The effect of facilities layout and services on visitors' comfort in Keboen Kopi Karanganjar Agro-tourism Blitar

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Abstract. Facilities layout and services are supporting system in agro-tourism to increase visitors' interest. This study aimed to analyze the effect of facilities layout and service on visitors' comfort at Keboen Kopi Karanganjar Agro-tourism Blitar. There were 100 respondents selected, and the study used the accidental sampling method. The statistical tools used were the Structural Equation Model with Partial Least Square technique to find out the effect of facility layout and services (exogenous variable) on visitors' comfort (endogenous variable). The results of the study showed that the variable of layout facilities had no significant effect on visitors' comfort, while the services variable had a significant effect on visitors' comfort. This study advises to repair of damaged roads, add driving directions, facilities renewal, one-way system improvement, add facilities such as entertainment, toilets, trash cans, and improve their services by upholding the attitude of being friendly, informative, and reliable.

1. Introduction
Tourism is indispensable for humans because calming our minds after the busy life's activities should be prioritized. The development of tourism in Indonesia is currently increasing and becomes one great potential sector in supporting the economy of the country. The tourism sector is estimated to contribute 15% of gross domestic product items around Rp 280 trillion for foreign exchange. It is gained from 20 million foreign tourists' visits, 275 million domestic tourists' trips, and employed 13 million workers in the year 2019. The tourism sector can provide a multiplier effect on other sectors like transport, hospitality, and others [1,2].

The development of an area into tourist attractions affected by several things, such as attractiveness to tourists, facilities, and attractions was available, geographic location, transportation, political stability, healthy environment, and no restrictions [3]. World Tourism Organization (WTO, 2003) has designed six standards for tourist products or services. These standards are safety and security, hygiene, accessibility, transparency, authenticity, and harmony [4]. A tourist area must have a variety of facilities required by visitors, so that they may feel comfortable during the visit. The subsystem of facilities components which needed to consider and manage were layouts, facilities, and some other components such as tourism object, soil condition, topography, water resources, drainage, easy access,
and recreational resources as well as the potential [5]. The layout of facilities also becomes one of the components that determine the success of tourism activities.

Keboen Kopi Karanganjar Agro-tourism is located in Karanganjar Blitar, it is a tourism area that provides educational and historical tours. The strategic location in Blitar Regency closed to the city center makes this tourism area a new tourist icon. Nevertheless, with a strategic location, some layout facilities are considered deficient. For instance, the poorly managed and maintained layout management, parking facility, road condition, outbound area location, the factory buildings, and rest area. On the other hand, tourism experiences are the core product in the tourism industry with a direct impact on tourist's satisfaction and intention to revisit, especially when tourists can enhance reviews of their experience by exploring the local culture [6]. The comfortable of the visitors must be one essential factor that is considered to develop the business.

The fulfillment of the facilities would contribute to the comfort of the visitors. Also, services might become one factor that influenced the level of comfort for visitors. a tourism enterprise has to ensure it is providing goods or services desired by customers; got the right quality; and that it is delivering on time. This leads to customer satisfaction and achieves a suitable level of profit [4]. There were some problems related to the services provided by Keboen Kopi Karanganjar Agro-tourism, such as the lack of responsiveness and accuracy of the officers in guiding and giving information as well as services to the visitors. These problems would lead to the discomfort of the visitors when visiting the tourism area. This study aimed to analyze the effect of facilities layout and services on visitors' comfort in Keboen Kopi Karanganjar Agro-tourism.

2. Methods
This study was conducted in February – December 2018 and is located in Keboen Kopi Karanganjar at Modangan Village, Nglegok Sub-district, Blitar District, East Java, Indonesia. The location was deliberately chosen to determine the extent of the effect of the layout of the facilities and services that have been provided by the tour. Besides, the agro-tourism has the potential to be developed into a better trip based on the needs of the visitors, as the society has evolved and changed in enjoying their free time [18].

