

# **DEVELOPMENT STRATEGY FOR ARABICA COFFEE FARMING IN MANIKLIYU VILLAGE, KINTAMANI SUBDISTRICT, BANGLI REGENCY, BALI PROVINCE**

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## **ABSTRACT**

*Coffee is a commodity that plays a big role in the global economy and plays a role in improving people's welfare. Indonesia is known as one of the world's coffee stock suppliers, where coffee from Indonesia is known to have superior and unique sensory characteristics. So Indonesian coffee has an important position in the world coffee trade. One of the sub-districts in Bangli Regency that produces Arabica coffee is Kintamani. Kintamani coffee from Bali is famous for its distinctive floral aroma. Manikliyu Village is one of the villages in Kintamani that grows Arabica coffee. Arabica coffee farmers in Manikliyu Village are faced with a number of challenges and are faced with great opportunities for the Arabica coffee industry with demand for high quality coffee from Bali continuing to increase, both in local and international markets. So developing the right strategy is very important for Arabica coffee farmers in Manikliyu Village which can increase the competitiveness of Arabica coffee products. The aim of this research is to identify internal and external strategic factors and determine a strategy for developing Arabica coffee farming in Manikliyu Village. This research uses IFAS, EFAS, and SWOT analysis. The results of the research show that there are five internal strategic factors consisting of the strengths and weaknesses of the Arabica coffee farming business in Manikliyu Village and external strategic factors consisting of opportunities and threats, there are 3 opportunity factors and 5 threat factors. Based on the results of the SWOT analysis, it is in quadrant I, namely an aggressive strategy for developing Arabica coffee farming businesses. The strategy that can be used by Arabica coffee farming businesses in Manikliyu Village from the SWOT analysis is an aggressive strategy in quadrant I which allows this Arabica coffee farming business to continue to be developed. Thus, several alternative strategies that can be used in efforts to develop arabica coffee farming in Manikliyu Village based on the SWOT matrix are extensification and intensification of arabica coffee cultivation, cultivating pest and climate change resistant arabica coffee, establishing partnerships with arabica coffee processors and exporters, and developing efficient arabica coffee picking technology.*

Keywords: *IFAS, EFAS, SWOT, Arabica Coffee.*

## **1. INTRODUCTION**

The coffee industry is an agricultural sector that has an important role in the global economy. Coffee is a commodity that plays a big role in the global economy and plays a role in improving people's welfare. Indonesia is known as one of the world's coffee stock suppliers, where coffee from Indonesia is known to have superior and unique sensory characteristics. So Indonesian coffee has an important position in the world coffee trade. Based on data from USDA (2023), Indonesia is listed as the 3rd largest coffee producing country in the world in 2022/2023, having produced 11.85 million bags of coffee.

Arabica coffee (*Coffea arabica*) comes from Africa, namely from the mountainous areas of Ethiopia (Rahardjo, 2012). Indonesian Arabica coffee has unique characteristics, depending on the region where it is grown and the processing method used. Based on BPS data from Bali Province (2022), Bangli Regency ranks first in Arabica coffee production at 2,082 tons. One of the sub-districts in Bangli Regency that produces Arabica coffee is Kintamani. The total land area of Kintamani is 3,662 Ha, where almost 2/3 of this area can be planted with Arabica coffee (Asiah, et al, 2019). Kintamani coffee from Bali is famous for its distinctive floral aroma. Manikliyu Village is one of the villages in Kintamani that grows Arabica coffee. Arabica coffee grown in Manikliyu Village has unique characteristics caused by the altitude, climate and soil which are suitable for cultivating quality coffee.

Even though it has great potential, Arabica coffee farmers in Manikliyu Village are faced with a number of challenges such as climate change with increasing irregular rainfall and long dry periods, which can affect coffee productivity and quality. On the other hand, there is a big opportunity for the Arabica coffee industry in Manikliyu Village. Demand for high quality coffee from Bali continues to increase, both in local and international markets. To optimize this potential, developing the right strategy is very important for Arabica coffee farmers in Manikliyu Village. This strategy must be able to increase the competitiveness of Manikliyu Village Arabica coffee products in the global market by paying attention to environmental sustainability and farmer welfare.

