Development of Ora Beach Tourism Object 
Central Maluku Regency

Lukman Lapatty¹, Agus Dwi Wicaksono², Gunawan Prayitno³

¹, ², ³Brawijaya University, Urban and Regional Planning, MarjenHaryono No. 167, Malang 65145, Indonesia

Abstract: The development of tourism destinations for Ora Beach is one of the leading tourism development programs in Central Maluku Regency, prioritized to improve community welfare, economic balance, equitable development, and increase local revenue (PAD). The increasing number of visitors and the limited provision of tourism facilities at Ora Beach have caused visitors to feel dissatisfied with tourism services quality. The need for tourism development is to meet visitors' needs and evaluate developing Ora Beach tourism objects. This study aims to determine customer visitors' voice to service quality, determine the technical response to customers' voice, and the development of Ora beach tourism objects. This study also uses the Quality Function Deployment (QFD) method by compiling a House of Quality (HOQ) matrix to determine the development of tourism priorities for Ora Beach. The research results show that there are 11 priority indicators for the development of Ora Beach tourism objects, namely Rehabilitation of bathrooms and prayer rooms, Addition of trash bins, Rehabilitation of land and sea houses, expansion of restaurants, construction of Employee Dinner Rooms (EDR), renovation of halls (information rooms, offices, and public places security), expansion of the parking lot, renovation of ganzet houses and additional electrical power, the addition of security equipment, addition of souvenir shop facilities and addition of water reservoirs.

Keywords: Tourism Development, Coastal Tourism, Quality Function Deployment (QFD) Method

1. Introduction

Development of tourist destinations is one of the priority tourism development programs of the Central Maluku Regency in improving community welfare, economic balance, equitable development, and increasing local revenue (PAD). The development of tourist destinations includes developing natural tourist attractions and cultural tourism and amenities and accessibility that meet the standard of tourism services. Ora beach tourism is included in the development of priority tourist destinations. This tour is one of the leading beach tours in the Central Maluku district, increasing foreign exchange in the tourism sector. [1]

The Department of Culture and Tourism of Maluku Province explained that the increase in 2018 had increased to 20% with a total of 129,407 visitors compared to the previous year, an increase of 5-15% in 2017 with 119,093 visitors. Increased visitor affect the need for tourist facilities which, the limitations of tourist facilities beach ora such as accessibility, amenities and public facilities tourist causing travel needs of the existing condition occurs lack of balance between the availability of the requests of visitors that will affect the decline of visitor satisfaction with the quality of services Beaches Ora.

Satisfaction visitors refer to feelings about the service received (perceived service) and the service that is expected to be received (expected service). If the service received (perceived service) exceeds the expected service, visitors will feel satisfied, and the assessment of the quality of the service will be high. However, if the opposite happens, visitors will feel disappointed, and assessing these services' quality is low [2]. Basically, service quality is influenced by 2 (two) factors: perceived service is the performance or tourism service offered to visitors, and expected service is the visitor's expectation of the service received [3].

Table 1: Research variables

<table>
<thead>
<tr>
<th>Indicators</th>
<th>Variables</th>
<th>Sources</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tangible</td>
<td>Parking area</td>
<td>[8],[9]</td>
</tr>
<tr>
<td></td>
<td>Parking conditions</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Number of bathrooms/toilets</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Bathroom / toilet conditions</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Number of souvenir/souvenir shops</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Number of restaurants</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Appropriateness of conditions of places of worship</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Number of hotels/inns</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Hotel/lodging conditions</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Security post availability</td>
<td>[10]</td>
</tr>
</tbody>
</table>
2.2 Data Collection Methods

Methods in this study are divided into 2 (two), namely primary data collection and secondary data collection, while the techniques used in data collection are questionnaire and interview techniques.

2.3 Determine The Sample

Taking samples using the sampling technique Accidental Sampling technique, namely determining the sample by chance in visitors' form when visiting Ora Beach tour [11]. Determining the sample using the method Linear Time Function in determining it. The formula for the method Linear Time Function [12] are as follows:

\[ n = \frac{t - t_0}{t_1 - t_0} \]  
\[ n = \frac{1}{2.888 - 360} \times 25 \]  
\[ n = 2.528 \]  
\[ n = 101.1 \text{ Jadin} = 100 \text{ orang} \]

The calculation results show that the number of samples used is 100 respondents who are expected to represent the population as a whole and represent Ora Beach tourism visitors' various characteristics.

