

## Factors Affecting Service Quality at Kigamboni Ferry Terminal A Case Study of Dares Salaam Region

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### **Abstract**

*This paper utilizes data from a study that investigated the assessment of Ferry Terminal service quality on customer satisfaction in Tanzania a case of Kigamboni Ferry Terminal Dar es salaam. The paper employed a descriptive research design to show which factors largely affect the quality of service at Kigamboni Ferry terminal and to propose some solutions that may alleviate the problems affecting service quality at Kigamboni Ferry in the Dar es Salaam region. In the first phase, data were collected from a sample of 81 respondents using purposive and simple random sampling. Data were collected through interviews, observations, documentary review, and questionnaires. The findings of the study revealed that there were many problems at Kigamboni Ferry terminal which significantly affected the quality of services. These factors were largely contributed by Kigamboni Ferry management, and some were contributed by the government itself. The paper ends by providing recommendations that must be taken into consideration by both Kigamboni Ferry management and the Government in order to reduce the problems faced by the ferry passengers during consumption of services provided at Kigamboni Ferry Terminal.*

**Key words:** *Service Quality, passengers' satisfaction, Environmental factors, retaining customers.*

### **1.0 Introduction**

Globally, public transport services have become indispensable factors for development as people travel from place to place for various purposes. In a variety of businesses, including public ferry transportation, customer satisfaction has largely been determined by the quality of services provided (Mwendapole & Jin, 2021). When service quality is good in ferry transportation, passengers are satisfied, but when it is poor, passengers become dissatisfied.

Transport services encompass several modes including air, water, railways, pipelines, and road transport (Rodrigue, 2020), suggesting that efficient transport generates economic activities leading to rapid urbanization and international relations.

This study focuses solely on ferry transport, which is water transport. Many public sector organizations have been established by governments with the intention of providing services to the public without competing (Box, 2018). Good transport service cannot be attained if the service provided is not efficient and effective in enhancing customer satisfaction. Okoth (2017) suggested that the public transport sector should guarantee high service quality and meet customers' needs and expectations.

Indicators to measure passenger satisfaction include convenience, comfort, time-sensitivity, customer care, seat availability, and service hours (Haywood, Koning, Monchambert, & Practice, 2017). Similarly, to achieve customer satisfaction in the public transport sector, firms should have knowledge of customers' expectations, particularly when service provision and consumption occur simultaneously (Kim & Kim, 2021)."

Likewise, studies by (Bösehans & Walker, 2020) affirm that success in public transport sector depends on firm's understanding and high-quality services to meet customer need and demand. (Peter & Yang, 2019). (Bruun, Del Mistro, Venter, & Mfinanga, 2015) suggest that the setbacks of public transportation services are increased urbanization, increased operational cost, poor infrastructure, and poor institution. Despite of the challenges, in many coastal cities' transportation systems, ferries play a significant role as it makes straight route between the two places (Tolley & Turton, 2014).

According to Kessy and Mbwambo (2015), Tanzania's ferry transportation system faces challenges related to service quality, including issues such as overcrowding, delays, safety concerns, and inadequate infrastructure. These challenges can significantly impact passenger satisfaction and undermine the effectiveness of the ferry transport system. Therefore, there is a pressing need to assess the current service quality of ferry terminals in Tanzania comprehensively.

Previous studies have highlighted various factors that influence service quality in transportation systems, including terminal facilities, staff competence, scheduling reliability, cleanliness, safety measures, and accessibility (Nasution et al., 2019; Roy & Das, 2020). Understanding these factors and their specific relevance to ferry terminals in Tanzania is crucial for identifying areas for improvement and developing effective strategies to enhance service quality.

Improving service quality in ferry terminals requires a holistic approach that involves not only addressing existing shortcomings but also implementing sustainable solutions to meet the evolving needs of passengers and the transportation sector. By conducting a thorough assessment of the current service quality, identifying key factors affecting ferry terminal service quality, and developing actionable recommendations, this research aims to contribute to the enhancement of ferry transportation services in Tanzania.

