

ANALYSIS OF NGEBEL LAKE VISITORS' SATISFACTION USING IMPORTANCE-PERFORMANCE ANALYSIS (IPA) APPROACH

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ABSTRACT

The development of tourist areas is commonly targeted as a backbone sector to support economic growth, increase regional income, empower the economy of the community, expand employment, and improve the overview and marketing of local products of tourist destinations to improve local community welfare. This development requires holistic and comprehensive planning in order to optimize the benefits for the local community and contribute to the regional income of a region. Ngebel Lake, one of the tourist attractions in East Java, has a considerable potential to be developed into a leading lake tourist destination. Located in Ponorogo Regency, this place is prospective for its pristine natural beauty and other favorable elements such as culture, community lifestyle, and the potential as a tourist attraction. The half kilometer-wide lake was naturally formed and is surrounded by a five-kilometer road. This study aimed at analyzing the satisfaction of Telaga Ngebel visitors as an effort to identify satisfaction attribute on service quality using Importance-Performance Analysis (IPA). This approach was aimed to provide recommendations in evaluating visitors' satisfaction. The research was not merely targeted to identify whether visitors' expectations were already accomplished, but it was aimed to identify the functional and dysfunctional attributes of service. The results have shown that the attributes requiring improvements include the availability of adequate parking lots, the quality of roads around the tourist area, and the willingness of the staff to prioritize and recognize the needs of visitors. This research is the first step in setting recommendations for strategies that can become local government priorities in the development of the Ngebel Lake tourist area.

Keywords: *Visitors' satisfaction, Importance-Performance Analysis (IPA)*

1. INTRODUCTION

The development of tourist area, in general, is focused as a pillar segment to reassure economic growth, upsurge regional income, empower the economy of the community, advance employment and increase the introduction and marketing of representative products of tourist area in order to improve the welfare of the community. The development requires complete planning to optimize the benefits for the local community and contribute to the regional revenue of an area.

Natural resources have particular strengths and characteristics in sustaining the development of tourism in an area. By underlining these strengths, tourism potential can be increased and provide more added value to the surrounding community. Some tourist areas in East Java are highly prospective to be developed due to an increase in the community's interest to visit tourist areas and the availability of improved infrastructure. However, the development of the tourist areas is not optimum and not oriented to the contentment of visitors' satisfaction. This is obvious in the management practice of tourist objects that has not applied the principles of professionalism. Professional management of tourist areas and the increasing community's interest in visiting the areas can also provide multiple effects on other sectors. With the enhancing number of tourists visiting, the wheels of the economy around the region will also rotate and this will put an effect on the improvement of the welfare of the community. This should be a guideline for local governments as policymakers so that the tourism sector becomes sustainable.

One of the tourist attractions in East Java, Ngebel Lake, has a significant potential to be developed into a primary lake tourist destination. Located in Ponorogo Regency, this place is prospective for its primeval natural attractiveness and other satisfactory elements, such as culture, community lifestyle, and the potential as a tourist attraction. The half kilometer-wide lake was naturally formed and is surrounded by a five-kilometer road.

Ngebel Lake area is highly possible for development, both in terms of tourism and its profits to the nearby community. Government support is the key to the implementation of development strategies and the community is expected to enjoy the advantages of the development model that will be formulated.

Table 1. The Conditions of Various Economic Sectors in Ponorogo Regency and the Contribution of Tourism Sector to GRDP

Contribution to GRDP	Primary Sector (Agriculture)	Secondary Sector (Industry)	Tertiary Sector (Tourism)
2013	27.78 %	60.02 %	12.20 %
2012	28.60 %	59.14 %	12.26 %
2012	29.57 %	57.66 %	12.88 %
2010	30.38 %	56.85 %	12.77 %

Sources: DRDP of Ponorogo Regency 2014

The table above shows the contribution of various sectors to the Gross Regional Domestic Product of Ponorogo Regency. It is clearly displayed that the agriculture and tourism sectors have experienced a downward trend from 2011 to 2014. This research pays attention to the decline in the tourism sector, and therefore, a study on the development of the tourism sector, particularly Ngebel Lake tourism, is urgent to be carried out.

