be separated from the role of agriculture regarding strengthening food security and self-sufficiency, improving nutritional quality, and increasing foreign exchange earnings as capital for national development. Poverty in the agricultural sector is influenced by many factors which are often faced with the grip of structure and culture, namely low productivity in this sector. This is due to the increasingly unequal distribution of agricultural land, low education levels, low sensitivity to technology, weak exchange rates for farmers, and difficulty in accessing capital [1]. The area of coffee plants in South Ogan Komering Ulu Regency can be seen in the following table.

Table 1, Coffee Plantation Area in South OKU Regency

Plant Type	Land Area (Thousand Hectares)
Palm oil	0.51
Coconut	1.10
Rubber	5.25
Coffee	70.80
Cocoa	1.73
Pepper	4.59
Clove	0.23
Palm	0.47

Based on Table 1, it can be seen that the coffee plantation area is one of the most dominant types of plants in the South OKU Regency. South Ogan Komering Ulu Regency is an agricultural region that has the potential to develop various types of coffee which are in great demand by the people of Indonesia and the world. Currently, coffee has become a dish that has a lot of fans. Most people are very familiar with coffee drinks. Apart from that, coffee is one of the highest contributors to district income in South OKU [5].

Mekakau Ilir District is one of the sub-districts that contribute to coffee production in South Ogan Komering Ulu Regency [6]. Mekakau Ilir District is a sub-district in South OKU Regency and has a coffee land area of 6,976 Ha. Mekakau Ilir District has a lot of people's agricultural land in every village in Mekakau Ilir District.

1.3. Research Objective

This study aims to evaluate and Develop a strategy to increase the income of coffee farmers in Mekakau Ilir Regency, South OKU Regency based on SWOT Analysis.

2. MATERIALS AND METHODS.

2.1. Methodology

This research was conducted in Mekakau Ilir District, South OKU Regency. Determining the research location was based on the consideration that Mekakau Ilir District in South OKU Regency is an area that has great potential for producing coffee, most of the residents in Mekakau Ilir District make their living as coffee farmers. The research objects in this study were coffee farmers in Mekakau Ilir District, South OKU Regency who were grouped based on the characteristics of the respondents. This research was conducted in Mekakau Ilir District, South OKU Regency.

The type of data used in this research is primary data. The use of primary data is generally for the need to produce information that reflects the truth following factual conditions so that the resulting information can be useful in decision-making [7]. This research was carried out using survey techniques [8]. In surveys, information is collected from respondents using questionnaires. Generally, the meaning of a survey is limited to research where data is collected from a sample of the population to represent the entire population. Thus, survey research is research that takes samples from a population and uses questionnaires as the main data collection [9]. The survey was conducted using a questionnaire which is a structured list of questions asked to coffee farmers in Mekakau Ilir District, South OKU Regency.

2.2. Sample and Population

The population is the entire research object/subject, while the sample is a part or representative that has representative characteristics of the population [10]. The population presented as the object of this research is coffee farmers who are members of the forest farmer group in Mekakau Ilir District, South OKU Regency. To obtain a representative sample, taking subjects from the regions is determined to be balanced or proportional to the number of subjects in each region. The sample was determined using the Proportional Area Random Sampling method, namely sampling based on the area where each part was sampled randomly [11]. Determination of samples using the Slovin formula.

$$n = \frac{N}{1 + N(e)2}$$

Information:
n : Number of Respondents
N : Population Size
e : Error rate 10% (0,1)

n = 6850/ (1 + (6850 X 0,12))
n = 6850/ (1+(6850 X 0,01)
n = 6850/ (1 + 68,5)
n = 6850/69,5
n = 98,56

Based on calculations using the Slovin method, the sample used in this research was 99 coffee farmers.