Tanzania Surface and Maritime Transport Regulatory Authority (SUMATRA) was the government institution responsible for issuing carrier licenses for marine passenger transport

operation earlier but now this institution is no longer exist in 2018 all responsibilities and duties of SUMATRA were given to the two new government institutions LATRA which regulate land transport and TASAC which regulate water transport, specify the routes and timetables (SUMATRA, 2011)

According to Temba (2013) in Tanzania Four water bodies employ ferry services; which are Indian Ocean, Lake Victoria, Lake Tanganyika and Lake Nyasa. For instance, in Lake Victoria, the ferry services connect Bukoba, Musoma, Mwanza, Ukerewe and other 50 small islands found in the lake. In Indian Ocean especially at Dar es Salaam, ferry connects Ilala and Kigamboni districts.

## **2.0 Definitions of the Key terms used in this paper**

### **2.1 Customer Satisfaction**

Customer satisfaction refers to the measure of degrees at which customer is fulfilled or meet his/her expectancy by the consumption of service or product. The word satisfaction is defined by Swalehe (2019) and (Nyilasy, Gangadharbatla, & Paladino, 2018) as the general effective response to a perceived inconsistency between prior expectation and perceived presentation after consumption.

In the same way, (Nyilasy et al., 2018) has also defined the concept as personal feeling of pleasure or displeasure by making an evaluation between service perceived presentation and its result in relation to the customer expectancy. Customer satisfaction can be viewed as the judgment coming out of the calculation of pre-purchase expectation and post purchase evaluation of the services or product (Rao, Sahu, & Science, 2013). Other scholars regard customer satisfaction as reorganization ability of attracting and maintain client and improve the client relationship over a period of time (Kim & Kim, 2021). This study conceptualizes the customer satisfaction as ferry commuters' perception in term of reliability, responsiveness, tangibility, assurance, empathy frequency and safety to meet the passenger's expectancy of the service provided.

### **2.2 Public Transport Concept**

Public Transport concept is defined by (Park, Cho, & Rao, 2015) as all modes of transportation accessible to the public regardless of ownership. Customers' satisfaction on public service attached with the customers' expectations and the quality of the service received. Environmental factor is one among the determinant of variation of the quality of service provided. The environmental factors include location, traffic system, and level of accessibility.

### **2.3 Ferry Transport Service**

Ferry transport service is defined by Saadon et.al, (2020) as a public transport that carries passengers, cargo and vehicle that use the waterways such as oceans, rivers or bays for short and long distance. The ferry transport can also be considered as part and parcel of road and railway infrastructure which play a vital role of linking the passage when there is absence of tunnels and bridges (White, 2016).

The ferries operate in rivers, ocean, and lakes, it is very important means of transport as enhances the shipment of people and goods. The time factor is very important aspect as some goods transported are perishable hence needs to be delivered quickly. The Tanzania Merchant Shipping Act (2003) as the well-designed vessel with ability of carrying more than 12 passengers and it is not cargo passengers Vessel (MSA, 2003).

## 2.4 Customer Services and Service Quality

Customer services are a series of processes that result in an outcome that solves customer problems during partially concurrent production and consumption processes (Pasetto, Giordano, Borin, & Giacomello, 2020) or any action or activity that one can offer to another that is essentially intangible and has no bearing in ownership of anything (Mushi, 2022).

Quality has been defined as “the degree to which a service satisfies customers by meeting their needs, wants and expectations.” (Xu, Shieh, van Esch, & Ling, 2020). This implies that if an entity does not improve quality service to its customers, it be able to switch its customers to another supplier who can satisfy them, and its competitors take over the market. Therefore, service quality is the extent to which the service, the service process and the service organization can satisfy the expectations of the user (Fhitri & education, 2017).

## 3.0 Theoretical Review

The concept Travel is described by the theory as the narrative immersion which comprises a strong sense of absorption into narrative, includes the emotional and intellectual feedback to content’s justification that the mirror is reflection of real word events. Transported readers experience the flamboyant intellectual imaginary thus the influential impact of narratives to the increased exhibits of behavior, altitude and believe. The influence of transportation has been perceived as self-intellectual concept as it is related but distinct to other forms of media engagement (Melanie 2017).