This study aimed to identify and assess tourism potential by investigating visitors' satisfaction and expectation, as well as the community's perception of the development of the tourist area. The results of this study are important to formulate a model of tourist area development strategies that can be developed sustainably in Ngebel Lake tourist area.

Kotler (2004) has stated that consumer satisfaction is the level in which the perceived performance (product performance) is in accordance with a consumer's expectation. Oliver (in Barnes, 2003) has assumed that satisfaction is a consumer's response to the fulfillment of his need and this means that the consumer's assessment of goods or services shows the level of comfort associated with the fulfillment of a need, including the condition of either lower than the expectation or exceeding the expectation.

Studies on consumer's or visitor's satisfaction have been widely carried out. The analysis of consumer's perception and expectation was initiated by Parasuraman et al (1988) and their study introduced the SERVQUAL method in conducting an analysis of consumer satisfaction.

In the research of Parasuraman et al., The SERVQUAL Conceptual Model was used to identify five types of service quality gaps that caused the failure of service delivery (Parasuraman, et al., 1985: 4150). The results of their research have shown five gaps between consumer's expectations and management's perception of those expectations. Reliability was the top-ranking attribute among others. This denotes that reliability was the most dominant dimension of the overall perceptions of consumer's expectations on each company's performance, particularly the quality of service. Measurement of service quality in the SERVQUAL model is based on a multi-item scale, which is designed to appraise consumer's expectations and perceptions, as well as gaps between the two attributes in the main dimensions of service quality. These three experts (Parasuraman, et al., 1988) have summarized ten dimensions of service quality. Competence, courtesy, credibility, and security belong to the dimension of guarantee or assurance. Access, communication, and the ability to understand consumers are categorized as empathy. Thus, there are five main dimensions (based on the level of relative importance), namely reliability, responsiveness, assurance, empathy, and tangibles (Fandy Tjiptono, 2000: 54-55).

Parasuman (2001) has specified five important elements that determine satisfaction, namely responsiveness, assurance, tangibles, empathy, and reliability. These elements are important in measuring service quality. Service quality is conceptualized as shaping the attitude and behavior of service providers in order to provide excellent service. The concept is expected to improve the shaping of the attitudes and behavior of the service providers: (a) Responsiveness, is a component that demands the ability of service providers to immediately provide services to the needs of users in accordance with the level of absorption, understanding, and discrepancies in various forms of services that they have not known.

Therefore, a service provider needs to deliver a wise and detailed explanation to ensure positive responses for users; (b) Reliability, in service requires that every staff has the ability, expertise, independence, mastery, and high working professionalism so that the activities produce satisfying services without receiving any complaints and excessive impressions by the community; (c) Tangibles, is a form of actualization that can be seen or used by service providers to assist them when providing services. The physical elements can be in the form of an official's physical appearance, physical infrastructure, and the condition of the surrounding environment; (d) Assurances, is the certainty of a unit of service. This element is much determined by the guarantee from the service provider so that the person who receives the service is satisfied and confident that all forms of services are completely given and in accordance with the speed, accuracy, convenience, smoothness, and quality of services promised; (e) Empathy, is shown by a concern, sincerity, sympathy, understanding, and involvement of the parties concerned with services to develop and provide services in accordance with the level of understanding and awareness of each party.

