

VALUATION OF BUSINESS AND FACTORS IMPACTING THE DEMAND FOR ISTANO BASA PAGARUYUNG CULTURAL TOURISM

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Abstract: Istano Basa Pagaruyung is a famous cultural attraction in West Sumatra. The attractiveness potentials of Istano Basa Pagaruyung that is unique, beautiful, and visited by many tourists, is a supporting factor for optimizing the management of Istano Basa Pagaruyung's attraction. The addition of buildings and supporting facilities to support tourism objects and the increase of entrance tickets for Istano Basa Pagaruyung made it necessary to identify the valuation of the tourist attraction business. This study aimed to analyze the perception of visitors on Istana Baso Pagaruyung cultural tourism and its economic value estimation. The economic value of Istano Basa Pagaruyung in terms of tourist demand was estimated using the Travel Cost Method (TCM) approach. Data were obtained using questionnaires disseminated to the visitors. The results showed that the cost of travel, level of education, and length of knowing the location significantly affected the level of visits to Istano Basa Pagaruyung. Based on the calculation, the consumer surplus based on the individual travel cost method was Rp29,395.00 per individual per visit and the economic value of the location was Rp11,622,500,583.00. The large economic benefits of tourism activities in Istano Basa Pagaruyung had a positive influence on the socioeconomic improvement of the local people

Keywords: travel cost method, economic valuation, cultural tourism

Abstrak: Istano Basa Pagaruyung adalah objek wisata budaya terkenal di Sumatera Barat. Potensi daya tarik Istano Basa Pagaruyung yang unik dan indah dan dikunjungi banyak wisatawan merupakan faktor pendukung untuk optimalisasi pengelolaan daya tarik Istano Basa Pagaruyung. Penambahan bangunan dan fasilitas penunjang untuk menunjang obyek wisata dan peningkatan tiket masuk Istano Basa Pagaruyung membuat identifikasi valuasi bisnis objek wisata tersebut menjadi penting. Penelitian ini bertujuan menganalisis persepsi pengunjung terhadap wisata budaya Istano Basa Pagaruyung dan estimasi nilai ekonomi wisata Budaya Istano Basa Pagaruyung. Nilai ekonomi Istano Basa Pagaruyung dari sisi permintaan wisatawan diestimasi dengan menggunakan pendekatan Travel Cost Method (TCM). Data diperoleh melalui kuesioner yang disebarkan kepada para pengunjung. Hasil penelitian ini menunjukkan bahwa biaya perjalanan, tingkat pendidikan, dan jangka waktu mengetahui lokasi secara signifikan mempengaruhi tingkat kunjungan ke Istano Basa Pagaruyung. Berdasarkan hasil perhitungan, surplus konsumen berdasarkan metode biaya perjalanan individu adalah Rp29.395,00 per individu per kunjungan, dan nilai ekonomi lokasi adalah Rp11.622.500.583,00. Manfaat ekonomi yang besar dari kegiatan pariwisata di Istano Basa Pagaruyung memiliki pengaruh positif pada peningkatan sosial ekonomi masyarakat setempat.

Kata kunci: metode biaya perjalanan, valuasi ekonomi, wisata budaya

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INTRODUCTION

Indonesia, a country with natural beauty and cultural diversity, has become one of the most popular tourist destinations in the world. The Tourism Ministry claimed that tourism was the second largest foreign exchange earner after oil palm (Gumelar, 2017). West Sumatra Province is one area that is famous for having great natural, historical, and cultural tourism potential. The number of tourist visits to Indonesia and West Sumatra shows an increase from time to time. It is proven by the election of West Sumatra Province as the winner in the halal tourism competition in 2016, both at the national level organized by the Ministry of Tourism of the Republic of Indonesia and at the international level of the World Halal Tourism Award 2016 in Abu Dhabi (Prakoso, 2016).