This study used accidental sampling, because of the unknown number of Keboen Kopi Karanganjar visitors' population and chances to be selected as the sample was not known with certainty. Determination of the number of samples using a formula from Lemeshow, Jr., Klar, & Lwanga. With an error rate of 10%, the number of samples was 100 visitors who are willing to fill out a questionnaire [7].

The quantitative method used in this study to analyze the meaning of data in the form of numbers through statistical calculations based on data from respondents [8]. In this study, the data analyzed using Structural Equation Modelling - Partial Least Square (SEM-PLS) analysis tools. The data analysis method used was PLS-SEM, which was a variant-based analysis that could simultaneously evaluate not only the model but also the structural model. The evaluation is conducted by assessing the measurement model and the structural model also testing of hypothesis.

2.1. Hypothesis development
Testing the hypothesis in this study used the Bootstrap resampling method. If the p-value of <0.05 (alpha 5%), the independent variables are considered to have a significant effect on the dependent variable. The statistical hypothesis of this study as follows.

2.1.1. The relationship between facilities layout and visitors' comfort
The layout is used to improve customer interaction and the company, where the company can meet the needs and requirements as well as the accuracy of delivery to balance the expectations of the customers [9,10]. Characteristics of tourism locations can be cleanliness, ease of access, natural attractiveness, hospitality, and availability of facilities [19].

H1: Facilities layout had a positive effect on visitors' comfort.
2.1.2. The relationship between services and visitors' comfort
Quality of service are all forms of the provision of services provided to the maximum by the company with all the advantages to meet customer needs [11], including the comfort in traveling.

H2: Services had a positive effect on Visitors' comfort.

2.2. The research model
The following research model as the path diagram construction was presented in Figure 1. This was the first stage in the formation of structural models and models of indicators.

Figure 1. Path diagram model construction.

Figure 1 can be formed based on structural equation modelling (inner model), are as follows:

\[
\eta = \gamma_1 \xi_1 + \gamma_2 \xi_2 + \zeta 
\]

where:

- \( \eta \) = Visitors' comfort
- \( \gamma_1 \) = Variable coefficient of facilities layout to the visitors' comfort
- \( \gamma_2 \) = Variable coefficient of services to the visitors' comfort
- \( \xi_1 \) = Facilities layout
- \( \xi_2 \) = Services
- \( \zeta, \delta \) = Error in the model

3. Results and Discussion
Coffee plantations Karanganyar is better known as Keboen Kopi Karanganjar or "De Karanganjar Koffieplantage" as well as the switching function as one of the tourist attractions in Blitar. Keboen Kopi Karanganjar officially opened in 2016. The key concept was agro-tourism where visitors can enjoy coffee that has been picked and processed directly from coffee plantations.

The size of the Coffee Plantation's overall area is about 223.8 hectares. This area was divided into two areas: 5 hectares for tourist areas and the rest of the areas for the cultivation of coffee. Tourist areas provided various facilities, including historic buildings, playgrounds for children, such as a play area with a caged deer, kinder drop (city of children), Sibe Castle (kennel Siberian husky), station of
All-Terrain Vehicle (ATV), nursery, and outbound area. Besides, there were other facilities such as Koffieboomstraat (the coffee tree), Tuin-Ster (garden star), Spanish Stamps (Resko), Wiem & Brem Ijse (Coffee ice cream), lodging, marquee, Vredestuin (park of peace) and the most famous facilities are Roosteren Kamer (coffee processing) and Ons Grootouders Cafe (OG café). All provided facilities can be enjoyed by visitors with a travel time of ± 2 hours depending on travel needs by tourist visitors. Keboen Kopi Karanganjar can be classified as green tourism which is a type of tourism promoted by the operators who pay special attention to the relationship between tourist activities and nature, adopting a strategy of operational in a spirit of harmony and respect [17]. The facility's layout is shown in Figure 2.

