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To cite this article: N. M. N. Z. Widiyanti *et al* 2022 *IOP Conf. Ser.: Earth Environ. Sci.* **1107** 012042

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Development strategy of Marigold flower farming integrated with Trigona bees in the ecotourism area of ancient tree “kayu putih”

N. M. N. Z. Widiyanti¹, N. P. Sukanteri², P. K. Suparyana¹, E. Wahyuningsih³,
M. Syaputra³, and A. T. Lestari³

¹Department of Agricultural Socio-Economic, Faculty of Agriculture, University of Mataram, West Nusa Tenggara, Indonesia

²Department of Agribusiness, Faculty of Agriculture and Business, University of Mahasaraswati Denpasar, Bali, Indonesia

³Department of Forestry, Faculty of Agriculture, University of Mataram, West Nusa Tenggara, Indonesia

E-mail: pandesuparyana@unram.ac.id

Abstract. Marigold flower farming community is a group of farmers who carry out the processing production of marigold flower agricultural products. This study was to identify internal and external conditions, as well as determine strategies that can be used in developing an integrated marigold flower farm with Trigona bees. This research was conducted in the "Kayu Putih" Ancient Tree Ecotourism Area at Tabanan Regency in the Gunitir Flower Farmer Community, with a total of 26 respondents. The alternative strategy formulation process goes through two stages, namely: The data collection stage; and the Analysis phase. Based on the research results, the internal conditions in the development of Integrated Marigold Flower Farming with Trigona Bees are the availability of production facilities, short marketing chain, Religious facilities, Health products, lack of manpower, lack of skills, cultivation knowledge. While the external environment in the development of Marigold Flower Farming Integrated with Trigona Bees, namely: local government attention; establishing partnership relationship; development of technology and information; There are lots of bee-feeding flowers; competitive product price; changes in the weather; pest attack; Decreased tourist visits. These results place this farm in the position of cell V. The strategy used in cell V is a hold and maintain strategy. This strategy can be done through sales promotion with social media or extensive sales promotion, for example, by providing additional bonus products for purchases in large quantities and providing tour packages by adding flower and honey harvesting activities in the garden. Another strategy that can be done is to provide better services, such as continuous product availability, consistent product quality, timely and ordered delivery, and friendliness to customers and tourists when buying and visiting the Ecotourism Area of Ancient Tree “Kayu Putih”.

1. Introduction

In the implementation of agriculture in Indonesia, there are problems that need to be handled to overcome these problems. The form of handling carried out by the government is to form farmer groups



to facilitate the process of coaching and counseling agricultural activities. This activity is expected to improve the welfare of farmers.

In addition to agriculture, the tourism sector is a leading sector in providing additional income for farmers. Tourism is one sector that has an impact on the economy and the environment in areas that have tourism potential. Indonesia, which is an archipelagic country, has many potential areas for natural and cultural tourism. One of them is the island of Bali which is famous for its culture and natural beauty. The charm of the island of Bali is not only in the form of beautiful beaches, terraced rice fields, lakes, and waterfalls scattered in several locations, and there are also several unique tourist objects that have their own charm. The issuance of Domestic Regulation Number 33 of 2009 concerning Guidelines for Regional Ecotourism Development provides opportunities for regions to develop ecotourism potential in the region [1]. The principles of ecotourism development include conservation, economics, education, community participation, accommodating local wisdom, and providing satisfaction and experience to visitors [2]. In this regulation, it is explained that ecotourism is the potential of natural resources, the environment, as well as the uniqueness of nature and culture, which can be one of the leading sectors that have not been developed optimally [2]. One of the unique ecotourism objects in Bali is the presence of a giant wooden tree that grows firmly in the Banjar Bayan area, Tua Village, Marga District, Tabanan Regency. The tree that the local community calls the Ancient Tree "Kayu Putih" is estimated to be hundreds of years old [3].

Marga District is a strategic area because it is one of the potential agricultural areas in Tabanan Regency. Besides that, tourism potential is also a leading activity in the Marga sub-district, especially agro-tourism and ecotourism activities supported by agricultural areas and beautiful natural resources. Marga District consists of 16 villages, one of which is Tua village. Farming groups in Tua village are very productive in carrying out their farming activities. This can be seen from the second highest harvested area in Marga District, which is 372 hectares [4]. The Banjar Bayan area is one of the neighborhoods in the Tua Village. Where Banjar Bayan has the agricultural and tourism sectors which are the main activities of the surrounding community. With the existence of ecotourism activities that can support the agricultural sector, it will provide the surrounding community with increased welfare. Of course, ecotourism activities that are integrated with agricultural activities need good management in their management. One of the agricultural activities carried out in Banjar Bayan is Marigold flower cultivation which will be integrated with trigona bee cultivation to attract tourists to visit this tourist area.