One area that has an immense tourism potential in West Sumatra Province is Tanah Datar District. It is evidenced by the appointment of Tanah Datar District as the center of the Provincial Region's Main Tourism Area (KUPP) in the 2014-2025 West Sumatra Provincial Tourism Master Plan (RIKP). Tanah Datar Regency has interesting and unique natural resources and beauty. The uniqueness and natural beauty of the Tanah Datar area becomes an attraction that is different from other regions. In addition, Tanah Datar District also has a distinctive socio-cultural life, both in the form of objects resulting from human culture and traditions and the lives of its people (Afrianto 2018). Bearing the name Luhak Nan Tuo, Tanah Datar is the center of Minangkabau's cultural development with all kinds of cultural attributes and traditions plus natural beauty and special culinary.

Tourist arrivals in Tanah Datar Regency continue to increase every year. In 2017, there were 984,929 visitors recorded, while in 2018, it rose to 1,297,786 visitors (3 percent) or a total increase of 312,857 visitors. This increase is in line with the Vision of the Tanah Datar Government, which makes the tourism sector a major asset contributor to Regional Original Revenue (PAD) (Disbudparpora, 2018). Of the several tourist visiting sites in Tanah Datar, Istano Basa Pagaruyung is one of the most significant PAD contributors through the increase in the number of tourists each year, recorded in 2019, reaching 420,744 visitors.

Istano Basa Pagaruyung is a famous cultural attraction in West Sumatra. Its object is a replica of Pagaruyung

Royal Palace in the past. This tourist attraction is located in Nagari Pagaruyung, Tanjung Emas Subdistrict, Tanah Datar District, and is currently a leading tourist attraction in Tanah Datar District. The attractiveness potentials of Istano Basa Pagaruyung that is unique, beautiful, and visited by many tourists, is a supporting factor for the efforts to optimize the management of Istano Basa Pagaruyung. Therefore, it is crucial to identify the business valuation of this tourist attraction. It is expected to be a consideration for the local government in making decisions related to the optimization, use, and utilization of Istano Basa Pagaruyung to provide revenue for the region.

The tourism sector in Indonesia in its current development has become one of the focus points of the government as it has a very significant share in economic development at the district/city, provincial, and national levels. The survey results of the Ministry of Tourism and Creative Economy of the Republic of Indonesia stated that in the last 5 years, the types of tourism in Indonesia that are being favored are environment/nature-based tourism and history-based tourism. However, their management and development in Indonesia still lack in attention (Pattimukay, 2014).

Istano Basa Pagaruyung had experienced a fire on 27 February 2007. On 30 October 2013, it was reopened to the public after being inaugurated by President Susilo Bambang Yudhoyono. Its management is given to the Technical Management Unit of Istano Basa Pagaruyung and Tourist Objects under the management of the Tanah Datar Tourism, Youth, and Sports Agency. The PAD received from this tourism object is the highest one obtained by the Tanah Datar government compared to other tourist objects. Also, the existence of this tourist object is utilized by Pagaruyung people to earn a living by running businesses.

The management of Istano Basa Pagaruyung before 2007 was very different from its management in 2013 until now. The supporting buildings are also very much different. Before 2007, there were very few of them, while in 2019 until now, many supporting buildings been built to attract tourist visits. Exciting activities that can be done at Istano Basa Pagaruyung are as follows: 1) Outbound tourism, such as hiking, camping, RTV, etc.; 2) Children's games of riding *odong-odong* and playing with clowns; 3) traveling while exercising, such as the riding arena, biking, RTV; 4) Natural panorama: Seeing the beauty of the palace and the

beauty of the sunset from Bukit Bungsu; 5) Renting Minang's traditional clothes; 6) Educational tours by learning about the history and Minangkabau; 7) Istanto Basa Pagaruyung's and other culinary specialties.

In mid-2018, there was an increase in Istanto Basa Pagaruyung entrance tickets for children from Rp5,000 to Rp7,500; for adults from Rp7,000 to Rp15,000; and for foreign countries from Rp12,000 to Rp25,000. An increase in entrance ticket rates can be a major obstacle if it is not matched by providing maximum infrastructure services and facilities. Therefore, it is necessary to implement a better management system and tourism potential optimization. The benefits of developing tourism potential as a tourist attraction are closely related to the economic development of Tanah Datar District in general and surrounding communities in particular.

