The Measurement of Service Quality at Linow Lake Tourist Attraction Using Servqual Method

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ABSTRACT

The tourism industry sector in North Sulawesi is currently getting more attention by the government. Linow lake is one of the busiest and visited tourist attraction. The tourism industry must apply the concepts, regulations and guidelines in tourism development in order to be able to maintain and increase the number of tourist visits which will lead to economic benefits for the tourism industry and local communities. In Tomohon city itself, there are so many natural tourist attractions which as beautiful as Linow Lake. In order for tourists to feel satisfied and want to visit the Linow lake on the next day, the quality of service cannot be overlooked. For this reason, measurement of service quality was carried out using five dimensions, Tangible, Reliability, Assurance, Responsiveness, and Empathy. It will be measured to 100 respondents, how the expectations and perceptions of tourists about the service quality at Linow Lake tourist attractions. Measurements were carried out by using servqual method, which calculates the difference between the expectations and perceptions of tourists consisting of 22 questions. The result of the analysis showed a positive value of 0.17, which means that the service quality at Linow Lake tourist attractions has exceeded the expectations of visitors. However, one dimension, responsiveness, gets a negative value, and it is expected that the management can improve the quality of its services in terms of response speed, especially on busy visitor days.

Keywords: Assurance, Empathy, Reliable, Responsiveness, Service Quality, Tangible, Tourism

INTRODUCTION

President Joko Widodo during his visit to Manado in July 2019 declared that North Sulawesi Province was a new star in the tourism sector. North Sulawesi has many tourist attractions that offer beautiful natural scenery. Tourism areas ranging from sea, land to mountains in North Sulawesi area have increased the number of tourists visits over the last four years. The increase rate is up to 600% (Sudarwan, 2019). This number is quite fantastic and is the result of the hard work of the local government in collaboration with all stakeholders engaged in the tourism industry. The government encourages every city and district to hold international events to attract tourists. Foreign tourists are dominated by tourists from China, by taking advantage of direct flights from several areas there to Manado (Nursalikah, 2019).
Based on data from Statistics Indonesia or BPS (2019), the number of foreign tourists who came to North Sulawesi in February 2019 reached 11,305 people. This figure increased as much as 4.03% compared to the number of visits in the previous month, January 2019 that reached 10,905 people.

The tourism industry sector in Indonesia is currently getting more attention by the government. Indonesia as a developing country by the government of President Joko Widodo set targets in one of Nawacita, Improving the Quality of Indonesian Human Life, which then became a priority sector of Kabinet Kerja (The Working Cabinet) in the infrastructure and tourism sector (Febrinastri, 2018). The tourism industry plays an important role in supporting government programs which intends to promote tourism in North Sulawesi. In carrying out its role, the tourism industry must apply the concepts, regulations and guidelines in tourism development in order to be able to maintain and increase the number of tourist visits. This will help economy of local people and improve the tourism industry (Pratama, 2016). In many countries, tourism is a reliable sector to earn income, create job opportunities and provide new jobs, and can be an alternative to overcome the economic crisis (Raharso, 2005). Tourism can create a multiplier effect because it can create some occupations, increasing the income of other businesses, and encouraging local governments to build and maintain the infrastructure. At the beginning of his reign, President Joko Widodo, had not yet considered North Sulawesi as one of the strategic tourist areas. However, with this fantastic increase in the number of tourists, in 2019 North Sulawesi was included in the National Tourism Strategic Area (KSPN).

There are many interesting tourist attractions that can be visited by tourists, especially foreign tourists. The most famous is Bunaken Marine Park. However, the other tourist attractions are also not less interesting and beautiful to visit. One of them is Linow Lake, which is located in Lahendong village, South Tomohon district.

Linow lake has an area about of 34 hectares. Linow lake has a special characteristic, the water contains high levels of sulfur. During the day when the sun reflects the light on the surface of Lake Linow, the surface of the water will appear and change into several colors depending on the acidity of the water and the angle of view. This makes Linow Lake even more beautiful. The sulfur and magnesium sulfate content in the water in Linow Lake makes the water hot and is believed to be beneficial for skin health. However, the visitors still have to be careful about the boiling mud puddles and usually on the edge of the lake. The scenery around Linow lake is not less beautiful. The air is relatively cool and even tends to be cold when the sun begins to set.

On the shores of Linow Lake, a café was built. Tourists can sit and eat while enjoying the natural beauty of Linow Lake. This place is always busy with tourists, especially on weekends and holidays. The number of visitors has increased significantly, it made investors developed the tourism business by expanding parking lot and rest area at the end of 2018. The location of this place is about 700 meters from the downtown of Tomohon, and every tourist is required to pay for a ticket as much as IDR 25.000 before entering to tourist spot.