The subsequent studies discussed a lot about the dimensions of service quality driving visitor's satisfaction. The research conducted by T.S. Kaihatu (2008) examined the gaps between service quality and consumer satisfaction of Tunjungan Plaza Surabaya using five dimensions of service quality of SERVQUAL. The measured service quality included (1) reliability, (2) responsiveness, (3) assurance, (4) empathy, and (5) tangibles (physical evidence). The results of this study have revealed a gap between the expected quality of service and the accepted quality of service perceived by the visitors of Tunjungan Plaza, in terms of service accuracy, cleanliness, and availability of facilities. Another research was conducted by Deden Wildan Ihsani (2005). His research focused on the analysis of consumer satisfaction with tourism attributes of Cangkuang Garut, West Java. The results of analysis have confirmed that Cangkuang Garut was categorized in the main priority quadrant, meaning that this tourist destination was given priority and the services, completeness of facilities, and cleanliness had to be improved.

Quadrant analysis or Importance-Performance Analysis (IPA) is a descriptive analysis technique introduced by John A. Martilla and John C. James in 1977. It is used to identify important performance factors that must be demonstrated by an organization in meeting the satisfaction of their service users (consumers). Martilla and James originally intended this method to be used in the field of marketing research and consumer behavior. However, in the development, its use has expanded to the research on services in hospitals, tourism, schools, and the analysis of the performance of the public bureaucracy (government). The advantages of using the IPA Analysis method include three points: (a) The calculation in analyzing data is simple; (b) It can be used for a small number of variables; (c) This analyzing tool does not use complicated assumptions.

2. RESEARCH METHOD

2.1 Population and Samples

The population in this study were all visitors of Ngebel Lake. Samples were taken using a random sampling technique, in which data were collected based on particular purposes to meet the needs and desires of the researchers in accordance with the applied analytical tools.

The samples used in this study were 112 visitors. The total visitors in a week were 4,052 people. The samples were determined using Slovin's formulation, where the number of samples was decided by considering the following formula.

$$n = N/1 + N(e)^2$$
$$n = 4052/1 + 4052 (0.1)^2$$

The critical value was set at 10% (degree of error = error), then the minimum samples that had to be collected were 98. In this study, researchers collected as many as 112 respondents as samples.

2.2 Importance-Performance Analysis (IPA)

The data in this study were analyzed qualitatively and quantitatively. The data were arranged in tabular form and described. The analysis was carried out using Importance-Performance Analysis (IPA). Primary data obtained through questionnaires and interviews were later examined to see the characteristics of visitors, as well as their behavior and perception.

The secondary data supported the preparation of this study. The data were obtained from a content analysis of the documents provided by the Tourism Agency of Ponorogo Regency, previous studies, literature review, data from BPS (the Indonesian Central Bureau of Statistics), mass media, internet, and other relevant sources.

Martila and James (1977) have explained analysis of the level of consumer satisfaction is conducted by comparing the performance and the level of importance that can be identified using a Likert scale. Performance is given four scores of evaluation with the following weights: (a) “very satisfied” is weighed 4; (b) “satisfied” is weighed 3; (c) “less satisfied is weighed 2; (d) “dissatisfied” is weighed 1.

The level of importance (expectation) is the extent of the importance of service attributes for visitors. In other words, it is the degree of consumer expectation on the performance of attributes. Performance is the actual attribute felt by the consumer or closely related to the evaluation score provided by the consumer. Two variables are used, represented by X (level of performance/perceived satisfaction) and Y (level of interest/expectation).

$$Tki = \frac{Xi}{Yi} \times 100\%$$

Notes:

- Tki = Consumer conformity level
- Xi = Weight of manager's performance appraisal
- Yi = Weight of assessment of consumer interest level

$Tki \geq 100\%$ means the performance of product attribute has met consumer's satisfaction. On the contrary, $Tki < 100\%$ means the performance has not fulfilled the consumer's satisfaction. The weight of the performance evaluation was determined and the result was then divided by the number of consumers, resulting in an average weight (X) for performance and average weight (Y) for importance, with the following formula.

$$\bar{X} = \frac{\sum Xi}{n} \quad \text{dan} \quad \bar{Y} = \frac{\sum Yi}{n}$$

