The Influence of Sustainable Tourism Development towards Tourists’ Satisfaction in Saung Angklung Udjo

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Abstract. The study of sustainable tourism development usually emphasizes the destination management effort in ensuring the availability of the resources for the future. There is still a limited study on the research that relates the notion with the tourist's satisfaction. Furthermore, the core of developing tourism is to enhance the visitor experiences that is generated from delivering good memories and satisfaction to the tourists. Hence, this study would discover the sustainable tourism development dimension in cultural tourism products towards the visitors' satisfaction. The study is conducted in Saung Angklung Udjo that has creative cultural events as the main attraction. It performs Angklung, the bamboo traditional musical instruments, to the visitors. The attraction management is in line with the concern of environmental, economic, socio-cultural, and tourism management aspects. Those concerns, the dimensions of sustainable tourism development. Hence, this research attempts to find whether there is the influence of the dimensions to the tourist's satisfaction. This study adopted quantitative approach with multivariate analysis. Questionnaire was developed and distributed to 100 tourists for data collection. The findings would be important to understand the relationship between the sustainable development and tourist's satisfaction.

1. Introduction
One of the cultural tourism destination in Bandung widely known by foreign tourists is Saung Angklung Udjo. Since its establishment in 1966, Saung Angklung Udjo has become one of the favorite destinations of cultural tourism in Bandung. Foreign tourist arrivals are likely to decline, especially in the last two years. It can be seen in the following table 1.

| Year | Amount Visit | percentage of Visits | Growth |
|------|--------------|----------------------|--------|
| 2012 | 29.074       | 19.7%                | -      |
| 2013 | 29.260       | 19.8%                | 0.01%  |
| 2014 | 33.265       | 22.6%                | 2.8%   |
| 2015 | 28.237       | 19.2%                | -3.4%  |
| 2016 | 27.578       | 18.7%                | -0.5%  |

Adapted from: Corporate Secretary Saung Angklung Udjo, 2016
The decline indicates the perceived dissatisfaction while visiting, thus lowering the interest to come back, or recommend to colleagues. *Saung Angklung Udjo* which was originally a cultural community has been implementing the concept of sustainable tourism development. It is based on a love of the founder to the culture, especially *Angklung* and bamboo, as well as an effort to ensure that culture does not disappear in an era of modernization that developed in the community. Thus, *Saung Angklung Udjo* has made efforts in implementing the concept of sustainable tourism development.

The satisfaction of tourists is a potential factor in supporting the development of sustainable tourism, and an important element for measuring sustainable tourism development [1,2,3]. The purpose of this study is to obtain an overview of sustainable tourism development in *Saung Angklung Udjo*, get a sense of satisfaction of tourists at *Saung Angklung Udjo*, and to get description the effect of the implementation sustainable tourism development to satisfaction of tourists at *Saung Angklung Udjo*.

Tourism product is a complex set of different physical resources, activities and services. By buying this combination of natural resources, activities and services, the guest buys a desire for experience, for certain experience. It can be freely said that it is leading, carrying instrument in the business and tourism industry [4].

The (tourism) development needs to be carefully planned, so as to extend and harness its life cycle [5]. Sustainable tourism development is not considered only on increasing numbers of tourists but also concerned on environmental and socio-cultural aspects, which have to be balance among the three components by long term [3].

Developing more sustainable forms of tourism, means devising new products and experiences which enhance the tourist experiences while meeting the criteria of sustainability [8, 14]. Sustainable tourism destination is a unique, interesting and attractive place where the tour operator facilitates the creation of experiences that are mutually beneficial for the tourists and the destination [9, 10]. All activities remain within the constraints of the principles of sustainability thereby ensuring that the tourism process offers a supportive and rewarding cultural bridge where there is economic equality and the ecosystem thrives.

Sustainable tourism development can be implemented in a tourist destination to consider four dimensions [3], which are as follows: (1) Environmental aspect, the consideration of the use of resources coming from the environment as a key element in tourism development with appropriate environmental conservation efforts, protect the diversity of environmental aspects; (2) Economic aspect, ensure proper operation of tourist destinations and long-term economic benefits to stakeholders, such as job creation, as a social service to the community, as well as reducing poverty; (3) Socio-cultural aspect, respecting the peculiarities of local culture, maintain cultural heritage and traditional values of society, and promote tolerance and understanding between different cultures; (4) Tourism management, sustainable tourism development also must be able to maintain the satisfaction of tourists, ensuring travelers get meaningful experience through sustainable tourism product, increase tourist awareness about issues related to sustainability, particularly in the field of cultural sustainability or cultural sustainability.

