



Quality and Quantity of Tourists in Supporting Sustainable Tourism Environmental Economic Review

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Abstract— The specific purpose of this study is to determine the influence of the quality and quantity of tourists visiting Bali during the pandemic, and how tourists protect the environment and culture as a component of tourist destinations in Bali. Academically there are three indicators to see quality tourists 1. Having purchasing power, 2. Tourists who care about the environment, 3. Tourists who have concern for local culture. These three indicators can be detailed and measured using an environmental economic approach, namely using the Travel Cost Method (TCM), by asking tourists' willingness to pay. Conservation of the surrounding nature is also one of the efforts used to help the development of sustainable tourism. With the existence of sustainable tourism, not only economic factors are considered, but also the preservation of nature and culture. So that it can guarantee the stability of tourism in the future without the impact of environmental damage. In collecting data this research uses quantitative methods, namely: interviews, observations and questionnaires. The results of this study indicate that the quality and quantity of tourists affect the total benefit value of direct and indirect use, where the direct benefit value is the Travel Cost Method (TCM) of Rp. 11.243.389.005.00, while the indirect use value is the willingness to pay Rp. 1,026,175,000.

Keywords— quality, quantity, environment, culture, tourists

I. INTRODUCTION

The glitter of Bali tourism with the visits of millions of domestic and foreign tourists every year has been temporarily halted by the Novel Coronavirus Disease (Covid-19). At the beginning of the emergence of the Covid-19 case in Wuhan, China, December 2019, Bali tourism had not been affected by this issue because there were still many domestic and foreign tourists visiting Bali. Based on the records of the Bali Provincial Central Statistics Agency, the Central Statistics Agency (BPSPB), in 2019 the number of foreign tourist visits

to Bali was still normal. However, along with the spread of Covid-19 to Bali in 2020, Bali tourism began to feel the impact as seen in the decline in the number of foreign tourists visiting Bali as many as 1,069,473 people.[1]

Sustainable tourism is a concept that can provide economic, social benefits, without causing environmental degradation, and is expected to be able to restore (restoration) environmental conditions that have been degraded [2]. Efforts to develop and manage resources must be directed at fulfilling the economic, social and aesthetic aspects, while maintaining the integrity and or preservation of ecology, biodiversity, culture, and living systems. Sustainable tourism is one of the concepts considered by all countries in the world to achieve the sustainable development goals (SDGs). SDG's adhere to the latest model of sustainability, (economy is part of social and social is part of environment)[4]. This means that the SDGs do not see separate or even conflicting goals between the three. Strictly speaking, this also means that only economic forms that are subject to social interests and environmental sustainability can be developed in the 2016-2030 period. This can be read as a form of criticism of the logic of tourism which not only damages the environment, but also results in social and economic exclusion. injustice. One indicator in the 12th SDG goal states the need for cooperation with various parties to create green tourism [5].

Sharma's research (2016) in the tourist destination of Kerwa, Bhopal, India found that increased tourism activities lead to resource exploitation and produce waste that is harmful to the environment, including disruption of tourism activities, thereby reducing tourist interest in visiting [6]. Research by Pipin Noviati Sadikin et al (2017) The economic value of Mount Rinjani is US\$ 1,208,790/year or Rp. 14.50

billion/year, this proves that if the environment is managed properly it will have enormous economic value.[7]

Tourism policy in Indonesia is regulated in the Minister of Tourism Regulation Number 14 of 2016 concerning Guidelines for Sustainable Tourism Destinations.[8] In this regulation, environmental criteria are considered for carrying out tourism activities [9] In addition, tourism development according to Law Number 10 of 2009 concerning Tourism states that one of the implementations of tourism is carried out with the principle of preserving nature and the environment [10]. Tourism activities will have an impact on the environment because there are still many activities of overexploitation of ecosystems in tourist destinations.

Quality can be interpreted as the quality or level of good or bad of a level or degree of something. The term quality is often used for both business and other things. There are many types of quality ranging from service quality, product and so on [11].