### 3.1 Expectancy Disconfirmation Theory

Expectancy disconfirmation theory has been said to be one of the most suitable theories in explaining customers’ satisfaction concept (Barsky, 2022). The theory was developed by Oliver (1980) and has been used by many scholars to predict and explain customers’ satisfaction (e.g. (Singh, Masuku, & management, 2014) and (Okoth, 2017). The theory argues that satisfaction level is a product of the variance between anticipated performance and real performance whereby the consumers measure satisfaction by evaluating actual product from what they expected (Okoth, 2017).

Mohammad Mosadeghrad, (2019) explained that Expectancy Disconfirmation Theory establish that customers satisfaction is a result of evaluation between the size and direction of disconfirmation experience and actual service performance against their expectations. The design of the SERVQUAL tool is consistent with the expectation disconfirmation theory. This is due to the fact that the tool assigns a value to customer expectations about a certain quality dimension and does the same for perception following the service. In this study this theory concepts have been used to help understand perceptions of the ferry passengers in terms of their satisfaction against the actual quality of ferry services provided at Kigamboni Ferry Terminal.

### 3.2 SERVQUAL Model

SERVQUAL means services quality and it is a model developed by Parasuraman et.al. (1985); for the purpose of measuring customer satisfaction regarding the quality of services provided (Saadon et.al. 2020). The model consists of ten components which provide a method to measure and manage service quality (Raj, 2014; Saadon et.al, 2020). Literally, SERVQUAL is based on the “GAP model” of service quality (Landrum et al., 2017; Mushi, 2019), which facilitates

quantification of the gap between customers' expectations of a service and their perceptions of the actual service delivered (Mushi, 2017).

As explained by Mushi (2017), Each gap in SERVQUAL plays the following specific role: Gap 1: Disparity between customer expectations and management perceptions of those expectations; Gap 2: Disparity between management perceptions of customer expectations and service quality specifications; Gap 3: Disparity between service quality specifications and the service actually provided; Gap 4: Disparity between service provision and the information provided to the customer; and Gap 5: Disparity between customer expectations and perceptions. This study employs SERVQUAL model concepts in conceptual framework whereby all attributes of service qualities according to SERVQUAL model which are Reliability, Assurance, Tangibility, Empathy and Responsiveness are independent variables influencing attribute of Customer satisfaction as dependent variable according to this study which are Turnaround time of ferry passengers including both waiting time and service time at Kigamboni Ferry Terminal, Dar es Salaam.

#### **4.0 Measures of the Service Quality**

Goods quality is easier to measure than service quality (Singh et al., 2014). The respectability of services is impacted by intangible product difference and intangible customer expectations of these items. Traditional methods of defining service quality focus more on perceived service quality, or the contrast between what customers anticipate and what really happens.

Service quality scholars primarily accept and use two service quality theories today, among other alternative perspectives on service quality. The first is the technical and functional quality framework from Gronroos. Another is the SERVQUAL model created in the 1990s by Berry, Zeithaml, and Parasuraman. The two pillars of the service quality model that Greenrooms employed in the 1990s to define and assess service quality are technical quality and functional quality.

Technical quality in this model is centred on the results of the services rendered. Functional quality, however, considers the delivery strategy. Later, a comparison of customers' expectations and impressions of post-consumption services served as the definition of service quality.

#### **4.1 SERVQUAL Measurement Theory**

More than 20 years ago, a number of academics established several models to evaluate the quality of service for the survival and profitability of the companies providing service. A measure of service quality created in 1985 by Parasuraman and colleagues, known as SERVICE Quality or SERVQUAL, was then refined in 1988, and yet another enhancement was made in 1991 as well as in 1994, and it eventually became the most often used model. SERVQUAL is based on the "GAP model" of service quality, which makes it simpler to measure the discrepancy between consumers' perceptions of the service and how they believe it is delivered. The gap is between what clients anticipate from a service and how they actually experience it.