## **2. RESEARCH METODOLOGY**

The research location was carried out in Manikliyu Village, Kintamani District, Bangli Regency, Bali Province. The selection of this research location was carried out purposively with several considerations. The first consideration is that Manikliyu Village is one of the Arabica coffee producing villages in Kintamani, Bangli Regency. The second consideration is that Manikliyu Village has natural resource potential, especially fertile agricultural land, human resources who have enthusiasm, hard work and a farming culture that has been passed down from generation to generation. This research was carried out using primary data and secondary data. Primary data collection was obtained from field surveys and interviews. Field survey by distributing questionnaires. Meanwhile, secondary data was obtained through literature studies, books, journals, the internet or other sources that are appropriate to the discussion of this research. Determination of the sample uses the Slovin formula with a sampling error tolerance limit of 10% (Sugiyono, 2017). The data analysis used in this research is qualitative descriptive analysis, IFAS and EFAS matrix analysis, and SWOT matrix analysis (Strengths, Weaknesses, Opportunities, and Threats). According to (David, 2011) the tools used in formulating strategies are the IFAS Matrix and EFAS Matrix. Rangkuti (2006), states that the SWOT matrix is a systematic identification of various factors to formulate strategies, namely strengths-opportunities strategies (S-Ostrategies), weaknesses-opportunities strategies (W-Ostrategies), weaknesses-threat strategies (W-Tstrategies), and strengths-threat strategies (S-T strategies).

## **3. RELATED RESEARCH/LITERATUR REVIEW**

Previous research by Fattarani, et al (2017) regarding the Arabica Coffee Processing Business Development Strategy Case Study: "Kampung Kupa Gayo" Business, Central Aceh Regency stated that there are seven internal strategic factors that determine strengths and weaknesses. The dominant strengths are strategic business location and competitive product prices. Meanwhile, the dominant weakness is that the types of products produced are still lacking. There are five external strategic factors that become opportunities and threats, where the dominant opportunity is that the processed coffee market share is still very large and the dominant threat is competition from similar businesses. The strategy used by Kampung Kupa Gayo based on the results of the SWOT analysis is an aggressive

strategy, namely a strategy that allows this business to continue to develop its business, increase growth, expand and achieve maximum progress.

Previous research conducted by Zakaria, et al (2017), regarding the Arabica Coffee Farming Business Development Strategy (Case of Coffee Farmers in Suntenjaya Village, Lembang District, West Bandung Regency, West Java Province) stated that there are several strategies that are priorities to be implemented to develop their business namely developing processing of farming products, improving technical farming skills to improve product quality, empowering farming business groups to further improve their business.

Previous research conducted by Alam, et al (2019) with the title Arabica Coffee Farming Business Development Strategy (Case Study in Gunungsari Village, Sukanagara District, Cianjur Regency) stated that the results of the SWOT analysis, the priority strategy was to increase coffee production by utilizing sufficient land availability and Skilled human resources, maintaining the superiority of coffee products and meeting the increasing needs of coffee enthusiasts, maximizing coffee land processing through collaboration with agricultural and plantation departments to obtain training, and utilizing superior resources such as human resources, natural resources and machines that can be used to seize opportunities. Based on the results of the QSPM matrix analysis, the priority order of the strategy is to utilize superior resources (human, natural and machine) to seize opportunities with a TAS value of 6.627.

#### **4. RESULTS AND DISCUSSION**

##### **Identification of Internal and External Strategic Factors for Arabica Coffee Farming in Manikliyu Village**

The internal strategic factors of Arabica coffee farming in Manikliyu Village consist of strengths and weaknesses. Strengths are the resources possessed by the Arabica coffee farming business in Manikliyu Village which can be used to deal with opportunities and threats. Weaknesses are the resources owned by Arabica coffee farming businesses in Manikliyu Village which are difficult to use to deal with opportunities and threats.

The external strategic factors consist of opportunities and threats. Opportunities are external situations of Arabica coffee farming in Manikliyu Village which have the potential to provide benefits for the sustainability of the farming business. A threat is an external situation that has the potential to cause difficulties for Arabica coffee farming businesses in Manikliyu Village. The identification results of each internal and external strategic factor are used to prepare the IFAS and EFAS matrices. The results of the identification of internal strategic factors obtained 10 factors and external strategic factors obtained 8 factors.

##### **Identification of Internal Strategic Factors of Arabica Coffee Farming Business in Manikliyu Village**

Internal strategic factors consist of the strengths and weaknesses of the Arabica coffee farming business in Manikliyu Village which are able to support the development of the farming business. Identification of strength factors consists of 5 factors, namely knowledge and experience of cultivating Arabica coffee, availability of land for growing Arabica coffee, superior varieties, adequate physical environment for cultivating Arabica coffee, and the unique characteristics of Kintamani coffee. Meanwhile, there are 5 weaknesses in the Arabica coffee farming business, namely limited labor for picking Arabica coffee, post-harvest processing of Arabica coffee, cultivation of Arabica coffee which is still conventional, sales of Arabica coffee still using the bonded bond system, and Arabica coffee productivity is not yet optimal. These two strength and weakness factors can be seen in Table 1.

