Strategy of Cocoa-Based Agrotourism Development in Melaya District Jembrana Regency

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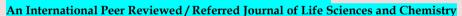### I Gusti Ayu Widari Upadani, Dwi Putra Darmawan, Wayan Windia and I Ketut Suamba

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I.G.A.W. Upadani
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Strategy of Cocoa-Based Agrotourism Development in Melaya District Jembrana Regency

I Gusti Ayu Widari Upadani, *Dwi Putra Darmawan,
***Wayan Windia and I Ketut Suamba**
Doctoral Study Program of Agricultural Science, Udayana University, Bali, Indonesia
***Faculty of Agricultural, Udayana University, Bali, Indonesia**

ABSTRACT

The purpose of this study was to choose a strategy for developing cocoa commodity-based agrotourism in Melaya District, Jembrana, Bali Province. The hybrid SWOT-ANP model was chosen as a decision model to built of the agrotourism development strategy. This model allows the existence of dependencies and feedback, both between elements in the cluster (inner dependence) and between clusters (outer dependence). The research found that the choice of the strategy for developing the best cocoa-based agrotourism is the highest priority strategy, namely agrotourism product development (priority 0.39), followed by success in agro-tourism marketing (priority 0.19), increased agrotourism competency (0.18), strategic partnership (0.17), and development of agrotourism facilities and infrastructure (0.14). Continuously, it is necessary to do a model validation in order to produce a comprehensive model of cocoa commodity-based agrotourism development in Jembrana Regency.
Keywords: Strategy, Cocoa Farmers, Agrotourism, SWO-ANP Hybrid Model and Jembrana Regency.

INTRODUCTION
Globalization causes the domestic market to be tightly integrated with regional and international markets, and forces every country, including Indonesia, to open all obstacles and remove all forms of protection. This means that the domestic agricultural products business is forced to compete with global products. Indonesia's biodiversity is ranked third in the world. Abundant natural wealth can be used as a source of nutrients and/or tourist areas. Similarly, the agro-climate conditions have the potential to develop various agricultural commodities by implementing an appropriate land management system. The uniqueness is an asset that can attract other nations to visit/travel to Indonesia (Yoeti, 2000). The tourism sector has become a potential foreign exchange earner. The tourism sector is able to become the largest contributor to the country's foreign exchange in the non-oil and gas sector. Development of tourism in Indonesia and abroad in the last decade has shown a tendency to increase. Service consumption shows that traveling for some people in developed countries and Indonesian society has become one of the needs as a consequence of increasing aspirations and welfare. The law on regional autonomy has the consequence that the regions are given the authority to regulate and manage the interests of the local community according to their own principles based on the aspirations of the community.

For this reason, carefulness is needed in seeing the potential of the mainstay, the ability to take advantage of the opportunities and capabilities of the organization in mobilizing existing resources so that the area can truly be independent. At present, tourism in Bali has become an integral part of the lives of Balinese people. Over the past few decades, tourism has become a driving force for economic development as well as being a socio-cultural locomotive of local communities (Pitana, 2002). The tourism sector is one of the industries that has a major impact on Bali's economic growth. Of Bali's GRDP of Rp. 73,478.16 billion, the contribution of the trade, hotel and restaurant sector is 30.62% (Anonymous, 2011). Although Bali is known as one of the most famous tourist destinations in the world, however, the development of agrotourism that synergizes tourism and agriculture has not developed well in several districts/cities. According to Rai et al., (2017) the development of integrated tourism with agriculture (agrotourism) needs to be encouraged so that the progress of tourism can be enjoyed, both directly and indirectly by rural communities, so as not to diminish agricultural development and agrarian culture.