The development of information and technology nowadays creates fierce competition in various industrial fields including the tourism industry. In Tomohon city itself, there are
so many natural tourist attractions which as beautiful as Linow Lake. In order for tourists to feel satisfied and want to visit the Linow lake on the next day, the quality of service cannot be overlooked. If the quality of service is considered to be very good, tourist will feel satisfied and want to return and even share the experience to others. Thus, the tourism industry can run smoothly so not only the benefits can be achieved by the owner, but also the expected multiplier effect in the tourism industry is realized, so it can support the economy of the country and region. Tangian, Polii and Mengko (2021) in their article stated that in several regions, the industry boosts the regional economy as the main income source.

The results of a study conducted by Ardani, Rahyuda, Giantari and Sukaatmadja (2019) stated that in order to successfully operate a tourist destination that provides customers with a satisfying experience, destination managers need to understand what tourists want and how they judge the quality of the destinations. Similarly, the result of the study conducted by Kalebos (2016) showed that the service quality is the highest significant variable to tourist satisfaction in this research. The level of quality cannot be judged from the company's point of view, but must be seen from the customer's point of view. Therefore, in formulating strategies and service programs, companies must prioritize the interests of customers by paying attention to the components of service quality (Massie, Kindangen & Palandeng, 2016). For this reason, this study is conducted to examine the quality of services at Linow Lake tourist attractions in Lahendong, North Sulawesi by using the Servqual method. Kotler and Armstrong (2005) and Parasuraman, Zeithaml, and Berry described the quality of service in five dimensions that can be measured through a gap analysis in the opinion of consumers, tangibles, reliability, responsiveness, assurance, and empathy. The community as customers provides value in accordance with the expectations and reality experienced in each service. For example, whether the service is provided on time in terms of reliability, or in terms of guarantees, whether the officers always serve customers with agility. By using gap analysis, service quality can be measured. Servqual Method will measure whether the services received by visitors at Linow Lake are in line with expectations or not.

Kotler and Keller (2006) defined service quality as the level of excellence to meet customer expectations and service quality determined by the ideal comparison and perception of quality performance. According to Tjiptono in Putri (2015), service quality is more difficult to define, describe and measure when compared to the quality of goods, because services are intangible and must be felt subjectively by consumers, where the effectiveness of production and consumption takes place at the same time. Zeithaml, Berry and Parasuraman in Yamit (2005) have conducted various studies on several types of services, and succeeded in identifying five characteristic dimensions used by consumers (visitors) in evaluating service quality. The five dimensions of service quality characteristics are Reliability, is the ability to provide services immediately and satisfactorily and in accordance with what has been promised. Responsiveness, is the desire of the staff to help consumers (visitors) and provide services responsively. Assurance, which includes the ability, courtesy and trustworthiness of the staff, free from danger, risk or doubt. Empathy, which includes ease in making relationships, good communication, and sincere attention to the needs of consumers (visitors). Tangibles (direct evidence), which includes physical facilities, equipment, employees, and means of communication.
Parasuraman, Zeithaml, and Berry (1990) stated that service quality is a comparison between consumer expectations and perceptions of the performance of the services they receive. This comparison named as the Servqual model, that used to measure service quality. Service quality is divided into 5 dimensions, tangibles, reliability, responsiveness, assurance, and empathy. The servqual value will be obtained after reducing the perceived value and the expected value.

Parasuraman, Zeithaml, and Berry (1990) identified five basic (gaps) that cause service delivery failure:
Gap 1 is between consumer expectations and management's perception of consumer expectations.
Gap 2 is between management perceptions and service quality specifications where service quality specifications do not represent consumer expectations.
Gap 3 is between service quality specifications and service delivery where service quality specifications do not represent consumer expectations but must also be supported by appropriate and sufficient resources.
Gap 4 is between service delivery and external communication.
Gap 5 is expected between the services received and the services provided. Expected services are influenced by word-of-mouth communication, personal needs, past experiences, and communication to customers.

What will be discussed in this study is gap 5, the assessment of services received with expected services. Gap 5 shows the perceived service quality of customers.