2.4 Analysis Method

The data analysis method uses Quality Function Deployment (QFD) by compiling a matrix House Of Quality (HOQ). The stages of analysis are as follows:

- **a) Voice of Customer**
  - The customer's voice is the visitor's need/customer requirements for Ora Beach tourism object, which are determined using supporting analysis, namely Importance Performance Analysis (IPA). The stages of Importance Performance Analysis (IPA) [13] are 1). Determine performance attributes and expectations; 2). Determine the value of performance scores and expectations; 3). Analyzing the level of visitor satisfaction, and 4). Create a cartesian quadrant. Indicators Voice of the customer based on the indicators included in the indicators included in Quadrant A in the Cartesian diagram which indicators have high expectations, but its value, the value of the performance is still weak, so the need for development/improvement in these indicators to improve service quality Ora Beach attractions.

- **b) Planning Matrix**
  - Planning Matrix consists of several analysis stages described, as follows:
    1. Goal Is the average value of expected customer requirements based on the indicator Voice of Customer for Ora Beach tourism, which has been determined based on Quadrant A Importance-Performance Analysis (IPA).
    2. Customer Satisfaction Performance (CSP) Is the average performance value of customer requirements by the indicator Voice of Customer for Ora Beach tourism, determined in Quadrant A Importance-Performance Analysis (IPA).
    3. Improvement Ratio Is a measure used to determine how much effort should be made to develop Ora Beach tourism. The higher the ratio value, the more it must be developed/improved. Improvement Ratio can be calculated with the formula:
      \[ \text{Improvement ratio} = \frac{\text{Goal}}{\text{CSP}} \]  
    4. Importance of Customer (IoC) is a measure used to describe the average level of visitor expectations. IoC can be calculated with the formula:
      \[ \text{Importance of customer} = \frac{\text{Goal}}{\text{Total Value Goal}} \]  
    5. Raw Weight is a value that describes the overall level of visitor expectations based on the Important of Customer and Improvement Ratio. Which is calculated by the formula:
      \[ \text{Raw weight} = \text{Improvement Ratio} \times \text{IoC} \]  
      \[ \text{Normalized Raw Weight} = \frac{\text{Raw Weight}_{i}}{\text{Raw Weight}_{\text{Total}}} \]  

- **c) Technical Response**
  - Technical Response is part of the stages of the analysis method. Quality Function Deployment (QFD), which is used for answers or responses in response to customer needs Ora Beach tour. The technique is used to determine the Technical Response indicator by conducting interviews with Ora Beach tourism managers.

- **d) Technical Correlation**
  - Technical Correlation is used to identify the correlation between Technical Response whether it supports or interferes with each other, with the symbols: ● = strong relationship, ○ = weak relationship, and Δ = no relationship.


### e) Relationship Matrix

Relationship Matrix, this matrix describes the relationship between Voice of Customer and Technical Response. The scale commonly used in this matrix is: 9 = strong relationship, 3 = moderate relationship, 1 = weak relationship and 0 = no relationship. Furthermore, the formula’s calculation of the total value adds up all the Relationship Matrix values so that the total value is obtained.

### f) Technical Matrix

The process analysis compiling the Technical Matrix consists of 3 (three) stages, namely determining the value of Contribution, Normalized Contribution, and Priority. The calculation in determining the Contribution and Normalized Contribution value is formulated, as follows:

\[
\text{Contribution} = \sum (\text{Raw Weight} \times \text{Relationship})
\]

\[
\text{Normalized} = \frac{\text{Nilai Contribution} - i}{\sum \text{Nilai Contribution}} \times 100
\]

Priority is determined based on the Normalized contribution.

### 3. RESULTS AND DISCUSSION

#### 3.1 General Description of Ora Beach Tourism Objects

Tourism is a type of marine tourism located on the north coast of the Seram Sea. It is at the foot of the mountain in the Manusela National Park, Saleman Village, West North Seram District, Central Maluku Regency. The uniqueness of the Ora beach tourism object is that it has a beach with white sand, clear seawater, and a variety of marine life and has the natural beauty of Mount Manusela National Park as a special attraction for tourists.

