

Travel Cost Method Analysis on Cultural Preserve of Palgading Temple Using Marketing Approach

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Abstract. According to the Tourism Law Number 10 of 2009, Article 5d states that the principle of tourism implementation is the protection of nature and the environment. On this basis, natural tourist destinations such as Palgading Temple require good cultivation in order to preserve the environment and avoid environmental damage. The purpose of this study was to determine the relationship between travel costs, income level, education level, distance traveled and facilities to the number of visits to the Palgading Temple area. The object of research is a place where the research is carried out. The object of this research is Palgading Temple. Meanwhile, the research subjects were respondents who participated in this study. The subjects in this study were visitors to Palgading Temple. The sampling technique was carried out using random sampling. The analytical technique used is multiple linear regression. Based on the test of each independent variable on the dependent variable, the test results show that the variable cost of travel, income, education has a positive and significant effect on the number of visits, while the variable level of facilities and distance traveled has no effect on the number of visits. However, the independent variables simultaneously have a significant effect on the number of visits.

Keywords: Travel Cost Methods, Palgading temple, number of visits

1 Introduction

Tourism in Indonesia has been considered as one of the important economic sectors. Besides being the engine of the economy, tourism is also an attractive vehicle to reduce unemployment, considering that various types of tourism can be placed anywhere. The tourism sector has a trickle-down effect to other sectors such as the craft industry, food, hospitality, tourism bureaus so that it is definitely able to create jobs and increase income [2]. According to [3], someone wants to travel because of social, cultural, economic, political, religious health, and other interests or is just curious. In recent years, the tourism industry has always ranked 4th or 5th for foreign exchange earners for the country. With a target of 20 million foreign tourist visits and 275 million domestic tourists, it can be achieved. Therefore, the government set tourism to be one of the five leading sectors and provided a budget that increased significantly to achieve the main target of tourism development [4]. Tourism can be defined as a temporary trip undertaken by a person in an effort to find balance or harmony and happiness with the environment in the social, cultural, natural and political dimensions [5].

As knowledge of the benefits of tourism increases, the government realizes that the tourism sector can provide long-term benefits if it is managed and maintained properly by implementing environmental awareness. To achieve these efforts, it is necessary to collaborate between local governments and the central government and can be coordinated in preserving natural resources in their area [6]. As for (Qs. al-A'raf 7:56) which explains about conservation efforts: "Thus conservation efforts, the environment is to maintain the existence of an environment that is based on love and affection. Ishlah can also be interpreted to repair something that was previously damaged or destroyed.

The travel cost method is carried out by using information about the amount of money or costs incurred and the time used to reach the recreation area to estimate the value of the benefit from efforts to change the environmental quality of the recreation area visited [7]. In addition to the costs incurred by tourists to visit a tourist attraction, there are also factors that can affect the number of tourist visits, namely the length of time it takes to travel from the place of residence to the tourist attraction. If the time to travel is longer, the level of visits will be lower, and vice versa. In addition to time, there are several socio-economic variables that can indirectly influence tourists to visit a tourist attraction. Socio-economic variables include age, gender, education, and income [12]. Income variable is an important factor to influence tourists in order to conduct a tour. The income received by a person will be used to finance all expenses during a tourist visit, so that income will influence someone in making decisions. Variable level of education can also affect a person's understanding of curiosity about tourist objects and the desire or motivation to travel.

From the research conducted by [15], it was found that education level, female gender had a positive effect on the number of visits to the Lamego Museum, while travel costs had a negative and significant effect. [14] conducted a study with the result that the economic value of Borobudur Temple tourism after the eruption disaster

was Rp. 18,172,041,544.00. Travel costs, average monthly income, distance, working time, age, visiting experience and the impact of the Merapi eruption affect the intensity of visiting Borobudur Temple attractions. The calculation of analysis of the travel cost methods as to recognize the visiting value and how it influence to increase the demand of tourists is important. In this study, to analyse the influence of the variable of travel cost; mileage; income; facilities; and education on the number of visits to the Palgading temple.