**RESEARCH METHOD**

The population in this study are all tourists in Linow Lake, both domestic and foreign tourists and the number is unknown. Roscoen (1975) in Sekaran, U. (2003), proposed the rules of thumb for determining sample size, that the sample size of greater than 30 and less than 500 is sufficient to be used in all studies. To find out the number of samples used, the Lemeshow formula used by Murti (2013) in their research is presented below:

\[
N = \frac{Z^2 \times P \times Q}{L^2}
\]

Which are:
- \(n\) = minimum samples of required
- \(Z\) = The standard value of the distribution according to the value of \(= 5\% = 1.96\)
- \(P\) = Outcome prevalence, because data has not been obtained then 50\% is used
- \(Q\) = \(1 - P\)
- \(L\) = level of accuracy 10\%

\[
n = \frac{(1.96)^2 \times 0.5 \times 0.5}{(0.1)^2} = 96.04
\]

The minimum samples required is 94.04. In this study, the number of samples used is 100 respondents. The sampling technique used is Judgment Sampling, which is basically as same as Accidental Sampling. Malhotra, (2007) stated that whoever is in the object of research, wants to fill out a questionnaire and fulfill the requirements, then immediately become a respondent, but this technique is added by self-assessment element from the researcher regarding the feasible samples and the samples which are
Respondents who meet the requirements are tourists who have come to Linow Lake at least 3 times.

Data collection techniques used in this study is a questionnaire. Likert scale used in this study to examine the data as stated by Malholtra (2007), the Likert scale is designed to examine how strongly the subject agrees or disagrees with the statement submitted. To make it easier to analyze the data, the variables used are measured using Likert scale in 5 level model with the highest form of assessment is 5 (five) and the lowest one is 1 (one) with the following information:

1. totally disagree
2. disagree
3. neutral
4. agree
5. totally agree

In this study, the validity and reliability test are not carried out because the instrument used is adopted from previous research by service quality experts in Service Management book written by Tjiptono (2008). “Evaluation of service quality using Gap Analysis includes calculating the difference between the value given by customers for each pair of questions, for each customer it can be calculated based on the following formula.” Zeithaml In Tjiptono (2008).

There are three possible results from the gap value, they are:

1. The number is positive (>0), which means that the quality of service provided is more than consumer expectations. The greater the value, the better the quality of service.
2. If the result is zero (0), it means that the quality of service provided is a same as the consumer expectations or has met consumer expectations.
3. If the result shows a negative number (<0), it means that the quality of the services provided has not been able to meet the expectations of consumers. In other words, the quality of service provided is still not good.

RESULTS AND DISCUSSION

The questionnaire is distributed to 100 visitors as respondents on the condition that they had visited the Linow Lake at least 3 times. Based on the questionnaire, the following data were obtained:

Table 1. Result of Service Quality Gap Analysis at Linow Lake Tourist Attraction Based on Tangible Dimension

<table>
<thead>
<tr>
<th>No</th>
<th>Statement</th>
<th>Expected Value</th>
<th>Perception Value</th>
<th>Gap Value</th>
<th>Mean Tangibles Dimension</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Tangible is the company's ability to show its existence to external parties according to Parasuraman in Rambat and Hamdani (2006). The measurement result of the gap value for the tangibles dimension shows a positive number of 0.65. This value means that the perceived value of visitors is higher than the expected value of this tangibles dimension. Each question item also has a positive value, and almost all are close to the value of 1, except for the third question, which is about neat-looking employee. In this tourist attraction, there are employees for each division, such as in the parking lot entry post, the tourist area entrance, the café section, the toilet and the restaurant area. Every employee looks neat, but only employees in the café and restaurant section wear uniform, while the employees in the parking lot entrance post and the tourist area entrance do not wear uniform.

In this dimension, the highest gap value is in second question, physical facilities have visual appeal. In this Linow Lake tourist attraction, visitors not only enjoy the colored lake and the beautiful surrounding scenery, but also the manager of the tourist attraction also complements every existing facility in the area with interesting spots to take pictures, or just to be enjoyed directly. The manager makes the atmosphere around the tourism spot pleasing to the eye so the visitors feel comfortable, not only the lake is beautiful, but also the seats, buildings, lights, decorations are also attractive. Even from the parking lot, visitors can enjoy the beauty of tourist attraction.