Based on this, a problem was formulated regarding the determination of the valuation of Istanto Basa Pagaruyung Cultural Tourism business to increase its potential and optimize its assets. This study aimed to identify the tourism potential of Istanto Basa Pagaruyung based on visitor perceptions and identify its valuation based on the Travel Cost Method (TCM).

METHODS

This study was conducted at Istanto Basa Pagaruyung with the data collection undertaken in October-November 2019. This study utilized primary and secondary data. Primary data were sourced from Istanto Basa Pagaruyung visitors. Secondary data needed include general conditions of tourism sites (history, status, location, area, physical condition, and tourism potential), as well as visitor and entrance tickets data.

This study used purposive sampling or judgment sampling techniques. Purposive sampling is a sample determination technique with consideration, among other things, related to cost savings, time, and effort. It makes it easy for researchers to choose samples so as not to take large and distant samples (Sugiyono, 2015). Thus, the respondent criteria are: Visitors who traveled in Istanto Basa Pagaruyung; Aged at least 17 (seventeen) years old and were expected to be able to make decisions with sound logic; If included in the group category, the survey was conducted on the group leader.

The sample size in this study was measured using the Slovin formula (Suharsaputra, 2012) with the result of 100 respondents. A descriptive method with cross-tabulation was used to determine visitor perceptions meanwhile, the economic valuation was calculated using the TCM.

As stated by Fauzi (2004), TCM can be used to measure the benefits and costs resulting from: (i) changes in the cost of access (entrance ticket) for a recreation area; (ii) the addition of new recreational areas; (iii) changes in the quality of the environment of recreation areas; and (iv) closure of existing recreational areas. For the case of measuring the economic value of Istanto Basa Pagaruyung, one of the relevance of TCM usage is reflected in the description in points (i) and (iii) above, namely changes in access costs and changes in the quality of recreational areas. According to Fauzi (2004), the Individual Travel Cost Method (ITCM) method is more accurate than the zoning approach. For this reason, ITCM analysis will be used in assessing Istanto Basa Pagaruyung economically.

According to Fauzi (2014), the economic value of tourism areas can be obtained by forming the demand function first. After knowing the demand function, the consumer surplus, which is a proxy of the value of the WTP to recreational locations, can be measured. This consumer surplus value will be used to estimate the economic value of the Istanto Basa Pagaruyung region. The consumer surplus can be measured through the formula:

$$SK = N^2 / 2b_1$$

information: SK (Surplus of consumer visitors per individual per visit); N (number of visits made); b_1 (coefficient of travel costs).

The tourism economic value of Istanto Basa Pagaruyung is the total consumer surplus of visitors in a period. The economic value of Istanto Basa Pagaruyung is obtained using the following formula:

$$NE = SK \times JP$$

Information: NE (Economic value of the tourist area in one year); SK (Surplus of consumer visitors per individual per visit); JP (Total Number of visitors for one year).

The demand function for visits to tourist attractions and the factors that influence them is estimated by the ITCM approach (Fauzi, 2014). The demand function used is formed by the multiple linear regression model as follows:

$$Y = b_0 + b_1X_1 + b_2X_2 + b_3X_3 + b_4X_4 + b_5X_5 + b_6X_6 + b_7X_7 + b_8X_8 + b_9X_9 + b_{10}X_{10} + \varepsilon$$

Based on the demand function above, visits to tourist attractions will be greatly influenced by travel costs (assumed to be negatively correlated), so a demand function that has a negative slope is obtained. The ITCM approach uses econometric techniques, such as multiple linear regression. Multiple linear regression analysis is a regression in which the dependent variable is explained by more than one independent variable but still shows a linear relationship. The variables above were chosen based on previous research theories and field observations. Fulfillment of multiple linear regression assumptions needs to be done to determine the suitability of a demand function model (Firdaus, 2011). In multiple linear regression parameters test needs to be done, as for some parameter testing that needs to be done as follows.

1. Normality Test

The normality test can be done with a histogram test and the P-Plot normal test. Regression models are said to be normally distributed if the plotting data (points) that describe the data follow a diagonal line (Ghozali, 2016).