Agricultural management problems that commonly occur in addition to decreasing production potential, other problems that can arise in ecotourism areas are a decrease in tourist visits, marketing of production products, and environmental degradation. This can affect the quantity of farmers' production. Internal factors and external factors of farm management have an influence on agricultural activities in the Banjar Bayan ecotourism area. Effective and appropriate farming development strategies can have a positive influence on the social and economic conditions of the community, especially farmers in ecotourism areas. This situation will ensure that the sustainability of farming management can be implemented and managed in an integrated manner.

The internal environmental analysis provides an illustration that farmers have strengths or weaknesses in the areas of group management, group operations, marketing, distribution, human resource organization, finance, and accounting. The purpose of doing an internal analysis is to get the strength factors that will be used and the weakness factors that will be anticipated. External environmental analysis is an analysis composed of a set of forces that arise and are beyond the reach and are usually independent of the farmer's operational situation. External environmental analysis factors consist of social, economic, technological, and government [5].

The development of a business is influenced by management in the organization. Organizations play a role in determining strategies for managing their business. The work targets that are the goals of the organization are carried out based on a predetermined basis to carry out the development strategy. So that an assessment is needed to measure the strengths and weaknesses in an effort that can be used for organizational improvement in the future. This is necessary to face increasingly strong business

competition. With various problems and obstacles faced by farmers in developing their business, it is necessary to conduct research to examine the strategy of Marigold Flower Farming Integrated with Trigona Bees in The Ecotourism Area of Ancient Tree “Kayu Putih”.

2. Research methods

2.1. Research location and time

This research was conducted in Banjar Bayan, Tua Village, Marga District, Tabanan Regency on Marigold flower farming. The selection of this Marigold flower farming was done purposively, the researchers chose this Marigold flower farming with the consideration that this Marigold flower farming is a flower cultivation activity carried out in Banjar Bayan, which carries out planting of Marigold flowers and based on the potential possessed in Banjar Bayan in ecotourism development in the Tua Village. The time of this research was carried out from October to December 2021.

2.2. Research respondents

Respondents in this study amounted to 26 respondents consisting of 20 respondents Marigold farmers, five respondents Marigold flower collectors, and 1 respondent ecotourism leader in Banjar Bayan. The selection of respondents in this study was carried out by purposive sampling method, this technique was used with the consideration that the respondents selected were the subject of actors related to activities in the development of Marigold Flower Farming Integrated with Trigona Bees in The Ecotourism Area of Ancient Tree “Kayu Putih”.

2.3. Data analysis

This research is descriptive research with a strategic management approach. The alternative strategy formulated in the developing Marigold Flower Farming Integrated with Trigona Bees in The Ecotourism Area of Ancient Tree “Kayu Putih” was carried out using a matrix. The alternative strategy formulation process goes through two stages, namely: 1) Data collection stage (Input Stage) using the Internal Factor Evaluation (IFE) and External Factor Evaluation (EFE) matrices, and 2) The analysis stage (Matching Stage) using the Internal External (IE) matrix [6].

3. Results and discussion

3.1. IFE and EFE Matrix

The results of the calculation of internal and external factors for the strategy of developing Marigold Flower Farming Integrated with Trigona Bees in The Ecotourism Area of Ancient Tree “Kayu Putih” can be seen in Tables 1 and 2. Based on Table 1, the strength factor that is expected to able to minimize the weakness factor in the development of Marigold Flower Farming Integrated with Trigona Bees in The Ecotourism Area of Ancient Tree “Kayu Putih” is the availability of production facilities. These factors get the highest score obtained, namely 0.51, with a weight of 0.14 and a rating of 3.73. The strength factor with the lowest score is the short marketing chain, with a score of 0.39. The internal weakness faced in the development of Marigold Flower Farming Integrated with Trigona Bees in The Ecotourism Area of Ancient Tree “Kayu Putih” is the largest lack of skills and knowledge of cultivation with a score of 0.37. The lowest internal weakness factor is the lack of manpower, with a score of 0.40. The factor that becomes the main force in the development of Marigold Flower Farming Integrated with Trigona Bees in The Ecotourism Area of Ancient Tree “Kayu Putih” is the availability of production facilities. The availability of production facilities is the main need of the farmers and the farm. The availability of appropriate production facilities will be able to help the productivity of farmers. Limited production facilities will limit farmers from carrying out agricultural cultivation so that they cannot provide optimal results [7] with the availability of production facilities that have higher technology so that they can be used to obtain honey with a low water content that has better quality [8].

The main weakness in developing Marigold Flower Farming Integrated with Trigona Bees in The Ecotourism Area of Ancient Tree “Kayu Putih” is the lack of skills and knowledge of cultivation. To overcome these weaknesses, it is necessary to provide training and counseling to all members of farmers regarding good management and production of cultivation in conducting Marigold Flower Farming Integrated with Trigona Bees. This is in line with research conducted by Suparyana [9], which states that the low quality of human resources can be overcome by providing training and counseling to all members.

