International Journal of Economics, Business and Innovation Research
https://e-journal.citakonsultindo.or.id/index.php/IJEBIR
E-ISSN : 2964-0865
IJEBIR

The Impact Of Atv (All-Terrain Vehicle) Tourism Activities On The Economic Conditions Of The Community In Singapadu Kaler Village

***Wahyu Pradnyana*[1]**

[1]Department of Magister Tourism, Udayana University, Indonesia

Corresponding author : wahyupradnyana24@gmail.com

Abstract

This study analyzes the impact of ATV (All-Terrain Vehicle) tourism activities on the economic conditions of the community in Singapadu Kaler Village, Gianyar Regency. The research aims to identify the current tourism conditions, tourist characteristics, and the direct, indirect, and long-term economic impacts of ATV tourism activities. The study employs a mixed-method approach, combining qualitative and quantitative descriptive approaches. Data were collected through observation, interviews, and the distribution of questionnaires to tourists, business owners, and workers involved in ATV tourism. The results indicate that ATV tourism has a positive economic impact on the local community through increased income, employment absorption, and the development of small businesses supporting ATV tourism. However, challenges in sustainable management, such as environmental degradation and potential conflicts among business actors, are also present. This study recommends integrated management involving the government, the community, and business actors to support the sustainability of ATV tourism.

Keywords: ATV Tourism, economic impact, Multiplier effect

INTRODUCTION

Along with the development of tourism, adventure tourism is one of the fastest growing tourism sectors, attracting high-value customers, supporting local economies, and encouraging sustainable practices (UNWTO, 2014). One of the type tour an interesting adventure interest tourist is ATV (All-Terrain Vehicle) tours with The global market value for ATVs in 2021 was $3 billion, with North America alone contributed $2

Copyright at authors some right reserved this work is licensed under a Creative Commons Attribution-ShareAlike 4.0 International License.

billion. Projections show level growth annual by 7% between 2021 and 2027 (Wadhwani and Saha, 2021). The development of tour adventure in the form of ATV- Tour and Adventure in the Gianyar Regency started from awareness public for open business ATV tour with utilise potential natural rice fields, condition location adequate geographical location, cool weather, the presence of attractions culture additional, as well as the amount market demand (Saskariana and Bayu, 2017). Management tourism in the Gianyar area tend managed by the community local people who have capital (entrepreneurs) and have not own regulation official about standard management ATV tour from government Gianyar regency.

Singapadu Kaler Village is one of the village in Gianyar Regency which develops ATV tours since 2016 to moment This there is 10 units business ATV tours in the area. Ownership business the ATV tour dominated by society local Singapadu Kaler Village who has capital, even there is ownership ATV business that was established with system capitalization shares, which are formed from accumulation of capital based on desire public local for make business said. Existence ATV tours provide impact positive, especially in increase amount visit traveler archipelago and also overseas, so that can create climate good investment for interesting investor interest as investors with objective increase welfare economy public.

There is a circulation of money from outside injected to in economy local, causing the money spread in various form or transactions within business local. This is created by multiplier effect in economy, which encompasses from three components: direct impact, undirect impact, and induced impacts (Putra & Prasetyo, 2019). However, so far stakeholders involved in ATV tourism do not yet know more
about the economic impact and money turnover that it causes. Not only looking at the money turnover, the importance of knowing the economic impact of ATV tourism can also determine the extent to which ATV tourism activities can help improve the community's economy and reduce environmental and social impacts on the community. So that in the future through the findings of this study stakeholders can make the right decisions regarding the money turnover that has a significant impact on the local community's economy.

Method

This research that will be conducted has the aim of determining the impacts caused by ATV tourism activities based on an economic approach from a tourism perspective in Singapadu Kaler. This research uses a mixed methods approach,

Copyright at authors some right reserved this work is licensed under a Creative Commons Attribution-ShareAlike 4.0 International License.

