

ANALYSIS OF AGROTOURISM MANAGEMENT, GOVERNMENT POLICIES, AND ENTREPRENEURSHIP ON THE SUSTAINABILITY OF AGROTOURISM IN MALANG REGENCY

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ABSTRACT

Agritourism, as tourism centered around agricultural activities, attracts many travelers with its unique offerings. Malang Regency is a key region for agritourism, with various subdistricts contributing to this sector. However, the advancement of agritourism in Malang Regency is hindered by several significant challenges. The objective of this study is to investigate the sustainability of agriculture-based tourism in Malang Regency by analyzing agritourism management, government policies, and entrepreneurship in relation to the aforementioned issues. The descriptive analytic research approach was employed, with data collected via interviews and literature reviews. The sample size was determined by snowball sampling with 80 managers involved. This study employs descriptive statistical analysis, likert scales, and Structural Equation Modeling-Partial Least Squares (SEM-PLS) utilizing WarpPLS 7.0 software. This study found that agritourism management, government policy, and entrepreneurship all have a beneficial effect and significant impact on the sustainability of agritourism. This is a recommendation in an effort to build sustainable agritourism with active contributions from agritourism managers, effective government policies, and building the entrepreneurial spirit of agritourism managers in Malang Regency.

Keywords: *development, entrepreneurship, farm management, government policy, tourism*

BACKGROUND

Tourism is one of the most important sectors in Indonesia. People have a variety of tourism options to choose from, including agricultural-based tourism. Agricultural tourism not only provides enjoyment for the community but also highlights the potential of a region. Tourism and agriculture are interconnected fields that can contribute to the economic growth of an area. A similar viewpoint is presented by Ferreira et al., (2023), stating that the interaction between the tourism and agricultural sectors has the potential to generate synergistic progress in both economic and social aspects within a region. Agricultural-based tourism, also known as agrotourism, offers various benefits, including the ability to enhance the local economy, strengthen resilience in rural areas and small businesses, and promote sustainable development. In this scenario, agriculture plays a crucial role in the growth of agrotourism as it not only preserves human, ecological, and cultural heritage but also benefits the local community (Chen et al., 2016). Therefore, combining the resources and unique products of rural areas through agrotourism, as well as revitalizing the local economy, can enhance the sustainability of a region (Adamov et al., 2020).

Referring to the definition of agritourism in the previous paragraph, the field also has a role in developing countries. In developing countries, agrotourism is often associated with agricultural or livestock activities (Elshaer et al., 2023). Additionally, agrotourism provides natural beauty to attract tourists. The success of agrotourism is not only determined by human achievements but also by the local community's contribution to improving agrotourism performance. Agrotourism is a type of tourism that promotes rural development and agriculture by combining active farming activities with commercial tourism (Abadi & Khakzand, 2022). Agrotourism is also one of the strategies adopted to address rural socio-economic issues while benefiting farmers (Evgrafova et al., 2020). This is supported by the unique and diverse values found in rural areas.

Malang regency is recognized as one of the regions in East Java Province that has various prominent potentials, allowing the development of agrotourism in various districts. This is supported by technical data showing that Malang regency has natural resources that support agricultural activities. Agricultural land in Malang regency is dominated by horticultural crops and rice, with irrigation channels and fertile soil conditions to support them. Malang regency is also supported by local wisdom that encourages community business activities. The local wisdom include the celebration of the harvest, and the mutual cooperation efforts made by the local community in jointly building agro-tourism. The management of agrotourism that combines local wisdom and the environment has the potential to increase the economic income of the local community. The rapid growth of agrotourism in Malang regency indicates that the local population sees agrotourism as one of the strategies they can pursue to improve their welfare.

Various efforts have been made to develop agrotourism in Malang Regency, especially post the Covid-19 pandemic. This hampers the running of community-based agritourism activities in Malang Regency. The government's role in supporting agrotourism is by promoting activities to assist human resources in agrotourism such as promoting tourism locations, regulations governing tourism business competition, and providing activities to develop human resources in order to enhance their competencies (Swastika et al., 2017). However, in the field, many agrotourism managers have not continued the programs provided by the government. In addition, agrotourism products that are unable to compete in the market are also a focus that has not been developed. Agrotourism management is also important to be carried out by revitalizing local communities and farmers through sustainable development strategies (Ammirato et al., 2020). Agrotourism management can run smoothly if there is good synergy between managers, local communities, and the government. Local communities play a crucial role in developing agrotourism (Romadi et al., 2021). Therefore, there is a need for active support in accommodating their aspirations, both through policies and empowering local communities to enhance their capacities.

Agritourism in Malang regency relies on rural communities. Rural community empowerment activities can be carried out through entrepreneurship programs. Entrepreneurship is the main solution to increase employment opportunities in rural areas. The development of entrepreneurship in rural areas aims to help improve personal decision-making abilities for both families and the community as a whole (Ngorora & Mago, 2016). With entrepreneurship, communities can increase their income by creating value in their products. Additionally, with local knowledge and entrepreneurial skills, they can create new markets and utilize new technologies in the rural environment, leading to the enhancement of human potential and the development of individual self-reliance (Pan et al., 2024). This is crucial for agrotourism managers in Malang Regency to be able to compete with other agrotourism destinations.