Customer satisfaction is the extent to which a products' perceived performance matches a buyer's expectations [6, 13]. The opinion can be poured into a satisfaction function as follows:

\[ S = \text{Customer Satisfaction} \]
\[ E = \text{Expectation} \]
\[ P = \text{Perceived Performance} \]
Of these functions, it can be deduced as follows:
If \( E > P \), then the customer will be dissatisfied
If \( E = P \), then the customer will be satisfied
If \( E < P \), then the customer will feel very satisfied

Three dimensions of satisfaction are as follows: Customer expectations, are beliefs about the service that serves as a standard or reference point against which performance is assessed; Customer perception, is the perception of the quality of service is a component of customer satisfaction. Satisfaction is influenced by the perception of quality of service, product quality, and prices as well as situational factors and personal factors; and Importance of encounter, although early events in the encounter cascade are likely to be especially important, any encounter can be critical in determining customer satisfaction and loyalty.

In this study, the authors used the dimensions of satisfaction by Kotler and Keller [6] which is composed of perceive and expectation.

2. Methods
This research used descriptive and verificative method [11]. This is done by testing hypotheses to foreign tourist who have been to Saung Angklung Udjo to determine the effect of sustainable tourism development variable to satisfaction at Saung Angklung Udjo. Based on type of research this research is explanatory survey. The population in this study is the foreign tourists who have visited Saung Angklung Udjo. Based on the determination of the sample using techniques Solving formula, the obtained sample size \((n)\) was 100. The sampling technique used was purposive sampling. Collecting data in this study using the technique of interview, observation, questionnaires, and literature. Data analysis techniques used is multiple regression analysis with the formulation of the hypothesis is as follows:

a. \( H_0: \) There is not a significant influence sustainable tourism development that consists of environmental aspect, the economic aspect, socio-cultural aspect, and tourism management to the satisfaction of tourists.

b. \( H_a: \) There is significant influence sustainable tourism development that consists of environmental aspect, the economic aspect, socio-cultural aspect, and tourism management to tourist satisfaction.

3. Results and discussion

3.1. The response of tourist perceived sustainable tourism development
Here the recapitulation of foreign tourist on the implementation of sustainable tourism development in Saung Angklug Udjo.

| No. | Sub Variables               | Total Score | Number of Questions | The Average Score | Total% |
|-----|-----------------------------|-------------|---------------------|-------------------|--------|
| 1   | Environmental aspect        | 1314        | 4                   | 328.5             | 23.7   |
| 2   | Economic aspect             | 1040        | 3                   | 346.7             | 25.1   |
| 3   | Socio-cultural aspect       | 1057        | 3                   | 352.3             | 25.5   |
| 4   | Tourism management          | 2138        | 6                   | 356.3             | 25.7   |
|     | Total                       | 5549        | 16                  | 1383.8            | 100    |

Based on table 2 above, it can be seen that the dimension best score is tourism management with an acquisition of a percentage of the overall 25.7%. It can be seen from the implementation of sustainable
tourism development in managing Saung Angklung Udjo as a destination of culture, which includes training employees to increase professionalism, to provide facilities such as garbage cans, restrooms, information about destination (information boards, performances description, directions and brochures), improve security, and provide a quality experience to tourists. The ideal score is 8000 with a total score of 5549. This indicates that the result of tourist responses to sustainable tourism development in Saung Angklung Udjo included in the high category. Here is a figure 1 show the line position continuum perceived sustainable tourism development in Saung Angklung Udjo.

![Figure 1](#)

**Figure 1.** Continuum line Perceived Sustainable Tourism Development

3.2. **The response of tourist of expected sustainable tourism development**

Based on data collection, the following recapitulation tourist feedback regarding the implementation of sustainable tourism development expectations in Saung Angklung Udjo.

| No. | Sub Variables        | Total Score | Number of Questions | The Average Score | %  |
|-----|----------------------|-------------|---------------------|-------------------|----|
| 1   | Environmental aspect | 1399        | 4                   | 350               | 24.0|
| 2   | Economic aspect      | 1099        | 3                   | 366               | 25.2|
| 3   | Socio-cultural aspect| 1098        | 3                   | 366               | 25.1|
| 4   | Tourism management   | 2240        | 6                   | 373               | 25.7|
|     | Total                | 5836        | 16                  | 1455              | 100|

Table 3 above shows that the implementation of sustainable tourism development at Saung Angklung Udjo the highest ratings on sub variable tourism management, with the percentage 25.7%. While sub variable with the lowest score is environmental aspect with a percentage of 24.0%. This is in line with that proposed by Wiwattanakantang and To-im, that the tourism management is a very important aspect because it can encourage the achievement of a tourist destination sustained through the management of tourist destinations such as preparing competent employees, provide comfortable and clean toilets, provide travel guides according to the mother tongue travelers, and provide adequate parking space [3].