2.3. Data analysis methods

To analyze the socio-economic characteristics of coffee farmers, descriptive analysis will be carried out, namely in the form of a clear and detailed presentation or description using words [12]. To find out strategies for strengthening the income of coffee farmers in Mekakau Ilir District, South OKU Regency. Coffee farmers in Mekakau Ilir District used a SWOT strategy analysis. SWOT analysis is based on logic, namely maximizing strengths and opportunities, but simultaneously minimizing weaknesses and threats [13].

3. RESULT AND DISCUSSION

3.1. Socio-economic characteristics of coffee farmers in Mekakau Ilir District, South OKU Regency

The social characteristics of coffee farmers that were asked included age, number of children, number of dependents, and level of education, while the economic characteristics were land area, working capital, production amount, and income. Based on the research conducted by researchers, it can be described as follows.

3.1.1. Characteristics of Respondents Based on Age

Before knowing the general characteristics of the respondents, the age interval scale was first calculated with the age of the youngest respondent being 23 years and the age of the oldest respondent being 63 years. The range from 23 years to 63 is 40 years. In this study, 6 intervals were used. This means that the interval between respondents' age categories is 6 years.

Table 2. Characteristics of respondents based on age

No	Age	Frequency	Percentage(%)
1	23-29	13	13.14
2	30-36	10	10.11
3	37-42	29	29.30
4	43-49	27	27.28
5	50-56	14	14.14
6	57-63	6	6.06
	Amount		100.00

From Table 2, it can be said that the average age of coffee farmers is around 37-42 years, at this age it can be said to be very effective and efficient in earning income and at this time someone already has a lot of income and where at this time someone already has a lot experience so that they can overcome problems that arise. Meanwhile, the number of coffee farmers aged 57-63 years is 6 people because at this age the farmers are starting to be consumed by age and are unable to work any harder due to their weakened physique.

3.1.2. Characteristics of respondents based on number of children

The number of respondents in this research are coffee farmers in Mekakau Ilir District, South OKU Regency according to the number of children which can be seen in Table 3.

Table 3. Characteristics of respondents based on the number of children

No	Number of children	Frequency	Percentage (%)
1	There isn't any	3	3.03
2	1	15	15.15
3	2	37	37.38
4	>3	44	44.44
	Amount	99	100.00

Based on Table 3, it can be said that the average number of children of coffee farmers is around 3 children. The large number of farmer children is due to a lack of understanding about family planning due to a lack of education from the government regarding family planning programs so that people have more than 3 children. This proves that children are the reason for farmers to carry out business activities, especially in the agricultural sector, to earn income.

3.1.3. Characteristics Based on Number of Lands

Before knowing the characteristics of respondents based on land area, first, an interval scale calculation of land area was carried out with the respondent's land area ranging from 400 m^3 to 2000 m^3. The range from 400 m^3 to 2000 m^3 is 1,600 m^3. If this research uses 4 intervals, then the distance for each interval is 1,600 m^3:4 = 400. This means that the distance between the land area categories is 400.

Table 4. Characteristics of Respondents Based on Land Area

No	Large lawn	Frequency	(%)
1	400 m^3-799m^3	33	33.34
2	800 m^3– 1299m^3	47	47.48
3	1300m^3-1699m^3	12	12.12
4	1700 m^3-2000m^3	7	7.07
	Amount	99	100.00

Based on Table 4, it can be seen that the average land area is 800-1200 m3. The research area is classified as having land that is productive enough to carry out coffee farming activities based on the results of observations in the field, seen from the number of farmers who persist in growing coffee on their productive land, both in terms of main income and for additional income needs to meet family living needs, because The character of agricultural land in South OKU Regency is suitable for crops, especially coffee.

3.2. Characteristics of Respondents Based on Production Amount

Before knowing the characteristics of respondents based on the amount of production, first, an interval scale of production quantities was carried out with the respondents' production amount from the smallest, namely 300 kg to 1800 kg with a range from 300 kg to 1800 kg being 1500 kg. If this study uses 3 intervals, then the distance for each interval is 1500:3 = 500 kg. This means that the interval between respondents' production quantity categories is 500 kg.