Notes:

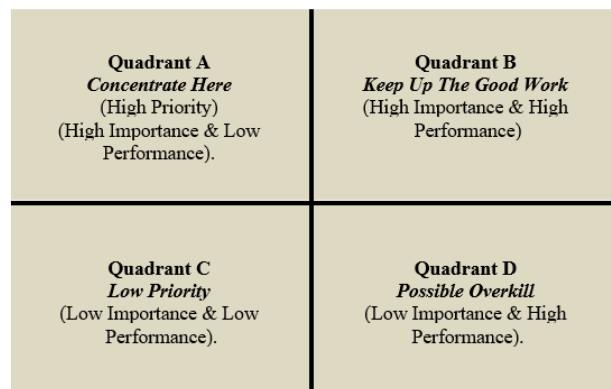
- X = Average weight of company performance assessment level
- Y = Average weight of consumer interest assessment
- n = number of consumers

The Cartesian diagram is used when elaborating on the attributes of the conformity between consumer's interest and satisfaction in service quality by using a diagram that is divided into four parts and bordered by two lines that intersect perpendicular to the points (X, Y). The points are obtained by using the following formula.

$$\bar{\bar{X}} = \frac{\sum \bar{x}_i}{k} \quad \text{dan} \quad \bar{\bar{Y}} = \frac{\sum \bar{y}_i}{k}$$

Notes:

- X = the average score of the average level of implementation or performance (satisfaction) of all attributes of service quality
- Y = the average score of the average importance level of all attributes of service quality
- k = the number of attributes of the service quality that can affect consumer satisfaction.



Source: Supranto, J. 2001

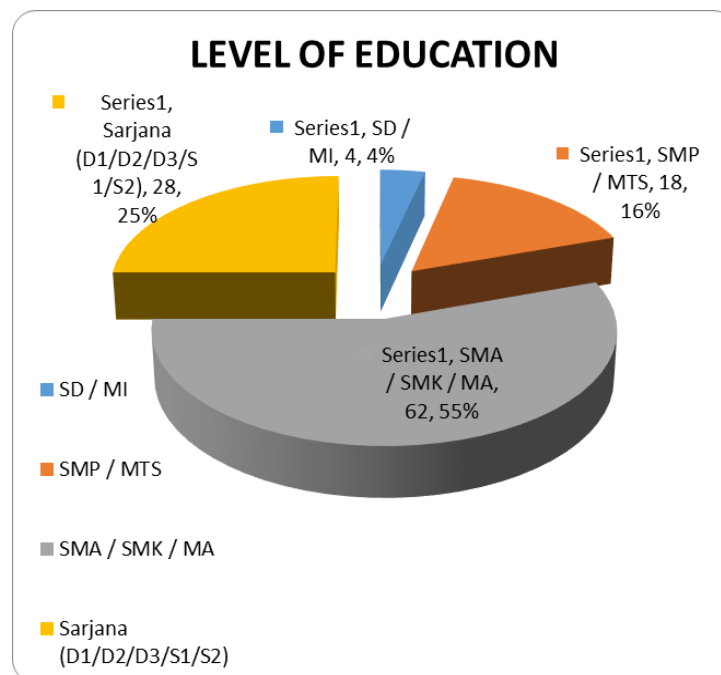
Figure 1. Cartesian Diagram of Consumer’s Satisfaction Diagram

Notes:

- (a) Quadrant A shows that the elements of service or product are significantly important for the consumer but the company has not provided them according to the consumer's desire, and this causes dissatisfaction.
- (b) Quadrant B demonstrates that the elements of service or basic products that are considered important by the consumer have been well-fulfilled and can satisfy the consumer, and thus, the company is required to maintain its performance.
- (c) Quadrant C indicates that the elements are considered less important by the consumer, and therefore, the company provides them as required, without more significant efforts.
- (d) Quadrant D signifies that the elements or services are believed less important, but are provided well by the company. This is considered excessive.

