

ECONOMIC VALUATION OF TANAH LOT TOURIST ATTRACTION: TRAVEL COST METHOD AND CONTINGENT VALUATION METHOD

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ABSTRACT

This study, entitled "Economic Valuation of Tanah Lot Tourist Attraction: The Travel Cost Method and The Contingent Valuation Method". The objective of the study is to estimate the economic value of Tanah Lot tourist attraction with the travel cost method and the contingent valuation method based on domestic and foreign tourists. The variables used in this study are the dependent variable (number of visits and willingness to pay) and the independent variable (travel expenses, income, time, quality, and presence or absence attractions substitution). The data used in this study are the primary data that answer of the questionnaire from 100 respondents and the secondary data, data on the number of visitors Tanah Lot tourist attractions. The conclusion of the study is the economic value of Tanah Lot tourist attraction based on the travel cost method is the combination of domestic travelers and foreign tourists were in the range of Rp100.637.045.895.000,00 to Rp590.826.836.085.000,00 with average economic value of Rp294.535.273.042.000,00 and the economic valuation of Tanah Lot tourist attraction based on the contingent valuation method is the combination of domestic and foreign tourists were in the range of Rp52.623.720.045,00 to Rp Rp209.324.845.665,00 with average economic value of Rp122.387.253.768,00.

Keywords : *Economic valuation, Travel cost method, Contingent valuation method.*

Introduction

Bali's diverse culture with variety of unique natural landscape make this island into a major tourist destination in the world, so that the entry of domestic and foreign tourists en masse to Bali. This situation makes Tanah Lot Tourist Attraction as one of the major tourist destination in Bali. The impacts are given from this situation, both positive for development and economic growth and negative environmental, social, and culture as a consequence of developments in the area of the island of Bali. Bali as a window for Indonesia tourism business not only attract investors to conduct their business in Bali but also to attract job seekers, both nationally and internationally to work in the tourism sector as a result of population growth in Bali is very high which resulted in population growth and an increase in tourist arrivals. This will have an impact on the lives of three Bali environment that is environmentally harmonious spiritual, social and natural.

In the development of Tanah Lot Tourist Attraction, development of tourism facilities near Tanah Lot perceived spiritual environment has been disturbing the sanctity and spiritual life of the area. Density continues to increase, the gap between those who benefit from tourism and those who are marginalized by tourism has led to social tensions, especially in terms of land use.

The other impact on the natural environment such as loss of farmland fields because conversion into tourist facilities as a result of the need of land for tourism development, such as the conversion of paddy fields into Bakrie Group's golf course next to the Tanah Lot temple. As well as coastal erosion problems that accompany it.

Considering, the number of opportunities and contributions that will be given in the presence of a regional tourism destination. One is the opening of jobs that will improve the welfare of communities around specific and relationship with local revenue contribution of retribution

attractions. Where Tabanan has several leading tourist attraction, Tanah Lot is one of them, which has accounted for approximately 40 percent of total revenue (Bali in figures, 2013). Therefore, the government needs to optimize the use and utilization of regional assets through better asset management. It would require an assessment of the economic from Tanah Lot Tourist Attraction that can be known economic benefits that can later be used as consideration of local governments in decision making related to the optimization, the use and utilization of Tanah Lot Tourist Attraction.

Research Method

This study used a descriptive research design of data collection through a list of questions or market surveys include data collection to test the hypothesis: 1) The economic value is a measurement of the amount of the opinion of the benefits of items and services refers to the concept of willingness to pay of the consumer to acquire items and services produced by natural resources and the environment, 2) Economic valuation is a process in giving estimates and opinions on items and services of an object assessment of natural resources that can not be marketed, in this case the Tanah Lot Tourist Attraction. 3) Travel cost method is a method that examines the costs that would be incurred by an individual for the services of natural resources and the environment by assuming that the value of the services of a travel destination can be seen from willingness to pay. 4) Contingent valuation method is a method to estimate the willingness to pay of individuals directly by asking individuals about their willingness to pay for the items and services offered by an attraction. 5) Consumer surplus is the value of the additional satisfaction obtained in the individual to consume a number of items from the amount paid. The satisfaction is greater than the price paid. 6) Estimates of willingness to pay is calculated the average of willingness to pay of each individual, based on the value of the average (mean) or median based on attraction.