![Figure 2. The facilities layout of Keboen Kopi Karanganjar agro-tourism.](image)

3.1. Main survey results
3.1.1. Outer model evaluation
The measurement model was done by firstly looking at the Cross-Loading value to find out the discriminative validity. The data in Table 1 and Table 2 showed that each value on the cross-loading had reached a value of 0.5 with a p-value <1. VIF on formative indicators in Table 2 was obtained a value of less than 3.3, which meant that formative indicators in this study had the ideal value. VIF must be <2.5 to 3.3 to obtain stability estimates [12].
Table 1. Reliability indicator value for reflective indicator.

| X1 | X2 | Y1   | P-Value |
|----|----|------|---------|
| X1.1 | (0.704) | -0.004 | 0.074 | <0.001 |
| X1.2 | (0.712) | 0.271  | -0.151 | <0.001 |
| X1.3 | (0.860) | 0.017  | -0.039 | <0.001 |
| X1.4 | (0.759) | 0.070  | -0.064 | <0.001 |
| X1.5 | (0.816) | -0.059 | -0.003 | <0.001 |
| X1.6 | (0.800) | -0.123 | 0.136  | <0.001 |
| X1.7 | (0.845) | -0.131 | 0.037  | <0.001 |

Table 2. Significant value for formative weight indicator.

| X1  | X2    | Y1   | P-Value | VIF  |
|-----|-------|------|---------|------|
| X2.1 | 0.000 | (0.233) | 0.000 | 0.007 | 1.991 |
| X2.2 | 0.000 | (0.253) | 0.000 | 0.004 | 2.531 |
| X2.3 | 0.000 | (0.248) | 0.000 | 0.005 | 2.366 |
| X2.4 | 0.000 | (0.247) | 0.000 | 0.005 | 2.390 |
| X2.5 | 0.000 | (0.227) | 0.000 | 0.009 | 1.798 |
| Y1.1 | 0.000 | 0.000 | (0.351) | <0.001 | 2.034 |
| Y1.2 | 0.000 | 0.000 | (0.333) | <0.001 | 1.790 |
| Y1.3 | 0.000 | 0.000 | (0.314) | <0.001 | 1.517 |
| Y1.4 | 0.000 | 0.000 | (0.276) | 0.002 | 1.297 |

Table 3. Value of composite reliability, cronbach's alpha, and (AVE).

| X1              | X2  | Y1       |
|-----------------|-----|----------|
| Composite Reliability | 0.919 | 0.916   |
| Cronbach's Alpha   | 0.896 | 0.884   |
| Avr. Var. extract (AVE) | 0.620 | 0.685   |

Table 3 showed that the value of the composite reliability of the variable X1 had qualified reliability at a value of more than 0.5 [9]. It meant when the AVE value was bigger than 0.5, the average constructs accounted for more than half (50%) variants of each indicator [13]. It can be concluded that the reflective construct indicators in this research model were qualified to test reliability.

Table 4. Validity discriminant value.

| X1    | X2    | Y1    |
|-------|-------|-------|
| X1    | (0.787) | 0.531 | 0.402 |
| X2    | 0.531  | (0.827) | 0.610 |
| Y1    | 0.402  | 0.610  | (0.781) |

Table 4 showed that in the last stage is test discriminant validity obtained square root value AVE was greater than the value of the correlation between latent constructs [13], it could be concluded that the reflective construct indicators on this research model had been qualified reliability. In short, the results matched the criteria, so the data in this study had met the validity test requirements.
3.1.2. Inner model evaluation

Here were the structural models of the study in the form of Path Coefficient.

![Structural model of the study](image)

**Figure 3.** The structural model of the study.

The structural models of the study in Figure 3 showed that the path coefficient on the variable X1 had a value of 10% with a p-value of p = 0.14, which meant that there was a significant effect between X1 to Y1. Furthermore, the value of the variable X2 was 57% with a p-value of p < 0.01, which meant there was a significant effect between X2 to Y1, that the higher the service gave the visitors' comfort will increase.