Ora beach tourism was developed in 2012 through PT PesonaPulauRempah in collaboration with the indigenous peoples of Negeri / Saleman Village, Manusela National Park Office, Environment and Forestry Service to provide marine tourism facilities in the utilization zone of Manusela National Park in Saleman State / Village, Maluku Regency Middle. The area/area of the Ora Beach tourist attraction is 2.50 Ha covering the coastal foothills of the Manusela National Park. Administratively, the area of Ora Beach tourism object is as follows:

Northside : Seram Sea  
Eastside: Manusela National Park  
Southside : Manusela National Park  
Westside : Seram Sea

#### 3.2 Voice of Customer

Voice of the customer at Ora Beach tourism object can be determined based on the results of Importance Performance Analysis (IPA), then, the indicators/attributes of Voice of customers are attributes/indicators included in Quadrant A on the Cartesian diagram, namely indicators that have a high expectation value. However, the performance value is still weak, so the need for development/improvement of these indicators improves Ora Beach tourism services quality. The Indicator Voice of the customer can be seen in Table 2, as follows:

<table>
<thead>
<tr>
<th>No</th>
<th>Voice of Customer</th>
<th>Average value</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Parking area (1)</td>
<td>2.95, 3.61</td>
</tr>
<tr>
<td>2</td>
<td>Bathroom / toilet conditions (4)</td>
<td>3.02, 3.61</td>
</tr>
<tr>
<td>3</td>
<td>Number of souvenir shops (5)</td>
<td>2.72, 3.69</td>
</tr>
<tr>
<td>4</td>
<td>Number of restaurants (6)</td>
<td>2.99, 3.59</td>
</tr>
<tr>
<td>5</td>
<td>Appropriateness of conditions of places of worship (7)</td>
<td>3.02, 3.74</td>
</tr>
<tr>
<td>6</td>
<td>Hotel / lodging condition (9)</td>
<td>3.01, 3.47</td>
</tr>
<tr>
<td>7</td>
<td>Number of bins (12)</td>
<td>2.68, 3.76</td>
</tr>
<tr>
<td>8</td>
<td>Availability of electricity (14)</td>
<td>3.05, 3.61</td>
</tr>
<tr>
<td>9</td>
<td>Availability of tourist safety equipment (28)</td>
<td>2.98, 3.66</td>
</tr>
</tbody>
</table>

| Total | 26.4 | 32.7 |
| Average | 2.94 | 3.64 |

Based on the table above shows that the Voice of the customer has 9 indicators, namely the area of the parking area (1), the condition of the bathroom/toilet (4), the number of souvenir shops (5), the number of restaurants/restaurants (6), Feasibility conditions for places of worship (7), Condition of hotels/inns (9), Number of Trash Bins (12), Availability of Electricity (14), Availability of tourist safety equipment (28)

#### 3.3 Planning Matrix

Planning Matrix is the second stage of the Quality Function Deployment (QFD) analysis in compiling the House of Quality (HOQ). To compile the Planning Matrix, there are several analysis stages: analyzing data, Customer satisfaction, and performance (CSP) Improvement Ratio, and the importance of Customer. The explanation of the stages of analysis in preparing the Planning Matrix/Planning Matrix can be described as follows:

- **a) Goal**
  
  Goal is the average value of expected customer requirements based on the indicator Voice of Customer for Ora Beach tourism, which has been determined based on Quadrant A Importance-Performance Analysis (IPA). Based on the table above, it can be seen that the average level Goal lowest is found in the hotel/lodging condition indicator (9) with an average value of 3.47, and the highest average Goal level is found in the Number of Trash Can indicator (12) with the total average value of 3.76.

- **b) Customer Satisfaction Performance (CSP)**
  
  Customer satisfaction performance (CSP) is the average performance value of the customer requirements according to the indicator Voice of Customer for Ora Beach tourism, determined in Quadrant A Importance-Performance Analysis (IPA). Based on the results of the analysis, it can be seen that the average value of Customer satisfaction performance (CSP) The highest is in the indicator of Electricity Availability (14) with an average value of 3.05. Customer Satisfaction Performance's average value (CSP) is found in the indicator of Total Trash (12) with an average value of 2.68.

