Identification of criteria for determining the location of souvenir centers in batam city tourism

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Abstract. Batam City as one of the largest city centers in the Riau Islands Province which was previously known as an industrial city, is now starting to turn into a tourism city. However, Batam tourism has not been equipped with a souvenir sales center to introduce Batam city characteristics. The aims of this research is to find out the criteria for determining the location of souvenir centers in Batam City Tourism. The method used in the data collection criteria is voice of customer, which is then analyzed from the statistical level. This research will provide several criteria that can be selected by respondents to determine the criteria for the location of the souvenir center. Based on the research results, it is known that tourists really need a souvenir center in a tourist city such as a complete, comfortable, and safe souvenir center is urgently needed by tourists. This is because souvenirs are part of the process of introducing the culture of an area to tourists. Therefore, the Batam city government needs to pay attention to the needs of tourists who travel to Batam City by providing a souvenir center in the tourist center of Batam City.

1. Introduction
Tourism is included in the criteria for the attractiveness of an area to be able to carry out urban and economic development. Tourism that is not managed properly, then makes tourism unattractive to domestic and foreign tourists. Tourism drives people's economy starting from trade, industry and socio-culture. Therefore, tourism needs to be managed, improved and enhanced by all stakeholders who play an important role from the government, private sector, community institutions, and the community itself. One of the improvements in tourism is the availability of supporting factors for tourism itself, namely the souvenir center. Without a souvenir center, tourism will operate passively and will not attract tourists to come back. This is because the souvenir center serves to introduce tourists to the local culture in a concrete way from the intended destination [1]. The souvenirs purchased by tourists will give a special impression to tourists from the destination visited as memories. Based on the needs of tourists, it is necessary to have a special souvenir center for selling souvenirs typical of a tourist area [2] [3].

Souvenir centers need to be made in accordance with existing tourist destinations in an area. The placement of souvenir centers must be precise so that it can be easily accessed by tourists and travel agents [4]. Based on literature studies, it is known that many studies have discussed the importance of paying attention to tourism supporting factors, one of which is the availability of souvenir centers. However, previous research lacks detail in discussing the criteria for the right souvenir center for a tourist attraction.
Batam City as one of the largest city centers in the Riau Islands Province. Batam, which was previously known as an industrial city, is now starting to turn into a tourism city. Batam City as a tourism center offers a variety of tourist options. The city of Batam is gifted with extraordinary natural beauty with a range of large and small, exotic islands. Supported by ethnic and cultural diversity that are united under the umbrella of Malay culture, the tourism sector has become a mainstay in the development of Batam City. By offering nine leading tourist destinations, namely marine tourism, cultural tourism, religious tourism, culinary tourism, shopping tourism, agro tourism and ecotourism, sports tourism, historical tourism and MICE tourism. Batam City is recorded as the third highest contributor to foreign tourists after Bali and Jakarta by contributing 1.5 million tourist visits in 2017. One of the supporters of tourism is the availability of souvenir centers in tourism locations. The existence of souvenir sales centers makes it easy for tourists to get souvenir items for their relatives in their home countries [5].

Since 2018 the level of tourists visiting or on vacation to Batam City has fluctuated. Based on the field survey, it is known that one of the causes is the level of tourist satisfaction with tourism services in Batam City. In the field, it is known that Batam City has not yet determined a special location for souvenir sales centers for Batam City, when in fact tourists really need it, as in other cities in Indonesia, namely Bukittinggi in West Sumatra Province and Malioboro in Yogyakarta Province and Ubud in Bali Province. The existence of a souvenir sales center can increase the interest of tourists to visit an area. In addition, it can also be an effort to introduce authentic Batam City products to tourists by buying these products.

This problem is faced by Batam City, because there is no specific location for souvenir sales centers in Batam City tourism. As is well known, there are choices of tourist destinations in Batam City such as Barelang Bridge, the landmark Welcome to Batam, Sultan Ruyat Syah Mosque, branded product shopping centers in Nagoya, beaches in Barelang and Nongsa, Engku Hamidah Plain, Ex Vietnamese Village and Ocarina Tourism.

Based on the choice of destination, there are no souvenir sales centers other than in malls in Batam City. Currently, each tourism location has not provided a special area to sell souvenirs typical of Batam City, so tourists have to go to the mall to shop for souvenirs, not directly buy at tourism locations. This makes the quality of tourism services in Batam City not optimal, because the souvenir sales center is a supporter of the tourism sector. As we know, to satisfy the customer, we have to fulfill the customer requirement same for this condition [6].

This condition makes tourists have to buy souvenirs at a different location from the intended tourist destination. This problem is also a challenge for the Batam City Government to strive to improve tourism services in Batam City by providing a special location for souvenir sales centers typical of Batam City [7].