Table 1. IFE Matrix Development of Marigold Flower Farming Integrated with Trigona Bees in The Ecotourism Area of Ancient Tree “Kayu Putih”.

No	Internal Strategy Factors	Weight	Rating	B x R
A	Strength:			
1	availability of production facilities	0.14	3.73	0.51
2	short marketing chain	0.13	2.96	0.39
3	Religious facilities	0.14	2.88	0.42
4	Health products	0.13	3.54	0.45
B	Weakness:			
1	lack of manpower	0.14	2.81	0.40
2	lack of skills	0.16	2.35	0.37
3	cultivation knowledge	0.16	2.38	0.37
Total		1.00		2.92

Source: primary data (2021)

Based on Table 2, that the best opportunity factor in the development of Marigold Flower Farming Integrated with Trigona Bees in The Ecotourism Area of Ancient Tree “Kayu Putih” is that there are lots of flowers to feed bees. These factors get the highest score obtained, namely 0.45, with a weight of 0.14 and a rating of 3.27. The opportunity factor with the lowest score is the development of technology and information with a score of 0.33.

Table 2. EFE Matrix Development of Marigold Flower Farming Integrated with Trigona Bees in The Ecotourism Area of Ancient Tree “Kayu Putih”.

No	External Strategy Factors	Weight	Rating	B x R
A	Opportunity:			
1	local government attention	0.13	3.27	0.43
2	establish partnership relationship	0.13	3.23	0.43
3	development of technology and information	0.12	2.81	0.33
4	There are lots of bee-feeding flowers	0.14	3.27	0.45
B	Threat:			
1	competitive product price	0.15	1.73	0.26
2	changes in the weather	0.08	2.69	0.22
3	pest attack	0.12	1.85	0.22
4	Decreased tourist visits	0.13	2.35	0.31
Total		1.00		2.64

Source: primary data (2021)

The highest threat factors faced in the development of Marigold Flower Farming Integrated with Trigona Bees in The Ecotourism Area of Ancient Tree “Kayu Putih” are weather changes and pest

attacks, which have a score of 0.22. The lowest threat factor is tourist visits decreased with a score of 0.31.

A good opportunity factor in the development of Marigold Flower Farming Integrated with Trigona Bees in The Ecotourism Area of Ancient Tree “Kayu Putih”, there are lots of flowers to feed bees. A lot of bee feed available around the beekeeping area can provide more results from honey production. So this will provide maximum income for farmers apart from interest income. This integration is very helpful for farmers in increasing farmers' income. This opportunity must be maintained by continuing to cultivate Marigold flowers. Maintaining the area of bee feed plants is the right strategy for increasing honey production [10].

The big threat factors in the development of Marigold Flower Farming Integrated with Trigona Bees in The Ecotourism Area of Ancient Tree “Kayu Putih” are weather changes and pest attacks. To overcome this, knowledge related to the management of Marigold flower and trigona bee cultivation is needed. Research conducted by Andelia [11] stated that the solution to dealing with the threat of pest attacks, production yields can decrease if using inputs that are not superior. Therefore, superior and pest-resistant inputs are needed and provide organic fertilizer in case of pest attack. While pests in beekeeping are ants that usually attack honey bee nests because ants like sweet things, this results in competition for food and honey in the colony [10].

3.2. IE Matrix

The function of using the IE Matrix is to determine the current position of Marigold Flower Farming Integrated with Trigona Bees in The Ecotourism Area of Ancient Tree “Kayu Putih”. The choice of strategy is largely determined by the mapping of the position of this farm. Based on the IFE matrix analysis, a total score of 2.92 and the total EFE score was obtained of 2.64.

From the two matrices, namely IFE and EFE, then they are combined in the IE matrix. These results place this farm in the position of cell V. The strategy used in cell V is a hold and maintain strategy. Market penetration and product development are two strategies that are suitable for use in this area [5]. This farming IE matrix can be seen in Figure 1.