The concept of Quality tourism that has been applied in developed countries, where for some unique tourist destinations and providing an extraordinary experience limit the number of visitors but apply high prices. This concept seems to be an alternative if we really want quality to be applied in the tourism industry. Some tourist destinations must get special treatment in the interest of resource protection [12].

While quantity is always related to numbers, figures or things that are clear, whether it's the number of tourists who come to Bali, how many opinions are generated each year to accommodate international and national tourists. However, the government and tourism actors need to anticipate the negative impacts resulting from the success in quantity. On the one hand, quality aspects need to be carefully considered so that when quantity is reached, quality must go hand in hand. If the quality aspect is ignored, mass tourism will occur, this is what we observe happening in Bali today. The increase in tourist visits to Bali experienced a significant increase, but was not matched by an increase in quality.

II. RESEARCH METHOD

This type of research is quantitative research based on the philosophy of positivism, used to examine certain populations or samples, data collection using research measuring instruments (instruments), quantitative/statistical data analysis, with the aim of testing and proving the proposed hypothesis. made. /arrange. Data collection techniques by means of observation (interviews or questionnaires) and research results tend to be generalized.

A. Sampling and Sampling Techniques

Given the uncertain number of tourists visiting Kuta beach, the sampling was carried out as follows: a. Accidental sampling, b. Purposive sampling.

B. Data analysis techniques

The economic value of tourism destinations includes the value of benefits for recreation (Use Value), measured by the method of travel costs, socio-economic characteristics (income, employment and education), and tourist demographics (religion, age, gender, marital status).). . ,

family size and area of origin).). and non-use value, measured by the contingent evaluation method, by extracting data from each respondent who asked if they were willing to pay. This method will calculate the willingness to pay per tourist per visit, will refer to the formula Grandstaff and Dixon (1991).

C. Total Economic Value

The total economic value of a tourist destination is an accumulation of use value and non-use value and refers to the formula of Georgio et al (1977).

D. Regression Method

To determine the factors that affect the cost of returning tourists to a tourist destination, a multiple linear regression approach is used (see Kerlinger and Pedhazur, 1987).

III. DISCUSSION

A. Environmental problems due to tourism industry activities

The impact of the tourism industry in Bali in general and Kuta Beach in particular does not have a negative impact and instead has a positive impact on the lives of the Balinese people. Because it is managed by taking into account the preservation of culture and environmental quality as well as the continuity of the tourism business itself. The basic foundation underlying it is local wisdom that is upheld by the Balinese people which is often referred to as Tri Hita Karana. Tri Hita Karana is the three causes of prosperity that comes from the harmonious relationship between man and his God, man and man and man and his environment.

TABLE I. LIST OF SELLERS AROUND KUTA BEACH TOURISM OBJECT AND AVERAGE DAILY INCOME

No	Type of Business	Average income (Rp)
1	Selling food and drink	200.000 – 400.000
2	Hair braid service	100.000 – 200.000
3	Canoe rental	150.000 – 250.000
4	Massage service	100.000 – 200.000
5	Surfboard rental	150.000 – 300.000
6	Ontal bike rental	200.000 – 300.000

Source : Kuta Beach, Th 2022

B. Quality and Quantity of Tourists in Supporting Sustainable Tourism

Direct Usage Value

Direct use value is measured using the travel cost approach (TCM), socioeconomic characteristics (income, employment, and education) and tourist demographics (religion, age, gender, marital status, family size and area of origin).

TABLE II. NUMBER OF TOURIST VISITS TH 2022

No	Month	Number of Visit
1	Jan	1,200
2	Feb	1,199
3	Mar	1,200
4	Apr	2,500
5	May	1,120
6	Jun	3,060

7	Jul	3,068
8	Aug	4,300
9	Sep	4,920
10	Okt	5,540
11	Nov	6,160
12	Des	6,780
Total		41,047

Note: January to May data is real while June to December data is prediction using a linear trend