3. RESULTS AND DISCUSSION

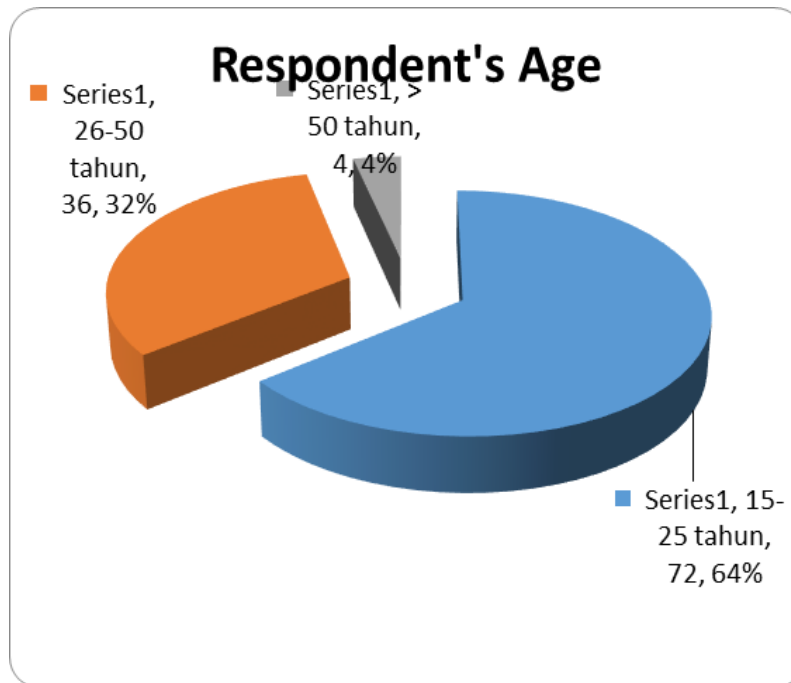
The collected instruments were then analyzed according to the research needs. The characteristics of 112 respondents were investigated in accordance with the information below.



Source: Authors

Figure 2. The Characteristics of Respondents Based on Their Education Level

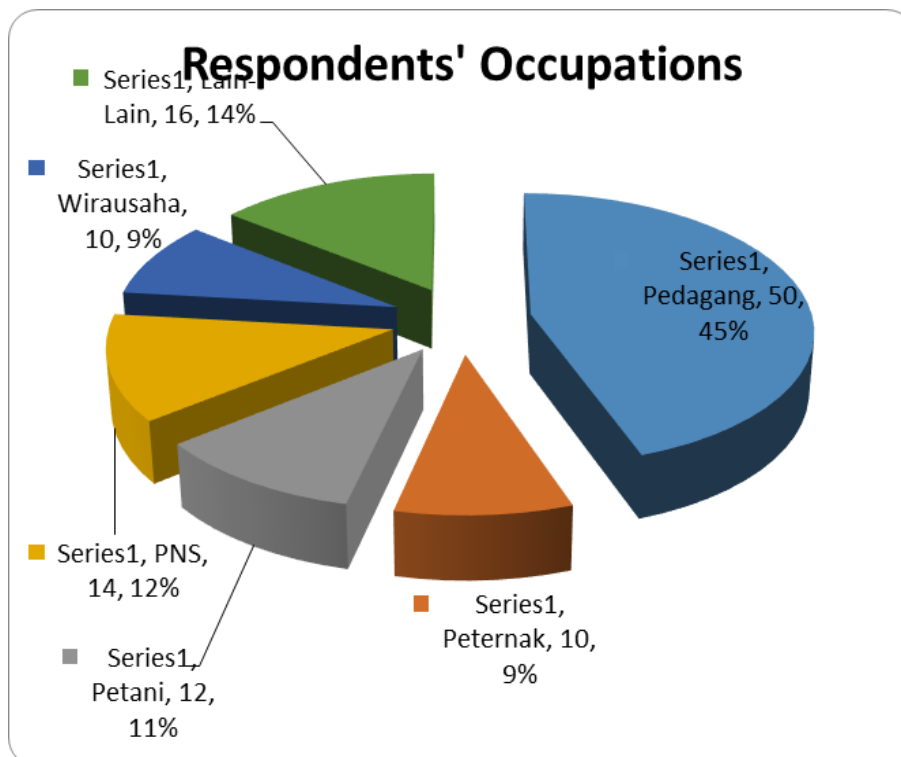
Figure 2 demonstrates that the majority (55%) of respondents graduated from senior high school or equivalent level of education. Observations in the research location have revealed that most visitors came in a group (family, friends, and community).