2. Multicollinearity Test

Multicollinearity can be detected by looking at the value of the Variance Inflation Factor (VIF) on each independent variable. The model is said to be multicollinearity if the VIF value is relatively large or more than 10 (Ghozali, 2016).

3. Heteroscedasticity Test

One of the heteroscedasticity tests is done using the White test. The basis for decision making is if the calculated Chi-Square value is smaller (<) than the table value Chi-Square, then there are no symptoms of heteroscedasticity.

4. Test Statistics t

According to Firdaus (2011), the t-test is used to test whether the regression coefficients obtained from the calculation results with Ordinary Least Square (OLS) differ significantly with particular parameter values.

5. Test Statistics F

F statistical test is a test of the overall regression coefficient. This test shows that all variables entered into the model have a joint influence on the dependent variable (Firdaus, 2011).

6. Outlier Test

Outliers are data that have characteristics that differ greatly from other observations and appear in the form of extreme values for either a single variable or a combination variable. There are several causes for the emergence of outlier data, namely: (1) Errors in data entry; (2) Failure to specify missing values in computer programs; (3) Outliers are not members of the population we take as samples; and (4) Outliers derived from the population we took as a sample, but the distribution of the variables in the population has extreme values and is not normally distributed (Ghozali, 2016).

The research hypothesis was prepared to simplify the analysis process (Juanda, 2009). The hypothesis is adjusted based on the study design. The hypotheses of this study are as follows: 1) Travel costs to tourist sites, age, distance traveled, and the number of dependents had a significant negative effect on tourist visits to Istano Basa Pagaruyung; 2) Total income, level of education, time spent, and length of knowing the tourism objects had a significant positive effect on tourist visits to Istano Basa Pagaruyung.

The positive value of a variable indicates that the higher the value of the variable will tend to increase the chances of an average number of visits. Conversely, a negative sign indicates that the increasing value of a variable will tend to decrease the average chance of the number of tourist visits

RESULTS

Visitor perception of Istano Basa Pagaruyung

Security

Security in this study referred to being safe both in terms of physical accidents that can be caused by Istano Basa Pagaruyung that is in the form of a three-floors building and the existence of several cow-and-horse statues around the location. There is also a tourism forest with "janjang saribu" behind the palace so that there are many heights, gaps or animal attacks, and material security such as theft of valuables. Based on the results of field observation regarding the level of security, as much as 80% of respondents said that they were safe. Other visitors (19%) stated that it was very safe, and the remaining 1% said it was unsafe. Respondents who stated that it was not safe said so because there was no guardrail in the window of Istano Basa Pagaruyung and a lack of security officers who went around to ensure tourism activities went smoothly. Table 1 is the proportion of visitor ratings regarding the safety of Istano Basa Pagaruyung.

Table 1. Istano Basa Pagaruyung's Visitor Rating on Safety

Visitor Perception	Percentage (%)
Very safe	19
Safe	80
Not safe	1

Cleanliness of Tourist Attractions

The cleanliness factor is one important factor that needs to be considered in the management and further development of a tourist area, as well as to preserve the environment in the tourist area. Based on the results of observation and interviews, as many as 62% of respondents stated that they did not feel disturbed by the cleanliness conditions in the tourist area. As many as 24% of respondents said there was no problem with the cleanliness of Istano Basa Pagaruyung. As many as 12% Respondents stated that the cleanliness needed the attention of the management. It was due to the lack of cleanliness in toilets and places of worship, the scattered garbage outside the palace, far-reaching trash bins, and the lack of cleaning staff in the tourist area. According to the manager, visitors were often not able to maintain cleanliness, such as throwing tissue and diapers of children and other things carelessly.

Therefore, it should be taken into consideration for managers to add cleanliness units in waste management and the addition of trash bins in strategic locations to create a clean, beautiful, and comfortable environment for visitors. The proportion of respondents' assessments regarding cleanliness in Istano Basa Pagaruyung can be seen in Table 2.