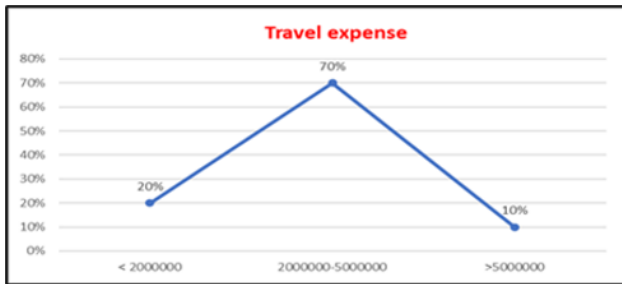


Fig. 1. Travel Cost Methode (TCM)
Source: processed from primary data

Based on the average round trip cost (travel cost method) of the number of tourists as much as Rp. 273,915,000 and the number of visitors to Kuta Beach during 2022 was 41,047 people (Trend Linear), then the total value of direct benefits obtained is as follows:

$$TTC = 100 \sum_{i=1}^N ATC_1 [ni] T = 273.915.000 \times \frac{100}{100} \times 41.047 \text{ orang} = \text{Rp. } 11,243,389,005,000$$

It can be said that the total benefit value from direct use of Kuta Beach as a tourist attraction has a very large value. This value can be used as a guide in managing and conserving natural and cultural resources, so that the function of the ecosystem itself can be well maintained.



Fig. 2. Willingnes to pay
Source: processed from primary data

Based on the average willingness to pay from the number of tourists and the number of visitors to Kuta Beach during 2022 of Rp. 25,000, then the total value of indirect use benefits is obtained as follows:

$$TTC = 100 \sum_{i=1}^N ATC_1 [ni] T = 25.000 \times \frac{100}{100} \times 41.047 \text{ orang} = \text{Rp. } 1.026.175.000$$

It can be said that the total indirect value of the Kuta Beach area as a tourist attraction has a very large value and it all depends on the willingness to pay visitors and the frequency of tourist visits throughout the year.

From the Grafik above, it can be seen that the demand curve is linear, meaning that the higher the supply of willingness to pay, the fewer the number of tourists visiting, and vice versa.

Multiple Linear Regression (Microsoft excell 2016)
Factors that affect travel costs method (TCM) of round-trip tourists using multiple linear regression.

SUMMARY OUTPUT	
Regression Statistics	
Multiple R	0.7732
R Square	0.5978
Adjusted R Square	0.4829
Standard Error	433779
Observations	10

From the Adjusted R Squere, it can be seen that the magnitude of the simultaneous influence of the independent variable on the dependent variable is 0.48, which means that 48% affects the Y variable, the remaining 100% is 51.71%, there are factors outside the independent variable that affect the dependent variable.

ANOVA

	df	SS	MS	F	Significance F
Regression	2	1.958E+12	9.789E+11	5.202516	0.041255435
Residual	7	1.317E+12	1.882E+11		
Total	9	3.275E+12			

ANOVA is to determine whether there is an effect, here we see a significance value of 0.04 with a significance level of 0.05, here we compare it with a significance of 0.04, this has reduced the significance value that we use, meaning that there is a combination of the same effects between the two variables are the number of families and the age of TCM.

	Coefficient	Standard Error	t-Stat	P-value	Lower 95%	Upper 95%	Lower 95.0%	Upper 95.0%
Intercept	737796	1100715	0.670288	0.524164	-1864982.058	3340575	-1864982	3340575
X Variable 1	522240	177384.4	2.944115	0.021587	102792.6888	941687.7	102792.7	941687.7
X Variable 2	8239.7	13598.03	0.605946	0.033675	-23914.55496	40393.89	-23914.55	40393.89

Judging from the influence based on the variable, namely X1, the number of families that affect TCM, what we pay attention to is the P Value of X1 which is 0.02 when compared to 0.05, this is already smaller than 0.05, meaning that the X1 variable, namely the variable number of families has an effect against TCM, while X2 is also smaller than 0.05%, meaning that the X2 variable, namely age, has a significant effect on PTM, but the magnitude of the effect is 51.71% because there are other factors that affect the 2 variables.

Comparing quality with quantity in the world of tourism is a bad thing, because no matter how good the quality of tourists, if the number is small, it will not be able to improve the welfare of the local community which is the goal of development. development. tourism development. The positive impact on local communities and state revenues is a direct function of the multiplication between quality and quantity. It's not wrong, the quality of tourists is needed, but the quantity can't be ruled out either. Quality and Quantity both contribute to environmental and cultural preservation towards sustainable tourism.