Results and Discussion

Economic Analysis Travel Cost Method

1. Economic Analysis of Domestic Tourist Travel Cost Method

Analysis result of linear regression model the number of domestic tourist visits to Tanah Lot Tourist Attraction is as follows:

$$V = 0,944 - 0,0000005 * TC + 0,0000001 * INCOME - 0,556 * TIME + 0,022 * AGE + 0,739 * DQ - 0,017 * DSUB$$

(R Square: 0.254, F-stat: 3.172)

2. Economic Analysis of Foreign Tourist Travel Cost Method

Analysis results of linear regression model the number of foreign tourist to visits Tanah Lot Tourist Attraction is as follows:

$$V = 1.341 + 0.0000000532 * TC - 0.000000003 * INCOME - 0.464 * TIME + 0,044 * AGE + 0,072 * DQ - 0,693 * DSUB$$

(R Square: 0.292, F-stat: 2.062)

Economic Analysis of Contingent Valuation Method

1. Economic Analysis of Domestic Tourist Contingent Valuation Method

Analysis result of linear regression model the number of domestic tourist visits to Tanah Lot Tourist Attraction is as follows:

$$V = 14681,18 - 0,000989 * TC + 0,000541 * INCOME - 740,45 * TIME - 57.447 * AGE - 1,587.446 * DQ - 104,487 * DSUB$$

(R Square: 0.339, F-stat: 4.780)

2. Economic Analysis of Foreign Tourist Travel Cost Method

Analysis results of linear regression model the number of foreign tourist to visits Tanah Lot Tourist Attraction is as follows:

$$V = 56160,26 - 0,000259 * TC + 0,000181 * INCOME - 3201,21 * TIME + 167,312 * AGE - 8972.17 * DQ - 10702.80 * DSUB$$

(R Square: 0.262, F-stat: 0.138)

Economic Value Estimation of Tanah Lot Tourist Attraction

1. Economic Value Estimation of Tanah Lot Tourist Attraction with Travel Cost Method

The economic value of Tanah Lot Tourist Attraction by using the travel cost method can be known through consumer surplus. Consumer surplus of visitor Tanah Lot Tourist Attraction can be calculated with the formula Fauzi (2006, 216):

$$CS = \frac{V_2}{2b_1}$$

- a. CS is the consumer surplus
 - b. V is the average number of visits per individual respondents
 - c. β_1 is the regression coefficient of respondents travel costs
- $$CS = \frac{V^2}{2\beta_1}$$
- $$= \frac{(1.85)^2}{2(0,0000005)}$$
- $$= Rp3,422,500,-$$

$$CS_{MAKS} = \frac{(V_{nean} + S.E. of Regrecion)^2}{2 \beta_1}$$

$$CS_{MAKS} = \frac{(1,85 + 1,105588)^2}{2(0,0000005)}$$

$$CS_{MAKS} = Rp8.735.500,-$$

$$CS_{MIN} = \frac{(V_{nean} - S.E. of Regrecion)^2}{2 \beta_1}$$

$$CS_{MIN} = \frac{(1,85 - 1,105588)^2}{2(0,0000005)}$$

$$CS_{MIN} = Rp554.149,-$$

The number of domestic visitors Tanah Lot Tourist Attraction in 2013 was as much as 1,805,193 visitors. Then the economic value obtained of Tanah Lot Tourist Attraction by domestic travelers, i.e.: the value of consumer surplus per year on average Rp6.178.273.042.000,00 the consumer surplus in the range up Rp15.769.836.085.500,00 to Rp1.000.345.895.000,00 per year.

2. Economic Value Estimation of Tanah Lot Tourist Attraction with Travel Cost Method based on Foreign Tourist

The economic value of Tanah Lot Tourist Attraction by using *the travel cost method* can be known through consumer surplus. Consumer surplus of visitor Tanah Lot Tourist Attraction can be calculated with the formula Fauzi (2006, 216):