**Table 2. Result of Service Quality Gap Analysis at Linow Lake Tourist Attraction Based on Reliability Dimension**

<table>
<thead>
<tr>
<th>No</th>
<th>Statement</th>
<th>Expected Value</th>
<th>Perception Value</th>
<th>Gap Value</th>
<th>Mean Reliability Dimension</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>When they promise to set up a certain service, they stick to it.</td>
<td>4.16</td>
<td>4.42</td>
<td>0.26</td>
<td></td>
</tr>
</tbody>
</table>
According to Kotler (2003), reliability is accuracy and speed in serving. The gap value of the reliability dimension can be equal to 0.12. A positive number indicates that the service quality on the perceived reliability dimension exceeds what the visitors expect. Even based on the value per item, question in number 4 gets the result of -0.10. The statement is to provide services as soon as possible according to the promise given. This shows that the services provided are not as agile as the promises given. This is also in accordance with the measurement results in the next dimension regarding the speed of service. However, in terms of the seriousness of the management in handling complaints, it received the most positive scores in this dimension. Thus, although it can be said that the service is not as agile as promised, the overall service provided is reliable or trustworthy.

Table 3. Result of Service Quality Gap Analysis At Linow Lake Tourist Attraction Based on Responsiveness Dimension

<table>
<thead>
<tr>
<th>No</th>
<th>Statement</th>
<th>Expected Value</th>
<th>Perception Value</th>
<th>Gap Value</th>
<th>Mean Responsiveness Dimension</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>The employees will tell you the exact time when the service can be finished</td>
<td>3.76</td>
<td>3.50</td>
<td>-0.26</td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>The employees serve you immediately</td>
<td>3.82</td>
<td>3.50</td>
<td>-0.32</td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td>The employees are always willing to help you</td>
<td>4.35</td>
<td>4.32</td>
<td>-0.03</td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td>The employees are always ready for your requests and questions</td>
<td>3.96</td>
<td>3.72</td>
<td>-0.24</td>
<td>-0.21</td>
</tr>
</tbody>
</table>
Responsiveness is the desire of the staff to help customers or visitors and provide responsive service (Parasuraman, et.al in Tjiptono, 2006). The gap value obtained according to the data on table above for the responsiveness dimension is negative 0.21. Moreover, at the question items one by one in this dimension, all of them also have a negative value. This shows that the quality of service at Linow Lake tourist attractions for the responsiveness dimension has not fully met the expectations of visitors. However, there is one question item has negative value of 0.03, which means that visitors’ expectations are almost as same as the service they perceived, item number 3 which is the employees are always willing to help. The employees of Linow Lake tourist attraction are friendly and polite. It is just that when there are many visitors, tourist attraction has a lack of employees. Therefore, there are queues in several places. Likewise, the waiting time for orders has become longer. It can be seen in the second question, the employees serve immediately, gets a negative gap value of 0.32. When visitors come to the tourist attraction, the entrance ticket price includes of free tea or coffee, and visitors are not allowed to bring foods and drinks from outside. It means that every visitor gets free for drink, so there is an accumulated queue at certain times for this section. Likewise at the place of ordering food, there are also some visitors who go back and forth asking for orders that have not been delivered. On the outside, there is a long queue of cars that will enter to tourist spot because they only have one post for ticket payment. The speed of response to the needs of visitors is considered to not meet the expectations yet.

Table 4. Result of Service Quality Gap Analysis At Linow Lake Tourist Attraction Based on Assurance Dimension

<table>
<thead>
<tr>
<th>No.</th>
<th>Statement</th>
<th>Expected Value</th>
<th>Perception Value</th>
<th>Gap Value</th>
<th>Mean Assurance Dimension</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>The behavior of the employees can make you trust them</td>
<td>4.21</td>
<td>4.48</td>
<td>0.27</td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>You feel safe in doing transaction</td>
<td>4.16</td>
<td>4.22</td>
<td>0.06</td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td>The officers are consistently polite to you</td>
<td>4.16</td>
<td>4.87</td>
<td>0.71</td>
<td>0.23</td>
</tr>
<tr>
<td>4.</td>
<td>The officer is able to answer every question of yours</td>
<td>4.49</td>
<td>4.35</td>
<td>-0.14</td>
<td></td>
</tr>
</tbody>
</table>

According to Parasuraman, Zeithaml, and Berry (2002), assurance is the knowledge and courtesy of employees and their ability to convey trust and confidence. On the assurance dimension, the gap value obtained is 0.23. The positive value indicates that the service perceived has exceeded visitor expectations on this dimension. In the 3rd statement item, the value is close to number 1, the employees are consistently polite. The visitors consider that the employees are consistent every time they came to this place, receiving
polite treatment from every employee. The behavior of the employees also makes visitors feel confident, and in doing transactions, visitors feel safe.

However, the fourth statement item receives a negative value, the officer is capable to answer every question of visitors. The employees are polite, friendly and trustworthy, however there are some employees who do not speak English or Mandarin so they cannot answer questions from tourists directly. There are also employees who are found not to know the history of origins of the formation of Linow Lake, or information about other tourist attractions asked by visitors, especially visitors from an outside region and abroad.

