AGRIEKONOMIKA
http://journal.trunojoyo.ac.id/agriekonomika
Volume 13, Nomor 2, 2024
DOI: https://doi.org/ 10.21107/agriekonomika.v13i2.26258

Agriekonomika has been accredited as a scientific journal by the Ministry of Research-Technology and Higher Education Republic of Indonesia: ***No. 23/E/KPT/2019*** *SINTA 2*

Analysis of the Economic Value of Matanaga Farm Agrotourism

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Received: June 2024; Accepted: September 2024; Published: October 2024

ABSTRACT

Matanaga Farm Agrotourism is a tourist destination that offers a fruitful tourist concept. The demand for tourism will rise as travel costs are minimized by visitors. This research is aimed at analyzing and estimating the economic value of Agrowisata Matanaga Farm. The method of research is the method of analysis of travel cost method. The results of the study obtained a consumer surplus of visitors to Agrowissata Matenaga Farm amounting to IDR381.659 per person per one visit, so processed the economy value of Agrowisat Matanega Farm amounted to IDR829.345.007/year.

Keywords: Agrotourism, Travel Cost Method, Consumer Surplus, Economic Value

INTRODUCTION

Agrotourism is one part of the tourism sector in Indonesia that has the potential to be developed in the future (Kholil & Mutiara, 2018). Agrotourism is a business that combines the agricultural and tourism sectors in the form of services to meet consumer needs by utilizing beautiful views and cool air, which indirectly serves as a medium for promoting agricultural products, agricultural education, opportunities for product diversification and development of new growth areas (Hakim et al., 2022). Environmentally-based tourism began to be developed in the 20th century (Ammirato et al., 2020).

One of the new tourist attractions that is interesting and has potential is Matanaga Farm Agrotourism. Matanaga Farm Agrotourism is a tourist destination that offers a longan fruit tourism concept. Aside from that there are durian, green coconut, avocado, and kelulut honey. Established in 2009, with a land area of 2 hectares, it has 8 types of longan seeds with superior seeds, namely queen, Itoh, and new crystal. There are several supporting facilities provided for tourists such as accommodation, toilets, a prayer room, and spacious parking. There are still minimal fruit agrotourism options in Pekanbaru City, so it is an interesting thing for society. Then the price offered is cheaper than in a fruit shop or shopping center. Visitors are allowed to eat fruit directly in the garden without having to pay and there are no entrance fees when visitors visit, including parking and toilet fees.

Tourist travel is an activity that increases relaxation for visitors. Demand for tourism will grow along with minimal travel costs incurred by visitors. However, the cost of travel is determined by several aspects, so each visitor is certain will have different expenses when traveling. Matanaga Farm agrotourism has a good side in terms of the renewal of the agricultural sector because it creates added value for the business world. Therefore, it is necessary to maintain the existence of Matanaga Farm Agrotourism, namely by analyzing

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p-ISSN 2301-9948 | e-ISSN 2407-6260

its economic value to maximize resource allocation at Matanaga Farm.

Economic value includes a method that can provide monetary value for goods and services that may not exist on the market, therefore economic value can be a tool for assessing an ecosystem and the services provided into monetary value (Rizal et al., 2022). This tool aims to measure the benefits provided by ecosystems and the impact of ecosystem changes on human welfare (Parmawati, 2019). The economic value of a tourist area can be calculated based on the total costs (rupiah) incurred by tourists in visiting tourist attractions. The costs covered can be: 1). Direct costs incurred when traveling on a tourist trip (Bertram & Larondelle, 2017; Richardson et al., 2017: Chapagain et al., 2020; Wang et al., 2020). Some costs that can be calculated as direct costs are food and drink costs, vehicle rental, tourist entrance tickets, parking tickets, ride entrance fees, souvenirs, and so on. 2). Indirect costs such as vehicle depreciation if not rental, time use, and lost wages (Jara-Diaz, 2020; He & Poe, 2021).