- $$CS = \frac{V^2}{2\beta_1}$$
- a. CS is the consumer surplus
 - b. V is the average number of visits per individual respondents
 - c. β_1 is the regression coefficient of respondents travel costs

$$CS = \frac{V^2}{2\beta_1}$$

$$= \frac{(1.72)^2}{2(0,0000000532)}$$

$$= \frac{2(0,0000000532)}{2 \beta_1}$$

$$= Rp278.45,113,-$$

$$CS_{MAKS} = \frac{(V_{nean} + S.E. of Regrecion)^2}{2 \beta_1}$$

$$CS_{MAKS} = \frac{(1,72 + 0,70895)^2}{2(0,0000000532)}$$

$$CS_{MAKS} = Rp554.492.303,-$$

$$CS_{MIN} = \frac{(V_{nean} - S.E. of Regrecion)^2}{2 \beta_1}$$

$$CS_{MIN} = \frac{1,72 - 0,70895)^2}{2(0,0000000532)}$$

$$CS_{MIN} = Rp95.023.496,00$$

The number of foreign visitors Tanah Lot Tourist Attraction in 2013 was as much as 1,037,088 visitors. Then the economic value obtained of Tanah Lot Tourist Attraction by foreign respondents, i.e.: the value of consumer surplus per year on average Rp288.357.000.000.000,00 the consumer surplus in the range up Rp575.057.000.000.000,00 to Rp99.636.700.000.000,00 per year.

Economic Value Estimation of Tanah Lot Tourist Attraction with Contingent Valuation Method

1. Economic Value Estimation of Tanah Lot Tourist Attraction with Contingent Valuation Method

The economic value of Tanah Lot Tourist Attraction by using the contingent valuation method is obtained by multiplying the average sample of the number of population (Fauzi, 2006: 223).

Economic Value of Tanah Lot Tourist Attraction based on Domestic Tourist with Contingent Valuation Method			
Economic Value	Avarage (Rp)	Minimum (Rp)	Maximum (Rp)
WTP/ responden	12.222	5.000	25.000
WTP/year	12.22- x 1,857 = 22.696,-	5.000,- x 1,857 = 9.285,-	25.000,- x 1,857 = 46.425,-
Population	1.805.193,	-	-

Economic Value	40.970.660.328,-	16.761.217.005,-	83.806.085.025,-
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Source: Adapted

2. Economic Value Estimation of Tanah Lot Tourist Attraction with Contingent Valuation Method based on Foreign Tourist

The economic value of Tanah Lot Tourist Attraction by using the contingent valuation method is obtained by multiplying the average sample of the number of population (Fauzi, 2006: 223).

Economic Value of Tanah Lot Tourist Attraction based on Foreign Tourist with Contingent Valuation Method

Economic Value	Average (Rp)	Minimum (Rp)	Maximum (Rp)
WTP/ responden	45.405	20.000	70.000
WTP/year	45.405 x 1,729 = 78.505,-	20.000 x 1,729 = 34.580,-	70.000 x 1,729 = 121.030,-
Population	1.037.088,-		

Economic Value	81.416.593.440,-	35.862.503.040,-	125.518.760.640,-
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Source: Adapted

The Economic Value of Tanah Lot Tourist Attraction with Travel Cost Method

To obtain economic value of Tanah Lot Tourist Attraction with the travel cost method is done by summing the estimated economic value of Tanah Lot Tourist Attraction with the travel cost method based on domestic and foreign tourists. The economic value of Tanah Lot Tourist Attraction with the travel cost method in 2013 can be seen in the table.

Economic Value	Average (Rp)	Min (Rp)	Max (Rp)
TCM Domestic tourist	6.178.273.042.000,00	1.000.345.895.000,00	15.769.836.085.500,00
TCM foreign tourist	288.357.000.000.000,00	99.636.700.000.000,00	575.057.000.000.000,00
Economic Value	294.535.273.042.000,00	100.637.045.895.000,00	590.826.836.085.500,00

Source: Adapted

The economic value of Tanah Lot Tourist Attraction with Contingent Valuation Method

To obtain economic value of Tanah Lot Tourist Attraction with the contingent valuation method is done by summing the estimated economic value of Tanah Lot Tourist Attraction with the contingent valuation method based on domestic and foreign tourists. The economic value of Tanah Lot Tourist Attraction with contingent valuation method can be seen in the table.

Economic Value of Tanah Lot Tourist Attraction with Contingent Valuation Method

Economic Value	Average (Rp)	Min (Rp)	Max (Rp)
CVM Domestic tourist	40.970.660.328,00	16.761.217.005,00	83.806.085.025,00
CVM foreign tourist	81.416.593.440,00	35.862.503.040,00	125.518.760.640,00
Economic Value	122.387.253.768,00	52.623.720.045,00	209.324.845.665,00

Source: Adapted

Based on Table, it can be seen the economic value of Tanah Lot Tourist Attraction by using the contingent valuation method in the range of Rp 52,623,720,045.00 to Rp 209,324,845,665.00 with an average economic value Rp 122.387.253.768,00.

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