- **c) Improvement Ratio**
  
  The calculation of the value is Improvement Ratio obtained from the division between the level Goal value and the
Customer Satisfaction Performance (CSP) level value so that it can be seen the value of the level Improvement Ratio were, the higher the ratio value, the more must be developed/improved. Based on the results of the analysis, it can be seen that the highest Improvement Ratio level is found in the Number of Trash Bins indicator (12) with a total value of 1.40, and the Improvement Ratio lowest level is found in the hotel/lodging condition indicator (9) with a total value of 1.15.

d) Importance of Customer (IoC)

Importance of Customer (IoC) is a measure used to describe visitors' average level of expectations of Ora Beach attractions. The analysis results show that the value of the highest Importance of Customer (IoC) level is found in the Number of Trash Bins indicator (12) with a total value of 0.115. The Importance of Customer (IoC) lowest level is in the hotel/lodging condition indicator (9) with a total value, 1.106.

e) Raw Weight

Raw Weight is a value that describes the overall expectation level of visitors based on an Important of Customer (IoC) and Improvement Ratio. The analysis results show that the value of the level Raw Weight is The highest is found in the indicator Voice Of Customer is the Number of Trash Can (12) with a value of 0.161 or the Normalized value Raw Weight level of 0.115%. Meanwhile, the Raw Weight lowest level is found in the indicator, which Voice of Customer is the condition of the hotel/lodging (9) with a total value of 0.122 or value level Raw Weight Normalized is 12.2%

3.4 Technical Response

Technical Response is part of the analysis method. Quality Function Deployment (QFD), which is used for answers or responses in response to the customer's results, voice mer based on visitor needs Ora Beach. Determining the Technical Response, the researcher conducted a discussion with the Saleman Village / State government and the Ora Beach tourism manager and based on the results of the discussion could be determined Technical Response which will be explained in Table 2, as follows:

<table>
<thead>
<tr>
<th>Table 2: Indicators</th>
<th>Technical Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>Parking area (1)</td>
<td>Rehabilitation of bathrooms and prayer rooms</td>
</tr>
<tr>
<td>Bathroom / toilet conditions (4)</td>
<td>Ganze house renovation and additional electric power</td>
</tr>
<tr>
<td>Number of souvenir shops (5)</td>
<td>Renovation of the hall (information room, office, and security post)</td>
</tr>
<tr>
<td>Number of restaurants (6)</td>
<td>Renovation and addition of restaurants</td>
</tr>
<tr>
<td>Appropriateness of conditions of places of worship (7)</td>
<td>Expansion of the parking area</td>
</tr>
<tr>
<td>Hotel / lodging condition (9)</td>
<td>Addition of security equipment</td>
</tr>
<tr>
<td>Number of bins (12)</td>
<td>Added facilities for souvenir shops</td>
</tr>
<tr>
<td>Availability of electricity (14)</td>
<td>Rehabilitation of sea and land housing insns</td>
</tr>
<tr>
<td>Availability of tourist safety equipment (28)</td>
<td>Development of the Employee Dinner Room (EDR)</td>
</tr>
</tbody>
</table>

Based on the results of the discussion to determine the Technical Response of the Ora Beach tourism manager in answering Voice Of Customer, there are 11 indicators, namely Rehabilitation of bathrooms and prayer rooms, renovation of generator houses and additional electrical power, renovation of halls (information rooms, offices, and security posts), renovations and addition of restaurants, expansion of parking lots, addition of security equipment, addition of shop facilities souvenirs, Rehabilitation of sea and land housing insns, Construction of Employee Dinner Rooms (EDR), Addition of clean water reservoirs and Addition of trash bins.

3.5 Technical Correlation

Technical Correlation is used to identify the correlation between Technical Response, whether it supports or interferes with each other, with symbols that are ● = strong relationship, ○ = weak relationship, and Δ = no relationship. To determine a Technical Correlation based on the results of discussions with Ora Beach tourism managers, it is known that the correlation with a strong relationship is found in the indicator of Rehabilitation and Addition of Restaurants with Indicator of Employee Dinner Room (EDR) Development.

3.6 Relationship Matrix

Relationship Matrix describes the relationship or correlation between Voice of customer and Technical Response. The scale used to determine the Relationship Matrix is 9 = strong relationship, 3 = moderate relationship, 1 = weak relationship and 0 = no relationship. The analysis results show that the total Relationship Matrix value highest is found in the indicator, Technical Response, namely the rehabilitation of bathrooms and prayer rooms with a total value of 22. Meanwhile, the Relationship Matrix's total value is in the indicator, Technical Response, namely the addition of clean water reservoirs with a total value of 8.

3.7 Technical Matrix

Technical Matrix is the final analysis stage in compiling the House of Quality (HOQ) in the analysis method of the Analysis method Quality Function Deployment (QFD). The analysis process, Technical Matrix There are 3 (three) stages, namely determining the value of Contribution, Normalized Contribution, and Priority.