Based on the previous explanation, another main obstacle in the development of agrotourism sector in Malang Regency is the emergence of various agrotourism with similar concepts, which can threaten the sustainability of agrotourism itself due to increasing competition. Competition among businesses can occur because they operate in similar fields and offer similar products. If the number of competing businesses continues to increase, the intensity of competition will also increase (Gunawan et al., 2016). This is also found in agrotourism in Malang Regency. Furthermore, based on field findings, it is also found that there are agrotourism establishments that are not operating optimally and need to be closed due to improper management, leading to destination unsustainability. Upon closer inspection, agrotourism is one of the economic assets owned by Malang Regency and many people depend on the existence of agrotourism for their livelihoods. Another issue found in agrotourism is the lack of attention to environmental ecosystems in its management and the lack of implementation of government policies that are not felt by agrotourism operators. These constraints indicate that agrotourism in Malang Regency still has issues that need to be resolved to develop tourism towards sustainability.

The research conducted is rooted in sustainability theory by Elkington (1994) which carries three main pillars including ecology, economy, and social (Baipai et al., 2023). The development of tourism development in Indonesia, then adding the institutional dimension and the dimension of facilities and infrastructure in the sustainability system (Marhesa et al., 2022). The sustainability of agritourism itself cannot be separated from the various factors that influence it. Several previous studies have discussed this matter. That a strong relationship between local community-based agrotourism managers will affect the development of agritourism (Hai et al., 2023). There are also factors from government policy as a policy maker and stakeholder in agritourism sustainability (Tuokuu et al., 2019). In stakeholder theory, Freeman (1984) which emphasizes the need to involve all those who influence and are affected by the operations of an organization by involving them in all matters relating to the welfare of the organization (Baipai et al., 2023). Previous research has also discussed the success of agritourism managers who have an entrepreneurial side in themselves that can affect the sustainability of agritourism (Utami et al., 2023). Based on the theory and previous research, this research model is compiled as shown in Figure 1. Research is needed to analyze the sustainability of agrotourism in Malang Regency to identify variables that threaten its sustainability. The research gap in previous studies the analysis of the influence of agritourism managers, government policies, and entrepreneurship on the sustainability of agritourism in Malang Regency which has not been studied by previous researchers. This research serves as a study and education material for the government, researchers, and tourism management aiming to enhance the region's competitiveness and facilitate the progress of agriculture-based tourism in Indonesia.

RESEARCH METHODS

This study utilized a survey method with a quantitative approach in descriptive research. Descriptive research aims to gather information about a specific condition and analyze the relationship between existing variables (Mardalis, 2014). The research location was intentionally chosen because Malang Regency is well-known for its agrotourism. The purpose of the location selection in this study is agritourism managed by the local community of the region. Community support is vital for the prosperity and evolution of a tourism destination (Hai et al., 2023). Therefore, agritourism that is supported by the local community is the reason for choosing the research location.

This research will focus on agrotourism at Sidorejo Indah (Dewi Sri) Agrotourism in Jabung District, Gubugklakah Tourism Village in Poncokusumo District, and Pujon Kidul Tourism Village.

The non-probability sampling method is used in research to select samples that are not based on probability. This method is chosen because non-probability sampling is a method of selecting research samples from a community without providing equal opportunities to all individuals in that community, as stated by Sugiyono (2017). Furthermore, the method used in sampling for this research is snowball sampling. Snowball sampling is a method in sampling where the sample size starts small and grows larger over time, similar to a snowball that grows as it rolls. The research sample consists of community members who oversee agrotourism. Information about community members is obtained from agrotourism managers and individuals responsible for overseeing agrotourism. This sampling technique can result in biased samples due to the extensive social ties of the respondents (Etikan et al., 2015). To address bias, it is important to establish the sample size.

The sampling strategy in this research, as outlined by Hair (2010), states that the number of representative samples is determined by multiplying the number of indicators by 5 to 10. The sample size in this research is calculated as the number of indicators multiplied by 5, which is 75, then rounded up to 80. This survey has 80 respondents. According to the data needed in this study, the research sample will be divided into three groups according to each agritourism. The sample distribution is sorted from least to most. Dewi Sri Agrotourism has 10 samples, Gubugklakah Tourism Village has 31 samples, and Pujon Kidul Tourism Village has the most samples with 39 samples. There are two types of methods in collecting data in this research. The first collection of data is primary data, which includes things like observation, interviews, recording, and documentation, and secondary data, which includes things like literature. The primary data used were surveys, observations, and interviews with agritourism managers. While secondary data is obtained through agritourism data, related institutions, and relevant journals.