One of the districts in Bali that began to develop an agrotourism program was Jembrana Regency. This district, besides being known as an area that has a lot of very famous attractions, such as Rambut Siwi Temple, Gilimanuk Port, Pulaki Temple and Jayaprana Cemetery, also has potential in agriculture and plantations. Jembrana Regency is an area that has the highest cocoa plantation area of 6,259 trees out of 12,796 hectares of cocoa in Bali Province. Jembrana is regency that has a number of cocoa farmers, which is equal to 12,804 households in 2015. Nusasari Village, Candikusuma Village, and Tuwed Village are villages that include Melaya District, Jembrana Regency. Most of the people, their livelihood as cocoa farmers that need to be packaged, made into products, objects and tourist attractions. The main form of agro-tourism activities that can be used as agrotourism products in accordance with the potential of tourism objects, land suitability, and local government regulations, for example: grains, secondary crops, tubers, vegetables and fruits, plantations, fisheries, forests and livestock. Agrotourism can expand knowledge, experience, recreation and business relations in agriculture, increase farmers' income and maintain culture such as local technology that is generally in accordance with the conditions of their natural environment (Betrianis, 1996). However, currently there are still gaps in the development of agrotourism in Jembrana Regency compared to other regions in Bali, mainly in the attraction of tourism and marketing objects, as well as partisanship for community empowerment, especially farmers. It is interesting to conduct research regarding the development of the main activities of cocoa-based agrotourism, namely agro-recreation, agribusiness, and agro-scientific, strengthening the proposition of the value of cocoa-based agrotourism objects in Melaya, Jembrana, including support for tourism facilities to utilize the potential of farmers. The objectives of this study are (a) to analyze internal and external environmental factors, and to formulate alternative agro-tourism development strategies; (b) choose a development strategy and make a model for developing cocoa-based agrotourism in Melaya District, Jembrana Regency.

MATERIAL AND METHODS

This research was conducted in Melaya District, Jembrana Regency. This area is an agrotourism area that has strategic potential to be developed. The study was conducted in December 2017-May 2018.

Critical review of published relevant reports and field observations is a reference for analysis of the need for development of cocoa-based agro-tourism, as well as plans for its fulfillment strategies in Melaya District, Jembrana Regency. Data are grouped on primary and secondary data with regard to the development of canvas business models, annual reports, and relevant references, expert opinion preferences, and using consensus methods in setting valuations. Data collection is in accordance with the research objectives using the Appreciative Inquiry method, referring to rapid research commensurate with the Rapid Rural Appraisal (RRA) method and in-depth interviews and direct observation and holding participatory workshops commensurate with Sigma-5-based Interactive Management (IM) (facilitator, demossively/situation room, computer, consensus methodology, and participant/expert group) and peer review a well-documented root cause process to select the appropriate system development elements as well as develop plans (Warfield and Cardenas, 1994; Darmawan, 2017).

A total of 77 respondents were chosen purposively to make a model for developing cocoa-based agrotourism consisting of elements of the local government, c.q. Department of Agriculture, Disperindag, UMKM Service, DPRD, Academics, traders/exporters, cocoa processors, consumers, and practitioners in the field of commodity-based agrotourism. Selection of the best strategy priority for the development of cocoa-based agrotourism in Melaya District, Jembrana Regency applies the ANP (Analytical Network Process) model. The analysis begins by identifying the strengths and weaknesses of the agro-tourism area in Melaya District, Jembrana Regency. These factors were evaluated using the IFAS (Internal Strategic Factors Analysis Summary) matrix, while external analysis was used to identify opportunities and threats, such as economic, social, cultural, demographic, political, legal, technological, and competitive. External factors have a direct or indirect influence on agrotourism areas. In this case EFAS (External Strategic Factors Analysis Summary) matrix is used (Rangkuti, 2000 and David, 2000). The SWOT matrix (strengths, weaknesses, opportunities, and threats) is a continuation of an internal-external situation analysis. Internal factors in the form of factors of strength and weakness combined with external factors in the form of opportunities and threats. This combination will produce alternative strategies for agro-tourism development. Furthermore, together with the main problems in the development of agrotourism identified through independent interviews are used as inputs in the developed ANP (Analytical Network Process) model (called the integration model or hybrid SWOT-ANP model) to obtain the best priority for the development of cocoa-based agrotourism in Jembrana. ANP is a network analytical framework that has been widely applied in decision making for companies, governments, and society (Astiti et al., 2018). ANP allows an analyst to include all factors and criteria, both tangible and intangible, regarding the best decision-making systems development. ANP allows for dependencies and feedback, both in clusters (inner dependence) and between clusters (outer dependence). Feedback can capture the influence of interactions, especially when decision makers are faced with risks and uncertainties in a complex business environment. ANP has three parts, namely strategic criteria, control criteria, and decision networks that determine alternative priority decisions. Priority of strategic criteria and control criteria is used to synthesize alternative priorities to obtain the best final answer. Supermatrix, with all its advantages, is a fundamental tool in ANP (Saaty, 2001; Saaty and Vargas, 2006; Darmawan, 2018). Data obtained from expressions of preference comparison in pairs of stakeholders in the Interactive Management (IM) session were processed using Super Decisions v.3.0. The IM session results were used as input to form the SWOT-ANP hybrid model for the development of cocoa commodity-based agro-tourism, including engineering a relationship of dependence and feedback between each cluster in the model as an integrated solution to the development of cocoa-based agrotourism in Jembrana. The SWOT-ANP integration model has four clusters, namely agro-tourism development, business environment (has 2 elements), problems (5 elements), and alternative strategies (5 elements).