Table 5. Result of Service Quality Gap Analysis At Linow Lake Tourist Attraction Based on Empathy Dimension

<table>
<thead>
<tr>
<th>No</th>
<th>Statement</th>
<th>Expected Value</th>
<th>Perception Value</th>
<th>Gap Value</th>
<th>Mean Empathy Dimension</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Giving a personal attention</td>
<td>3.57</td>
<td>3.69</td>
<td>0.12</td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>Having comfortable operating hours for all visitors</td>
<td>4.77</td>
<td>4.83</td>
<td>0.06</td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td>Having an officer who understands your personal needs</td>
<td>3.62</td>
<td>3.78</td>
<td>0.16</td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td>Always put customers’ interests in a first place</td>
<td>4.23</td>
<td>4.07</td>
<td>-0.16</td>
<td>0.06</td>
</tr>
<tr>
<td>5.</td>
<td>Understanding customers’ specific needs</td>
<td>3.82</td>
<td>3.92</td>
<td>0.10</td>
<td></td>
</tr>
</tbody>
</table>

In their study of Servqual in 1988, Parasuraman defined the empathy dimension as the ease of making good communication relationships, personal attention and understanding the needs of customers (Tjiptono, 2005). In the Empathy dimension, the gap value obtained is 0.06. It means that the services perceived by visitors in this dimension have met their expectations. It appears that the highest expectation value is in question number 2, which is about comfortable operating hours, and this tourist attraction is able to meet these expectations. This is important considering that morning to midday is the right time for visitors who want to enjoy the colors of Linow Lake. Also, afternoon until evening is also the right time for visitors who want to enjoy the cool air, flying birds and the beautiful lake decorated with lights that makes this place even more beautiful. Thus, the long operational time, from morning to night, is felt to give visitors a sense of comfort, so they do not have to rush to come or leave.

In the fourth statement item, the gap value gets a value of -0.16 for the statement about always prioritizes the interests of visitors. In this case, the service is still considered insufficient, because indeed, during busy times of visitors such as weekend or national
holidays, the number of visitors is more increased than the number of employees, so that some visitors are not immediately served. Often, the employees also cannot serve visitors who want to ask questions about these tourist attractions because they prioritize other tasks such as providing seats and orders from visitors.

Table 6. Result of Overall Service Quality Gap Analysis At Linow Lake Tourist Attraction Based on Five Dimensions of Service Quality

<table>
<thead>
<tr>
<th>Average overall expectation value</th>
<th>Average overall perception value</th>
<th>Overall gap value</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.13</td>
<td>4.29</td>
<td>0.17</td>
</tr>
</tbody>
</table>

Overall, the value of the service quality gap perceived by visitors is 0.17. This positive value means that the overall perceived service exceeds the expectations of visitor. Although not all dimensions get positive values, such as the responsiveness dimension, the other four dimensions get positive values exceeding the negative values, especially in the tangible dimension, the value is quite high amount of 0.65.

CONCLUSIONS

The measurement results of service quality gap value at Linow lake tourist attraction obtained positive values of 0.17. Thus, it can be concluded that the quality of services available at Linow Lake tourist attractions has exceeded the expectations of visitors. This means that in general, visitors feel the experience of traveling there is in accordance with their expectations. Although the number of 0.17 is still far from 1, which means that visitors are very satisfied, but not getting a negative number and exceeding 0, it means that the services in the Linow Lake tourist attraction are not disappointed, so the visitors will feel happy to visit Linow lake for the umpteenth times. The tangible dimension which gets the highest score becomes the strength for management to attract tourists, followed by the dimension of assurance, reliability, and empathy.

As a suggestion for managers to improve the quality of service on the dimension of responsiveness, such as adding the number of employees on busy days, adding some entry points to reduce vehicle queues, and adding a café area so that visitors can still enjoy the beauty of Lake Linow while waiting for their order to arrive. Human nature that gets bored quickly becomes a challenge for the manager of tourist attractions. Apart from continuously improving service quality, innovation is also an important thing, because there are many competitors. Visitors want new experiences. Managers can innovate by regularly adding or renovating photo spots, to satisfy visitors’ desires. Visitors will show off the latest photo spots on their social media accounts, they also will tell stories about their satisfying travel experiences. This can benefit the company. It is also recommended that postal officers enter to wear uniforms and that each officer should be given foreign language training and information about tourism in the Tomohon area and its surroundings so that tourists who ask questions can get the correct answer.
REFERENCES