combining two research approaches: qualitative and quantitative, with an explanatory sequential approach, prioritizing the quantitative method first and reinforcing the results using the qualitative method. In this study, the data collection techniques used are questionnaires, interviews, observations, and literature study. Tourist respondents were selected with a minimum age of 15 years, and the sample size was determined using the Slovin formula with a 10% margin of error, resulting in 100 respondents. Furthermore, the sampling of respondents from business units and local workers was conducted using purposive sampling, with each group consisting of 30 individuals. The data analysis in this study focuses on economic impact analysis, measured using the multiplier effect of the financial flows occurring. This data analysis in this study is an analysis of the economic impact, which is measured using the multiplier effect of the money flow that occurs. There are two types of multipliers that are measured in order to determine the economic impact of a tourism activity on the income of the local community (Vanhove, 2017), namely: Keynesian Local Income Multiplier (KLIM) and Ratio Income Multiplier (RIM) with the following formula:

Keynesian Income Multiplier = (D+N+U)/E Ratio
Income Multiplier, Type I = (D+N)/D Ratio Income
Multiplier, Type II = (D+N+U)/D **Description:**

E : Additional visitor expenditure (rupiah)
D : Local income directly obtained from E (rupiah)
N : Local income indirectly obtained from E (rupiah)
U : Local income induced from E (rupiah)

RESULTS AND DISCUSSION

The characteristics of tourists participating in ATV tourism activities in Singapadu Kaler Village can be categorized based on several factors. By gender, the majority are male, accounting for 63% of tourists. The largest age group is 26–35 years old, with 49% of tourists holding a bachelor's degree (S1). Additionally, 37% of the tourists are private employees from abroad, with the highest proportion (22%) coming from Australia. A significant portion of tourists, 63%, have an income exceeding IDR 50,000,000. The most common form of travel is visiting with friends, which accounts for 56%, while 68% use online transportation or rental vehicles. The majority (67%) spend 1–3 hours on their visit.

In terms of business unit characteristics, 76.67% of owners are male, with the dominant age group being 36–45 years old (46.70%). Most owners (53.34%) have a high school education, and 86.70% are married. Notably, 80% are native residents of

Copyright at authors some right reserved this work is licensed under a Creative Commons Attribution-ShareAlike 4.0 International License.

Singapadu Kaler. The total capital invested by business unit owners is IDR 22,902,000,000, with an average capital of IDR 763,400,000. The largest investments range from IDR 1,500,000,000 to IDR 3,200,000,000. The average duration of business operation is approximately 8 years (96 months) since 2016 until 2024. Regarding workforce characteristics, 83.33% of workers are male, with the largest age group being 16–25 years old (60.00%). Most workers (80%) have a high school education, 63.33% are married, and 73.33% are local residents of Singapadu Kaler. The average length of employment is 5 years (60 months).

Direct Impact of ATV Tourism

The highest average monthly income is generated by ATV tourism business owners, with an income of IDR 375,000,000 or 79.91% of the total income of business units in Singapadu Kaler Village. This is due to the significant monthly revenue earned from rental fees for ATV tour activities, which vary between IDR 450,000 and IDR 1,600,000 per ATV per tourist. However, the costs required for ATV business operations, maintenance, and employee salaries demand substantial financing.

On the other hand, the lowest income is from ATV guiding and photography services, with a revenue of IDR 3,750,000 or 0.80% of the total income of business units. ATV guiding and photography are situational or freelance jobs, meaning the services of photographers and ATV guides depend on other factors (tourists and ATV tourism) interested in using their services. This is because the price for photography services is separate from the package price for ATV tours.

In this business sector, there are two groups of freelance ATV guides comprising a total population of 18 individuals. However, there are also ATV guiding and photography services contracted by ATV business owners to work permanently during ATV tour activities. The income mentioned in the table below refers to freelance ATV guides and photographers. This business sector generates the lowest income as it serves as a supplementary service for tourists.

Reksoprayitno (2004) emphasizes that revenue refers to the total income earned over a specific period. In this case, the total income of business units in Singapadu Kaler Village to support ATV tourism activities is IDR 470,300,000 per month, with an average income of IDR 58,787,500. This indicates that the income received is relatively high, although each business unit generates different amounts. Based on the processed data, the benefits felt by business units can be observed from the net income of each unit according to its type of business.

Copyright at authors some right reserved this work is licensed under a Creative Commons Attribution-ShareAlike 4.0 International License.