RESULTS AND DISCUSSION
Determined of alternative strategies with the SWOT Matrix
The strength of cocoa-based agrotourism in Melaya district, Jembrana Regency are the life style and cultural values of society, characteristics of cocoa agrotourism, type of business of local communities, acceptance of the community, geographical location of tourism objects, management of natural resources, and tourism savety, while weaknesses are facilities and infrastructure, community collective business institutions, agro-tourism human resources quality, business independence, and partnership contracts. Cocoa commodity-based agrotourism opportunities in Jembrana are policies of Indonesian and local government, developments in production and processing technology, alternative tourism needs, and the arrivals of tourists/visitors, while threats are other tourism objects and economic growth. Alternative development strategies formulated using the SWOT matrix are as follows: (a) Strengths-Opportunities (S-O) strategy is the development of agrotourism products; (b) Strengths-Threats (S-T) strategy, namely strengthening agrotourism marketing; (c) the strategies of Weaknesses-Opportunities (W-O), which include of (i) the development of facilities and (ii) improvement in the capabilities of agro-tourism human resources; (d) The strategy of Weaknesses-Threats (W-T) is a strategic partnership strategy.

A summary of the analysis of internal (IFAS) and external (EFAS) strategic factors as well as the SWOT Matrix to obtain an alternative strategy for developing cocoa-based agrotourism areas in Melaya District, Jembrana Regency is presented in Fig. 1.
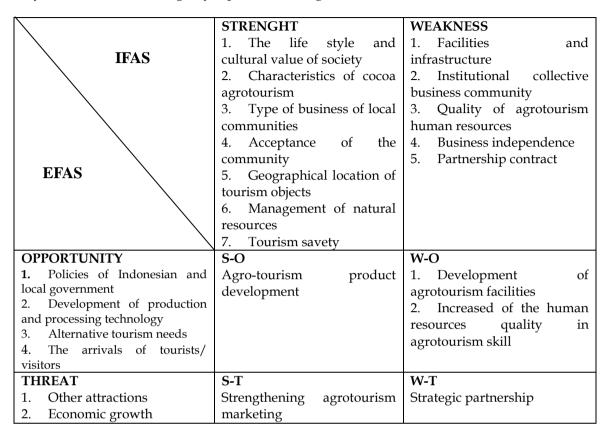
IFAS / EFAS	STRENGHT 1. The life style and cultural value of society 2. Characteristics of cocoa agrotourism 3. Type of business of local communities 4. Acceptance of the community 5. Geographical location of tourism objects 6. Management of natural resources 7. Tourism savety	WEAKNESS 1. Facilities and infrastructure 2. Institutional collective business community 3. Quality of agrotourism human resources 4. Business independence 5. Partnership contract
OPPORTUNITY 1. Policies of Indonesian and local government 2. Development of production and processing technology 3. Alternative tourism needs 4. The arrivals of tourists/ visitors	S-O Agro-tourism product development	W-O 1. Development of agrotourism facilities 2. Increased of the human resources quality in agrotourism skill
THREAT 1. Other attractions 2. Economic growth	S-T Strengthening agrotourism marketing	W-T Strategic partnership

Figure 1. SWOT Matrix development of cocoa-based agrotourism areas.