This research utilizes descriptive statistical analysis, likert scale, and Structural Equation Modeling-Partial Least Squares (SEM-PLS) supported by WarpPLS 7.0 software. According to Sugiyono (2017), in data research, descriptive statistical analysis is a useful technique for analyzing and describing data collected by researchers, in order to obtain a conclusion. The presentation of data in descriptive statistics can be done through the use of tables, graphs, and pie charts. Additionally, it can also be done through calculations of data distribution such as mean and standard deviation, percentage calculations, and other calculations. One further application of descriptive statistics is the discovery and depiction of relationships between the variables under study. When conducting descriptive statistical analysis, there are no significance tests involved; the main purpose of this form of analysis is to evaluate the data obtained from the research. The further objective of this document is to provide a summary of the research findings to determine the influence of Agrotourism Management, Government Policies, and Entrepreneurship on the sustainability of agritourism as stated by Cooper & Pamela (2013), the Likert scale is a scale used to assess agree or disagree comments regarding a statement presented by the researcher along with assertions. The use of the Likert scale is employed to evaluate and provide answers to the objectives of this research, which are related to the perspectives of agrotourism managers regarding agrotourism management, government policy implementation on agrotourism activities, and entrepreneurial spirit in agrotourism management. Findings from the Likert scale responses will be descriptively analyzed according to predetermined categories. In this study, an interval class is used consisting of the category "strongly agree" given a scale of 5, the category "agree" with a scale of 4, the category "neutral" or "undecided"

given a scale of 3, the category "disagree" given a scale of 2, and respondents who rate "strongly disagree" given a value of 1. All of these categories fall within the researched interval class.

The quantitative analysis method used is the Structural Equation Modeling-Partial Least Square (SEM-PLS) approach, which is applied in WarpPLS 7.0. According to Sholihin & Ratmono (2013), multivariate analysis tools are applications of statistical procedures used to evaluate multiple research variables simultaneously. These tools include structural equation modeling (SEM), which is also one of the multivariate analysis tools. The research model that uses structural equation modeling (SEM) analysis is shown in the figure 1.

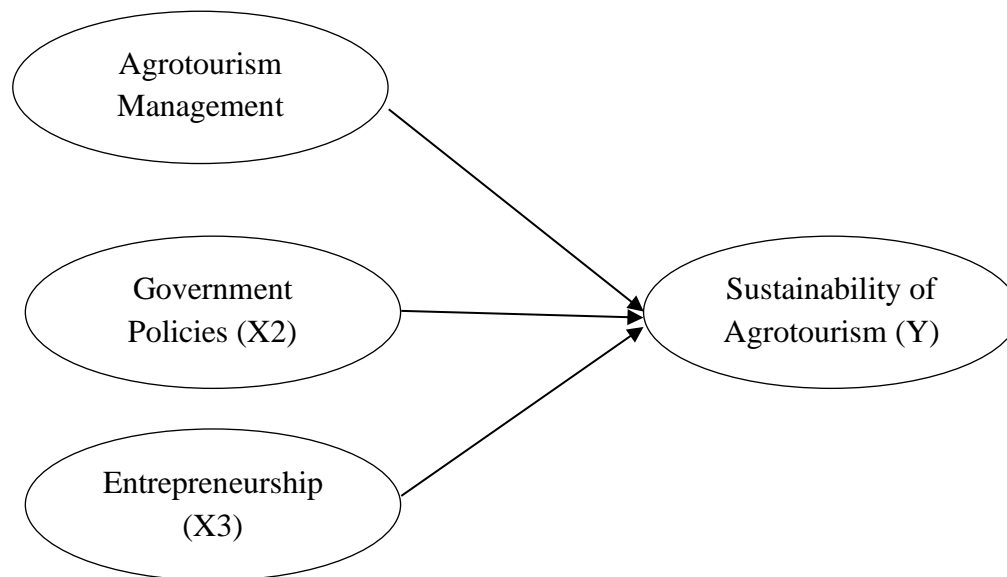


Figure 1. Research Model
Source: Primary Data (2024)

RESULT AND DISCUSSION

The Malang Regency covers an area of over 3,473.50 square kilometers, making it the second largest regency in East Java Province after Banyuwangi Regency. It consists of highland and lowland areas, including valleys, which are located at an elevation of 250 to 500 meters above sea level. The highland and hilly topography in this area creates a cool climate, making it highly sought after as a residential and recreational area. This is also evidenced by the cool average air temperature in Malang Regency, ranging from 18.2°C to 26.5°C. With the topographical conditions and air temperature in Malang Regency, there is potential for tourism development through the establishment of agrotourism locations scattered throughout the region.

Sidorejo Indah (Dewi Sri) Agrotourism in Jabung District is a tourist destination that offers educational-based rice fields located at the end of Sidorejo Village, Jabung District. This agrotourism is developed and managed by Pokdarwis (Tourism Awareness Group) in collaboration with BUMD (Village-Owned Enterprises). Sidorejo Indah (Dewi Sri) Agrotourism was established in 2019, but agrotourism activities were temporarily halted due to COVID-19 and resumed in 2022. Currently, the development direction of Sidorejo Indah (Dewi Sri) Agrotourism focuses on providing educational tourism for early childhood and families about agriculture. One of the programs contained in this agro-tourism is introducing the world of agriculture and animal husbandry to elementary school children. Children are introduced to how to plant plants and take care of them, children are also taught

to take care of farm animals such as goats by giving them food that has been provided by agritourism managers. Sidorejo Indah (Dewi Sri) Agrotourism cooperate with local schools for this program. Some facilities that can support Sidorejo Indah (Dewi Sri) Agrotourism include vehicle parking area, mosque, cafe, toilets, pavilion, gazebo, and children's swimming pool. The facilities offered can also be rented for community activities, such as the pavilion area used for community meetings, family empowerment and welfare, and so on. One of the interesting tourist attractions at Sidorejo Indah (Dewi Sri) Agrotourism is the bamboo bridge with the icon of Dewi Sri.