Source: Authors

Figure 3. The Characteristics of Respondents Based on Their Age

Based on the age level, visitors at Telaga Ngebel are mostly dominated by tourists with ages ranging between 15 and 25 years (64%).



Source: Authors

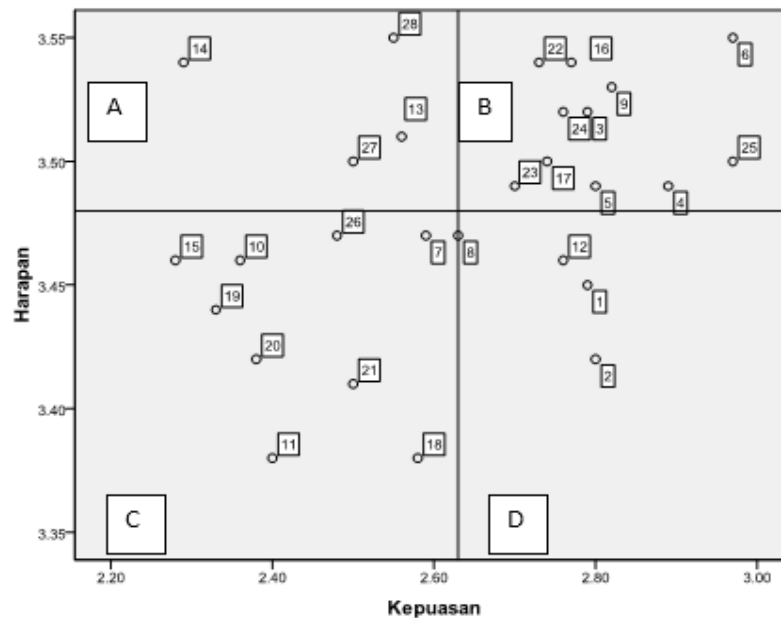
Figure 4. The Characteristics of Respondents Based on Their Occupations