Based on these problems, this research needs to be carried out, so the aims of this research is to find out the criteria for determining the location of souvenir centers in Batam City Tourism. It is hoped that this research can be an input in decision making by the Batam City Government to determine the location of souvenir sales centers in Batam City Tourism.
2. Methods
The population of this study are all tourists who visit or vacation in Batam City. The sample of this study was taken based on the probability sampling method with random sampling taken from the data on the number of tourists from Batam City in 2019 are 1,947,943 tourists. Based on the number of tourists who come to Batam City, the following is the calculation of the number of respondents for this study [8]:

\[
n = \frac{N}{1 + \frac{Ne^2}{N}}
\]

\[
= \frac{1,947,943}{1 + (1,947,943 \times 0.05^2)} = 399.9
\]

So, the number of respondent samples taken was 400 tourists.

The method used in the data collection criteria is voice of customer, which is then analyzed from the statistical level. This research will provide several criteria that can be selected by respondents to determine the criteria for the location of the souvenir center which is the purpose of this research. These criteria were collected based on the results of tracing previous literature [9]. The list of criteria is as follows:

| Criteria Code | Criteria          | Sub-Criteria                                                                 |
|---------------|-------------------|------------------------------------------------------------------------------|
| C.1           | Tourism Site (X-1)| Located in a tourist area                                                    |
| C.2           | Accessibility (X-2)| There is road access, easy routes, and a large parking area at affordable prices |
| C.3           | Accomodation (X-3)| Rest services are available                                                  |
| C.4           | Facility (X-4)    | There are ATM Center, Wifi, prayer rooms, security, trash area, health services, amusement park |
| C.5           | Transportation (X-5)| There are convenient and publicly accessible modes of transportation       |
| C.6           | Culinary Service (X-6)| There is a restaurant area                                                |
| C.7           | Availability (X-7)| There are various types of souvenirs from food, drinks, clothes, accessories, and other types. |

Based on the predetermined criteria and sub-criteria, it is followed by making a voice of customer form using Google Form, so that respondents can fill in quickly and the data is obtained in real time. Then, the data will be analyzed statistically to be able to answer the objectives of this study.

3. Result and discussion
Based on the results of data calculations, it is known that for the highest priority criteria is the availability criteria. This is because tourists need a souvenir center with complete and varied types of souvenirs available.
Table 2. Summary data

| Case Processing Summary | N   | % |
|------------------------|-----|---|
| Cases                  |     |   |
| Valid                  | 400 | 97.8 |
| Excluded\(a\)          | 9   | 2.2 |
| Total                  | 409 | 100.0 |

a. Listwise deletion based on all variables in the procedure.

Table 3. Statistics analysis

| Reliability Statistics |
|------------------------|
| Cronbach's Alpha       | 0.695 |
| N of Items             | 8     |

| Item-Total Statistics |
|-----------------------|
| Scale Mean if Item Deleted | Scale Variance if Item Deleted | Corrected Item-Total Correlation | Cronbach's Alpha if Item Deleted |
| X-1                   | 27.8950 | 12.255 | .269 | .689 |
| X-2                   | 28.1300 | 10.785 | .471 | .646 |
| X-3                   | 28.8250 | 11.944 | .296 | .685 |
| X-4                   | 27.7000 | 12.747 | .199 | .701 |
| X-5                   | 28.2450 | 11.143 | .348 | .676 |
| X-6                   | 29.2850 | 9.357  | .557 | .618 |
| X-7                   | 27.6950 | 11.641 | .424 | .660 |
| Y                     | 27.8525 | 10.692 | .512 | .637 |

This study uses the Pearson Product Moment correlation formula by looking at r count with r table. Significance testing was carried out using the r table criterion at a significance level of 0.01 with a 2-sided test. If the value is positive and r count> r table, then the statement item can be declared valid and vice versa if r count < r table then the statement item can be declared invalid. In this study, the degrees of freedom were 398 (n-2) with n as many as 400 at a significant level of 0.01, if the value of r count> 0.128 then the statement item was declared valid. The results of the validity test of the questionnaire that were distributed to 400 respondents are shown in Table 4.

| Question   | r Table | r Count | Validation |
|------------|---------|---------|------------|
| Question 1 (X-1) | 0.128   | 0.445   | Valid      |
| Question 2 (X-2) | 0.128   | 0.638   | Valid      |
| Question 3 (X-3) | 0.128   | 0.480   | Valid      |
| Question 4 (X-4) | 0.128   | 0.369   | Valid      |
| Question 5 (X-5) | 0.128   | 0.556   | Valid      |
| Question 6 (X-6) | 0.128   | 0.738   | Valid      |
| Question 7 (X-7) | 0.128   | 0.571   | Valid      |
The reliability test is carried out to determine the extent to which a measurement result is relatively consistent if the measurement is repeated two or more times. The reliability test in this study was carried out using Cronbach Alpha. If the Cronbach Alpha reliability coefficient value is greater than 0.6, the research instrument is considered reliable. The correlation coefficient index criteria table is presented in Table 7. The following are the results of the reliability test of the questionnaire that has been distributed to 400 respondents for 8 questions, namely 7 independent variables (X) and one dependent variable (Y), which for each variable are presented in Table 5 below:

| Question     | Cronbach’s Alpha | Reliable | Criteria |
|--------------|------------------|----------|----------|
| Question 1 (X-1) | 0.689            | Reliable | High     |
| Question 2 (X-2) | 0.646            | Reliable | High     |
| Question 3 (X-3) | 0.685            | Reliable | High     |
| Question 4 (X-4) | 0.701            | Reliable | High     |
| Question 5 (X-5) | 0.676            | Reliable | High     |
| Question 6 (X-6) | 0.618            | Reliable | High     |
| Question 7 (X-7) | 0.660            | Reliable | High     |
| Question 8 (Y)  | 0.637            | Reliable | High     |

Based on Table 3, all of them are declared reliable or trustworthy because the Cronbach’s Alpha value of each variable is greater than 0.600.

Correlation Analysis, The correlation test aims to determine the relationship between the independent variable (X) and the dependent variable (Y). The correlation test conducted is the Person Correlation which aims to determine the relationship of each independent variable to the dependent variable, which is based on the Significance value, the conclusion of the hypothesis is:

\[ H_0 = \text{There is no correlation (correlation) between the two variables.} \]
\[ H_1 = \text{There is a relationship (correlation) between the two variables.} \]

The basis for decision making is based on probability using criteria, if the value of \( \text{sig} > \alpha \), then \( H_0 \) is accepted, whereas if the probability \( \text{<} \alpha \), then \( H_0 \) is rejected. From the results of calculations using SPSS, Table 4 shows a statistical calculation of the mean and standard deviation, while the correlation results can be seen in Table 6.

| Question          | Mean  | Std. Deviation | N  |
|-------------------|-------|----------------|----|
| Tourism Site (X-1)| 4.3375| 0.73139        | 400|
| Accessibility (X-2)| 4.1025| 0.85664       | 400|
| Accomodation (X-3)| 3.4075| 0.78612        | 400|
| Facility (X-4)    | 4.5325| 0.67830        | 400|
| Transportation (X-5)| 3.9875| 0.92979      | 400|
| Culinary Service (X-6)| 2.9475| 1.07360   | 400|
| Availability (X-7)| 4.3735| 0.70344       | 400|
| Souvenir Centre (Y)| 4.3800| 0.83206       | 400|

So from table 5 for the correlation results, only the Facility variable (X-4) has no effect on the Souvenir Center (Y), this is because the Sig. (0.247) > \( \alpha \) (0.01). While other variables affect the Souvenir Center (Y), this is due to the Sig. < \( \alpha \) (0.01). This means that of the 7 independent variables (X), only one has no influence on the dependent variable (Y), namely Facility (X-4).
Table 7. Correlation analysis

| Variable       | Correlation Results | Souvenir Centre (Y) |
|----------------|---------------------|---------------------|
| Souvenir Centre (Y) | Pearson Correlation | 0.135**            |
|                  | Sig. (2-tailed)     | 0.007               |
|                  | N                   | 400                 |
|                  | Pearson Correlation | 0.318**            |
| Accessibility (X-2) | Pearson Correlation | 0.180**            |
|                  | Sig. (2-tailed)     | 0                   |
|                  | N                   | 400                 |
| Accommodation (X-3) | Pearson Correlation | 0.058               |
|                  | Sig. (2-tailed)     | 0                   |
|                  | N                   | 400                 |
| Facility (X-4) | Pearson Correlation | 0.171**            |
|                  | Sig. (2-tailed)     | 0.247               |
|                  | N                   | 400                 |
| Transportation (X-5) | Pearson Correlation | 0.569**            |
|                  | Sig. (2-tailed)     | 0.001               |
|                  | N                   | 400                 |
| Culinary Service (X-6) | Pearson Correlation | 0.498**            |
|                  | Sig. (2-tailed)     | 0                   |
|                  | N                   | 400                 |
| Availability (X-7) | Pearson Correlation | 0                   |
|                  | Sig. (2-tailed)     | 0                   |
|                  | N                   | 400                 |

4. Conclusion

Based on the research results, it is known that tourists really need a souvenir center in a tourist city such as Batam city. Souvenir centers are a factor in attracting tourists to travel to Batam City, because souvenir is the experience for tourists [10]. A complete, comfortable, and safe souvenir center is urgently needed by tourists. This is because souvenirs are part of the process of introducing the culture of an area to tourists. Therefore, the Batam city government needs to pay attention to the needs of tourists who travel to Batam City by providing a souvenir center in the tourist center of Batam City.

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