Table 5. Characteristics of Respondents Based on Production Amount

No	Production Amount	Frequency	(%)
1	300kg -799kg	38	38.38
2	800kg -1299kg	45	45.46
3	1300kg-1800kg	16	16.16
	Amount	99	100.00

Based on Table 5, it can be seen that the average production amount of coffee farmers in Mekakau Ilir District, South OKU Regency is 800 kg-1200 kg and this result follows the area of land owned by the farmers. The amount of production is of course the most important factor in increasing and maximizing the income of coffee farmers.

3.3. Characteristics of Respondents Based on Income

Before knowing the characteristics of respondents based on income, first calculate the income interval scale with the respondent's income starting from the smallest Rp. 3,000,000 to Rp. 14,000,0000. The range from IDR 3,000,000 to IDR 14,000,000 is IDR 11,000,000. If this study uses 4 intervals, then the distance for each interval is Rp. 11,000,000:4 = Rp. 2,750,000. This means that the interval between respondents' income categories is Rp. 2,750,000.

**Table 6**. Characteristics of Respondents Based on Income

No	Income	Frequency	(%)
1	Rp.3,000,000-Rp.5,749,000	21	21.22
2	Rp.5,750,000-Rp.8,599,000	28	28.28
3	Rp.8,500,000-Rp.11,249,000	37	37.37
4	Rp.11,250,000-Rp.14,000,000	13	13.13
	Amount	99	100.00

The largest number of coffee farmers has an income of around Rp. 8,500,000 to Rp. 11,250,000 per harvest with 37 people. The income per harvest of coffee farmers can be said to be quite prosperous for coffee farmers to be able to support the families they support.

3.4. SWOT Analysis

Strategy for strengthening the income of coffee farmers in Mekakau Ilir District, South OKU Regency through SWOT analysis. SWOT analysis consists of 4 alternatives, including S-O (strength opportunities) strategy, S-T (threat-strategy) strategy, W-O (weakness opportunities) strategy, namely an analysis method that develops strengths, weaknesses, opportunities, and threats, as well as obstacles that must be faced during the planning process. Strategies that are considered to have high priority and are urgently implemented depend on the location of the quadrant with the X and Y axis formulation, where the above. So the results can be seen in Figure 1.

Based on Figure 1, it can be explained that the position of the strategy for strengthening the income of coffee farmers in Mekakau Ilir District, South OKU Regency is in quadrant IV, which means the position has big weaknesses threats for farmers. In increasing income. Quadrant IV is an unfavorable situation. Companies face various internal threats and weaknesses. The strategy applied is an aggressive strategy.). The strategy to strengthen farmers' income is in quadrant IV, meaning that the focus of the strategy that must be carried out is optimizing weaknesses and overcoming various threats. The SWOT matrix is a matrix that interacts with internal and external strategy factors [14]. The purpose of creating a SWOT matrix is to collect as many actions or strategies as possible that can be used in business [15].
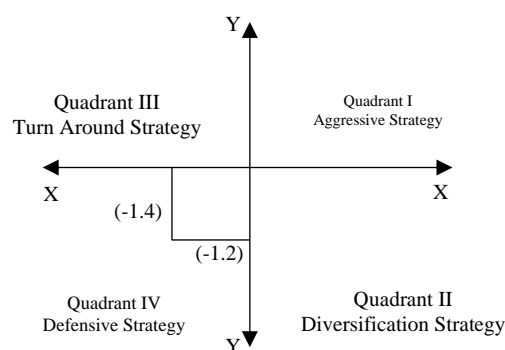
Fig 1. SWOT analysis quadrants

S-O Strategy

S-O strategy or power-opportunity strategy is a strategy that uses internal strength to take advantage of external opportunities [16]. Based on the strengths possessed by coffee farmers and their ability to seize opportunities, strategies can be formulated including:

Taking advantage of the availability of subsidies for production facilities from the government and to further motivate farmers to increase their production. Utilizing suitable land conditions for growing coffee and easy availability of seeds and fertilizers to encourage farmers to increase production. Continuously optimize the use of technology adoption levels in land processing.