Table 1. Strengths and Weaknesses of Arabica Coffee Farming Business in Manikliyu Village

No.	Internal Strategic Factors
Strength	
1.	Knowledge and experience of Arabica coffee cultivation
2.	Availability of land to grow Arabica coffee
3.	Superior varieties
4.	Adequate physical environment for Arabica coffee cultivation
5.	Typical characteristics of Kintamani coffee
Weakness	
1.	Limited labor force to pick Arabica coffee
2.	Post-harvest processing of Arabica coffee
3.	Conventional Arabica coffee cultivation
4.	Sales of Arabica coffee are still based on the bonded bond system
5.	Arabica coffee productivity is not yet optimal

### Identification of External Strategic Factors for Arabica Coffee Farming in Manikliyu Village

External strategic factors consist of opportunities and threats that can influence the development of Arabica coffee farming in Manikliyu Village. Based on the results of identifying opportunity factors, 3 factors were obtained, namely the development of the coffee industry, proximity to the Kintamani tourism area, and Arabica coffee marketing partnerships. A threat is an unfavorable environmental trend that can hinder and harm an organization. The threats faced in Arabica coffee farming in Manikliyu Village consist of 5 factors, namely competition from Arabica coffee producing countries, coffee prices which tend to fluctuate, climate change, attacks by coffee pests, and changes in coffee consumer tastes. These opportunity and threat factors can be seen in accordance with the table. 2.

Table 2. Opportunity and Threat Factors for Arabica Coffee Farming in Manikliyu Village

No.	External Strategic Factors
Opportunity	
1.	Development of the coffee industry
2.	Close to the Kintamani tourism area
3.	Arabica coffee marketing partnership
Threats	
1.	Competition between Arabica coffee producing countries
2.	Coffee prices tend to fluctuate
3.	Climate change
4.	Coffee pest attack
5.	Changes in coffee consumer tastes

### IFAS Matrix Strategy for Arabica Coffee Farming Business Development in Manikliyu Village

Evaluation of internal strategic factors consisting of strength and weakness factors is analyzed using the IFAS matrix. Each parameter in the strength and weakness factors is given a weight and rating value, then the score is calculated by multiplying the weight value by the rating value for each internal strategic factor parameter. Next, the main strengths and weaknesses factors that could influence the Arabica coffee farming business in Manikliyu Village were determined. The calculation results are in Table 3. The main strength factors are the unique characteristics of Kintamani coffee, adequate physical environment for cultivating Arabica coffee, as well as knowledge and experience of cultivating Arabica coffee. The main weakness factors are post-harvest processing of Arabica coffee, sales of Arabica coffee are still using the bonded bond system, and Arabica coffee productivity is not yet optimal. In Table 3 it can also be seen that the subtotal strength (S) is 2.69 while the subtotal weakness (W) is 2.17. This illustrates the position where the Arabica coffee farming business in Manikliyu Village is able to use its strengths (S) to cover its weaknesses (W).

Table 3. IFAS Matrix for Arabica Coffee Farming Business Development Strategy in Manikliyu Village

No.	Internal Strategic Factors	Weight	Rating	Score
<b>Strength</b>				
1.	Knowledge and experience of Arabica coffee cultivation	0,14	3,91	0,55
2.	Availability of land to grow Arabica coffee	0,14	3,86	0,53
3.	Superior varieties	0,13	3,77	0,51
4.	Adequate physical environment for Arabica coffee cultivation	0,14	3,94	0,55
5.	Typical characteristics of Kintamani coffee	0,14	3,94	0,55
<b>Subtotal Strength (S)</b>				<b>2,69</b>
<b>Weakness</b>				
1.	Limited labor force to pick Arabica coffee	0,06	1,63	0,09
2.	Post-harvest processing of Arabica coffee	0,06	1,77	0,11
3.	Conventional Arabica coffee cultivation	0,06	1,69	0,10
4.	Sales of Arabica coffee are still based on the bonded bond system	0,06	1,77	0,11
5.	Arabica coffee productivity is not yet optimal	0,06	1,74	0,11
<b>Subtotal Weakness (W)</b>				<b>0,53</b>
<b>Total IFAS Matrix</b>		<b>1,00</b>		<b>2,17</b>

