

# Agricultural Development in Coffee Farming (*Coffea. Sp*) in Payung Village Karo Regency

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## Abstracts

Karo coffee is a leading commodity in Karo Regency with potential to be developed. The aim is to analyze the internal and external factors that influence the development of coffee farming (*Coffea. sp*) in Payung Village, Karo Regency. The data analysis method used is SWOT analysis. The results of the research are internal factors of strength, namely: natural resources, land potential, coffee farmer experience and coffee taste. Internal factors of weakness are: the absence of coffee processing machines, coffee farmer groups and coffee instructors and farming capital. External factors of opportunity are: coffee drinking culture, technological developments, information and communication, coffee demand, coffee marketing and coffee bean quality. External threat factors are: pest attacks, the existence of dragon fruit farming, climate change. The dominant strategies in developing coffee farming include: utilizing the experience of coffee farmers and planning to strengthen farming capital so that it can meet market demand.

**Keywords:** Development of coffee farming

## Introduction

Coffee plants are one of the main agricultural commodities in Indonesia. The coffee industry has a large capacity to absorb labor. Therefore, to obtain good quality coffee beans, proper post-harvest handling is required by carrying out each stage correctly [1]. Coffee is a plantation commodity that has quite high economic value among other plantation crops and plays an important role as a source of foreign exchange for the country. The success of coffee agribusiness requires the support of all parties involved in the coffee production process, processing and marketing of coffee commodities [2].

To obtain high production, farmers must be careful in using farming production factors which are related to the level of production and income received by farmers. Farmers must maximize production and also have an interest in keeping production costs as low as possible by taking into account current market conditions, so that this can be called an efficient and profitable farming business. Coffee farming management activities aim to increase the amount of production so that the profits obtained by farmers also increase, which in turn increases the farmers' income [3]. People's coffee farming is expected to be able to make a significant

contribution to the improvement and welfare of farmers in Payung Village. Until now, this farming business is still running as their livelihood, which is a livelihood that has been passed down for generations in Payung Village.

In North Sumatra there are several districts that cultivate coffee, one of which is Karo District. Almost all areas (subdistricts and villages) are engaged in coffee farming. This is because the environment really supports the growth of coffee. Coffee farmers developed in 1998, but only a few were developing coffee plants at that time. In early 2000, coffee farmers began to grow rapidly until now [4].

Arabica coffee farming in Karo Regency has its own competitiveness and advantages. For the government, in order to increase the competitiveness of the coffee commodity in Karo Regency, it is hoped that it can increase the volume of Arabica coffee production by expanding the area of Arabica coffee plants and facilitating the provision of superior seeds, coffee processing industry, and better export strategies to increase the competitiveness of the coffee commodity in Karo [5]

The main aim of SWOT analysis is to find crucial aspects of the strengths, weaknesses, opportunities and threats experienced by a company. These four aspects are useful for increasing strengths, reducing weaknesses, building better opportunities, and avoiding threats that may occur in the future. Several experts also proposed the purpose of implementing SWOT analysis. SWOT analysis is not to find solutions, but rather to illustrate the situation currently occurring in the business [6].

One of the most popular ways to create a SWOT analysis is to represent strengths, weaknesses, opportunities and threats visually. SWOT matrix is great for gathering information and documenting questions to make decisions. Not only is it useful for future references, but it's also great for visualizing emerging patterns. Matrices can be a great tool for evaluating an organization's strengths and weaknesses when used correctly and effectively. After creating the matrix, you can focus on implementing the opportunities found.

The EFE Matrix is used to analyze the external environment to produce factors that become opportunities and threats. The EFE Matrix is used to summarize and evaluate economic, social, cultural, demographic, environmental, political, government, legal, technological and competitive information. Likewise, the IFE Matrix is used to analyze the internal environment to produce factors that become strengths and weaknesses for the company. This tool summarizes and evaluates the main strengths and weaknesses in various functional areas of a business.

## **Research Methodology**

This research was carried out in Payung Village, Payung District, Karo Regency, North Sumatra Province. Observed parameters:

- a. Internal factors in coffee farming in Payung Village, Karo Regency
- b. External factors in coffee farming in Payung Village, Karo Regency

The population in this study were coffee farmers in Payung Village, Payung Regency. The data used in this research includes primary data and secondary data. Primary data was obtained through interviews and filling out questionnaires by respondents. Secondary data collected is physical land resource data, human resource data. The data collection method was carried out

by survey. The data analysis method used to explain problem identification is descriptive analysis, namely the SWOT matrix.