The travel cost approach or Travel Cost Method (TCM) is an economic value method that can be used in assessing tourist destination areas, using survey techniques for tourists with questions related to travel costs and respondent attributes (Sulistianto et al. 2022). TCM is an economic assessment used to calculate the value of goods or services that cannot be obtained through market prices such as forest parks, ecosystems, beaches, and others (Limaei et al. 2017). The travel cost method examines expenses when traveling to tourist locations to estimate the benefits of the travel experience. The Travel Cost Method (TCM) method uses survey data for each tourist in statistical analysis rather than from each zone (Tankosiy, 2022). Therefore, the TCM method requires more data and complicated analysis but provides more precise results (Nuraeni et al., 2017). This method assumes that the total economic value of tourist attractions is influenced by the assessment given by each visitor of the invaluable benefits (in rupiah) of the costs incurred to visit a tourist attraction (Merciu, 2021), several factors influence the number of visits to a tourist attraction are: 1). The distance, the higher the travel costs to a tourist attraction, the number of requests for visits will decrease, Long distances hurt individual decisions to visit tourist attractions (Sianturi & Suprapto, 2022). 2). Socio-economic factors of tourists (amount of income, age, level of education (Haban & Kawung, 2019: Rahayu et al., 2021: Hasanah & Satrianto, 2019). Specifically, this research aims to analyze to determine the economic value of Matanaga Farm Agrotourism with the travel cost method approach.

METHODS

Birandang, Pematangkulim Hamlet, Birandang Village, Kampa District, Kampar Regency, Riau Province. Implementation time is November 2023 – April 2024. The research methods used are surveys, observations, and in-depth interviews. The type of data used is primary data obtained from respondent interviews and secondary data from the Kampar Regency Tourism Office, Kampar Regency BPS, reference books, and scientific articles. The research respondent population was 2,173 people, and the technique for determining the sample size used Slovin with a standard error of 10% to obtain a sample of 96 people (Shofwan, 2023). The sampling technique uses the accidental sampling method and has sample criteria of adults aged 17 years and with a group size of at least three people.

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The analytical method used is the Travel Cost Method (TCM), with the model:

BPT = BT + BK + BPa + BJT
.....(1)

Where BPT is the total travel cost, BT is the cost of transportation, BK is consumption costs, BPa is parking costs and BJT is toll road costs. The Travel Cost Method (TCM) is built based on consumer demand theory where the concept of consumer surplus is an internal issue in the Travel Cost Method (TCM) (Suer and Sadik 2020). To get consumer surplus per individual per year, with the following model (Lavemia et al., 2018):

CS = 1/2 x V average x (TC Max-TC average)
.....(2)

Where CS is consumer surplus, V is the average number of visits and TC is the difference between the maximum total travel cost and the average travel cost. To get consumer surplus per individual per visit, with the following model

$$\frac{CS = 1/2 \times V \text{ average} \times (TC \text{ Max} - TC \text{ average})}{V \text{ average}}$$
.....(3)

The surplus value obtained is then compared with the average costs incurred by visitors to see whether the tourist attraction provides environmental service benefits for visitors or not (Ajoi et al., 2022). If the consumer surplus value is greater than the costs incurred, then visitors benefit from environmental services from Matanaga Farm Agrotourism (Zandi et al. 2018). Calculation of the economic value of Matanaga Farm Agrotourism can be obtained by multiplying the consumer surplus value by the number of visitors in a certain period (Firdaus et al. 2023).

RESULTS AND DISCUSSION

Economic Value of Matanaga Farm Agrotourism

The existence of Matanaga Farm Agrotourism provides environmental resource benefits both in terms of products and services. One environmental service that has economic value is natural tourism services. The term economic value is known in resource and environmental economics, namely a value that describes the overall value of resources and the environment in a particular area (Rahayu and Haryati 2022). The economic value of a resource can be determined by measuring the value of direct benefits, indirect benefits, or travel costs (Putri et al. 2019). Economic value is used to show the link between natural resource conservation and economic development so that it can be a tool to increase public appreciation and awareness of the environment (Romadhon, 2014). This value is described by the "price" of using a tourist location. This price is not only the entrance ticket fee paid but also includes travel costs and the time needed to make a tourist visit (Matthew et al. 2019).

Travel costs are the total costs incurred by visitors while carrying out tourism activities. The economic value of travel costs is a technique that determines the recreational value of a conservation area by the willingness to pay visitors (Parmawati, 2018). This approach observes expenditure when visitors travel to a tourist location, to estimate the benefits obtained from the recreational experience. Apart from that, this approach relies on information about the money and time needed by visitors to arrive at the location to estimate the willingness to pay to use tourist facilities (Hardiyanti and Subari 2020). The amount of costs incurred by visitors describes the visitor's WTP for tourism services. A person's assessment of a tourist visit is based on the hope of

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p-ISSN 2301-9948 | e-ISSN 2407-6260

getting benefits from the activity (Azizah et al., 2021). If the costs incurred are greater than the benefits obtained, then visitors will not undertake a tourist trip (Marpaung et al. 2023). If the benefits obtained are greater than the costs incurred then the tourist trip will be carried out and visitors will get a net benefit. This net benefit is called consumer surplus (Batubara et al., 2020).