Application of the hybrid SWOT-ANP model to prioritize development strategies
Based on in-depth interviews and synthesis of IFAS-EFAS, five main problems were encountered in developing cocoa-based agrotourism, namely market penetration, agrotourism activities, agrotourism infrastructure, human resources capabilities, and business partnerships. The SWOT analysis to find the right solution succeeded in formulating 5 alternative development strategies (see Fig. 1). Furthermore, the problem elements and agrotourism development alternatives are used as input for the ANP model (called an integrated SWOT-ANP model) for the best priority selection of cocoa-based agro-tourism development strategies in Jembrana. The hybrid SWOT-ANP model for choosing a cocoa commodity based agro-tourism development strategy in Melaya District, Jembrana Regency was then constructed using Super Decisions version 3.0 software. This SWOT-ANP hybrid network model was built to choose the best priority development strategies from 5 alternative development strategies that are interrelated to one another. In the model application with Super Decisions, the relationship between elements in the cluster (inner dependence) and between clusters (outer dependence) is marked in red. This model places clusters and elements (a.k.a node) each in a single window (no sub-network). All comparison questions are reviewed from the perspective of what is important or preferred with respect to the alternative strategies for developing cacao-based agrotourism. In Fig. 2, loops appear that show inner dependence between elements in the cluster that are the parent node. Pairwise comparisons for each element in each parent node are performed for all parent nodes in the model. Assessment is entered into each cell on Questionnaire mode (the inconsistency index of expert preference tolerated is <0.1). Priorities normalized by cluster are presented in Fig. 3.
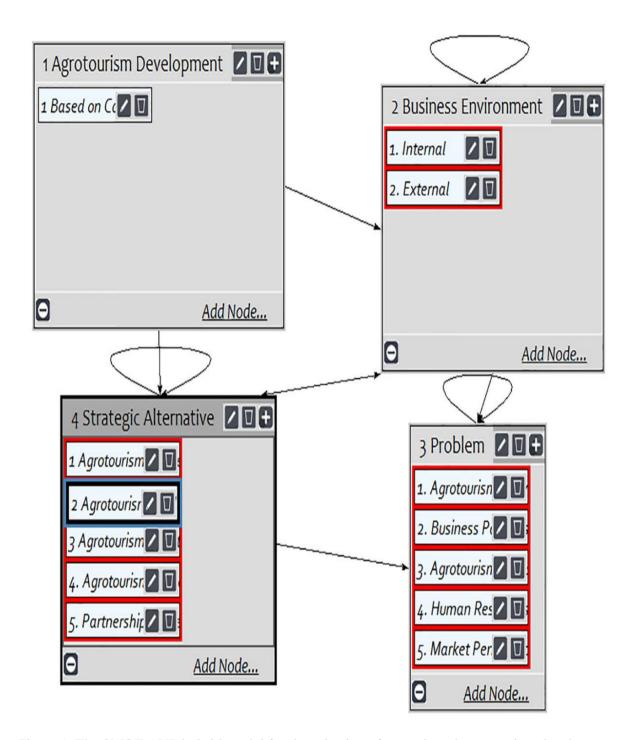
Figure 2. The SWOT-ANP hybrid model for the selection of cocoa-based agrotourism development strategies.