W-O strategy

The W-O strategy or weakness-opportunity strategy is a purposeful strategy to improve internal weaknesses by taking advantage of existing external opportunities [17].

The alternative strategies obtained are as follows:

1. Utilizing access to credit from banks as capital for production input costs, with access to credit it is hoped that farmers will find it easier to obtain capital loans to overcome the problem of rising production input prices.
2. Optimizing the use of fertilizer according to the right dosage and utilizing technology to increase production.
3. Increasing production by optimizing narrow land area.

S-T Strategy

S-T strategy or power-threat strategy is a strategy that uses internal power to avoid or reduce the external threats faced [18]. The power-threat strategies for coffee farmers' income include:

1. Continuously optimize the level of technology adoption and overcome the problem of the number and costs of workers outside the family so that the production process can run well.
2. Using farmers' long experience in farming to overcome the problem of pest and disease attacks so that the production process runs well.
3. Optimizing land conditions suitable for growing coffee.

W-T strategy

The W-T strategy or weakness-threat strategy is a strategy aimed at reducing internal weaknesses and avoiding external threats [19]. From the weaknesses and threats faced by coffee farmers, alternative strategies can be formulated, including:

1. Reducing land conversion. The shrinkage of land area occurs due to changes in land use to non-agricultural such as residential/residential/settlement, industry, services, and others. So there is a need for government policies at the provincial and district/city levels regarding the protection of agricultural land as stipulated in the regional spatial planning plan. With subsequent government policies providing capital to farmers.
2. Reactivate Gapoktan and utilize existing financial institutions for farming capital.
3. Optimize the use of fertilizer with the right dosage.

4.   CONCLUSION

From the results of the SWOT matrix, the strategy that can be implemented in the research area to increase the income of coffee farmers in quadrant IV is the Defensive Strategy (WT), which means that the focus of the strategy that farmers must carry out is optimizing weaknesses to avoid various threats, namely by reinvigorating gapoktan, utilizing existing financial institutions. , optimizing the use of fertilizer at the right dose, and increasing cooperation between extension workers and farmer groups to overcome the problem of pest and disease attacks.

Recommendation

To increase the income of coffee farmers, the policy that can be taken is a program to provide business capital. This program is needed to provide an injection of funds in the form of capital loans to farmers. Apart from that, support from government programs with the presence of the government to help solve farmers' problems in the field, will help farmers to increase production output which will also have an impact on increasing coffee farmers. Farmers should be able to optimize the resources owned by farmers, for example, land, labor, and capital to avoid various threats to their farming business.

REFERENCE

[1]   S. S. Pelengkahu, P. Kindangen, and Ee. N. Walewangko, "Analysis Of The Influence Of The Agricultural Sector On Economic Growth In North Sulawesi Province," *J. Pembang. Ekon. dan Keuang. Drh.*, vol. 22, no. 2, pp. 46–66, 2021.

[2]   A. M. Majid, U. Khairat, and A. Qaslim, "Graphical Abstract Identification Of Physical Quality In Coffee Beans Using Processing Technology Image Using Neural Network Method," *J. PeqguruangConference Ser.*, vol. 4, no. 1, pp. 12–16, 2022.

[3]   D. Megayani, "Economic Feasibility Of The Coffee Farming And The Characteristics Of The Household Coffee Farmers In Ogan Komering Ulu Selatan Regency," *Mimb. Agribisnis*, vol. 5, no. 1, pp. 104–113, 2019.

[4]   P. E. Pangihutan, H. Yetti, and Isnaini, "RESPONSE OF TEA DREGS AND NPK FERTILIZER APPLICATION SEEDLING GROWTH OF ARABICA COFFEE (Coffea arabica L.)," *JOM Faperta*, vol. 4, no. 2, pp. 1–11, 2017.

[5]   M. Puting and Kuswantinah, "Analysis Of Factors Affecting The Production Of Semendo Coffee From The District Of Oku Selatan," *J. Ilm. Manaj. Agribisnis*, vol. 3, no. 1, pp. 65–84, 2022.