International Journal of Economics, Business and Innovation Research
https://e-journal.citakonsultindo.or.id/index.php/IJEBIR
E-ISSN : 2964-0865
IJEBIR

Direct economic impact refers to the immediate effects experienced by a destination, specifically by business owners within the ATV tourism sector in Singapadu Kaler, as a result of transactions between tourists and these businesses. Research findings indicate that the average expenditure of tourists during their ATV tourism activities in Singapadu Kaler Village is IDR 1,130,000 per person. Businesses in Singapadu Kaler Village provide various necessities required by tourists during their visit, including ATV tours, accommodation, food and beverages, transportation, souvenirs, photography, and other services. Tourists' expenditures directly support the local economy of the visited area, creating a flow of money spent on tourist needs that circulates through local businesses, generates employment, and increases the income of local residents. The proportion of income and the direct economic impact on the total revenue of business respondents in Singapadu Kaler can be seen in Table 1.

Table 1. Proportion of Revenue and Direct Economic Impact

No	Business	Number of Business Units (b)	Average Income (month/Rp) (c)	Direct Economic Impact (Rp) (d=b*c)
1	ATV Tour	10	375.000.000	3.750.000.000
2	Accommodation	5	42.500.000	212.500.000
3	Café/ Resto	4	12.500.000	50.000.000
4	TV Guide	2	3.750.000	7.500.000
5	Souvenir	6	11.000.000	60.000.000
6	Photographer	5	3.750.000	18.750.000
7	Mini Shop	11	5.100.000	56.100.000
8	Rent Car	5	16.700.000	83.300.000
	Total	50	470.300.000	4.238.150.000

Based on Table 1, the direct economic impact supporting ATV tourism activities across all business units amounts to IDR 4,238,150,000, creating economic opportunities that actively involve the local community to sustain ATV tourism in Singapadu Kaler Village. This significant financial circulation encourages individuals with capital to invest in ATV tourism activities. In the context of ATV tourism in Singapadu Kaler Village, investments can be categorized based on their type and contribution to the development of tourism activities and their impact on the local economy. The establishment of a business chain for ATV tourism opportunities operates effectively due to investor support

Copyright at authors some right reserved this work is licensed under a Creative Commons Attribution-ShareAlike 4.0 International License.

in building a business community. The direct economic impact of ATV tourism service providers includes job creation, increased income for entrepreneurs and local residents, and contributions to tax revenue. The total workforce employed to support ATV tourism activities in Singapadu Kaler Village is ≥ 295 workers.

INDIRECT IMPACT OF ATV

The indirect impact of the ATV tourism business, as incurred by business owners, encompasses various aspects that go beyond the direct income from business operations. These impacts affect the economy, society, environment, and the overall reputation of the tourism destination. The indirect economic impact of ATV tourism activities can be observed through the expenditures made by business owners within Singapadu Kaler Village. This includes spending by business owners, which constitutes an indirect impact in the tourism area, particularly through the hiring of employees from the local community. This, in turn, creates an indirect economic impact in the form of wages earned by the workers employed in these business units. The indirect economic impact can be observed through the proportion of employee income and the total business expenditures within the location, as shown in Table 2 below:

Table 2. Indirect Economic Impact

Business Unit	Number of Business Units (a)	Labor Income (Rp/Month) (b)	Total Business Expenditures Within Location (Rp/Month) (c= a*b)	Total Indirect Economic Impact (Rp) (d= b + c)
ATV Tour	10	4.262.500	1.081.250.000	1.085.512.500
Accommodation	5	2.900.000	63.125.000	66.025.000
Café/ Resto	4	2.750.000	23.200.000	25.950.000
TV Guide	2	2.750.000	-	2.750.000
Souvenir	6	3.100.000	26.925.000	30.025.000
Photographer	5	3.750.000	3.750.000	7.500.000
Mini Shop	11	3.031.250	62.150.000	65.181.250
Rent Car	5	4.000.000	21.750.000	25.750.000

Copyright at authors some right reserved this work is licensed under a Creative Commons Attribution-ShareAlike 4.0 International License.

