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# Kualitas Pelayanan Wisata Bahari Di Yogyakarta Berdasarkan Persepsi Dan Harapan Pengunjung: Analisis Menggunakan Quality Function Deployment The Service Quality Of Marine Tourism In Yogyakarta Based On Tourist Perception And Expectation: Quality Function Deployment Analysis

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***Abstract:*** *This study aims to determine the quality of nautical tourism services are located along the southern coast of Yogyakarta based on the perceptions and expectations of visitors to the beach south of Yogyakarta by using analysis of Quality Function Deployment (QFD). The data were collected using SERVQUAL instrument known for measuring the quality of a product / service. Analysis using DFD consists of several stages; the first is the gap analysis. The gap analysis is the difference between what visitors expect from nautical tourism services on the south coast of Yogyakarta and what they get. Second is comparing the quality of existing services in the nautical tourism with other marine tourism. The third is comparing the wishes of visitors with the technical capabilities of nautical tourism operators to develop the most effective improvement priorities. There are five dimensions in SERVQUAL quality of service, reliability, assurance, tangibility, empathy and response speed. On the other hand the government also has a close relationship in realizing marine tourism service quality through a variety of products that have been produced as a policy, program or activity that has been or will be implemented by the government, so this study also aims to determine how the product is able to support marine tourism service quality. This study uses primary data cross-section. An average of every dimension compared with management factors in affecting the quality of service so the information can be utilized by the provincial government in Yogyakarta to develop marine tourism along the south coast of Yogyakarta.*
***Keywords:*** *marine tourism, service quality, SERVQUAL, QFD, policy*

## I. Introduction

Trend in world of tourism included Indonesia in the several years is ecotourism or nature tourism, including marine tourism (Clifton & Benson, 2006). Indonesia as an archipelago has great potential to develop marine tourism. The development of nautical tourism has strategic significance in the development of maritime culture and has become a priority for the government that focused on increasing maritime strength to make Indonesia as a maritime shaft. The development of nautical tourism involving various multisectoral efforts, increase the local economy and community participation especially in coastal areas that have an economic underdeveloped.

The tourism sector in D.I Yogyakarta make a significant contribution to the economy of Yogyakarta. The number of tourists visiting the DIY of the year 2009-2013 increased.

Based on data from BPS DIY (2014) the number of tourists visiting the DIY increased by 12% in 2013. In 2013 as many as 2,837,962 travelers consisting of tourists domestic 2,602,074 people and foreign tourists 235.888 people. The tourism sector has a considerable contribution to the economy of Yogyakarta; it can be seen from contribution THR (Trade of Hotels and Restaurants) to the GDP (Gross Domestic Product) DIY. In 2013 the contribution of THR grew by 6:20% in the GDP DIY and ranked top in the formation of GDP DIY in year 2013. Growth in the sector of THR is supported by increased tourist arrivals and the number of activities in the province throughout the year 2013.

Yogyakarta has about 30 beaches in the coastal area south of Yogyakarta which was included in the regency of Gunungkidul, Bantul and Kulon Progo. Even in 2014, Income of PAD (Pendapatan Asli Daerah) taken from tourism sectors in regency of Gunungkidul increased by two hundred percent of the initial target. Initially, the target of the tourism revenue (PAD) throughout 2014 only 7.6 Billion rupiah but in fact PAD Gunungkidul reached 15,420,475,427 rupiah (BPS regency Gunungkidul 2015). However the number of tourists visiting Gunung Kidul and Kulon Progo Regency is still relatively small compared with other regions in DIY (Daerah Istimewa Yogyakarta).

Within a few decades the coastal area south of Yogyakarta, especially in the regency of Gunungkidul and Kulon Progo, including regions that are lagging behind economically than other. These conditions encourage the local government in Yogyakarta to develop the region, this is reinforced by the policy of the Governor DIY i.e. *among tani dagang layar* as outlined in the document RPJMD DIY whose face Yogyakarta which was originally facing north will be directed facing south (South Beach) and changing the paradigm of developing sea farming. The government of regency Gunungkidul, Bantul and Kulon Progo coordination with the regional government of DIY is developing marine tourism reintegration program to improve the welfare of communities around the southern coast of Yogyakarta.

Therefore, to develop effective marine tourism, local governments need to identify the availability and quality of existing services in nautical tourism based on perception and expectations of visitors. That information can be used as a basic reference for the government to improve services to the marine tourism so that it can attract and increase customer satisfaction for the visitors. Travelers who've been in the southern coastal areas are expected to be satisfied and want to come back again.