Here is a figure 2 of the continuum on the expected sustainable tourism development at Saung Angklung Udjo.

![Figure 2](#)

**Figure 2.** Continuum line Expected Sustainable Tourism Development

Based on continuum line above, the expectations of foreign tourists to implementation of sustainable tourism development in Saung Angklung Udjo including in a high category, with a score of 5836 or in the percentage of 72.95%. Thus, can concluded that, Saung Angklung Udjo become a destination of
cultural tourism which is expected by foreign tourists were able to implement the concept of sustainable tourism development well through the dimensions of its constituent, *Saung Angklung Udjo* able to go concern within a longer period and maintain sustainability aspects in particular culture for the future.

Table 4. The Recapitulation of Foreign Tourist Satisfaction on Sustainable Tourism Development

| No. | Dimension               | Score | Satisfaction (P/E) | Guest satisfaction (%) |
|-----|-------------------------|-------|--------------------|------------------------|
| 1   | Environmental aspect    | 1399  | 1314               | .9392                  | 93.92%                 |
| 2   | Economic aspect         | 1099  | 1040               | .9463                  | 94.63%                 |
| 3   | Socio-cultural aspect   | 1098  | 1057               | .9627                  | 96.27%                 |
| 4   | Tourism management      | 2240  | 2138               | .9544                  | 95.44%                 |
|     | Total                   | 5836  | 5549               | .9508                  | 95.08%                 |

Based on the table 4 above, the fourth dimension of sustainable tourism development, the satisfaction of foreign tourists to the socio-cultural aspect has the highest value, 0.9627 or as a percentage of 96.27%. This indicates that the *Saung Angklung Udjo* has implemented socio-cultural dimension with a very good aspect that create a level of tourist satisfaction with a relatively high value.

3.3. Hypothesis testing multiple linear regression

Hypothesis testing is done to determine how much influence variable in creating a sustainable tourism development tourist satisfaction through multiple linear regression analysis previously performed test assumptions.

3.4. Hypothesis testing through simultaneous (Test F)

Significance Simultaneous Test (Test F) is used to determine the overall effect of independent variables on the dependent variable. F test is done by comparing $F_{\text{count}}$ and $F_{\text{table}}$ to test the significance of the regression analysis. Here is a table presents the test results simultaneously.

Table 5. Results of SIMULTANEOUS TEST (Test F)

| ANOVA              | Sum of Squares | Df | mean Square | F   | Sig.   |
|--------------------|----------------|----|-------------|-----|--------|
| 1 Regression       | 1920.556       | 4  | 480 139     | 24 181 | .000b  |
| residual           | 1886.314       | 95 | 19 856      |     |        |
| Total              | 3806.870       | 99 |             |     |        |

a. Dependent Variable: Satisfaction
b. Predictors: (Constant), X4, X2, X1, X3

Based on the table 5, obtained value of $F = 24.181$ while $F_{\text{table}}$ with degrees of freedom in α (0.05), is of 2.47. Thus $F_{\text{hitung}} (24.181) > F_{\text{table}} (2.47)$ with a significance value of 0.000. Value of $F = 24.181$, Compared with 2.47 $F_{\text{table}}$ is then $F_{\text{hitung}} > F_{\text{table}}$, then H0 is rejected and Ha accepted. Ha: $F_{\text{hitung}} > F_{\text{table}}$ means that a significant difference between sustainable tourism development that consists of the environmental aspect, the economic aspect, socio-cultural and tourism management in creating the satisfaction of tourists at *Saung Angklung Udjo*. Tourist destinations are able to offer sustainable products (*sustainable tourism development*) will be able to create satisfaction for the tourists who visit the tourist destinations [3, 12].
3.5. **Hypothesis testing through partial (t test)**

This test aims to determine the effect of each independent variable on the dependent variable and significant or not. Moreover, this test is used to determine the effect of sub variable where the most dominant of all independent variables. Sustainable tourism development consisting of environmental aspect (X1), the economic aspect (X2), socio-cultural aspect (X3), and tourism management (X4). A variable has a significant impact on changes in the value of Y with the provisions of t count > t table.

| Model       | Coefficients unstandardized | Standardized Coefficients | T     | Sig.  | Collinearity Statistics |
|-------------|-----------------------------|---------------------------|-------|-------|-------------------------|
|             | B   | Std. Error | beta |       | Tolerance | VIF |
| (Constant)  | 42 089 | 5139 | 8191 | .000 | 1,108 |
| Environmental | .050 | .254 | .020 | .197 | .844 | 1,102 |
| Economic    | .856 | .399 | .241 | 2,144 | .035 | .725 | 1,380 |
| Socio-cultural | .551 | .274 | .202 | 2,011 | .047 | .902 | 1,109 |
| Tourism management | .113 | .192 | .066 | .589 | .557 | .724 | 1,381 |