International Journal of Economics, Business and Innovation Research
https://e-journal.citakonsultindo.or.id/index.php/IJEBIR
E-ISSN : 2964-0865
IJEBIR

Total	48	26.543.750	1.282.150.000	1.308.693.750

Based on Table 2, it can be observed that the nominal values vary depending on the type of business unit, the amount of employee income, and the total business expenditures within the study area. The business unit with the largest indirect impact comes from the ATV tourism sector, with a total economic impact of IDR 1,085,512,500 per month out of a total of IDR 1,308,693,750. This indicates that the presence of ATV tourism activities in Singapadu Kaler has the capacity to absorb a significant workforce in the tourism sector and generate indirect economic impacts, including a ripple effect experienced by supporting sectors and the surrounding community.

INDUCED IMPACT

A tourism activity conducted in a destination not only has direct and indirect impacts but also generates subsequent impacts on the economic circulation within the tourism area. Dritasto (2013) explains that subsequent economic impacts are those derived from expenditures made by local workers in the area. Furthermore, it is explained that the types of expenditures made by workers include costs for consumption, education, electricity, daily necessities, transportation, and other expenses. To analyze the subsequent impacts of ATV tourism activities, the average monthly expenditures of workers in Singapadu Kaler are calculated and then multiplied by the number of workers in business units supporting ATV tourism activities. This information can be observed in Table 3 below:

Table 3. Impact Economy Advanced

Business Unit	Number of Labor (a)	Average Labor Expenditure (Rp/Month) (b)	Induced Economic Impact (c = a *b)
ATV Tour	210	3.314.375	696.018.750
Accommodation	21	2.960.000	62.160.000
Café/ Resto	16	2.660.000	42.560.000
TV Guide	15	2.462.500	36.937.500
Souvenir	5	3.148.333	15.741.667
Photographer	8	2.500.000	20.000.000

Copyright at authors some right reserved this work is licensed under a Creative Commons Attribution-ShareAlike 4.0 International License.

Mini Shop	15	2.775.952	41.639.286
Rent Car	5	2.825.000	14.125.000
Total	295	22.646.161	929.182.202

Based on Table 3, the average expenditure of workers for their needs is IDR 2,830,770 per month, with a total of IDR 22,646,161 from 295 worker respondents. The high value of the subsequent economic impact based on the expenditures of workers employed in the ATV tourism business amounts to IDR 929,182,202. This figure indicates that the local community directly involved in ATV tourism services can have a significant impact, playing an important role that affects the sustainability of the surrounding economy, society, and environment. These subsequent impacts are not only related to the direct profits of the business but also encompass broader effects on the regional economy and the local community.

Multiplier Effect Value of Expenditure Respondents Travelers

The value of the multiplier effect is a tool used to measure the extent to which tourism activities in a particular location create economic impacts on the local community, especially in terms of income. According to the Marine Ecotourism for Atlantic Area (META) organization in Yuhista et al. (2020), the economic impact on local communities can be measured using two types of multipliers: (1) Keynesian Multiplier Effect, which indicates how much visitor spending influences the increase in local income, and (2) Ratio Income Multiplier, which shows the extent of the direct impact from visitor expenditures on the local economy. The results of the economic impact analysis of ATV tourism in Singapadu Kaler Village can be seen in Table 4.

Table 4. Analysis Results Impact Economy ATV Tour

Category	Value (Rupiah)
Tourist Expenditure (E)	5,075,920,800
Direct Economic Impact (D)	4,238,150,000
Indirect Economic Impact (N)	1,308,693,750
Induced Economic Impact (U)	929.182.202

Based on the results of the analysis, three estimated multiplier values were calculated: (1) Keynesian Income Multiplier, which represents the value derived from the

Copyright at authors some right reserved this work is licensed under a Creative Commons Attribution-ShareAlike 4.0 International License.

direct impact of tourist expenditures, (2) Ratio Income Multiplier Type I, which represents the value derived from the indirect impact of tourist expenditures, and (3) Ratio Income Multiplier Type II, which represents the value derived from the subsequent impact. The results of the analysis and the multiplier values can be seen in Table 5 below:

Table 5. The Multiplier Effect of the Cash Flow in Singapadu Kaler

Multiplier	**Mark**
Keynesian Income Multiplier	1, 28
Ratio Income Multiplier Type I	1, 31
Ratio Income Multiplier Type II	1, 53

According to META (2001), if the value is between zero and one (0 < x < 1), then the tourism location has a low economic impact. However, if the value is greater than one (1), the activity provides a significant economic impact on the local community. The calculation results show that the economic impact of ATV tourism activities in Singapadu Kaler Village can be seen from the Keynesian Income Multiplier value of 1.28, meaning that for every increase of one rupiah in tourist expenditure,there will be a direct impact of IDR 1.28 on the local economy. It can be said that an increase of IDR 10,000 in tourist spending will result in an impact of IDR 12,800 on the increase in local income.