The ANP model has four clusters, namely agrotourism development (1 element), business environment (has 2 elements), problems (5 elements, according to in-depth interview results about the business environment), and alternative strategies (5 elements, referring to the SWOT matrix results). Data obtained from stakeholders' preference comparison expressions in Interactive Management (IM) sessions. Priority of agro-tourism development strategies as a result of super decisions as shown in Fig.3, restated across clusters and elements in Table 1.
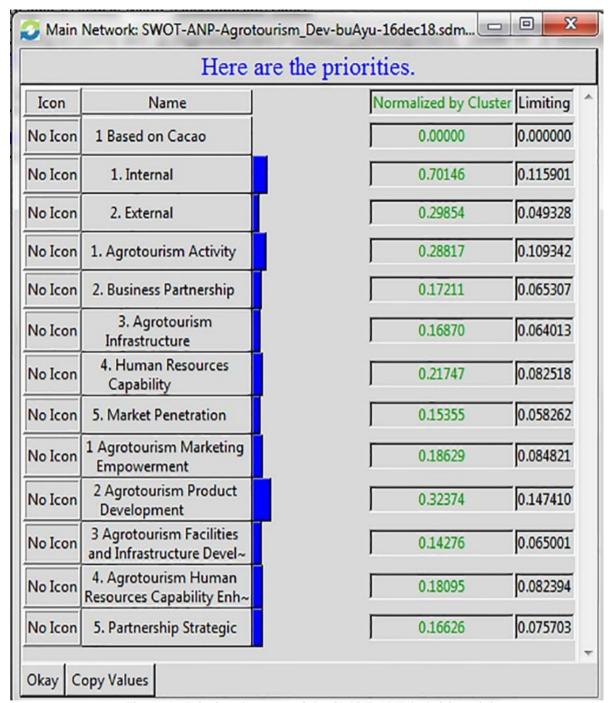
Figure 3. Priority elements of the SWOT-ANP hybrid model.

In Table 1 showed that the best choice for cocoa commodity-based agro-tourism development strategy in Melaya-Jembrana is the strategy with the highest priority, namely agro-tourism product development (priority 0.39), followed by strengthening of agrotourism marketing (priority 0.19), increased of the human resources competency (0.18), strategic partnership (0.17), and agrotourism facilities and infrastructure development (0.14).

Table 1. Priority of the model strategy for developing cocoa-based agrotourism.

ClustersandElements	Priority
Agrotourism development	
1. Based on cocoa commodities	0.00
Business environment	
1. Internal	0.70
2. Eksternal	0.30
Problems	
1. Agrotourism activity	0.28
2. Business partnership	0.17
3. Agrotourism infrastructure	0.18
4. Human resources capabiity	0.21
5. Market penetration	0.16
Alternative strategyy	
1. Strengthening agrotourism marketing	0.19
2. Development of agrotourism products	0.32
3. Development of agrotourism facilities and infrastructure	0.14
4. Increased of the human resources competency in agrotourism	0.18
5. Strategic partnership	0.17

CONCLUSIONS

The strength of cocoa-based agrotourism in Melaya district, Jembrana Regency are the life style and cultural values of society, the characteristics of cocoa agro-tourism, the type of business of local communities, acceptance of the community, geographical location of tourism objects, management of natural resources, and tourism savety, while weaknesses are facilities and infrastructure, community collective business institutions, increasing of human resources agrotourism quality, business independence, and partnership contracts. The opportunity for cocoa-based agro-tourism in Jembrana are the policy of Indonesian and local governments, the development of production and processing technology, alternative tourism needs, and the arrival of tourists/visitors, while the threat are other tourism objects and economic growth. Alternative development strategies formulated using the SWOT matrix are as follows: (a) Strengths-Opportunities (S-O) strategy is the development of agro-tourism products; (b) Strengths-Threats (S-T) strategy, namely strengthening agrotourism marketing; (c) the strategies of Weaknesses-Opportunities (W-O), which including of (i) the development of agrotourism facilities and (ii) improvement in the capabilities of agro-tourism human resources; (d) The Strategy of Weaknesses-Threats (W-T) is a strategic partnership strategy.

Alternative strategies can be formulated from the SWOT analysis. Strengths Opportunities (SO) strategy is a strategy for developing agrotourism activities. Strengths Threats (ST) strategy is a strategy to improve community skills in business. Strategy Weaknesses Opportunities (WO) is a strategy for developing facilities and infrastructure. Strategy Weaknesses Threats (WT) is a strategic partnership strategy.

The application of the SWOT-ANP hybrid model for cocoa-based agrotourism development strategy selection shows that the strategy that has the highest priority, as well as being the main choice of alternative strategies is the development of agrotourism products (priority 0.39), followed by strengthening of agrotourism marketing (priority 0.19), increased competency in agrotourism human resources (0.18), strategic partnerships (0.17), and development of agrotourism facilities and infrastructure (0.14).

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Corresponding author: I Gusti Ayu Widari Upadani, Doctoral Study Program of Agricultural Science, Udayana University, Bali, Indonesia
Email: gekwid060385@gmail.com pasek_mangku@yahoo.com