Table 6. Test Results Multiple Linear Regression Coefficients

The table 6 is derived from the value of constant and multiple linear regression equation to determine the effect of creating a sustainable tourism development in tourist satisfaction. Multiple regression equation is the result of the equation of the process to determine the most accurate predictive equations of multiple predictors [12]. The form of the equation is as follows:

\[ y = \alpha + b_{1}x_{1} + b_{2}x_{2} + b_{3}x_{3} + \ldots + b_{n}x_{n} \]

Information:
- \( y \) = the satisfaction of tourists
- \( X_{1}1 \) = Environmental aspect
- \( X_{1.2} \) = economic aspect
- \( X_{1.3} \) = socio-cultural aspect
- \( X_{1.4} \) = Tourism management
- \( \alpha \) = constant
- \( B_{1.1} \), \( B_{1.2} \), \( B_{1.3} \) = constant

The analysis showed a constant value of 42.089, meaning that if \( X_{1}, X_{2}, X_{3}, \) and \( X_{4} \) is ignored then the level of satisfaction of tourists amounted to 42.089. Coefficient of environmental aspect \( (X_{1}) \) amounted to 0.050, which means that for each increase of one unit will increase the value of environmental aspect traveler satisfaction score of 0.050.

Coefficient of economic aspect \( (X_{2}) \) is equal to 0.856, which means that for each increase of one unit of economic value will increase tourist satisfaction score of 0.856. Coefficient of socio-cultural aspect \( (X_{3}) \) of 0.551, which means that for each increase of one unit of socio-cultural values will increase tourist satisfaction score of 0.551.
satisfaction score of 0.551. While tourism management (X4) has a coefficient of 0.113, which means that each increase of one unit will increase the value of tourism management tourist satisfaction scores also amounted to 0.113. Thus, the satisfaction of foreign tourists to the concept of sustainable tourism development has a significant impact, especially in creating tourist satisfaction. Their dimensions of environmental aspect, the economic aspect, socio-cultural aspect, and tourism management to help tourists feel more satisfied when they visit cultural attractions Saung Angklung Udjo. Here's a figure 3 show that presents the hypothesis structure diagram.

Figure 3. Paradigm Structure Hypothesis

In this study, partially concluded that:
- \( t = 0.197 < t_{table} = 1.98525 \), it means there is not a significant influence the environmental aspect to the satisfaction of tourists at Saung Angklung Udjo.
- \( t = 2.144 > t_{table} = 1.98525 \), it means that there is significant influence between the economic to the satisfaction of tourists at Saung Angklung Udjo.
- \( t = 2.011 > t_{table} = 1.98525 \), it means a significant difference between the socio-cultural to the satisfaction of tourists at Saung Angklung Udjo.
- \( t = 0.589 < t_{table} = 1.98525 \), it means there is not a significant influence tourism management to the satisfaction of tourists at Saung Angklung Udjo.

Based on the above test results, it can be concluded that from the fourth dimension partially tested, there are two dimensions of sustainable tourism development that has a positive influence on the satisfaction of tourists at Saung Angklung Udjo, namely economic and socio-cultural aspect.

4. Conclusion

Based on the research by using descriptive verification analysis and multiple regression analysis to examine the relationship between the effects of sustainable tourism development to the satisfaction of tourists at cultural attractions Saung Angklung Udjo, it can be concluded as follows: (1) Implementation of sustainable tourism development in Saung Angklung Udjo includes four dimensions, namely the environmental aspect, the economic aspect, socio-cultural aspect, and tourism management. Dimensions of sustainable tourism development that received the highest ratings based on tourist feedback is tourism management. While the dimensions got the lowest score is the environmental dimension aspect (2) Overview tourist satisfaction in Saung Angklung Udjo obtained by comparing the tourist response to implementation of sustainable tourism development that is expected with the implementation of sustainable tourism development that is perceived by foreign tourists. Based on calculations, the value of the highest tourist satisfaction is the satisfaction of tourists to the socio-cultural. While the value of the lowest tourist satisfaction is the satisfaction of tourists to the environmental aspect (3) Based on hypothesis testing showed that simultaneous sustainable tourism development that includes environmental aspect, economic, socio-cultural, and tourism management has a significant and positive influence in creating the satisfaction of foreign tourists visiting in Saung Angklung
Udjo. While the partial test showed that of the four dimensions that partially tested, there are two dimensions that have a positive impact on the satisfaction of tourists at Saung Angklung Udjo, the economic dimension aspect and dimension of socio-cultural aspect.

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