The value of the effect size resulting in variable X1 and X2 respectively 0.097 and 0.086. Both fall into the small category for less than 0.15 which meant it had little effect on variables Y1. R-squared value for comfort was 0.405, which meant that the effect of variable layout of the facility (X1) and the service variable (X2) to visitors' comfort variable (Y1) amounted to 40.5% and the remaining 59.5% was influenced by variables others outside of this model.

| Hypothesis | Path Correlation | Path Coefficient | P-value | Result          |
|------------|------------------|------------------|---------|-----------------|
| H1         | Facilities layout \rightarrow Visitors' comfort | 0.10             | 0.14    | Invalid on 10% level |
| H2         | Services \rightarrow Visitors' comfort | 0.57             | <.01    | Valid on 1% level  |

Based on Table 5, it could be seen that H1 was rejected, because the value of the resulting P-value > 0.10 which meant that facilities layout did not have a significant effect on the comfort of visitors. This could happen because visitors are less considerate about the layout of the facilities provided by agro-tourism during their visit. Besides, the lack of proper layout and incomplete facilities could enable this variable did not affect the visitors' comfort.

Based on data of visitors' advices, the first improvement advice from 35% of the visitors were improving access road to the location. Repairs can be done by agro-tourism by doing widening and repair of damaged roads, multiply and add instructions clearer way related to mileage and travel locations mainly from the city center, and the provision of a simple flow path traveled by visitors. The good layout and facilities will support the smooth process in a company, as well as on the company in the field of tourism [14,15].

The second improvement advice from 29% of the visitors was agro-tourism need for facilities arrangement and additional facilities that more attractive, such as the renewal of the museum site, reproduce playground for visitors, improvements to the one-way system, giving an explanation for any building or area has to offer while at tourist sites.

The third improvement advice from 12% of the visitors were improvements to toilet facilities in Keboen Kopi Karanganjar Agro-tourism and 6% of the visitors gave suggestions for expanding the
number of a trash can and put it in an affordable location, give a slogan to put garbage in its place, and pay attention to the hygiene of the animal area. Standards such as safety and security, hygiene, accessibility, transparency, authenticity, and harmony are the key to visitors' comfort [4]. Besides, good infrastructure will provide comfort in travel and be decisive for the arrival of tourists [16]. H2 was accepted because the value of the resulting P-value <.010 which meant that the service had a significant effect on the visitors' comfort. Services provided by the Keboen Kopi Karanganjar Agro-tourism aimed to make visitors feel happy and not feel disappointed to have visited this agro-tourism. It had also been described by the marketing division that the services provided by the travel of labor should be based on visitor satisfaction. Employees in this agro-tourism also received training in cooperation with the Department of Labor about the excellent service in a tourism company. Increasing the quality of the business can be done by including employees in training to make employees a reliable workforce, motivated, and able to innovate [16]. Suggestions for improvement of services were to provide services in every area in tourist attractions, not only in Roemah Lodji once occupied by Sukarno, Indonesia's first president. Areas that need to be considered were the station of the All-Terrain Vehicle (ATV), Kinderdrop area, and outbound area because the area was facilities frequented by visitors. Services can be provided such information as well as the use of other services to make visitors comfortable. Furthermore, based on the analysis of data, 9% of visitors gave suggestions for improvements to the service, among other employees should always be friendly towards visitors, increasing knowledge information needed by the visitor, the guarantee of trust and security for visitors, and maintain the neatness and hygiene in dressing in the agro-tourism environment.

4. Conclusions
The effect of facility layout on the visitors' comfort was not significant, while the service had a significant effect. Thus, the Keboen Kopi Karanganjar managers should increase visitor awareness of the facility's layout. Keboen Kopi Karanganjar can be improved based on the visitors' advice, including the repairing of damaged roads, adding driving directions, renewing facilities such as museums, one-way system improvement, and adding facilities such as entertainment, toilets, and trash cans at the agro-tourism. Keboen Kopi Karanganjar can improve their services by upholding the attitude of being friendly, informative, and reliable.

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