Table 2. Istano Basa Pagaruyung visitor rating on cleanliness

Visitor Perception	Percentage (%)
Need attention	14
Little problem	62
No problem	24

Provision of Recreational Facilities

In terms of tourism facilities and infrastructure in Istano Basa Pagaruyung, as many as 79% of respondents said that the facilities at the tourist sites were adequate. Respondents who stated that tourism facilities there were inadequate amounted to 11%, and the rest (10%) stated that they were very adequate. The respondents who stated that the facilities at the site were inadequate saw that the facilities at the site were poorly maintained and that it was necessary to have additional facilities. Table 3 shows the proportion of visitor ratings regarding the provision of recreational facilities in Istano Basa Pagaruyung.

Table 3. Istano Basa Pagaruyung visitor rating on recreational facilities

Visitor Perception	Percentage (%)
Very adequate	10
Adequate	79
Inadequate	11

The visitors requested some recreational facilities and the three most requested ones were first, the addition of attractions and entertainment of Minangkabau regional arts, such as Minangkabau cultural arts performances like traditional dances, musical instruments, silat, and randai; documentary/3D film about the cultural history of Minangkabau and Istano Basa Pagaruyung; and traditional games for the child visitors; and others. The research results of Wicaksono (2015) revealed that the quality of the attractions is one of the essential issues for increasing tourism activities in cultural heritage sites. For cultural tourism, there is a need for additional attractions and entertainment, such as cultural arts performances, documentary/3D, and traditional games

for child visitors, and others (Andriani, 2015). Second, the addition of children free-playground at the tourism sites, so that not only paid playground is available, but also free-playground for children. Adults will feel comfortable because of the completeness of the facilities that pamper their children. Third, there is the addition of shelter or gazebo, toilets, and expansion of places of worship for the convenience of visitors.

Istano Basa Pagaruyung Management Services

Based on the assessment given by visitors to the management services of Istano Basa Pagaruyung, 82% of the visitors stated that the management services were good at receiving tourist visits. Visitors who think the management was very good at serving and receiving tourist visits were as much as 13%, and the remaining 5% of visitors rated the management services as poor. Based on these results, the manager's attention to Istano Basa Pagaruyung services needs to be improved to build a good image so that visitors are interested in making a return visit to the site. The assessment of visitors regarding the management service of the Istano Basa Pagaruyung can be seen in Table 4.

Table 4. Istano Basa Pagaruyung's visitor rating on management services

Visitor Perception	Percentage (%)
Very good	13
Good	82
Not good	5

Provision of Information Facilities

Means of information referred to in this study include manuals, maps, or other facilities used to meet all forms of visitors' information needs regarding Istano Basa Pagaruyung. The results showed that 68% of tourists stated that information facilities in Istano Basa Pagaruyung were adequate. Respondents who stated that the information facilities provided were inadequate amounted to 23%. The remaining 9% thought the information facilities provided were very adequate. It can be because tour guides, tourist maps, road signs, and other forms of information were still difficult to find. There were two digital televisions provided for showing the history of Istano Basa Pagaruyung, but one of them did not function. Table 5 shows the proportion of respondents' assessments regarding the provision of information in Istano Basa Pagaruyung.

Table 5. Istano Basa Pagaruyung visitor rating on provision of information facilities

Visitor Perception	Percentage (%)
Very adequate	9
Adequate	68
Inadequate	23

Most visitors wanted information facilities, such as brochures and leaflets about the History of Istano Basa Pagaruyung and Minangkabau. It was because there were still many visitors who were confused by the collections of Istano Basa Pagaruyung. The need for making a kind of brochures and leaflets or other information media that makes it easy for visitors to know what is inside and outside Istano Basa Pagaruyung and what facilities and activities available at the location, so that visitors are curious about the ins and outs of Istano Basa Pagaruyung and Minangkabau. At present, Tanah Datar District government is at the planning stage for the construction of the Minangkabau Historical Information Center and Istano Basa Pagaruyung Tourist Information Center (TIC) in Istano Basa Pagaruyung Complex.