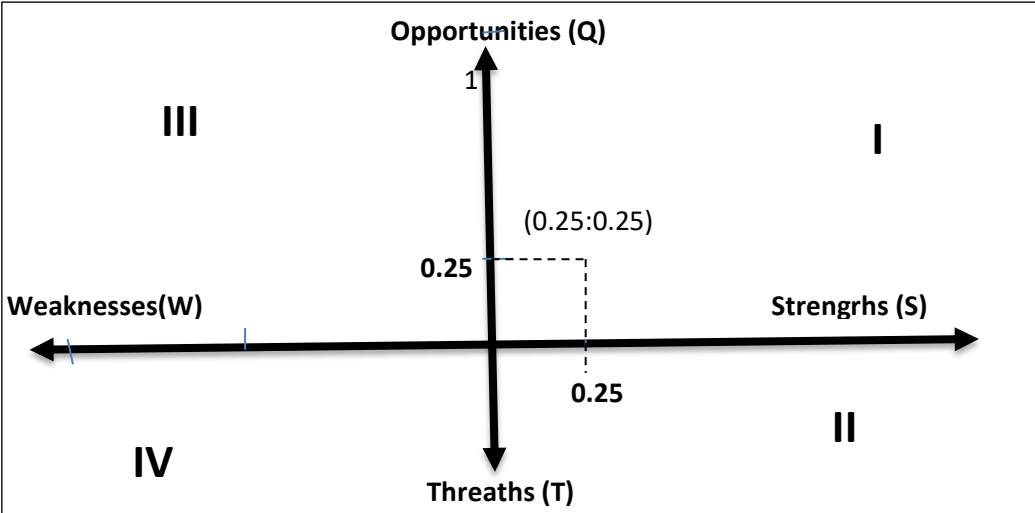
**Results**

Internal factors that are strengths and weaknesses in developing coffee farming in the research area in Payung village are: strength factors (natural resources, land potential, experience of coffee farmers and taste of coffee). Meanwhile, weakness factors (no coffee processing machines, coffee farmer groups, coffee instructors, and coffee farming capital).

External factors that become opportunities and threats in the development of coffee farming are opportunity factors (coffee drinking culture, ICT developments, coffee demand, coffee marketing, coffee bean quality parameters). Meanwhile, threat factors (pest and disease attacks, dragon fruit farming, climate change).

The results of identifying internal factors which include strengths and weaknesses as well as external factors which include opportunities and threats are arranged in the IFAS and EFAS tables. Scores are given to each internal and external strategic factor to show how effectively respondents respond to strategic factors. The difference between the total strength and weakness scores is 0.25 or positive ( $x \geq 0$ ), which means that the strength aspect is greater than the weakness aspect in developing coffee farming in the Payung village area, Payung District. Furthermore, the most dominant strength factor is the experience of coffee farmers with value 0.40, while the most dominant weakness factor is coffee farming capital with a value of 0.30. Shows that the difference between the total score of opportunities and threats is 0.25 or positive ( $x \geq 0$ ), which means that the opportunity aspect is greater than the threat aspect in developing coffee farming in the Payung village research area, then the most dominant opportunity factor is Demand. coffee with a value of 0.25, while the most dominant threat factors are pest attacks and climate change with a value of 0.35.

The strategy to increase the development of coffee farming is carried out by creating a SWOT matrix. The SWOT matrix is built based on internal factors (strengths and weaknesses) and external factors (opportunities and threats). After calculating the weight of each internal and external factor, it was then analyzed using a position matrix to see the position of the coffee farming development strategy in the research area. The obtained value of  $Y > 0$  is 0.25 and the value of  $X > 0.25$ . The position of the coordinate point can be seen in Cartesian coordinat.



## Figure 1. SWOT Quadrant Strategy for Coffee Farming Development Strategy in Payung Village

### Conclusion

1. Internal factors for the development of coffee farming in Payung Village in the research area are as follows:
  - a. Internal factors of strength are: natural resources, land potential, coffee farmer experience and coffee taste. The dominant force influencing the development of coffee farming is: the experience of coffee farmers
  - b. Internal factors of weakness are: the absence of coffee processing machines, coffee farmer groups and coffee instructors and farming capital. The dominant weakness influencing the development of coffee farming is: farming capital.
2. External factors for the strategy for developing coffee farming in Payung Village in the research area are as follows:
  - a. External factors of opportunity are: coffee drinking culture, technological developments, information and communication, coffee demand, coffee marketing and coffee bean quality. The most dominant opportunity is the demand for coffee.
  - b. External threat factors are: pest attacks, the existence of dragon fruit farming, climate change. The most dominant threats are pest attacks and climate change.

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