Source: Primary Data, 2024

### EFAS Matrix Strategy for Arabica Coffee Farming Business Development in Manikliyu Village

The strategic factors analyzed using the EFAS matrix are external strategic factors which include opportunity and threat factors in the Arabica coffee farming development strategy in Manikliyu Village. Each parameter in the opportunity and threat factors is given a weight and rating value, then the score is calculated by multiplying the weight value by the rating value for each external strategic factor parameter. Next, the main opportunity and threat factors that could influence Arabica coffee farming in Manikliyu Village were determined. The calculation results based on the EFAS matrix of strategies for developing Arabica coffee farming in Manikliyu Village are as in Table 4, which is the main opportunity, namely the development of the coffee industry and the main threat is the price of coffee which tends to fluctuate and attacks by coffee pests. In Table 4 it can also be seen that the subtotal opportunity (O) is 2.09 and the subtotal threat (T) is 0.80. This can mean that the Arabica coffee farming business in Manikliyu Village is able to overcome threats by taking advantage of the opportunities that this farming business has.

Table 4. EFAS Matrix for Arabica Coffee Farming Business Development Strategy in Manikliyu Village

No.	External Strategic Factors	Weight	Rating	Score
<b>Opportunity</b>				
1.	Development of the coffee industry	0,19	3,83	0,72
2.	Close to the Kintamani tourism area	0,18	3,74	0,69
3.	Arabica coffee marketing partnership	0,18	3,71	0,68
<b>Subtotal Opportunity (O)</b>				<b>2,09</b>
<b>Threats</b>				
1.	Competition between Arabica coffee producing countries	0,08	1,66	0,14
2.	Coffee prices tend to fluctuate	0,09	1,89	0,18
3.	Climate change	0,09	1,83	0,16
4.	Coffee pest attack	0,09	1,89	0,18
5.	Changes in coffee consumer tastes	0,09	1,77	0,15
<b>Subtotal Threats (T)</b>				<b>0,80</b>
<b>Total EFAS Matrix</b>		<b>1,00</b>		<b>1,29</b>

Source: Primary Data, 2024

### SWOT Analysis

The results of the analysis based on the IFAS matrix show that the strength factor (S) has a subtotal score of 2.69 and the weakness factor (W) is 0.53. So if you subtract it the result is 2.16. Meanwhile, opportunities (O) and threats (T) have subtotal scores of 2.09 and 0.80 respectively. Just like strengths (S) and weaknesses (W), if you subtract the result is 1.29. The results of this reduction are placed on the SWOT analysis diagram. The internal strategic factor score becomes a point on the Figure 1.

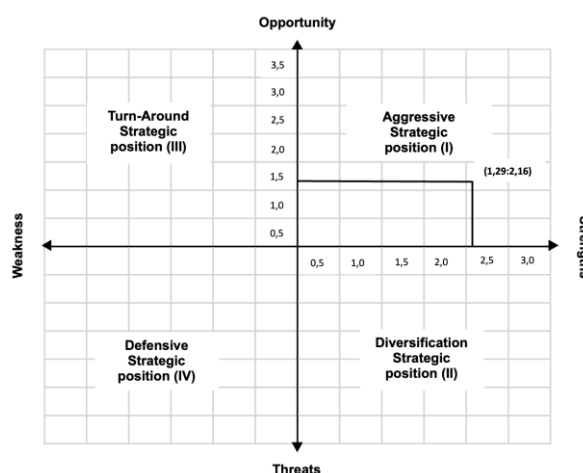


Figure 1. SWOT Analysis Diagram of Arabica Coffee Farming Business Development Strategy in Manikliyu Village  
Source: Primary Data, 2024

In Figure 1, it can be seen that the meeting of internal and external strategic factors is in quadrant I which makes it possible for Arabica coffee farming businesses in Manikliyu Village to implement aggressive strategies to develop their farming businesses by using all their strengths (S) to take advantage of existing opportunities (O).

### SWOT Matrix

The strategy for developing Arabica coffee farming in Manikliyu Village can be carried out using several alternative strategies. Determining alternative strategies is by creating a SWOT matrix that describes how opportunities and threats can be combined with strengths and weaknesses to produce a strategy formulation for the development of Arabica coffee farming in Manikliyu Village as in Table 5 below.