Gubugklakah Tourism Village in Poncokusumo District is a tourist village located at the foot of Mount Bromo and one of the villages that serves as the main route for climbing Mount Bromo and Semeru. This is also supported by the main occupation of the people of Gubugklakah Village who are mostly engaged in tourism, such as tour guides, Jeep rentals, and homestays for tourists. In addition, there are also people engaged in agriculture with cultivation of onions, vegetables, and apples. Gubugklakah Tourism Village is under the management of LADESTA (Tourist Village Institution). The establishment of the Tourist Village is inseparable from the accompanying facilities. These facilities include tour guides who can guide tourists to Mount Bromo and village tours. Tour guides are local residents of Gubugklakah Village who will accompany and guide tourists in their activities. Other facilities include homestays available along the road to Mount Bromo. Homestays in Gubugklakah Tourism Village use local residents' houses that have been modified and equipped with modern facilities such as internet access, cleanliness, and so on. This will provide tourists with an experience to enjoy the local atmosphere. Other facilities include Jeep rentals, rest areas, and information services for tourists.

Pujon Kidul Tourism is one of the tourist villages in Malang Regency and has potential in agriculture, animal husbandry, tourism, and education. The Pujon Kidul area is located in a highland area and surrounded by mountains, making it a very potential area for agrotourism development. Pujon Kidul Tourism Village is managed by BUMDES and has different potentials in each of its hamlets. Krajan Hamlet is one of the hamlets that has very promising potential because there is a famous icon, namely Cafe Sawah. Cafe Sawah is a cafe or dining place that provides a natural landscape view. In addition, there is also vegetable picking in the Cafe Sawah area which is managed by local farmers in an organic way. Agritourism visitors can also enjoy the sensation of agricultural activities provided by the company. In addition, there is also education on cow milking and processing. Pujon Kidul Tourism Village has several interesting tourist destinations, including the livestock education tour in Maron Hamlet and the Cultural Village in Tulungrejo Hamlet. Through the development carried out in Pujon Kidul Tourism Village and the support of agrotourism management, this village has succeeded in improving its economy and becoming an empowered village. Various supporting facilities are also provided such as homestays, tour guides, and souvenir shops. This also becomes an asset owned by Pujon Kidul Tourism Village in attracting tourists to visit.

Characteristics of Respondents

The characteristics of respondents' data serve as a reference to determine the background information of research respondents. Agrotourism respondents in Malang Regency have different characteristics. This study presents respondent characteristic data derived from primary data analysis conducted through interviews using questionnaires. This study is a compilation of respondent characteristic data.

Table 1. Characteristics of Respondents

No	Variable	Number of Respondents	Percentage (%)
1.	Age		
	20 – 29 years	16	20
	30 – 39 years	40	50
	40 – 49 years	23	29
	50 – 59 years	1	1
2.	Gender		
	Male	60	75
	Female	20	25
3.	Side Job		
	Exist	41	51
	Do not exist	39	49

Source: Primary Data (2024)

Age is correlated with work experience, physical ability, and emotional capacity of agrotourism managers when making assessments. The age of agrotourism managers can affect their physical capacity, productivity, and cognitive processes. As age increases, their skills and production decline. The majority of agrotourism managers in Malang Regency are in their productive age based on the characteristics of the respondents. Harmanto et al., (2016) categorized three age groups: Unproductive Age consisting of ages 0 to 14 years, Productive Age for respondents aged 15 to 64 years, and the Non-Productive Age group occupied by respondents aged 65 years and above. In this age group, individuals are considered to have the experience and skills to effectively supervise agrotourism. Individuals aged 20-29 years have started participating in agrotourism management in Malang Regency. This is done to create a platform for the younger generation to share their creative and unique ideas in order to promote the sustainability of agrotourism in Malang Regency. For young agritourism managers, they are more literate in information technology and able to adapt to the growing business environment (Hasbiy & Hardana, 2024). This is shown based on interview activities, that they are very eager to provide ideas in the development of agritourism. Whereas in old agritourism managers, they tend to act as advisors and leave more responsibility for managing agritourism to young agritourism managers.

The management of agrotourism in Malang Regency is not exempt from the roles of both men and women. In this case, they have their respective assigned tasks. Based on the tabulation of research data, a general overview of the respondents' gender can be obtained. The data on the gender of the respondents shows that the majority of agrotourism managers in Malang Regency are men, accounting for 75%. Meanwhile, female agrotourism managers account for 25%. This is because agrotourism management is directly related to agriculture and livestock, which are mostly managed by men. In addition, in small and medium-scale agrotourism management, men play a larger role as decision-makers. Although women are also involved, men have a larger proportion compared to women. The role of women in agrotourism in Malang Regency is more focused on consumption, marketing, and services. This situation is also in line with Nurhaeni et al. (2017) research on the gender roles in tourism development, which found that women have a more disadvantaged involvement compared to men. This can also be seen in the contribution of men to physical

development, while women are more directed towards food and service-related tasks such as arranging places and merchandise, managing stores, and serving customers. This gender disparity is also found in the management of agrotourism in Malang Regency.