The calculation results showed that the average number of visits by each visitor was 3 times, with a total travel cost of IDR 1,110,242 and the average total travel cost for visitors was IDR 346,924. So the consumer surplus per individual per year is IDR 1,144,977 or IDR 381,659 per individual per one visit. This value is still greater than the average costs incurred by visitors of IDR 348,318. If the consumer surplus value and the average travel cost are compared, it can be concluded that visitors benefit from environmental services that are greater than the costs incurred. The benefits obtained by visitors are in the form of indirect (intangible) benefits such as natural beauty, and fun and interesting experiences that cannot be assessed directly (Asniana et al. 2021). Apart from that, this value is also a form of visitor contribution to improving the quality of the environment which has been damaged as a result of tourism activities (Khairunnisaa and Tridoyo 2018).

The benefits obtained by visitors to Matanaga Farm include education about plant cultivation and land use, providing open thinking for visiting children regarding the importance of agriculture and farming it's fun (when the harvest atmosphere makes you happy), calms the mind because the atmosphere of Matanaga Farm is beautiful and cool. Apart from that, because the access road to Matanaga Farm is on an urban road, visitors do not have difficulty finding their needs (such as food, drinks, fuel filling places, workshops, and resting places) when visiting. Visitors from outside the city can also cut travel time because they can take the toll road. Visitors can also carry out complete consultations regarding plants in terms of propagation, fertilization, and dealing with pest attacks at no charge.

The potential economic value of a tourist attraction can be determined by multiplying the consumer surplus value by the number of visitors in a certain period. It is known that the number of visitors to Matanaga Farm Agrotourism in 2022 will be 2,173 visitors. Then multiplied by the surplus

consumers earn IDR 829,345,007 per year or IDR 69,112,083,917 per month. Based on this value, it can be concluded that the economic value of agrotourism during 2023 is IDR 829,345,007. This value is the economic value of natural resources and the agricultural environment (agribusiness) in Matanaga Farm agrotourism which has not been considered by the management. Based on its value, it turns out that Matanaga Farm has more value than its actual market value. The economic value of Matanaga Farm Agrotourism for tourism purposes can reach IDR 829,345,007 if decisions regarding resource improvement and management take into account Matanaga Farm's economic flow. Given these conditions, TCM's projected annual tourism value reflects how much money would be lost if less focus were given to Matanaga Farm's potential. This economic value also shows that the existence of Matanaga Farm Agrotourism is important for the community as a source of tourist destinations and environmental sustainability. This condition shows that there is visitor dependence on fruit tourism, so if there is damage or maximum use of

the environment it will affect the ecological and economic functions of visitors' interest in making tourist visits (Arkham et al. 2020). Managers must

take advantage of the number of visits which increases every year at a minimum to continue to survive and continue to improve as much as possible, by developing more attractive areas so that visitors will obtain more valuable benefits. Because the decreasing number of visits will have a small impact on the economic value of Matanaga Farm (Wubalem and Woldeamanuel, 2023).

CONCLUSION

The economic value of Matanaga Farm Agrotourism is IDR 829,345,007 per year, which is the economic value of natural resources and the agricultural environment (agribusiness) in Matanaga Farm agrotourism which has not been considered by the management. Matanaga Farm is important to the community as a source of tourism destinations and environmental sustainability. This condition shows that there is visitor dependence on fruit tourism, so if there is damage or maximum use of the environment it will affect the ecological and economic functions of visitors' interest in making tourist visits.

To realize opportunities obtained from economic value that has not been utilized optimally, managers should create policies and other facilities that can meet visitor satisfaction. Such as providing tour packages, tour gates, tourist attraction name signs, road signs, Agrotourism plans, and information boards. Managers can also maximize existing ponds as fishing areas, improve digital media as a marketing system, and make improvements to existing facilities such as huts and huts, rubbish bins, and benches.

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p-ISSN 2301-9948 | e-ISSN 2407-6260

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