The analysis results show that the value of the level Technical Matrix is The highest in the indicator, Technical Response: Rehabilitation of bathrooms and prayer rooms with the value of Contribution 298.7 or Normalized value Contribution 13.35%. While the level value is Technical Matrix lowest found in the indicator, Technical Response: the addition of a clean water reservoir with value Contribution of 103.5 or value Normalized Contribution of 4.63%. Furthermore, determining priorities based on the analysis Normalized Contribution, namely the greater the value Normalized Contribution, the more prioritized for the development of Ora Beach tourism objects. The results of the analysis can be seen that the level of priority for the
development of Ora Beach tourism objects can be described as follows:

a) Rehabilitation of bathrooms and prayer rooms (1)
b) Addition of trash bins (2)
c) Sea and land housing rehabilitation (3)
d) Restaurant expansion (4)
e) Development of an Employee Dinner Room (EDR) (5)
f) Renovation of halls (information rooms, offices, and security posts) (6)
g) Expansion of the parking area (7)
h) Genset house renovation and additional electric power (8)
i) Addition of security equipment (9)
j) Addition of souvenir shop facilities (10)
k) Addition of clean water reservoirs (11)

4. Conclusion

According to the problem's identification and formulation, conclusions are described based on the results and discussions carried out. The conclusion of the development of tourism objects in Ora Beach, Central Maluku Regency can be concluded, as follows:

1) The Indicator is the customer's voice determined based on the results of the IPA analysis. There are 9 indicators of customer requirements for the level of Ora Beach tourism service, namely the area of the parking lot, the condition of the bathroom/toilet, the number of souvenir shops/souvenirs, the number of restaurants/restaurants, the feasibility of the conditions of the place of worship, the conditions hotels/inn, number of trash cans, availability of electricity for tours and availability of safety equipment for tourism at Ora Beach.

2) Technical Response of Ora Beach tourism managers in answering and responding to the indicator Voice Of Customer, there is 11 indicators, Technical Response namely Rehabilitation of bathrooms and prayer rooms, renovation of generator houses and additional electrical power, renovation of halls (information rooms, offices, and security posts), renovation and addition of restaurants, expansion of parking lots, the addition of security equipment, the addition of souvenir shop facilities, Rehabilitation of sea and land housing accommodation, construction of an Employee Dinner Room (EDR), the addition of clean water storage tanks and additional trash bins.

3) Recommendations for the development of tourism objects at Ora Beach, Central Maluku Regency based on the results of the analysis in compiling the House of Quality matrix (HOQ) in the analysis method Quality Function Deployment (QFD) 11 (eleven) priority development indicators can be determined, namely, as follows:

a) Rehabilitation of bathrooms and prayer rooms with priority handling of 13.18%.
b) The trash with a priority of handling 11.78%.
c) Repair and addition of sea and land accommodation with priority handling of 11.24%.
d) Addition of restaurants with priority handling of 9.38%.
e) Development of an Employee Dinner Room (EDR) with priority handling of 9.26

References


Author Profile

Lukman Lapatty obtained his bachelor's degree from the Urban and Regional Planning Department in 2016 at the National Institute of Technology Malang. During 2017-2020 he continued his Masters (S2) studies in the Department of Regional and City Planning, Faculty of Engineering, Brawijaya University, Malang, Indonesia.

Agus Dwi Wicaksono obtained a bachelor's degree from the Department of Architecture at Gadjah Mada University (UGM) in 1985, a Masters (S2) in the Department of Regional Science / Planning, Karlsruhe Institute of Technology, Germany in 1993, and a Doctor (S3) from the Sepuluh Nopember Institute of Technology (ITS) in 2013. During 1987-2020 he worked in the Urban and Regional Planning Engineering Department, Brawijaya University, Malang, Indonesia.

Gunawan Prayitno obtained a bachelor's degree from the Department of Agricultural and Resource Economics, Bogor Agricultural University (IPB) in 1999, and a Masters (S2) from the Department of Urban and Regional Planning, the Bandung Institute of Technology (IPB) in 2004, and a Doctor (S3) majoring in Regional Planning from Kyoto University in 2015. During 2006-2020 he worked in the Department of Urban and Regional Planning Engineering, Brawijaya University, Malang, Indonesia.