Accessibility

The accessibility referred to in this study includes the condition of the road traveled by respondents to reach Istano Basa Pagaruyung. As many as 69% of respondents thought that accessibility to Istano Basa Pagaruyung was relatively easy. As many as 23% of respondents stated that it was very easy, and the remaining 8% of respondents said it was difficult to pass. Those who thought that accessibility to Istano Basa Pagaruyung was difficult to pass were mostly rental vehicle users. There was a difficulty for buses to pass through the site. The assessment was based on the road to the site was not too wide for six-wheeled and more vehicles. Therefore, a collaborative effort between the management of the tourism location and the local government is needed to expand the road to the site so that it can improve the comfort of visitors who use rental vehicles. Table 6 shows the proportion of respondents' assessments regarding accessibility in Istano Basa Pagaruyung.

Travel Request Function

The function of tourism demand in Istano Basa Pagaruyung is determined by several independent variables that were expected to affect the number of

tourist visits per year to Istano Basa Pagaruyung. Independent variables used to analyze the effect on the number of visits (dependent variable) include travel costs, income levels, education levels, age, distance traveled, number of dependents, gender, time spent at the location, and length of time knowing the location. Data collected in this study were estimated using SPSS 24, which were then used to form multiple linear regression models. After processing the data, it turns out that there were two outliers, namely the travel time and gender. These variables must be removed so that the data were normally distributed. Therefore, the following equation was obtained:

$$Q = 0,731 - 0,0000004119 X_1 + 0,00000002119 X_2 + 0,074 X_3 + 0,006 X_4 - 0,001 X_5 - 0,002 X_6 + 0,001 X_7 + 0,018 X_8$$

By looking at the Histogram graph display and the normal P-Plot of Regression Standardized Residual graph, it can be concluded that the histogram graph showed a normal distribution pattern. Whereas, in the normal plot graph, visible points spread around a diagonal line. Both of the graphs showed that the regression model did not violate the assumption of normality. In addition, the results of the regression analysis stated that there were no violations of classical assumptions, such as the presence of multicollinearity and heteroscedasticity. Proof of the absence of multicollinearity in the model

can be seen from the value of the tolerance value > 0.100 and the Variance Inflation Factor (VIF) values of less than 10 for all variables in Table 7. Furthermore, the absence of heteroscedasticity can be seen from the White Test results with the value of Chi-Square count less than the value of Chi-Square table (Chi-Square count was 12.1, and Chi-Square table is 14.067).

From the results of the regression analysis, the R² value of 27.1% was obtained. It can be interpreted that the independent variables in the model can explain the diversity of demand for the visit to Istano Basa Pagaruyung by 27.1%, and the remaining 72.9% was explained by the variables not included in the model. However, as the primary data used were cross-section in nature, an R² of 0.2 or 0.3 can be said to be good enough. It is in contrast to studies with time-series data (secondary data or time-series data), then R² will tend to have greater value (Raharjo, 2019).

Table 6. Istano Basa Pagaruyung visitor ratings on accessibility

Visitor Perception	Percentage (%)
Very easy	23
Easy	69
Difficult	8

Table 7. Results of linear regression on the number of tourist visits to Istano Basa Pagaruyung

Variables	Coefficient	Sig	VIF	Degree of influence
(Constant)	0.731	0.203		
Travel expenses (X ₁)	-4.119x107	0.060	1.891	significant**
Total earnings (X ₂)	2.119x108	0.592	1.642	not significant
Education level (X ₃)	0.074	0.030	1.161	significant*
Age (X ₄)	0.006	0.516	2.066	not significant
Mileage (X ₅)	-0.001	0.136	1.618	not significant
Number of dependents (X ₆)	-0.002	0.797	1.180	not significant
Time spent (X ₇)	0.001	0.991	1.041	not significant
Length of time of knowing the location (X ₈)	0.018	0.028	1.928	significant*
R ² and Adj ²	27.1 % and 20.7 %			
F arithmetic	4.227 (sig 0.0000)			