This research uses analysis tool called *Importance-Performance Analysis* (IPA) and different test to comparing between the qualities of service desired by the marine tourism visitors and the services that they get. That method is supported by the measuring instrument that has been tested to measure the quality of service that is SERVQUAL. So this research takes the title "*The Service Quality of Marine Tourism in Yogyakarta Based on Tourist Perception and Expectation: Quality Function Deployment Analysis"*

## II. Theories Development

### 1.1 Tourism in Yogyakarta

According to John Urry (1990), tourism can be defined as an activity of leisure activities which involves the movement of people in his spare time to a place of outside the daily routine that can attract the attention of the person in the limited duration or temporary. While the World of Tourism Organization (WTO: 1995) states that tourism is the activity of traveling to and staying in places outside of their usual environment for not more than one consecutive year for leisure, business and other purposes.

The conclusion is tourism will involve the movement of people travel to a location or tourist destinations. The main element that determines a location becomes a tourist destination such as access to destinations, facility and events in the tourist destinations. Basically all the facilities that make it easy for tourists to come to visit on a Tourism Destination Region (TDR), without it there is impossible to develop tourism as an industry.

Tourism is a sector that has a fairly important economic contribution for development. In addition, Bahar and Tambaru (2012) states that tourism also has a positive social impact in creating support for the surrounding area in improving the economic welfare. The research was conducted by survey analysis of the carrying capacity of the people in the beach resort of Polewali Mandar, West Sulawesi. Research on the carrying capacity of tourism can provide information about the ability of a tourist location in improving the welfare of the surrounding area but it can not provide travel management improvement recommendations to improve the performance of the tourist locations.

The other research conducted on the southern coast of Yogyakarta stated that the development of the tourism sector which is integrated with the fishing sector and coastal land farming can provide higher economic opportunities for the community (Yuliadi, 2013). That research is using *Location Quotient* (LQ) and *shift share* method. The use of those methods can give an idea about sector or subsector which are the leading sectors to be developed in around of the area.

Talking about tourism Soedharma and his friends (2008) explains that the research analyzes the potential of the southern coast of Yogyakarta using visual preference approach of coastal landscape. In that research, produced on the coastal areas which are considered potential to be developed into tourist location. Various research indicate the potential magnitude of coastal tourism in Yogyakarta which could be developed further. However, these studies are not able to review the problems that quite important in improving the tourism potential such as an issues from the management and consumer side.

The tourism industry is one of the service industries such as general services, the industry will be strongly influenced by the quality of the services provided (Kouthouris & Alexandris, 2005). The south coast of Yogyakarta has considerable potential as a tourist destination that can support government programs to promote the economy in that region. However, to be able to succeed in the role of the southern coast of Yogyakarta as a marine tourism, need a good management that is able to offer quality services marine tourism for visitors. The quality of the service that received by visitors at a tourist spot can increase the attractiveness of these sights which will attract more visitors to the location. In order to improve service quality in nautical tourism in Yogyakarta, the first is need to know about the dimensions of service that is expected to be enhanced by a visitor and compare it with the ability of managers to improve services from the technical side. The analysis tool

that can be used to compare the desire of visitors as consumers with the ability of the manager as a provider is the analysis of Quality Function Deployment (QFD).

**2.2 Nautical Tourism**

Nautical tourism is a form of tourism that uses and or exploits the potential of the coastal environment and or sea as the main tourist attraction. The concept of marine tourism related to the natural landscape, unique nature, ecosystem characteristics, particularities of art and cultural characteristics of the communities around the beach or ocean as a power base owned (Sero, 2010).

The activities that included in nautical tourism are 1) aquatic or marine tourism travel; and 2) Mainland travel. Marine activities, such as swimming, fishing, air boat which includes rowing or sailing, diving which include diving and snorkeling, surfing which include water surfing and windsurfing and parasailing. Landscape activities, such as recreational sports such as coastal fringe, biking, rock climbing on the steep wall and explore the coast cave. Besides it can do kite-flying activities, camping, sunbathing, see sights, horseback riding or take a beach buggy. According Fandeli (1995), aquatic or marine tourism travel (Including shore excursions) are tourism activities such as swimming, fishing, diving, snorkeling, sailing, surfing, skiing, sunbathing, beach recreation, underwater photography, canoeing and others. Travelers are temporary visitors who stay for at least 24 hours in the countries he visits while visitors are temporary visitors staying less than 24 hours in the visited country.

**2.3 Quality Function Deployment (QFD) Analysis**

Often one of service providers was wrong to implement its policy on improving the quality of its services and also often a service provider has a different definition of quality of consumer's definition than company quality that the result is a product with high costs for consumers. The things above occur because the services providers do not know about the voice of consumer (VOC) and services criteria. Thus, without any agreement on the criteria of quality between service providers and consumers there is no a consumer satisfaction.

The basic idea of the development of QFD is to translate the voice of customer (VOC) or customer requirements and be the final product quality to ensure customer satisfaction (Akao, 1990).

QFD was developed in the end of year 1960 by Professor Shigeru Mizuno and Yuji Akao. Statistical Quality Control (SQC) has been used in each of the Japanese manufacturing industry and when the quality of the activity was integrated with the teachings of experts qualities like Juran, Kaoru Ishikawa, and Feigenbaum, noted the importance of making quality control as part of business management and then known as TQM and TQS. The purpose of this research by Mizuno and Cocoa is to develop quality of assurance methods that can design customer satisfaction into a product before it is produced because previously, new quality control during or after the manufacturing process (Shil and Das, 2008).