A side job is a job that someone does alongside their main job, but it does not neglect their main job. Side jobs are done with the aim of increasing their personal income, as the income from their main job is not enough to meet their financial needs. This phenomenon is present in industries related to agriculture, especially among those who are also pursuing a side job (Hasbiy & Hardana, 2024). Based on data from side jobs of agrotourism managers in Malang Regency, it shows that the majority of agrotourism managers have side jobs, which is 51%. This indicates that the existence of agrotourism in Malang Regency is still unable to meet the needs of its managers. This condition is caused by agrotourism that has small and medium scales, so it does not have a large and stable profit. The ownership of side jobs by agrotourism managers is also supported by the research of Arianta et al. (2015) that the existence of agrotourism managers who have side jobs is due to the development of agrotourism that has not provided benefits for its managers, one of which is financial. Therefore, with the lack of financial benefits obtained, many agrotourism managers have side jobs such as village officials, farmers, photographers, jeep and inn rentals, and other side jobs.

Data Analysis Result

In this study, Structural Equation Modeling (SEM) analysis was utilized to determine the relationship between Agrotourism Management, Government Policy, Entrepreneurship, and Agrotourism Sustainability variables, resulting in data on variables based on several indicators.

Table 2. The Result

No	Indicator	Respondent's Score Answers						Σ Resp.
		2		4		5		
		Σ	%	Σ	%	Σ	%	
1	Management of Agrotourism							
	Leadership	0	0,00	60	75,00	20	25,00	80
	Organization	0	0,00	58	72,50	22	27,50	80
	Marketing	6	7,50	69	86,25	5	6,25	80
	Unique Model	3	3,75	64	80,00	13	16,25	80
2	Government Policy							
	Regulations	0	0,00	70	87,50	10	12,50	80
	Development	0	0,00	63	78,75	17	21,25	80
3	Entrepreneurship							
	Motivation	0	0,00	70	87,50	10	12,50	80
	Innovative	0	0,00	64	80,00	16	20,00	80
	Adaptive	0	0,00	59	73,75	21	26,25	80
	Collaborative	0	0,00	70	87,50	10	12,50	80
4	Sustainability							
	Ecological Dimension	3	3,75	70	87,50	7	8,75	80
	Economic Dimension	0	0,00	76	95,00	4	5,00	80
	Social Dimension	0	0,00	67	83,75	13	16,25	80
	Institutional Dimension	0	0,00	75	93,75	5	6,25	80
	Infrastructure Dimension	3	3,75	67	83,75	10	12,50	80

Source: Primary Data (2024)

Based on the assessment data from respondents regarding the Management of Agrotourism variable, it is evident that the majority of respondents stated that the management of agrotourism in the indicators of leadership, organization, marketing, and the uniqueness model of agrotourism in general falls under the good category, although there is still room for improvement in marketing. In the leadership indicator, 75.00% of respondents gave a score of 4. This indicates that in agrotourism management, efforts have been made to engage in intensive communication, provide motivation and encouragement, and involve the local community in decision-making related to agrotourism management. However, there are still shortcomings in terms of conveying ideas and concepts for agrotourism. This condition is also shown by how agritourism managers in the Malang regency are enthusiastic in carrying out their duties if there is an influence from good leadership. With good leadership, and being able to nurture its members, it will automatically arouse the desire and enthusiasm of other agritourism management members. The opposite has happened to one of the agritourisms in Malang regency, and this has caused the agritourism management activities to not run optimally, and organizational activities cannot run either. Therefore, the role of leadership is important in agritourism management.

The organization indicator shows that 72.50% of respondents gave a score of 4. This indicates that the management of agrotourism in terms of organization indicators is already good, although there are areas that need improvement. In this case, it is shown that each agrotourism site in Malang Regency has good cooperation among managers, as well as a fair distribution of authority and responsibilities. However, agrotourism in Malang Regency does not yet have clear planning activities in terms of goals, strategies, and actions to be taken by agrotourism in the future. This is because agrotourism in Malang Regency is small and medium-scale, so in managing agrotourism, there is no solid plan for the development direction of agrotourism. For example, every agritourism in Malang Regency has a good organizational system.

Meanwhile, the marketing indicator shows that 86.25% of respondents gave a score of 4, and there are 7.50% of respondents who gave a score of 2. Based on the assessments given by respondents, it is explained that in this indicator, it is stated that the marketing of agrotourism in Malang Regency is still minimal. However, there have been efforts in interesting and creative marketing activities for agrotourism, such as agrotourism service posts, direct offers given by agrotourism to visitors. However, the intensity of promoting agrotourism in Malang Regency can still be improved by actively promoting through social media to reach a wider range of tourists.

Based on the assessment data of the Government Policy variable, it shows that in the regulation indicator, 87.50% of respondents gave a score of 4 and 12.50% of respondents gave a score of 5. This indicates that there are government regulations that support the management of agrotourism in Malang Regency, and all agrotourism managers comply with government regulations in running agrotourism. Meanwhile, in the mentoring indicator, 78.75% of respondents gave a score of 4, and 21.25% of respondents gave a score of 5. The assessment of these respondents indicates that there are efforts made by the Government in providing mentoring and socialization to agrotourism managers. The Government has implemented programs to enhance and develop the skills of agrotourism managers in Malang Regency. However, there are also socialization programs that are not continued. Therefore, it is necessary to provide intensive assistance for agrotourism managers.