Note : * significant at the 5% test level; *** significant at the 10% test level

Travel Expense

Table 7 shows that the total cost of travel had a significance of 0.060, which meant that this variable significantly influenced the number of visits at the significance level (α) of 10%. While the value of the travel cost coefficient with the number of visits $-4,119 \times 10^7$ means that if there is a change in travel costs by Rp 1 million, the level of tourist visits will change by 0.4119%. The negative sign (-) of the elasticity value indicated an inverse relationship between travel costs and the number of tourist visits to Istano Basa Pagaruyung, where an increase in travel costs will cause a decrease in the number of tourist visits and vice versa. It explains that visitors choose to make more tourist visits at lower travel costs. Based on the origin of arrivals, as much as 73% of respondents came from West Sumatra. Therefore, their cost of travel is cheaper than visitors who come from outside West Sumatra.

These results are in line with the research conducted by Khoiruddin and Khasanah (2018) and Badar (2013), which revealed that the cost of travel had a significant effect on the intensity of visits and had a negative coefficient. High travel costs in a tourist destination will have an impact on tourists so that tourism demand will fall and vice versa. It is in accordance with the law of demand that the higher the price (travel costs), the lower the demand (visits).

Education Level

The education level variable had a significant value of 0.030, which meant that this variable significantly affected the number of visits at the significance level (α) of 5%. The coefficient of elasticity of education level to the number of visits was 0.074. It indicated that if there is an increase in education level by one year, there will be a change in the number of visits by 0.074%. Meanwhile, a positive sign (+) indicated that the education level variable had a direct relationship with the number of visits. The higher the education, the time allocation for tourist attractions also increases, and vice versa. It is expected because, with the increasingly high level of education, tourists will better understand the conditions of the tourist attractions. Based on the education level, as much as 49% of the respondents were college graduates, both bachelor and master. The higher the education level of the visitors, the increased the curiosity about the attractions, the awareness about the tour, and the awareness in learning about cultures, customs, traditions, and arts, including interest in various cultural heritage

objects that will encourage them to travel or visit Istano Basa Pagaruyung. These results are supported by the research conducted by Subardin and Yusuf (2010), which mentioned that education level had a significant effect on the intensity of visits and had a positive coefficient. The education level of visitors influenced the level of visits. The longer/higher the education, the more recreations it requires as leisure.

The Length of Time of Knowing the Location

The length of time of knowing the location had a significant value of 0.028, which meant that this variable significantly influenced the number of visits at the significance level (α) of 5%. The coefficient of elasticity of this variable to the number of visits was 0.018. It indicated that if there is a change in this variable by one year, there will be a change in the number of visits by 0.018. Meanwhile, a positive sign (+) indicated that this variable had a direct relationship with the number of visits. The longer the visitor knows the existence of Istano Basa Pagaruyung, the more increased the number of tourist visits, and vice versa. It is consistent with the facts on the ground that the average respondents had known the existence of Istano Basa Pagaruyung for more than one year and had a tendency to return to the location.

The results of this study are in line with the study of Wanti (2014), stating that the length of time of knowing the location had a significant influence and had a positive coefficient. This variable is defined as the length of time a tourist has known the whereabouts of a tourist attraction. Therefore, it can be said that the longer the individual knows the existence of a tourist attraction, the greater the chance of an average visit.

For more people to know about the existence of Istano Basa Pagaruyung, there needs to be an increased promotion by the management. According to Wardani (2019), a social media marketing company based in Warsaw, Poland, NapoleonCat said that most of the Instagram users in Indonesia were 18-24 years old, followed by the second-largest users aged 25-34 years old. It is almost similar to the majority of Istano Basa Pagaruyung visitors. Likewise, Facebook, the most widely used social network in Indonesia, reaches 48% of the population in Indonesia (Jayani, 2019). Therefore, promotion through Instagram and Facebook can be the most productive, efficient, and effective way for the management of Istano Basa Pagaruyung.

Consumer Surplus and Economic Value of Istano Basa Pagaruyung

Consumer surplus is a proxy of the value of willingness to pay (WTP) for recreational locations visited. The consumer surplus can be predicted with the travel cost approach. According to Fauzi (2014), consumer surplus can be obtained using the number of quadratic visits divided by twice the coefficient of travel costs. Based on this formula, and based on the results of the multiple linear regression analysis using the travel cost approach, a consumer surplus or visitor WTP value of Rp29,395 per individual per visit is obtained.