According to Evans (2002: 386) the main problem in the development of traditional services is the fact that consumers and entrepreneurs speak a different language. A consumer wants a clean location to travel and the travel service providers have to multiply the trash in that area. This is evident in touch, but sometimes not effective because more trash does not always make the location to be clean. That sort of thing to consider in answering consumer's desire over a service. The function of QFD is to create a bridge between the consumer language and language which is owned by the service providers so they can appear a solution that appropriately respond to the desires of consumers while still in the ability of service providers.

QFD is a tool to help identify consumer preferences and to choose the best technical attributes to satisfy the preferences of those services (Martinich, 1997). While Uselac (1993) says that QFD is a practice to design a process in order to respond to consumer needs. QFD translates consumers' desire to be a service or product companies. QFD enable enterprises or service providers to prioritize the needs of consumers, finding innovations to respond to these needs and improve existing processes to maximize effectiveness. QFD is a practice that increases the service provider to exceed consumer expectations.

QFD analysis process begins with capturing VoC by an instrument consisting of dimensions of service quality. Each dimension is given a score according to the degree of importance and the level of service desired by the consumer. The VoC will be obtained from the order of priority of service quality dimensions that need to be upgraded by the service provider. Often, the dimension of service quality is not the same as the technical aspects in the control of service provider. To find dimension which services related to certain technical aspects, made house of quality matrix for connecting dimensions of service quality to the technical aspects of a service. Technical aspects which have the highest score relations with the dimensions of service quality is a priority that should be emphasized by the service provider to be improved.

In the institutional elements of the government's product is also one way to improve services to consumers. But policies that applied sometimes not appropriate with the service of consumers. This was shown by research in three regency of Yogyakarta, where the government, through the tourism department in each

regency tried to implement some of the policies in order to improve the quality of service in nautical tourism. The policy can be either programs or regulatory activities that are used to support quality of service. QFD analysis can also be applied in this case to see hope and satisfaction of consumers whether it is the same with the policies or other products that have been granted by the government itself.

Stages of QFD start by collecting the voice of customers or managers to find out what policies which have been implemented by the government to encourage in realizing the quality of services in nautical tourism in the three regency of Yogyakarta. A poll conducted by interview with the observation of coastal managers and officials from the tourism department in every district so it takes quite a long time. Based on interviews of informants tourism agencies in regency of Gununungkidul , Bantul and Kulon Progo, some sources explained that some programs have been initiated such as building facilities and infrastructure in order to improve services in nautical tourism. But indeed there are several programs and policies that are still in the planning stages so that can not be realized. On the other hand the data obtained from the consumers of the products of government which in this case is the manager of marine tourism explained that the government had already provided assistance both in the area of Gunung Kidul, Bantul and Kulon Progo. However, the assistance of the government is not maximized; there are still many things that need to be addressed to improve the quality of service in marine tourism. From these data can then be analyzed using QFD so that it can be obtained from the manufacturer if it is equal to the satisfaction of the consumer. Besides the expectations of consumers who have not realized then given a score that would be obtained in accordance priority list that can be used as a reference for the government to draw up a new policy.

QFD method chosen to solve this problem as well because of the initial QFD has involved consumers in the development process. Once the needs and desires of consumers can be identified then the manager or the government can specify the actions to meet the desires and needs of the visitors. The aim is to service more convenience and satisfaction of visitors.

In the analysis of QFD, the voice of consumers is an important input that needs to be captured accurately. Therefore, it takes an instrument that has validity and reliability in capturing the voice of the customer to produce a good input in the analysis of QFD. To meet the situation, this study used the SERVQUAL instrument that has been tested to capture consumer perception of quality of service.

### 2.4 SERVQUAL

According to Parasuraman, Berry and Zeithaml (1988), SERVQUAL is a multi-item scale for measuring consumer perceptions of service quality. The measuring instrument consists of 22 items of questions divided into five dimensions:

1. *Tangibility:* physical facilities, equipment, appearance workers
2. *Reliability:* the ability to provide the service in a reliable and accurate
3. *Responsiveness:* willingness to help and respond to the needs of consumers
4. *Assurance:* the ability of workers to reassure consumers
5. *Empathy:* how personal the service provided to consumers

Approaches to the management of tourism require special attention because of the nature of the tourism industry which is a service industry. In developing a product or service that can optimize customer satisfaction, we need to realize that some properties of the product and services that differ from goods in general, i.e. intangible, heterogeneous, Inseparable (Gibson, 2009).

## III. Methodology

This research used a descriptive approach. This is a research unit of marine tourism in Yogyakarta. Collecting data is only done once for the purposes of research. The focus of this research is to identify a minimum set of design characteristics that is able to provide quality services in nautical tourism services.