Based on the assessment of respondents regarding the Entrepreneurship variable, different values are obtained for each indicator. In terms of motivation indicator, 87.50% of respondents gave a score of 4 and 12.50% of respondents gave a score of 5. This indicates that the motivation of each

agrotourism manager in Malang Regency has been good. In managing agrotourism, they have a high motivation to improve their quality of life through agrotourism, and want to develop agrotourism to have an impact on the surrounding community. For example, one of the agrotourism managers stated that by joining agrotourism, it indirectly had a positive impact on him, in terms of motivation to continue developing the agrotourism business. In agrotourism that is still small and medium-scale, on certain days there tends to be few visitors, so this can affect the performance of agrotourism managers to make efforts to revive agrotourism.

On the innovative indicator, 80.00% of respondents gave a score of 4, while 20.00% of respondents gave a score of 5. This indicates that the majority of agrotourism managers have the ability to create something new in developing agrotourism, both in terms of providing ideas and concepts for agrotourism, as well as being able to provide innovative solutions to overcome problems in agrotourism. Therefore, agrotourism in Malang Regency is managed and developed with a unique and different concept that is tailored to the local wisdom of the agrotourism area. For example, in the Pujon Kidul Tourism Village, they rely on their local wisdom, such as providing beautiful nature, and giving customers the sensation of picking vegetables and milking cows. Meanwhile, at Dewi Sri Agrotourism, it is more about agricultural activities in the form of planting rice. This shows that agrotourism in Malang Regency was established by highlighting the local wisdom of each region.

The next indicator found in the Entrepreneurship variable is adaptability. In this indicator, 73.75% of respondents gave a score of 4, while 26.25% of respondents gave a score of 5. This indicates that the adaptive attitude among agrotourism managers in Malang Regency has shown good results. Agrotourism managers in Malang Regency are able to adapt to environmental changes, such as new technologies and policies, to support agrotourism management. Additionally, agrotourism managers in Malang Regency also have the willingness to accept and learn new things, an example is online marketing, and implementing covid policies. This may be due to the fact that agrotourism managers are in their productive age, which motivates them to learn new things that can benefit their quality of life. This condition is highly necessary in managing and developing agrotourism in the current competitive era.

The next indicator on the Entrepreneurship variable is the collaborative indicator. Respondents' assessment of the collaborative indicator shows that 87.50% of respondents rated it as 4 and 12.50% of respondents rated it as 5. This indicates that the ability possessed by agrotourism managers in Malang Regency to work together in developing and managing agrotourism is excellent. Agrotourism involves collaboration between managers, local communities, and external parties to support agrotourism development. This collaboration is demonstrated by their availability for research activities to help provide advice on agrotourism activities in Malang Regency. Well-established collaborative efforts should be maintained as they benefit managers, local communities, and external parties socially and economically.

The assessment of respondents regarding the ecological dimension indicates that 87.50% of respondents gave a rating of 4, while 8.75% of respondents gave a rating of 5. This demonstrates that the ecological dimension in agrotourism management in Malang Regency is well-established. The agrotourism managers have recognized the importance of preserving the ecology in agrotourism. Various efforts have been made to maintain the ecosystem, such as land and water conservation, the implementation of organic farming, and waste management in agrotourism. Waste management in agrotourism in Malang Regency has been promoted by managing food waste and other waste through the application of the 3R (Reduce, Reuse, Recycle) principle and the production of eco-enzymes.

As for the assessment of respondents regarding the economic dimension, 95.00% of respondents gave a rating of 4. This indicates that the presence of agrotourism in Malang Regency is able to contribute economically to both agrotourism managers and the local community. This is because many agrotourism managers and local residents rely on the existence of agrotourism for their livelihoods. Although there are agrotourism managers who have side jobs, by working as agrotourism managers, they earn additional income. This condition is also supported by the current behavior of the community who enjoy traveling, one of which is in agrotourism in Malang Regency, which indirectly provides financial impact to agrotourism managers and the local community.

In terms of the social dimension indicators, it is evident that there is a good and positive relationship between agrotourism managers and the local community. This is demonstrated by the respondents' ratings, with 83.75% giving a score of 4 or 5, and 16.25% of respondents. These ratings provide an overview that the management and development of agrotourism activities are socially acceptable and uphold the rights of the managers, members, and the local community. This social condition can be seen through the involvement of local residents as agrotourism managers, who also encourage their family members to participate in managing the agrotourism activities. According, Risvita *et al.*, (2018), the existence of community participation will raise community awareness about an activity, including the management of agritourism. Furthermore, the relationship between agrotourism managers extends not only to fellow managers and the local community but also to external parties such as the Local Government, Tourism Office, and others. This will help expand the agrotourism network to support the development of agrotourism in Malang Regency. This is demonstrated by the involvement of local communities in Malang Regency who support the development of agrotourism in Malang Regency. For example, the Gubugklakah Tourism Village has a Tourism Office which will guide visitors in exploring the tourist village.