2 Research Methods

The subject in this study is the visitors of the Palgading temple in Sleman Regency. The sampling measurement is using Slovin formula with 90% of significance level which resulted as 100 visitors. The sampling data collection method is selected trough accidental sampling, which is as a sampling technique based on anyone who coincidentally meets the researcher and willing to be respondents. The analysis methods for this study is divided into 2, namely descriptive analysis and Individual Travel Cost Methods (ITCM). The descriptive analysis is used as to analyse the result of research concerning the economic valuation of the Palgading Temple tourist attraction. The ITCM has an analysis methods through definite formula through multiple linear regression to determine the relationship between the dependent variable (number of visits) and independent variables (income, travel cost, mileage, education, age and gender). The function is stated as follows:

$$Y = \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + e$$

Definition:

- Y : number of visits
- β_1 – β_5 : parameters
- X1 : variable of travel cost (in Rupiah)
- X2 : variable of mileage (Km)
- X3 : variable of income (Rp)
- X4 : variable of facilities (dummy variable)
- X5 : variable of Education (years)

The hypothesis in this study is stated as follows

- H₁ : Travel cost, mileage, income, facilities and education have significant effected to the frequency or number of visits to Palgading temple
- H₂ : Travel cost have negative and significant effected to the frequency or number of visits to Palgading temple
- H₃ : Mileage have negative and significant effected to the frequency or number of visits to Palgading temple
- H₄ : Income have positive and significant effected to the frequency or number of visits to Palgading temple
- H₅ : Facilities have positive and significant effected to the frequency or number of visits to Palgading temple
- H₆ : Education have positive and significant effected to the frequency or number of visits to Palgading temple

Before the descriptive and ITCM analysis, this study has been analyse the reliability and validity of the research instrument tool. Validity has meaning as the extent of the accuracy of instruments in carrying out its measuring function. The valid data shows that the variables data is feasible to use (Azwar, 1986). The reliability test is an analysis to measure the instrument could be trusted or reliable by measuring the Cronbach Alpha analysis. The Cronbach Alpha could define the consistency of measuring the instruments and refers to the aspect that the data in the research has been tested for truth and can be proven to be used in the study. To recognize that the data is reliable to be used, the cronbach alpha has to more than 0.500. The classical assumption test is a statistical requirement that must be met in the multiple linear regression analysis based on Ordinary Least Square (OLS). Since the ITCM analysis using the multiple linear regression, classical assumption test is a must meet the requirement. The classical assumption test consists of normality test, multicollinearity test, heteroskedasticity test and autocorrelation test. The ITCM analysis consists of F test, t test (partial test) and Rsquare test.

3 Result and Discussion

Palgading Temple is a site located in Palgading Hamlet, Sinduharjo Village, Ngaglik District, Sleman Regency, Special Region of Yogyakarta. The Palgading site has been known since the days of the Dutch government. Based on information from the Head of Palgading Hamlet, there are documents regarding the Palgading site obtained from Dutch correspondents. The letter stated that in Palgading Hamlet, an experimental reconstruction of a stupa had been carried out and there was a photo of it. The photo was taken by FDK Bosch in 1925. Based on this data, the name of the land owner listed in the document is Mbah Sodimejo. However, at this time the reconstruction of the experiment could no longer be found. The data of the Dutch correspondent actually took from the OV report in 1925.

The Palgading site was revealed again after the discovery of the Avalokitesvara Arca and several building components. This statue was discovered on May 21, 2006 by Slamet Sugiarto. In addition, there were also findings in the form of the Akshobya statue, lion statue, monkey statue and small pinacles in Dakim Dawami Oyakahono's

yard, which is located ± 100 m on the west side of the site. Although according to the context some of these findings are not in situ findings, but they show the strength of archaeological potential in Palgading Hamlet. (Ministry of Education and Culture).

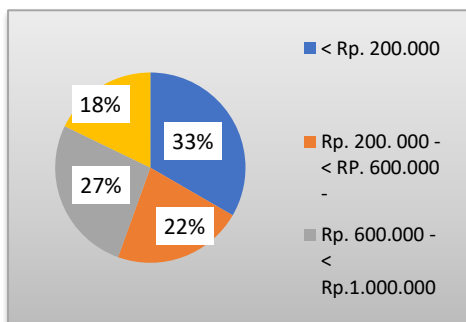
This temple has four buildings. The first building has a stupa that can be reconstructed or restored because there are quite a lot of original materials. In the second building, you can see the foot of the button but this building cannot be restored because the material is only 50%. And the third and fourth buildings have not been confirmed whether they can be restored or not because they have not been fully excavated and are hampered by land acquisition and funds.