This research uses a quantitative method with a case study strategy and uses a descriptive approach. Sekaran (2003) states that the descriptive approach used to ascertain the characteristics of the variable interest on a condition. This method is used to gather information on the state of the ongoing temporary. Time horizon in this study was cross-sectional, ie information from the majority of the population (the sample of respondents) were collected directly from the location empirically, in order to know the opinion of the majority population of the object being studied. The unit analysis of this research is nautical tourism in Yogyakarta.

Based on the management, marine tourism in Yogyakarta is divided into 3; they are Gunungkidul nautical tourism, Kulon Progo nautical tourism and Bantul nautical tourism. Management of nautical tourism in these three regencies conducted by the local tourism office in cooperation with local people. Based on these arrangements, this research wanted to know the difference in quality of service that received by visitors nautical tourism in each of these regencies.

All data collection was conducted through a questionnaire survey written by adopting the SERVQUAL instrument to capture the voice of the customer (VoC). Written survey conducted to obtain data consumer needs for quality service of a good nautical tourism. The questionnaire consists of 22 items of questions divided into 5 dimensions of service quality. Each item was measured using a Likert scale of 1-7 where the number 1 represents the lowest level of interest or performance and the number 7 represents the highest level of interest or performance.

The population of this research is all visitors of nautical tourism in Yogyakarta. Due to the limitations of cost, time, and energy, the research that will be done is research based on a sample. Samples were part of the population to be studied. Sampling of this study using purposive sampling method, so the sample was the visitors who had more than twice visited nautical tourism in Yogyakarta and those who have already visited the nautical tourism in other districts of Yogyakarta and at the time of sampling are in nautical tourism in Yogyakarta (Sekaran, 2003).

The tools used to collect data from a sample are written questionnaires. This questionnaire contains questions aimed to assess the quality of service perceived while in nautical tourism of Yogyakarta. These questions consist of 7 sections which is a measure of the quality of service and represent the voice of customer nautical tourism in Yogyakarta.

The validity test is done by correlating between the scores of each item statement with a total score of variables. The validity of an item can be seen in the results statement Cronbach Alpha column Corrected Item-Total Correlation. Point statement is said to be valid if the value of which is the value of *r* count Corrected Item-Total Correlation bigger than *r* table and be positive. The invalid item shall be issued in subsequent data processing.

Reliability can be measured by using Cronbach's alpha internal consistency that reflects the gauge (Hair et al, 1998). A minimum value of Cronbach's alpha were used in this research are:

- *Cronbach's alpha <0.6* = reliability considered bad
- *Cronbach's alpha* 0.6-0.79 = reliability acceptable
- *Cronbach's alpha* 0.8-1.0 = reliability is considered good

Descriptive statistics are used to describe data and summarize the observed data. Descriptions of the data described by the mean, mode, standard deviation, variance, minimum and maximum values. In this research, descriptive statistic is used to determine the critical factors in the implementation of TQM. The most critical factor can be seen from the highest mean value.

## IV. Results and Discussion

The data were analyzed and the resulting output will be discussed in this section. Successfully obtained 79 questionnaires that meet the criteria, among other visitors who have more than twice visited nautical tourism in Gunungkidul or Kulon Progo regency and visited nautical tourism in other regencies in Yogyakarta and questionnaires filled out completely.

Before conducted an analysis of respondent data obtained, first tested the validity and reliability of the instruments used. Validity test results showed that all question items are valid except the question item number 12 on the second part of questionnaire that containing questions about the assistance officer to the difficulties faced by visitors. While the reliability test results conducted on the 22 questions in 5 dimensions on a two part of questionnaire showed reliable results. Reliability test results are shown in Table 1. In 193 tests sample, it was found that all of the dimensions that exist in the questionnaire this study showed acceptable reliability and is considered good. Thus, this research instrument (questionnaire) is powerful enough to be repeated from time to time with consistent and every item in question can catch the expected information appropriately.

**Table 1.** Results of Test Reliability Instruments

| Dimensions of quality of service | ***cronbach's alpha*** **(Level of Important)** | ***cronbach's alpha*** **(Level of Performance)** |
|---|---|---|
| *Tangibility* | 0,876 | 0,923 |
| *Reliability* | 0,912 | 0,908 |
| *Responsiveness* | 0,650 | 0,614 |
| *Assurance* | 0,863 | 0,874 |
| *Empathy* | 0,863 | 0,741 |

From the results of descriptive statistical analysis, the first part of the questionnaire captures items of service is a priority of the consumer. The higher value of the expected performance from a service item, the more significant items such services for consumers. The score of each item is used to determine the dimensions of the quality service that are important to visitors and need to be prioritized. The second part of the questionnaire SERVQUAL measure the level of service quality that is felt by visitors on maritime tourist

location that have been visited. The score of each item on the questionnaire in second part is used to measure the level of quality service in every dimension of service quality in nautical tourism visited by respondents. More results of descriptive statistical analysis are presented in the following table:

**Table 2.** Results of Data Analysis Descriptive statistics Respondents Nautical Tourism

| | Level of Important | | | | | Level of Performance | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Mean | | | | | Mean | | | |
| Factor | Modus | Statistic | Std. Error | Overall Mean | Rank | Modus | Statistic | Std. Error | Overall Mean | Rank |
| Item 1 | 6 | 6,03 | 0,122 | | | 2 | 3,71 | 0,179 | | |
| Item 2 | 7 | 6,18 | 0,119 | | | 2 | 4,04 | 0,175 | | |
| Item 3 | 6 | 5,71 | 0,112 | | | 2 | 3,69 | 0,165 | | |
| Item 4 | 6 | 5,99 | 0,105 | | | 2 | 3,93 | 0,163 | | |
| ***Tangibility*** | | | | **5,98** | **2** | ***Tangibility*** | | | **3,84** | **5** |
| Item 5 | 6 | 5,73 | 0,117 | | | 4 | 3,85 | 0,150 | | |
| Item 6 | 7 | 6,24 | 0,101 | | | 5 | 4,14 | 0,153 | | |
| Item 7 | 7 | 6,30 | 0,102 | | | 4 | 4,13 | 0,148 | | |
| Item 8 | 6 | 5,94 | 0,102 | | | 4 | 4,04 | 0,132 | | |
| Item 9 | 6 | 5,72 | 0,117 | | | 4 | 3,78 | 0,136 | | |
| ***Reliability*** | | | | **5,99** | **1** | ***Reliability*** | | | **3,99** | **4** |
| Item 10 | 2 | 3,17 | 0,141 | | | 4 | 4,02 | 0,126 | | |
| Item 11 | 2 | 3,70 | 0,295 | | | 5 | 4,15 | 0,151 | | |
| Item 12 | 2 | 2,74 | 0,175 | | | 5 | 4,01 | 0,155 | | |
| Item 13 | 2 | 3,42 | 0,171 | | | 4 | 4,00 | 0,139 | | |
| ***Responsiveness*** | | | | **3,26** | **5** | ***Responsiveness*** | | | **4,05** | **3** |
| Item 14 | 6 | 5,31 | 0,122 | | | 4 | 4,44 | 0,138 | | |
| Item 15 | 6 | 5,73 | 0,119 | | | 5 | 4,52 | 0,136 | | |
| Item 16 | 7 | 6,35 | 0,098 | | | 5 | 5,02 | 0,120 | | |
| Item 17 | 7 | 6,21 | 0,095 | | | 4 | 4,56 | 0,123 | | |
| ***Assurance*** | | | | **5,90** | **3** | ***Assurance*** | | | **4,64** | **1** |
| Item 18 | 6 | 4,25 | 0,180 | | | 4 | 4,49 | 0,129 | | |
| Item 19 | 4 | 4,06 | 0,172 | | | 4 | 4,56 | 0,130 | | |
| Item 20 | 4 | 4,03 | 0,171 | | | 4 | 3,52 | 0,136 | | |
| Item 21 | 4 | 3,51 | 0,167 | | | 4 | 4,12 | 0,133 | | |
| Item 22 | 4 | 3,66 | 0,164 | | | 4 | 4,18 | 0,128 | | |
| ***Empathy*** | | | | **3,90** | **4** | ***Empathy*** | | | **4,17** | **2** |

From the information service performance score marine tourism can be seen that the improvement ratio for each item of service. Improvement ratio is the ratio between the desired levels of performance (KYD) with a level of performance that is acceptable to consumers.

**Improvement Ratio = Desired Performance / Performance Scores**

KYD score obtained from interviews with management regarding service performance levels targeted by management to be achieved in the future. Therefore, management was asked to fill in the form of a score Likert scale from 1 (very poor) to 7 (very good) for each item of service. KYD score data shown in the following table:

**Table 3.** Desired Performance, Improvement Ratio and Sales Point

| Item | KYD | *Improvement Ratio* | *Sales Point* |
|---|---|---|---|
| 1 | 5,4 | 1,46 | 1.5 |
| 2 | 6,0 | 1,49 | 1.5 |
| 3 | 5,6 | 1,52 | 1.2 |
| 4 | 5,4 | 1,37 | 1.2 |
| 5 | 5,4 | 1,40 | 1.2 |
| 6 | 5,6 | 1,35 | 1.5 |
| 7 | 6,8 | 1,65 | 1.5 |
| 8 | 6,0 | 1,49 | 1.2 |
| 9 | 4,8 | 1,27 | 1.2 |
| 10 | 6,2 | 1,54 | 1.0 |
| 11 | 6,2 | 1,49 | 1.0 |
| 12 | 6,2 | 1,55 | 1.0 |
| 13 | 5,8 | 1,45 | 1.0 |
| 14 | 5,8 | 1,31 | 1.2 |
| 15 | 6,2 | 1,37 | 1.2 |
| 16 | 6,6 | 1,31 | 1.5 |
| 17 | 5,6 | 1,23 | 1.5 |
| 18 | 5,0 | 1,11 | 1.0 |

| | | | |
|---|---|---|---|
| 19 | 5,2 | 1,14 | 1.0 |
| 20 | 5,0 | 1,42 | 1.0 |
| 21 | 6,0 | 1,46 | 1.0 |
| 22 | 5,8 | 1,39 | 1.0 |