The next indicator on the Sustainability of Agrotourism variable is the institutional dimension. Respondents' assessments of the institutional dimension indicate that 93.75% of respondents gave a score of 4, while 6.25% of respondents gave a score of 5. This data shows that the institutional dimension of agrotourism in Malang Regency is already good. This can be seen from the agrotourism that has been registered with the legal authority, indicating the seriousness of the managers in developing agrotourism. In addition, there is financial support from financial institutions to manage agrotourism. This is an opportunity that is well utilized by agrotourism managers, as finance is one of the crucial issues in the development of small and medium-scale agrotourism. The development of agrotourism in Malang regency is also supported by local farmer groups. The existence of farmer groups will facilitate the management of agrotourism related to rice fields and plantations. In addition, they can also provide additional tourist attractions such as educational tours for visitors, which will enhance the quality of agrotourism. This condition can be seen in Dewi Sri Agrotourism which relies on rice fields and rice for its agrotourism activities. Therefore, indirectly, agrotourism managers need fertilizer to manage their rice fields. However, the high price of fertilizer hinders them, so they need assistance from financial institutions to support their agricultural activities which also serve as agrotourism.

The assessment of the indicators in terms of facilities and infrastructure is indicated by respondents who gave a score of 4, which accounts for 83.75% of the respondents. This shows that agrotourism in Malang Regency has good facilities and infrastructure. Supporting facilities such as toilets, prayer rooms, parking lots, and souvenir shops are provided for agrotourism visitors. As explained in the previous chapter, agrotourism in Malang Regency has adequate facilities. However,

there are shortcomings in the facilities and infrastructure dimension of agrotourism in Malang Regency, as indicated by respondents who gave a score of 2, which accounts for 3.75%. This can be attributed to the main facilities of agrotourism in Malang regency that have not been well-maintained and the road access to agrotourism that is still inadequate. This condition can be seen directly in agrotourism in Malang Regency where there are still roads with potholes. It can be an opportunity for agrotourism managers to improve the existing facilities and infrastructure in order to enhance the quality of agrotourism.

Analysis of the Impact of Sustainable Agrotourism

Based on the research conducted on 80 respondents, the influence of agrotourism management variables, government policies, and entrepreneurship on the sustainability of agrotourism in Malang Regency can be determined through path coefficient results. Path coefficients depict the relationship between latent variables (Solimun et al., 2017). If a p-value of ≤ 0.1 is obtained, it is considered weakly significant; a p-value of ≤ 0.05 is considered significant, and a p-value of ≤ 0.01 is considered strongly significant. The path coefficient values in this study are as follows.

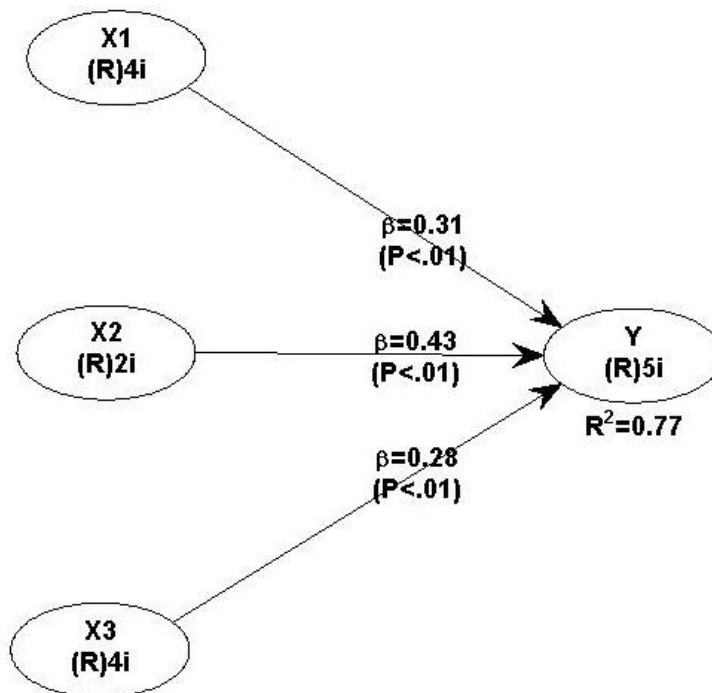


Figure 2. Path Coefficient and Significance Diagram
Source: Primary Data (2024)

Based on the analysis above, the path on the coefficient of agrotourism management variable (X1) towards agrotourism sustainability (Y) has a positive effect of 0.31 with a p-value ≤ 0.001 . Therefore, it can be concluded that agrotourism management has a high positive and significant influence on agrotourism sustainability. The paths on the coefficients of other variables, namely government policy (X2) and entrepreneurship (X3) towards agrotourism sustainability (Y), also have positive and significant effects. Hence, it can be inferred that all variables used in this study, including agrotourism management (X1), government policy (X2), and entrepreneurship (X3), have a positive and significant impact on agrotourism sustainability (Y) in Malang Regency. This indicates that all

variables can be considered in the development of agricultural-based tourism or agrotourism activities in Malang Regency.