The Ratio Income Multiplier Type I value is 1.31, meaning that for every increase of one unit, the income received by the business owner will increase by 1.31 units in terms of both the business owner's income and the workers' income. Furthermore, the value obtained from the Ratio Income Multiplier Type II is 1.53, meaning that if an increase of one unit or IDR 10,000 occurs, the income of the business unit will increase by 1.53 units or IDR 15,300 in total income for the community, which includes direct impacts, indirect impacts, and subsequent impacts (income of business owners, workers' income, and workers' expenditures) from ATV tourism activities in Singapadu Kaler Village.

Although economic growth occurs from ATV tourism activities, further consideration is needed to create a dedicated fund for environmental rehabilitation on the routes used for ATV tourism. In addition, involving the local community in ATV tourism activities in Singapadu Kaler Village is crucial as part of an interconnected ecological system, where the success of tourism attraction development depends on the level of acceptance and support from the local community. A positive response from the community toward ATV tourism activities, if not well-managed, can lead to behavior

Copyright at authors some right reserved this work is licensed under a Creative Commons Attribution-ShareAlike 4.0 International License.

where the community becomes overly dependent on the tourism sector. This dependency is vulnerable to economic fluctuations, seasons, or global crises such as a pandemic, which can affect tourist visits.

CONCLUSION

This study concludes that ATV tourism in Singapadu Kaler Village has been able to provide a tangible impact on the local economy, with a Keynesian Local Income Multiplier value of 1.28, a Ratio Income Multiplier Type I of 1.31, and a Ratio Income Multiplier Type II of 1.53. This economic impact occurs due to the circulation of money between tourists, business units, and the workforce. The more tourists engage in ATV activities in Singapadu Kaler Village, the more income is generated for business units and subsequent impacts. This study is an initial investigation into the economic impact of ATV tourism activities on local income. Of course, there are still many other supporting variables related to the impact of ATV tourism activities, such as social impacts, environmental impacts, tourists' perceptions of adventure tourism, and other variables that may be more concrete for further research.

REFERENCES

Dritasto, A., & Anggraeni, A. A. (2013). Analisis Dampak Ekonomi Wisata Bahari Terhadap Pendapatan Masyarakat Di Pulau Tidung. Reka Loka Jurnal Online Institut Teknologi Nasional

Putra, A., Wijayanti, T., & Prasetyo, J. (2019). Analisis Dampak Berganda (Multiplier Effect) Objek Wisata Pantai Watu Dodol Banyuwangi. Journal Of Tourism and Creativity, 1(2).

Saskariana, I Wayan dan I Made Bayu Ariwangsa. (2017). Peran Serta Masyarakat Desa Adat Pakuseba Dalam Pengelolaan Daya Tarik Wisata Bali Taro Adventure Tours. Jurnal Destinasi Pariwisata. Vol. 5 No 1, 2017

UNWTO. (2014). Global Report on Adventure Tourism. AM Reports, Volume nine. Madrid-Spain.

Vanhove, N. (2017). The Economics of Tourism Destinations: Theory and Practice (3rd ed.). Routledge

Wadhwani, P., Saha, P. K., Kalra, J. K., Gainder, S., & Sundaram, V. (2021). A study to compare maternal and perinatal outcome in early vs. late onset preeclampsia. Obstetrics & Gynecolog

Copyright at authors some right reserved this work is licensed under a Creative Commons Attribution-ShareAlike 4.0 International License.

Yuhista, A. (2020). Dampak Ekonomi Sport Tourism Surfing Terhadap Pendapatan Masyarkat Lokal di Kawasan Wisata Pantai Tanjung Setia, Kabupaten Pesisir Barat Provinsi Lampung. Academia. Edu jurrnal

Copyright at authors some right reserved this work is licensed under a Creative Commons Attribution-ShareAlike 4.0 International License.