After improvement ratio obtained next step is to convert this ratio into the difficulty level (degree of difficulty). Based on the criteria stated by the Cohen (1995), there are three levels of difficulty with a value of 1.0 is no change, 1.2 to change the difficulty level is moderate, and 1.5 for a change with a high difficulty level.

It can be seen from the ratio improved service nautical tourism in Yogyakarta (table 5.8) that the improvement ratio is between 1.11 to 1.65. Service items that have the smallest ratio improvement is special attention from the manager of nautical tourism for each visitor (item 18), opening hours for nautical tourism that is convenient for visitors (item 19), and the ability of officers in answering questions (item 17). Items with a low ratio improvement explain that these items do not require a high effort to improve it according to the needs of visitors..

Item repair services with the highest ratio in a row is the appropriateness of the service on the first service (item 7), Notice from the officers when service will be performed (item 10) and assistance officers to the trouble of visitors (item 12). All of these service items have a ratio improvement more than 1.5 which indicates that these items have a high degree of difficulty in meeting the criteria according to customer requirements. Among of the three items of service, promptness of service on the first service still needs to be improved for the benefit of the service items score is high enough.

To support the performance levels of data and information about improvement ratio be required data about the point of sale (sales point) from thenautical tourism in Yogyakarta. This data was obtained from interviews with management about the impact of improvements made to sales. The selling point is entirely determined by the manager of nautical tourism in Yogyakarta based on their considerations on service parts are affected by the change of the ratio improvement. Based on the criteria stated by Cohen (1995), there are three points of sale. 1.0 for point of weak sales, 1.2 for intermediate selling point and 1.5 to strong selling point. List of selling point granted by the manager of nautical tourism in Yogyakarta can be seen in the table above. From the information of improvement ratio and point of sale, it can be seen that the overall strategic business importance of consumer demand for the service's success with consumer orientation. This image is obtained by measuring the weight raw score.

**Interest rate X the ratio of repair X point of sale**

The higher a weight of the crude produced by each item of service so the attributes of consumer demand for development services companies increasingly important. From the weight of the raw score, normalized raw score obtained by normalizing weight using a percentage value of raw weight. This Score normalized raw weight proportions of the importance of this information system service required by customers to other service items. The Score normalized raw weight has provided information about the proportion of importance of the system services required consumers against other service system.

**Tabel 4** Raw Weight and Normalized Raw Weight

| raw weight | normalized raw weight |
|---|---|
| 13,17 | 6,89% |
| 13,77 | 7,21% |
| 10,40 | 5,44% |
| 9,88 | 5,17% |
| 9,64 | 5,05% |
| 12,66 | 6,63% |
| 15,56 | 8,15% |
| 10,59 | 5,54% |
| 8,72 | 4,56% |
| 4,89 | 2,56% |
| 5,53 | 2,89% |
| 4,24 | 2,22% |
| 4,96 | 2,60% |
| 8,32 | 4,36% |
| 9,43 | 4,94% |
| 12,52 | 6,56% |
| 11,44 | 5,99% |
| 4,73 | 2,48% |
| 4,63 | 2,42% |
| 5,72 | 3,00% |
| 5,11 | 2,68% |
| 5,08 | 2,66% |

After obtaining information about the wishes of visitors through SERVQUAL questionnaire, the next stage is to explore the technical requirements (technical requirements) through interviews with the managers or parties related to the management of nautical tourism. The technical requirements are attributes of nautical tourism management which can improve the quality of service by the manager. Based on interviews with the management, we can conclude several technical requirements of the following attributes:

**Tabel 5** Attribute ofTechnical Requirements

| No. | Attributes *Technical Requirements* |
|---|---|
| 1. | Attitudes travel officer |
| 2. | Knowledge of travel officers |
| 3. | Ability of travel officers |
| 4. | Information services |
| 5. | Board of information and instructions |
| 6. | The comfort and cleanliness of tourist location |
| 7. | The provision of support facilities |

Attributes technical requirements which is collected is then connected to the needs of consumers. In QFD, the process is done to show the relationship between consumer desires with the technical requirements in house of quality (HOQ). It was made with the following criteria:

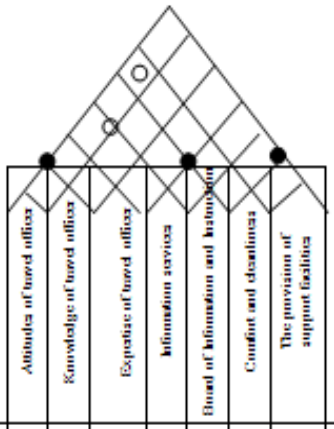
**9 = strong relationship**
**3= intermediate relationship**
**1= weak relationship**

The method to calculate a score for each of the technical requirements is by summing the scores for each technical requirements relationship with the service items then multiplied by the interest rate for each item of service. Scores from each of these technical requirements are ranked to be used as one of the basic considerations in determining improvement priorities.