Table 2. The Scores of Visitors' Satisfaction at Scale Basis

No	Statement	Scor		
		Satisfaction	Expectation	Gap
1	The suitability of the provided tourist attractions and the community needs	2.79	3.45	-0.66
2	The promptness and ease of procedures in receiving visitors	2.80	3.42	-0.62
3	Timeliness in providing service	2.79	3.52	-0.72
4	Affordable (suitable) price of the ticket for entering the tourist area	2.89	3.49	-0.59
5	The affordable price of food sold in the tourist area	2.80	3.49	-0.69
6	Beautiful and attractive tourist objects (Ngebel Lake and surrounding areas)	2.97	3.55	-0.58
7	Tourism product variations (e.g. speed boat, horse, flying fox, playing ground, fishing area)	2.59	3.47	-0.88
8	The availability of outbound areas and campgrounds	2.63	3.47	-0.85
9	The convenience of the environment in the tourist area	2.82	3.53	-0.71
10	The cleanliness of the environment in the tourist area	2.36	3.46	-1.10
11	The cleanliness of public toilets in the tourist area	2.40	3.38	-0.99
12	The cleanliness of restaurants and food outlets in the tourist area	2.76	3.46	-0.70
13	The availability of safe and adequate parking areas	2.56	3.51	-0.95
14	The condition of streets/roads around the tourist areas	2.29	3.54	-1.25
15	The availability of transportation facilities to the tourist area	2.28	3.46	-1.18
16	The availability of worshipping places in the tourist area	2.77	3.54	-0.78
17	The availability of lodging in the tourist area	2.74	3.50	-0.76
18	The speed of staff in providing services.	2.58	3.38	-0.81
19	The quick and precise handling of visitors' complaints	2.33	3.44	-1.10
20	Staff's responses to visitors' suggestions/feedbacks.	2.38	3.42	-1.04
21	Clear and comprehensive information needed by visitors	2.50	3.41	-0.91
22	Safety and tranquility assurance for visitors in the tourist area	2.73	3.54	-0.80
23	Comfort assurance for visitors	2.70	3.49	-0.79
24	The assurance of staff's attitudes (friendliness, courtesy)	2.76	3.52	-0.76
25	The assurance of attitudes of community living around the tourist area (friendliness, courtesy)	2.97	3.50	-0.53
26	Staff's personal attention to visitors	2.48	3.47	-0.99
27	Staff's willingness to understand the needs of visitors	2.50	3.50	-1.00
28	Staff's willingness to prioritize the interests of visitors	2.55	3.55	-1.00

From Table 2, it is clear that all attributes have a negative score, which denotes that each of these attributes has not met visitors' expectations. Thus, further analysis is necessary to be carried out to determine the priority scale to improve each of the existing attributes. Scale priority was determined using IPA method.

The collected data were analyzed using IPA and the outputs are as the following.



Source: Authors

Figure 5. Cartesian Diagram of Visitors' Satisfaction Measurement

Figure 5 is interpreted as follows.

(a) Quadrant A

Quadrant A shows the factors or attributes that are considered important by the consumers but are not properly implemented by the manager. The variables included in this quadrant are:

- (13) the availability of safe and adequate parking area
- (14) the condition of streets/roads around the tourist area
- (27) staff's willingness to understand the needs of visitors
- (28) staff's willingness to prioritize the interests of visitors

The items above must be the managers' top priority in improving the services.

(b) Quadrant B

This quadrant shows the factors or attributes that are considered important for visitors and have been implemented properly by the manager. The variables included in this quadrant include:

- (3) timeliness in providing service
- (4) affordable (suitable) price of the ticket for entering the tourist area
- (5) affordable price of food sold in the tourist area
- (6) wonderful and attractive tourist objects (Ngebel Lake and surrounding areas)
- (9) the convenience of the environment in the tourist area
- (16) the availability of worshipping places in the tourist area
- (17) the availability of lodging in the tourist area
- (22) safety and tranquility assurance for visitors in the tourist area
- (23) comfort assurance for visitors
- (24) the assurance of staff's attitudes (friendliness, courtesy)
- (25) the assurance of attitudes of community living around the tourist area (friendliness, courtesy)

Those items must be maintained by the management and the local government.

(c) Quadrant C

This quadrant displays the factors or attributes that are considered less important for visitors and are not implemented/provided well by the managers. The variables included in this quadrant are:

- (7) tourism product variations (e.g. speed boat, horse, flying fox, playing ground, fishing area)
- (8) the availability of outbound areas and campgrounds
- (10) the cleanliness of the environment in the tourist area
- (11) the cleanliness of public toilets in the tourist area
- (15) the availability of transportation facilities to the tourist area
- (18) the speed of staff in providing services.
- (19) the quick and precise handling of visitors' complaints
- (20) staff's responses to visitors' suggestions/feedbacks.
- (21) clear and comprehensive information needed by visitors
- (26) staffs' personal attention to visitors

The aforementioned items can be included in continued priorities when top priority attributes are properly implemented.