IV. CONCLUSION

From the data and facts collected, it can be concluded that:

One: tourism activities have a significant impact on various aspects of the socio-cultural life of the local community, including the way of life which includes the way they live, work, play and interact with each other, tourism provides new business and job opportunities. However, it also causes a shift in employment from agriculture to non-agriculture.

Second: culture, which includes a system of values, norms, and beliefs. In this aspect, tourism leads to the preservation of various traditional arts and historical relics. In addition, tourism has an influence on the shift in values held by the community which is supported by the entry of information and telecommunications technology into tourist areas that are actually in rural areas. This has an impact on a shift in behavior patterns and adherence to religious teachings.

Third: society, including population structure, social cohesion, community stability, aesthetics as well as facilities and infrastructure that are recognized as public facilities. In this case, tourism causes an increase in the number of educated

people, the maintenance of security and beauty of the environment, the development of public facilities and infrastructure and an increase in prices in the tourist attraction environment. So that the impacts that arise are not destructive, the management and development of tourism must be directed to achieve a balance between the various subsystems that support tourism.

Fourth: The quality of tourists (tourists) is not the only variable in increasing environmental awareness, but quantity also includes the variable of increasing environmental awareness because there are many. (domestic tourists).

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REFERENCES

- [1] Wahyuningsih, 2019, HOTELIER JOURNAL Politeknik Indonusa Surakarta ISSN : 2442-7934 Vol. 5 No. 2
- [2] Klaus Schwab, 2017, The Global Competitiveness Report, World Economic Forum Sadikin dkk, 2017, Jurnal Analisis Kebijakan Kehutanan Vol. 14 No.1, Mei 2017 : 31-46 p-ISSN 0216-0897 e-ISSN 2502-6267 Terakreditasi No. 755/AU3/P2MI- LIPI/08
- [3] Nofriya, 2019, Dampak Lingkungan Akibat Kegiatan Pariwisata di Kota Bukittinggi, Dampak: Jurnal Teknik Lingkungan Universitas Andalas, ISSN (Print) 1829-6084 |ISSN (Online) 2597-5129
- [4] Sadikin dkk, 2017, ANALISIS WILLINGNESS-TO-PAY PADA EKOWISATA TAMAN NASIONAL GUNUNG RINJANI, Jurnal Analisis Kebijakan Kehutanan Vol. 14 No.1, Mei 2017 : 31-46 p-ISSN 0216-0897 e-ISSN 2502-6267.
- [5] Peraturan Menteri Pariwisata Nomor 14 Tahun 2016 tentang Pedoman Destinasi Pariwisata Berkelanjutan.
- [6] Peraturan Menteri Pariwisata Dan Ekonomi Kreatif Nomor 1 Tahun 2016 tentang Penyelenggaraan Sertifikasi Usaha Pariwisata.
- [7] Peraturan Menteri Pariwisata Dan Ekonomi Kreatif tentang Undang-Undang Republik Indonesia Nomor 10 Tahun 2009 tentang Kepariwisataan
- [8] Alfi Syahri Lubis, "Pengaruh Kualitas Pelayanan (Service Quality) terhadap Kepuasan Pelanggan PT. Sucofindo Batam", Ejournal Polibatam, Vol. 1 No. 2 (Batam: Polibatam, 2017), hal. 86
- [9] Adnyana, (2018, November 1), Diakses pada 1 September 2022, dari <https://www.balipost.com/news/2018/11/01/60172/Kuantitas-Vs-Kualitas-Pariwisata-Bali.html>
- [10] Grandstaff dan Dixon, 1991. Economic Valuation Tecnicques for The Environment.
- [11] Georgou, 1977. Economic Values and The deolving Word. Edward ElgarCheltenham, UK and Lyme, US Hetsner (1965).
- [15] Kerlinger, 1987. Foundation of Multiple regression Analysis. New York: Holt, Rinehart & Winston Inc.

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