Based on the results of several respondents revealed that the facilities provided at this temple are quite good because this temple is still managed by the local government, the condition of the buildings at the Palgading Temple Tourism location is quite good, it can be seen in the collection of historical objects which are still maintained in good condition. good. The parking area at this temple is very adequate and the toilet facilities are quite good. There are also quite good prayer equipment here.

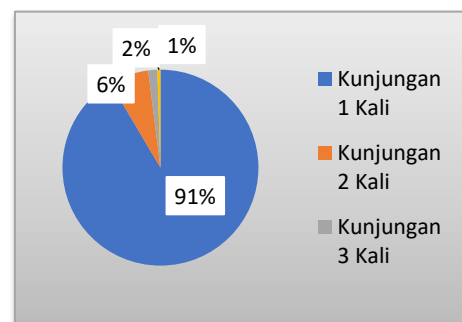


Figure 1. One of the site Palgading temple

Based on Figure 1a, it can be seen that the travel costs incurred by the most respondents were in the range of <200,000 as many as 101 respondents with a percentage of 33%. For travel expenses of Rp. 200,000 to less than equal to Rp. 600,000 as many as 79 respondents with a percentage of 22%. For travel expenses of Rp 600,000 to less than equal to Rp 1,000,000 as many as 15 respondents with a percentage of 27%. Travel expenses with more than IDR 1,000,000 as many as 5 people with a percentage of 18%. Based on Figure 1.b above, it can be seen that 183 people who came to visit 1 time with a percentage of 91%, then 13 people who visited 2 times with a percentage of 6%, who visited 3 times as many as 3 people with a percentage of 2% and the last who visited 10 times as much as 1 person with a percentage of 1%.



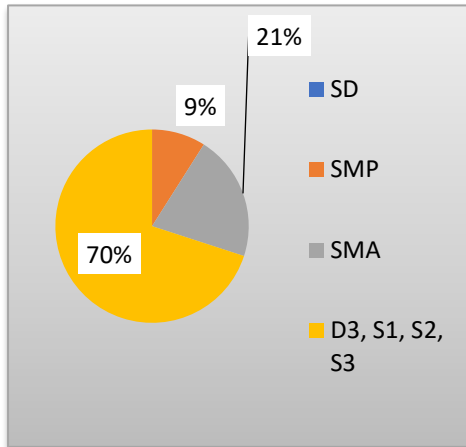
Graph 1a. Travel cost



Graph 1b. Number of visit

Based on Figure 2a, it can be seen that the number of respondents with the highest level of education are graduates of D3, S1, S2, S3 as many as 140 respondents with a percentage of 70%. While the high school graduates as many as 42 respondents with a percentage of 21%. At the level of junior high school education as many as 18 respondents with a percentage of 9%. And at the elementary education level, the data does not exist. Based on graph 2b, the level of income that respondents have will affect their expenses. Income level is the amount of income that respondents get every month for those who are already working. Based on the explanation above, the following is a summary of the characteristics of the respondents. Based on the domicile characteristics, some of the respondents came from Sleman and outside Sleman. Based on the respondents that most of the visits came

from outside Sleman. Meanwhile, based on the character of the city area, the majority of respondents came from the city of Yogyakarta. Based on the characteristics of the travel costs incurred by the respondents the most is < Rp 200,000. Based on the characteristics of the number of visits for the first time, some respondents answered yes, which means they had never been to a tourist attraction before. Then, based on the age characteristics, most of the respondents are between 18-25 years old. Based on the characteristics of the education level of some respondents, 70% are high school graduates. Based on the characteristics of the income level, some respondents earn in the range of Rp. 1,000,000 – Rp. 3,000,000



Graph 2a. Education level



Graph 2.b. Income level

The validity and reliability test had been carried out and the result of validity is the questions feasible to explain as a variable (Azwar, 2016) which mention that the r measure is greater than r table. The r table of the is 0.1388 and r measure for validity test is between 0.714 – 0.815 for travel cost, mileage, income, facilities and education. The reliability test for five (5) variables were met Cronbach Alpha as 0.965 which define high reliable the research research instruments. The classical assumption were also met the criterias. The normality test has been conducted with KS analysis as the result is 0.071 of greater than 0.05, define as the distribution of the data is nomally distributed. The multicollinearity test has been tested through the identification of VIF value. The VIF is between 1.04-2.01 or least than 10.0 which is defined as no multicollinearity which stated the variability of the selected independent variables which is not explained by other independent variables. The heteroscedasticity test aim to test whether in the regression model is there any inequality of variance from the residuals of one observation to another observation. As the analysis, it found that there is no heteroscedasticity or no disturbance occurs in the regression function.