A list of technical requirements are secured from the manager then placed on top of the HOQ. For technical requirements between the one with the other created a relationship with a triangular matrix to describe their relationship. Relations correlation matrixes of each technical requirement are obtained from interviews with managers. Technical explanation into synergies of mutual support will lead to higher yields, while if there is a conflict then the company must find a way out so that this conflict can be resolved. To explain the relationship, made some notations as follows:

**● = relation synergy is strong**
**O = relation synergy is weak**
**Δ = conflicting relationship**

The relationships formed will explain how the changes in the technical requirements and will work together with other technical requirements or explain their each conflicts technical requirements.
The components forming the matrix of the House of Quality and then incorporated in the building House of Quality. The picture can be seen in the followingtable:




| | | Customer requirements | Interest rate | 1 | 2 | 3 | 4 | 5 | 6 | 7 | level of performance | KVD | Improvement ratio | point of sale | Normalized raw weight |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Tangibility | 1 | The physical appearance that looks modern on the fixtures of nautical tourism | 6,03 | | | | | 3 | 3 | 9 | 3,71 | 5,4 | 1,46 | 1.5 | 6,89 |
| | 2 | An attractive appearance to the physical building in the location of nautical tourism | 6,18 | | | | | 3 | 9 | 9 | 4,04 | 6,0 | 1,49 | 1.5 | 7,21 |
| | 3 | Groomed appearance of officers in nautical travel location | 5,71 | 3 | | | | | | | 3,69 | 5,6 | 1,52 | 1.2 | 5,44 |
| | 4 | The materials supporting nautical tourism services | 5,99 | | | | | 9 | | 3 | 3,93 | 5,4 | 1,37 | 1.2 | 5,17 |
| Reliability | 5 | The accuracy of the time span of service | 5,73 | 1 | | 3 | | | | | 3,85 | 5,4 | 1,40 | 1.2 | 5,05 |
| | 6 | The enthusiasm of employees in customer service | 6,24 | 9 | 1 | 1 | | | | | 4,14 | 5,6 | 1,35 | 1.5 | 6,63 |
| | 7 | The accuracy of first service | 6,30 | 3 | | 3 | | | | | 4,13 | 6,8 | 1,65 | 1.5 | 8,15 |
| | 8 | Timely implementation of service | 5,94 | 3 | | 3 | | | | | 4,04 | 6,0 | 1,49 | 1.2 | 5,54 |
| | 9 | Service without errors | 5,72 | 1 | 3 | 9 | | | | | 3,78 | 4,8 | 1,27 | 1.2 | 4,56 |
| Responsiveness | 10 | Notice of officers when service will be performed | 3,17 | 3 | | 3 | | | | | 4,02 | 6,2 | 1,54 | 1.0 | 2,56 |
| | 11 | speed of service | 3,70 | 3 | 1 | 9 | | | | | 4,15 | 6,2 | 1,49 | 1.0 | 2,89 |
| | 12 | Assistance officials to adversity visitors | 2,74 | 3 | 9 | 3 | | | | | 4,01 | 6,2 | 1,55 | 1.0 | 2,22 |
| | 13 | The ability of the officer to take the time help visitors | 3,42 | 1 | | 3 | | | | | 4,00 | 5,8 | 1,45 | 1.0 | 2,60 |
| Assurance | 14 | Ability raise consumer confidence | 5,31 | 3 | 9 | 1 | | | | | 4,44 | 5,8 | 1,31 | 1.2 | 4,36 |
| | 15 | Create safe for consumers of nautical tourism | 5,73 | 3 | | | 3 | | 1 | 3 | 4,52 | 6,2 | 1,37 | 1.2 | 4,94 |
| | 16 | Politeness clerk at location of nautical tourism | 6,35 | 9 | | | | | | | 5,02 | 6,6 | 1,31 | 1.5 | 6,56 |
| | 17 | The ability of officers in answering questions | 6,21 | | 9 | 3 | 3 | | | | 4,56 | 5,6 | 1,23 | 1.5 | 5,99 |
| Empathy | 18 | Special attention of the manager of nautical travel to every visitor | 4,25 | 3 | | | | | | | 4,49 | 5,0 | 1,11 | 1.0 | 2,48 |
| | 19 | Opening hours of nautical tourism location that is convenient for visitors | 4,06 | | | | 3 | | | | 4,56 | 5,2 | 1,14 | 1.0 | 2,42 |
| | 20 | The personal attention of the officer in nautical tourism location for each visitor | 4,03 | 3 | | | | | | | 3,52 | 5,0 | 1,42 | 1.0 | 3,00 |
| | 21 | A good impression to visitors | 3,51 | 3 | | | 3 | | 9 | 9 | 4,12 | 6,0 | 1,46 | 1.0 | 2,68 |
| | 22 | Officers who knows the specific needs of each visitor | 3,66 | 1 | 9 | | | | | | 4,18 | 5,8 | 1,39 | 1.0 | 2,66 |
| | | Interest rate of *technical requirements* | | 266 | 160 | 174 | 48 | 89 | 115 | 181 | | | | | |
| | | Interest rate of *technical requirements (%)* | | 26 | 16 | 17 | 5 | 9 | 11 | 19 | | | | | |