Agrotourism Management towards Agrotourism Sustainability

The coefficient value of agrotourism management variable is 0.315 with a p-value of ≤ 0.01 . This analysis indicates that the agrotourism management variable has a strong positive and significant influence on the sustainability of agrotourism in Malang Regency. Based on the research findings, it shows that the stronger the agrotourism management in Malang Regency, the higher the level of agrotourism sustainability. This condition is supported by agritourism managers in Malang Regency which are managed by local communities. This is in line with research conducted by (Hai et al., 2023), that the local community will assist in the development of agritourism towards sustainability. They will participate in agritourism development efforts because they better understand how the demographic and geographic conditions of their area, through activities and programs that are adapted to suit their cultural context. Agrotourism management includes indicators such as leadership, organization, marketing, and the uniqueness model of agrotourism.

Based on the findings in the field, it was discovered that the variable of agrotourism management has a significant impact on the sustainability of agrotourism. This is because with good agrotourism management, the agrotourism can provide positive impacts for the local community, the environment, and the regional economy. This situation is also supported by a statement from one of the agrotourism managers in Malang Regency as follows:

"In the past, the management of this agrotourism was unclear, initially managed by the village head. Then it was replaced by his wife and there was no activity here for a long time, so it was neglected. Starting two years ago, it was taken over by the youth here to revive it, and now it has started to thrive, many people come here, and there are also various programs so it's lively again." (Agrotourism Manager). Therefore, it can be concluded that the management of agrotourism has a positive impact on the sustainability of agrotourism in Malang Regency. The management of agrotourism will make agrotourism more systematic, organized, and the managers have fair duties and authorities in developing agrotourism. Furthermore, with good agrotourism management, the direction of agrotourism development can be determined.

The Government Policy on Agrotourism Sustainability

Based on the analysis conducted, a coefficient value of 0.430 and a p-value of ≤ 0.01 were obtained for the government policy variable. This value indicates that the government policy variable has a strong positive and significant impact on agrotourism sustainability in Malang Regency. The stronger the government policy towards agrotourism, the higher the level of agrotourism sustainability in Malang Regency. This variable is measured by assessing the regulations and development programs carried out by the government to improve the quality of agrotourism.

The spacious conditions have indicated the government's contribution through regulations regarding agrotourism and tourism development. Additionally, government policies also involve socialization programs and training for agrotourism managers. This is done so that agrotourism managers can enhance their knowledge and skills to develop agrotourism. However, in its implementation, there are training programs that are not continued, such as the local MSME training program in Gubugklakah Tourism Village. Therefore, this is a particular concern for the government to create and develop socialization and training programs that can continue. The strength of support

from the government as a stakeholder provides an opportunity for agritourism to develop towards sustainability. The influence of stakeholders, then the sustainability of agritourism can be achieved (Baipai et al., 2023). Therefore, the Government must take a role to ensure the consistency of government actions and must have consistent access to information so that they effectively monitor the implementation of policies to achieve sustainable development goals.

The Impact of Entrepreneurship on Agrotourism Sustainability

The measurement conducted on the entrepreneurship variable towards the sustainability of agrotourism in Malang Regency yielded a coefficient value of 0.276 and a p-value of ≤ 0.01 . This analysis value reveals that the entrepreneurship variable has a significant positive influence on the sustainability of agrotourism. The analysis results elucidate that a stronger relationship between the entrepreneurship variable and agrotourism leads to an improvement in the sustainability of agrotourism in Malang Regency. This research supports the perspective of Utami et al., (2023), who contends that entrepreneurship among agritourism managers is crucial for achieving sustainable agritourism. The entrepreneurship variable is assessed by evaluating the characteristics exhibited by each agrotourism manager, including motivation, innovation, adaptability, and collaboration.

Based on the conditions in the field, it is evident that agrotourism managers have a desire to improve the economy, one of which is through agrotourism. With this desire, efforts are made by agrotourism managers to practice business and innovation that support economic growth, social welfare, and a healthy environment, as well as to maintain and enhance natural resources. Entrepreneurship in the field findings includes empowering the local community, effective waste management, and building partnerships with external parties, including local governments and communities, to ensure that sustainability remains the main focus.

Evaluation of indicators in the entrepreneurship variable includes collaborative efforts in the development of agrotourism in Malang Regency. This demonstrates a harmonious collaboration involving the participation and cooperation among various stakeholders such as agrotourism managers, local communities, and local government. This situation aligns with the findings in the field that the management and development of agrotourism involve the role of agrotourism managers supported by the participation of local communities and local government. Aryawan et al. (2019) also highlighted that the involvement of stakeholders can influence agrotourism development. Effective collaboration can lead to positive impacts, promote sustainable growth, and enhance relationships among all stakeholders.

CONCLUSION AND SUGGESTION

Based on the conducted research, the conclusion of this study is that the variables of agrotourism management, government policies, and entrepreneurship have a positive and significant influence on the sustainability of agrotourism in Malang Regency. The variable of entrepreneurship has the lowest influence on the sustainability of agrotourism, which is 0.28. The influence of the agrotourism management variable on the sustainability of agrotourism is 0.31. Meanwhile, the variable of government policies has the greatest influence on the sustainability of agrotourism in Malang Regency, which is 0.43. This research provides recommendations to promote sustainable agrotourism by encouraging the active participation of agrotourism managers, establishing effective

government policies, and improving the entrepreneurial capabilities of agritourism managers in Malang Regency.

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