[6]   S. Hanita and Suryanawati, "Analysis Of Profitability Of Coffee Farmers (Coffea Sp) Based On Farming Diversification In Galang Tinggi Village, Mekakau Ilir Sadau District," *J. Agribisnis dan Sos. Ekon. Pertan.*, vol. 7, no. 1, pp. 44–53, 2021.

[7]   T. Pramiyati, Jayanta, and Yulnelly, "The Role Of Primary Data In Forming A Factual Conceptual Scheme (Case Study: Simbumil Data Base Conceptual Scheme)," *J. SIMETRIS*, vol. 8, no. 2, pp. 679–686, 2017.

[8]   E. Rasmikayati and B. R. Saefudin, "Analysis Of Factors That Are Able To Encourage Mango Farmers To Improve Their Agribusiness Behavior In The Era Of Globalization," *J. Faradigma Agribisnis*, vol. 1, no. 1, pp. 1–13, 2018.

[9]   Maidina, "Survey Research," *ALACRITY J. Educ.*, vol. 2, no. 1, pp. 20–29, 2021.

[10]   N. F. Amin, S. Garancang, and K. Abunawas, "GENERAL CONCEPTS OF POPULATIONS AND SAMPLES IN RESEARCH Nur," *J. PilarJurnal Kaji. Islam Kontemporer*, vol. 14, no. 1, pp. 15–31, 2023.

[11]   D. Saketa, O. Porajouw, and E. P. Manginsela, "Factors That Determine Rice Production Results In Makarti Village, Kao Barat District, North Halmahera District," *J. Agri-Sosio Ekon. Unsrat*, vol. 3, no. 1, pp. 157–168, 2018.

[12]   R. L. Putra, "Analysis of the Affixation Process in Palm Oil Articles Looking for a Middle Way," *J. Edukatif J. Ilmu Pendidik.*, vol. 3, no. 5, pp. 3196–3203, 2021.

[13]   A. M. I. Astuti and S. Ratnawati, "SWOT Analysis in Determining Marketing Strategy (Case Study at Magelang City Post Office 56100)," *J. Ilmu Manaj.*, vol. 17, no. 1, pp. 58–70, 2020.

[14]   A. Supriono, C. Bowo, A. S. Kosasih, and T. Herawati, "Capacity BuildingStrategy of Private Forest Group in Situbondo District," *J. Penelit. Hutan Tanam.*, vol. 10, no. 3, pp. 139–146, 2013.

[15]   R. A. Pratama, H. Amani, and S. Wulandari, "Strategy Formulation Of Quail Eggs In Ikhlas Quail Farm Using Swot Analysis And Qspm Matrix," *e-proceeding Eng.*, vol. 5, no. 2, pp. 2887–2893, 2018.

[16] Y. Rahayuningsih, "Various Internal And External Factors And Development Strategy Of Porang (Amorphophallus Muelleri Blume) In Banten Province," *J. Kebijak. Pembang. Drh.*, vol. 4, no. 2, pp. 77–92, 2020.

[17] U. Syarifuddin, "Strategy for Developing Rattan and Bamboo Woven Craft Businesses through Online Marketing in Ma'rang District, Pangkep Regency," *Bata Ilyas Educ. Manag. Rev.*, vol. 2, no. 2, pp. 1–24, 2022.

[18] H. Sularsih and A. Nasir, "MSME strategy in increasing income in the future Covid-19 pandemic to maintain business continuity in era of industrial revolution 4.0 (studies on food and MSMEs drinks in Pasuruan Regency)," *J. Paradig. Ekon.*, vol. 16, no. 4, pp. 763–772, 2021.

[19] R. Sylvia and D. Hayati, "Swot Analysis In Determining Marketing Strategies For Indosat Products at PT X," *Din. Ekon. J. Ekon. dan Bisnis*, vol. 16, no. 1, pp. 124–134, 2023.