From the analysis of the matrix house of Quality (HOQ), found that the highest levels of performance contained in assurance dimension with a score of 4.64, followed by the dimensions of empathy with a score of 4.17, and dimensions of responsiveness with a score of 4.05. The other two dimensions has a score of service quality performance levels of 3.99 and 3.84 for the dimension of *reliability* and *tangibility* dimension. The low value of the dimension of *reliability* and performance for *tangibility* dimension suggests that visitor nautical tourism in Yogyakarta has not felt the reliable service of the organizer and considers the facility / physical infrastructure in nautical tourism in Yogyakarta is unsatisfactory. For other dimensions despite the higher value of performance compared to the dimensions of *reliability* and *tangibility* does not mean that the service has been deemed satisfactory by visitors. The maximum value of 4.64 is still in the middle of the value range on a Likert scale of 1-7, which means it can not be considered to have a good performance.

Raw weight normalized value on the HOQ matrix is the development of scores importance service after adjustments between the desired performance managers and the selling point of the service. Raw weight normalized value for each dimension reflects the priority that must be given by the management to improve the overall service quality. The order of raw weight normalized value in Yogyakarta nautical tourism is a dimension of tangibility (6.18), the dimension of reliability (5.99), the assurance dimension (5.46), the dimensions of empathy (2.65), and the dimension of responsiveness (2.57). Based on these scores can be interpreted that the dimensions of tangibility and reliability is a service dimension highest priority to be fixed and dimensions of empathy and responsiveness have the lowest priority level.

The level of importance of each dimensionservices associated with the technical requirements of the managementnautical tourism to earn a level importance score of technical requirements. From the HOQ matrix above, it was found that the highest priority should be given to improvements in the technical requirements dimension of travel officer attitude with a score of 26. The next priority dimensionsof technical requirement are the provision of supporting facilities (score of 19) and expertise travel officer (score of 17). This shows that to improve the overall quality services in nautical tourism in Yogyakarta, managers need to prioritize the improvement of services to enhance the travel attendant attitude, the provision of support facilities, and expertise of travel officers.

## V. Conclusion and Suggestion

Based on the analysis and discussion conducted in the previous section can be obtained several conclusions related to the quality services in nautical tourism in Yogyakarta. Five dimensions in SERVQUAL shows that no performance values that have good quality services for visitors. It can be seen from the highest score on the *assurance* dimension with a score of 4.64. This suggests that the improvement in the quality services in nautical tourism Yogyakarta is needed, especially to compete with nautical tourism in other locations as well as with various types of tourism in Yogyakarta.

The results of the discussion of the level of importance and technical requirements in nautical tourism in Yogyakarta showed that improvements need to be prioritized in the dimensions services of *tangibility* and *reliability*. Guest tour assumes that the physical appearance and facilities to support a nautical tourism services have an important role in determining their satisfaction. Visitors also consider that the ability of services in nautical tourism such as the availability of staff that can help them is also important to improve the quality of service. The relationship between dimensions ofthe level of importance and dimension of technical requirementsobtained from nautical tourism manager shows that the improvement priority should be given to dimensions ofofficer's attitude travel, the provision of support facilities, and expertise of travel officers. Repairs can be done in various ways such attitudes and skills training officers, surveillance officers disciplined and additional facilities at the location of the nautical tourism.

On the other hand the role of government also hoped to increase service quality, from interviews received from consumers and manufacturers, the products produced by either government regulation or provision of benefits to build facilities and infrastructure was not optimal. In addition there are many priorities are expected to be realized by the government in order to assist the manager in nautical tourism to improve the quality of services and satisfaction of visitors.

This research also has various deficiencies that may be accommodated in the next research that discuss the same issue. First, this research has not compared between the management of nautical tourism and nautical tourism from other areas because they compare across regencies in Yogyakarta. Second, this research has not compared the performance of the management of various types of marine and other attractions in Yogyakarta although the selection of different types of visitors to tourist locations can be a variety of different tours. Third, the collection of data from the manager might be able to help the quantitative instruments which have a more objective measurement hierarchycal for example analytical processes (AHP) as data for consumers and also measured using quantitative instruments.

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