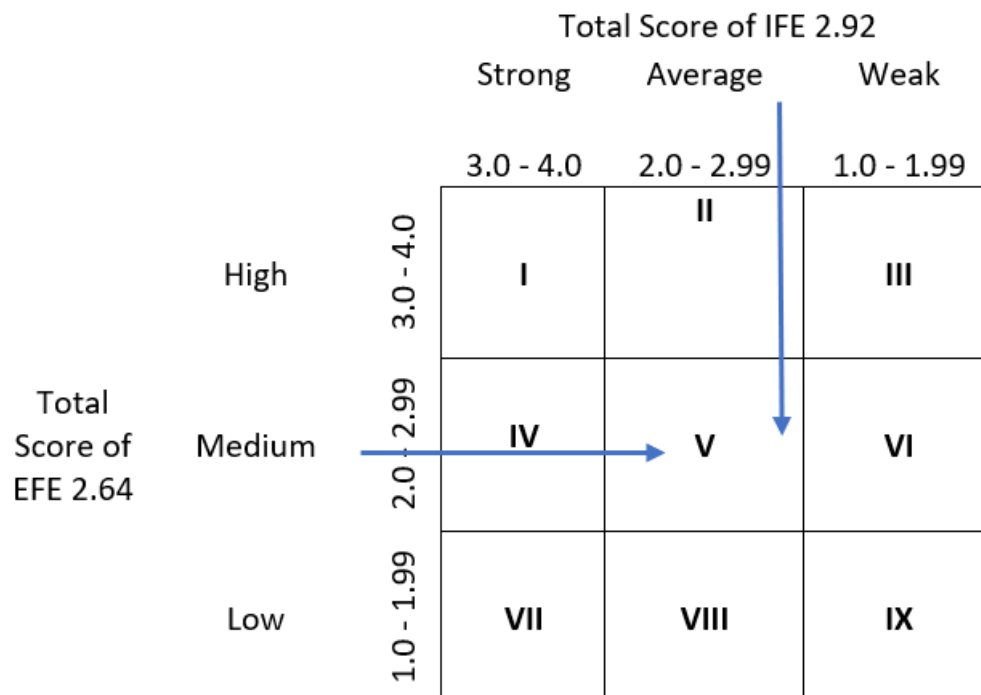


Figure 1. IE Matrix Development of Marigold Flower Farming Integrated with Trigona Bees in The Ecotourism Area of Ancient Tree “Kayu Putih”.

Market penetration strategy is an effort to increase market share or market share of a product or service that is already in the market through more intensive marketing [5]. Market penetration includes increasing the number of salespeople, offering extensive sales promotions, or increasing publicity efforts. To increase the market share of Marigold flower products and trigona honey, this farm can carry out a strategy by stimulating customers or tourists to buy more products or increasing the number of salespeople (distributors). This strategy can be done through sales promotion with social media or extensive sales promotion, for example, by providing additional bonus products for purchases in large quantities and providing tour packages by adding flower and honey harvesting activities in the garden. Another strategy that can be done is to provide better services, such as continuous product availability, consistent product quality, timely and ordered delivery, and friendliness to customers and tourists when buying and visiting the Ecotourism Area of Ancient Tree “Kayu Putih”. One of the strategies suggested in Kurnia [12] research related to honey marketing are finding marketing partnership and creating a clear marketing system

A product development strategy is a strategy to increase sales by improving and modifying existing products or services [5]. The product development strategy is carried out with the aim of increasing competitiveness. Product differentiation by expanding the product line to be sold, both in terms of variety, shape, and quality of packaging, which will have an impact on the increasing number of choices offered to consumers and tourists so that consumers and tourists feel satisfied. Activities like branding and packaging also became feasible and enabled beekeepers to fetch higher prices through the intervention of an organization working collectively on issues [13,14].

4. Conclusions and recommendations

4.1. Conclusions

The internal conditions in the development of Integrated Marigold Flower Farming with Trigona Bees are the availability of production facilities, short marketing chain, Religious facilities, Health products, lack of manpower, lack of skills, and cultivation knowledge. While the external environment in the development of Marigold Flower Farming Integrated with Trigona Bees, namely: local government attention; establishing partnership relationship; development of technology and information; There are lots of bee-feeding flowers; competitive product price; changes in the weather; pest attack; Decreased tourist visits. These results place this farm in the position of cell V. The strategy used in cell V is a hold and maintain strategy. This strategy can be done through sales promotion with social media or extensive sales promotion, for example, by providing additional bonus products for purchases in large quantities and providing tour packages by adding flower and honey harvesting activities in the garden. Another strategy that can be done is to provide better services, such as continuous product availability, consistent product quality, timely and ordered delivery, and friendliness to customers and tourists when buying and visiting the Ecotourism Area of Ancient Tree “Kayu Putih”.

4.2. Recommendations

Suggestions that can be given by looking at the situation in Marigold Flower Farming Integrated with Trigona Bees in The Ecotourism Area of Ancient Tree “Kayu Putih” are better to hold and maintain strategy. This strategy can be done through sales promotion with social media or extensive sales promotion, for example, by providing additional bonus products for purchases in large quantities and providing tour packages by adding flower and honey harvesting activities in the garden. Another strategy that can be done is to provide better services, such as continuous product availability, consistent product quality, timely and ordered delivery, and friendliness to customers and tourists when buying and visiting the Ecotourism Area of Ancient Tree “Kayu Putih”.

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