The economic benefit value is an aggregate or sum of the WTP. This value can be obtained by multiplying the consumer surplus value obtained previously with a total of visits in 2019, which amounted to 395,389.00 visits. So, the economic value of Istano Basa Pagaruyung was Rp11,622,500,583 per year.

The large consumer surplus value is said to be an indicator of the ability of visitors who are still willing to pay more to relax or enjoy the natural scenery at Istano Basa Pagaruyung. It certainly must be accompanied by an increase in the quality of the tourist sites themselves so that the benefits obtained by both the management and visitors of Istano Basa Pagaruyung from these recreational activities can reach optimum levels. It is similar to the results of research by IMP and Putra (2017), which revealed that the value of consumer surplus obtained by visitors is still higher than the average visitor's ability to pay. It can be interpreted that the tourism attraction can provide benefits greater than the costs incurred by visitors.

The economic value of tourism shows that Istano Basa Pagaruyung has the potential to be further developed. One of the efforts to achieve the economic value of Istano Basa Pagaruyung is by raising the entrance ticket price by the visitors' maximum WTP. Another way that can be applied is to add facilities based on visitor perceptions.

Managerial Implications

There needs to be the addition of attractions and entertainment, such as cultural arts performances, documentary/3D film about Minangkabau history, traditional games for child visitors, and others. The addition of entertainment can utilize the vast land within Istano Basa Pagaruyung environment. For example,

the pond behind the building so that it can be used as a vehicle for paddling ducks, as well as uphill land and applicable RTV facilities, and flying fox and other outbound facilities that can attract tourists to visit. Of course, the provision of these facilities still considers the environmental conditions of whether the environment can be utilized or protected so that environmental degradation will not occur.

There needs to be increased and improved availability of public facilities such as places to sit/rest, clean toilets, and places of worship. Another urgent facility that needs to be added is a children's playground. Free rides are required by visitors who come to Istano Basa Pagaruyung. It can be seen from the majority of visitors who came in groups and were married.

Increased promotion focused on social media also needs to be carried out. The promotion can utilize Instagram and Facebook. The management can display interesting information and events of Istano Basa Pagaruyung, both the routine and incidental events, such as bazaars, cultural festivals, and other events on social media, so that visitors will be interested to visit.

The availability of information needs to be improved through brochures and leaflets about the history of Istano Pagaruyung and Minangkabau. It is because the visitors who are confused by the collections in Istano Basa Pagaruyung need them.

Istano Basa Pagaruyung has to offer cultural tourism packages that are interesting for tourists. Provision of tourist buses or trains, so that the travel time for tourists to the location is faster and more convenient. The provision of this tour bus can also connect visitors with other interesting tourist locations in Tanah Datar Regency, both culture-based, nature-based, and culinary-based tourism.

CONCLUSIONS AND RECOMMENDATION

Conclusions

The main attraction for visitors who visit Istano Basa Pagaruyung is a historical and cultural exploration of the Minangkabau and enjoying the beautiful natural scenery. The visitor perceptions on Istano Basa Pagaruyung showed the need to increase the number of facilities and cleaning staff, add recreational facilities,

and provide information facilities, such as guides and other printed or digital media. Based on the results of this study, three socioeconomic factors that influenced the demand of Istano Basa Pagaruyung cultural tourism were travel costs, education level, and length of time of knowing the location. The consumer surplus value, based on the ITCM Rp 29,395 per individual per visit and, subsequently, its economic value was Rp11,622,500,583 per year

Recommendations

Based on the consumer surplus of Rp 29,395, the entrance ticket price of Istano Basa Pagaruyung can still be increased. However, before doing so, it is necessary to add more attractive and unique tourism service facilities to increase the values obtained by visitors. The urgent activities that must be immediately carried out by the local government in developing Istano Basa Pagaruyung are the addition of attractions and entertainment, such as cultural arts performances, documentary/3D films about Minangkabau history, traditional games for child visitors, etc.

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