Table 5. Alternative Strategies for Arabica Coffee Farming Business Development in Manikliyu Village

	Strength (S)	Weakness (W)
	<ol style="list-style-type: none"> <li>1 Knowledge and experience of Arabica coffee cultivation</li> <li>2 Availability of land to grow Arabica coffee</li> <li>3 Superior varieties</li> <li>4 Adequate physical environment for Arabica coffee cultivation</li> <li>5 Typical characteristics of Kintamani coffee</li> </ol>	<ol style="list-style-type: none"> <li>1 Limited labor force to pick Arabica coffee</li> <li>2 Post-harvest processing of Arabica coffee</li> <li>3 Conventional Arabica coffee cultivation</li> <li>4 Sales of Arabica coffee are still based on the bonded bond system</li> <li>5 Arabica coffee productivity is not yet optimal</li> </ol>

<b>Opportunity(O)</b>	<b>Strategy (S-O)</b>	<b>Strategy (W-O)</b>
1 Development of the coffee industry	1 Extensification and intensification of Arabica coffee cultivation	1 Mencari sumber tenaga kerja di luar wilayah Kintamani
2 Close to the Kintamani tourism area	2 Develop Arabica coffee plantation tourism	2 Switch to an environmentally friendly coffee cultivation system
3 Arabica coffee marketing partnership	3 Building the Kintamani coffee study center	3 Establish partnerships with Arabica coffee processors and exporters
	4 Shortening the Arabica coffee marketing chain	
<b>Threats (T)</b>	<b>Strategy (S-T)</b>	<b>Strategy (W-T)</b>
1 Competition between Arabica coffee producing countries	1 Cost efficiency of Arabica coffee cultivation	1 Developing efficient Arabica coffee picking technology
2 Coffee prices tend to fluctuate	2 Comprehensively improving the quality of Arabica coffee	2 Selling Arabica coffee in semi-finished form, not wet cherry
3 Climate change	3 Cultivating arabica coffee varieties resistant to pests and climate change	
4 Coffee pest attack	4 Search for information related to consumer tastes and market needs	
5 Changes in coffee consumer tastes		

Based on Table 5 above, alternative strategies resulting from internal and external factors in Arabica coffee farming in Manikliyu Village are as follows.

a. S-O Strategy

This strategy uses internal strength factors to take advantage of external opportunities. Based on the results of the analysis, a strategy was obtained, namely extensification and intensification of Arabica coffee cultivation. This strategy can be carried out by expanding the Arabica coffee cultivation area and using more efficient technology and cultivation practices in order to increase yields per hectare.

b. S-T Strategy

This strategy uses internal strengths to overcome external threats. Based on the results of the analysis, a strategy was obtained, namely cultivating arabica coffee that is resistant to pests and climate change. This strategy can increase arabica coffee production in a sustainable manner and reduce vulnerability to environmental change.

c. W-O Strategy

This strategy minimizes internal weaknesses to obtain external opportunities. Based on the results of the analysis, a strategy was obtained, namely establishing partnerships with Arabica coffee processors and exporters. So this strategy has the potential to provide significant benefits for Arabica coffee farmers in Manikliyu Village in increasing added value, market access, welfare and technical knowledge.

d. W-T Strategy

This strategy reduces internal weaknesses to be able to overcome external threats. Based on the results of the analysis, a strategy was obtained to develop efficient Arabica coffee picking technology. This strategy is to increase productivity and quality of harvest, as well as reduce costs and time required in the picking process. Thus, developing efficient Arabica coffee picking technology aims to increase productivity, quality and efficiency in the harvest process, as well as reducing dependence on human labor. This is an important step in increasing the competitiveness and sustainability of the coffee industry.

## 5. CONCLUSION

There are five internal strategic factors consisting of the strengths and weaknesses of the Arabica coffee farming business in Manikliyu Village. Based on the results of the IFAS matrix analysis, the main strength factors are the unique characteristics of Kintamani coffee, adequate physical environment for cultivating Arabica coffee, as well as knowledge and experience of cultivating Arabica coffee. Meanwhile, the main weakness factors are post-harvest processing of Arabica coffee, sales of Arabica coffee are still using the bonded bond system, and Arabica coffee productivity is not yet optimal.

External strategic factors consisting of opportunities and threats for Arabica coffee farming in Manikliyu Village include 3 opportunity factors and 5 threat factors. Based on the results of the EFAS matrix analysis, the strategy for developing Arabica coffee farming in Manikliyu Village is the main opportunity, namely the development of the coffee industry and the main threat is the price of coffee which tends to fluctuate and attacks by coffee pests.

The strategy that can be used by Arabica coffee farming businesses in Manikliyu Village obtained from the SWOT analysis is an aggressive strategy in quadrant I which allows this Arabica coffee farming business to continue to be developed. There are several alternative strategies that can be used in efforts to develop Arabica coffee farming businesses in Manikliyu Village using the SWOT matrix, namely extensification and intensification of Arabica coffee cultivation, cultivating OPT and climate change resistant Arabica coffee, establishing partnerships with Arabica coffee processors and exporters, and developing technology. Efficient Arabica coffee picking.

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