The F test was conducted to determine whether all independent variables simultaneously affect the dependent variable. Testing can be done by paying attention to the significance value (Sig.) on the Anova output (if using SPSS). If the significance value is less than 0.05, it means that the independent variables together have a significant effect on the dependent variable. The formulation of the hypothesis used is:

H₀: Travel cost, mileage, income, facilities, and education have no significant effect to the frequency or number of visits to Palgading temple

H₁: Travel cost, mileage, income, facilities, and education have significantly affected to the frequency or number of visits to Palgading temple

The test criterion is if the significance value is > 0.05, then the decision-making H₀ or the independent variable has no significant effect on the dependent variable. If the significance value <0.05, then the decision H₀ is rejected or the dependent variable also has a significant effect on the dependent variable.

Table 1. F test analysis.

Model	Sum of Squares	df	Mean square	F	Sig
Regression	37.682	5	7.536		
Residual	56.513	194	0.291	25.871	0.000 ^b
Total	94.195	194			

b. Predictors: (Constant), Education, Travel cost, Facilities, Income, Mileage

Based on the t statistical test result, there are three significant independent variables which stated that significant effected to dependent variable. The result of t-test on the travel cost is 2.362* with level significance less than 0.05 which means that travel cost effected to the number of visit to Palgading temple. These findings indicate that travel costs have no effect on the number of visits, which means that travel costs can be interpreted as the cost of the total costs incurred by each respondent in one recreational activity. The cost of this trip includes the cost of transportation, documentation, consumption during recreation, parking, souvenirs and other costs, except that the entrance fee for a tourist attraction is part of the respondent's authority to use it or not. This shows that how big or small the costs that have been spent will not affect the number of people to keep visiting and enjoying the beauty of Palgading Temple. Budgeted travel costs affected the choice behavior of tourists which also happen to Korean tourist. Moreover, the trip planning time frame and length of trip have also affected the choice behavior of Korean tourist which define to catch the adventurous atmosphere, scenery and environmental friendliness [1].

Income has -2.373* or negatively significant to the choice of tourist visiting the Palgading temple. Means, the more higher income the less number of visiting the Palgading temple. This is because income is quite important because it is related to economic activities, such as recreational activities, it requires money or funds from income. The income variable coefficient has a negative sign, this is in accordance with economic theory, which says that the higher the income earned by each individual (respondent), the higher the level of consumption, so if a person's income level is high, it will increase the desire to visit tourist attractions. The magnitude of the variable coefficient of the income level will result in the opportunity for the average number of visits to experience a large increase due to the increase in the level of income. The results of the study are in accordance with the research conducted by Siallagan, 2011; Wedelia, 2011; Anasthacia, 2014; Priyatno, 2018; Amanda; 2009; Daughter, 2012; rozikin, 2016; Nurhasyatillah, 2012; and Haban, et al, 2017; Priambodo and suhartini, 2016. So respondents who have higher incomes are likely to have a high opportunity to travel compared to respondents who have low incomes.

The results of the t-test on the Education variable were 10.079 with a significance of 0.000 > 0.05. This shows that Ho6 is rejected and Ha6 is accepted, which means that partially education has a positive and insignificant effect on the number of visits. Based on the results of the study, the level of education has a positive but not significant effect, meaning that a person's age and activities greatly affect interest in visiting the Palgading temple. On average, respondents who visited Palgading Temple were high school students and college students, because the higher a person's education, the higher the chance of the average number of visits. This is because respondents whose education level is higher will create a more mature thought about the importance of recreation or traveling which does not only provide fun facilities as well as refreshing. This research also shows that education is not a benchmark for someone to make a visit.

Table 2. t statistical test result.

Model	Standardized coefficient	t	Sig.	R	R square	Adj R square
Travel cost	.133	2.362	.019*	.632	.400	.385
Mileage	.021	.346	.730			
Income	-.142	-2.373	.019*			
Facility	-.014	-.250	.803			
Education	.575	10.079	.000**			

*is significant on .05

** is significant on .01

The table 2 shows that the coefficient of determination appear from the adjusted R² value is 0.385. This means that 38.5% of the dependent variables are Variable Number of Visits, independent variables consisting of Travel Costs, Mileage, Income, Facilities and Education while the remaining 61.5% is influenced by other variables not examined in this study.

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