(d) Quadrant D

Quadrant D indicates factors or attributes that are considered less important by visitors but implemented very well by the managers. Variables in this quadrant comprise:

- (1) the suitability of the provided tourist attractions and the community needs
- (2) the promptness and ease of procedures in receiving visitors
- (12) the cleanliness of restaurants and food outlets in the tourist area

The items can be removed from the managers' priority because they have been implemented well and respondents do not consider them important.

4. CONCLUSIONS

Three variables need to be prioritized for improvement, they are: (a) The availability of safe and adequate parking lots. Around Ngebel Lake, only one parking lot is available and this cannot accommodate all vehicles in each holiday season. Thus, many visitors park their vehicles on the roadside; (b) The condition of the streets/roads around the tourist area. The roads are quite narrow and in several parts of the roads, vehicles cannot move forward when meeting with the other vehicles from the opposite direction; (c) Staff's willingness to understand the needs and prioritize the interests of visitors. The personnel who serve visitors are limited. Managers need to delegate staff in some locations around the tourist area to assist the visitors.

The discussion concludes that the variables in quadrant A should be the top priority of Ngebel Lake manager because this quadrant strongly indicates that the performances of these important variables have not been able to satisfy consumers.

5. REFERENCES

- Ahsani, D. W. (2005). *Analisis Kepuasan Konsumen Terhadap Atribut Wisata Cangkang Garut, Jawa Barat*. Undergraduate Thesis. Bogor: Institut Pertanian Bogor.
- Badan Pusat Statistik Kabupaten Bogor. (2014). *Kabupaten Ponorogo dalam Angka Tahun 2013*. Badan Pusat Statistik Kabupaten Bogor.
- Barnes, J. G. (2000). *Secrets of Consumer Relationship Management*. Yogyakarta: Penerbit Andi.
- Ilyas, M. (2009). *Strateg Pengembangan Pariwisata Kepulauan Togean di Kabupaten Tojo Una-Una*. Post-graduate Thesis. Makassar: Universitas Hasanuddin.
- Koswara, I. H. (2005). *Karakteristik dan Potensi Wisata Agro Jawa Barat*. The paper was presented in West Java Agro Tourism Development Coordination Forum at 7 Desember 2005. Bandung.
- Kotler, P. & Keller, K.L. (2011). *Marketing Management, 14th Edition*. New Jersey: Prentice Hall.

- Mahfudz, D. (2003). *Analisis Preferensi Konsumen Terhadap Atribut Wisata Alam Pantai Anyer*. Undergraduate Thesis. Bogor: Institut Pertanian Bogor.
- Parasuraman, A., Zeithaml, V.A., & Berry L.L. (1985). A Conceptual Model of Service Quality and Its Implications for Future Research. *Journal of Marketing*, 49.
- Parasuraman, A., Zeithaml, V.A., & Berry L.L. (1988). SERVQUAL: A Multiple-Item Scale for Measuring Consumer Perceptions of Service Quality. *Journal of Retailing*, 64.
- Rangkuti, F. (2004). *Analisis SWOT Teknik Membedah Kasus Bisnis*. Jakarta: PT. Gramedia Pustaka.
- Septriani, M. R. (2001). *Analisis Preferensi Konsumen Terhadap Atribut Wisata Agro Gunung Mas*. Undergraduate Thesis. Bogor: Institut Pertanian Bogor.
- Sumarwoto, J. (1990). *Pengembangan Agrowisata: Potensi dan Prospek*. National Seminar: Sumatra's Agriculture & Rural Development at 5-8 March. Berastagi.
- Supranto, J. (2001). *Pengukuran Tingkat Kepuasan Pelanggan*. Jakarta: Rineka Cipta.
- Ts Kaihatu. (2008). Analisis Kesenjangan Kualitas Pelayanan dan Kepuasan Konsumen Pengunjung Plaza Tunjungan Surabaya. *Jurnal Manajemen dan Kewirausahaan*, 10 (1), 66-83.