#### **4.2 Measuring Customer Satisfaction**

Having pleased customers is not sufficient to determine customer satisfaction. Measuring customer satisfaction is crucial for having a competitive edge and for financial success. If businesses wish to prosper in the market over the long term, they must monitor consumer satisfaction signals for product, service, and relationships. (Danijela, Jasminka, & Srecko,

2015) Measures of customer satisfaction provide a full insight of customers' behavior both before and after a transaction.

It would be hard to understand, create, and enhance customer services without this strategy. Therefore, corporations, business consultants, and other organization members have tried to identify characteristics of businesses that consistently satisfy their customers; develop tools for monitoring customer satisfaction; and develop procedures for ongoing, quality improvements that respond to customer feedback.

Measuring customer satisfaction for ferry services worldwide is crucial for ferry operators to understand the needs and preferences of their passengers, thereby improving service quality and retaining customers. One widely used method for assessing customer satisfaction is through surveys. These surveys typically include questions regarding various aspects of the ferry experience, such as onboard amenities, ticketing processes, cleanliness, safety, and overall satisfaction. By analyzing the responses collected through these surveys, ferry operators can identify areas for improvement and implement necessary changes to enhance the overall customer experience (Alegre & Cladera, 2019).

Moreover, beyond traditional surveys, ferry operators can leverage emerging technologies such as social media monitoring and sentiment analysis tools to gather real-time feedback from passengers. Monitoring social media platforms allows operators to capture immediate reactions and opinions from customers, providing valuable insights into their satisfaction levels and specific pain points. This approach enables ferry operators to address issues promptly and engage with customers directly, demonstrating responsiveness and commitment to improving service quality (Xu et al., 2018).

Furthermore, customer satisfaction measurement for ferry services can also involve the use of key performance indicators (KPIs) to track and evaluate various operational metrics. These KPIs may include on-time performance, vessel cleanliness, staff friendliness, and complaint resolution time. By consistently monitoring and analyzing these KPIs, ferry operators can gauge their performance levels and make data-driven decisions to enhance customer satisfaction effectively (Sener & Karsak, 2017).

Overall, employing a comprehensive approach to measuring customer satisfaction for ferry services, including surveys, social media monitoring, and KPI tracking, enables operators to gain valuable insights into passenger preferences and perceptions. By continuously improving service quality based on these insights, ferry operators can cultivate loyal customer relationships and remain competitive in the global maritime transport industry (Sener & Karsak, 2017).

#### **4.3 Relationship between Quality of Service and Satisfaction of Ferry Passengers**

Ferry passengers' satisfaction is the emotional response that results from an event which is consuming ferry service provided at Kigamboni Ferry Terminal. It demonstrated the ferry passenger's satisfaction reaction. In order to be satisfied, one must consider if the wants and expectations of the clients were met. (Rita, Oliveira, & Farisa, 2019) state that passenger satisfaction occurs as a result of both expectations being met and being exceeded with regard to actual service.

Dissatisfaction and satisfaction are effects of a subjective assessment process since they both originate from a mismatch between the expected level of service and the real one when the

actual level decreases. The level of service quality and customer relationship dissatisfaction is largely anonymous. Many academics agree that ferry passenger's satisfaction influenced by service quality offered by marine transporter operator. Ferry passengers' satisfaction be high if the service quality offered by marine transporter operator significantly exceeds the ferry passengers' expectations, and vice versa. (Rashvand & Zaimi Abd Majid, 2014) as quality of service is considered to be a requirement for ferry passenger satisfaction, service providers should not take this as license to decrease customer expectations in an effort to surprise clients and acquire simultaneous consumer satisfaction with subpar quality of service.

Quality of service (QoS) is a critical determinant of passenger satisfaction in ferry transportation systems. QoS encompasses various aspects such as reliability, comfort, safety, and efficiency of the ferry service. Passengers evaluate their experience based on these factors, which directly influence their satisfaction levels. For instance, reliable and punctual ferry services instill confidence among passengers, leading to higher satisfaction rates (Hensher & Houghton, 2017). Similarly, factors like onboard amenities, cleanliness, and courteous staff contribute significantly to the perceived quality of service and ultimately affect passenger satisfaction (Soares et al., 2012).

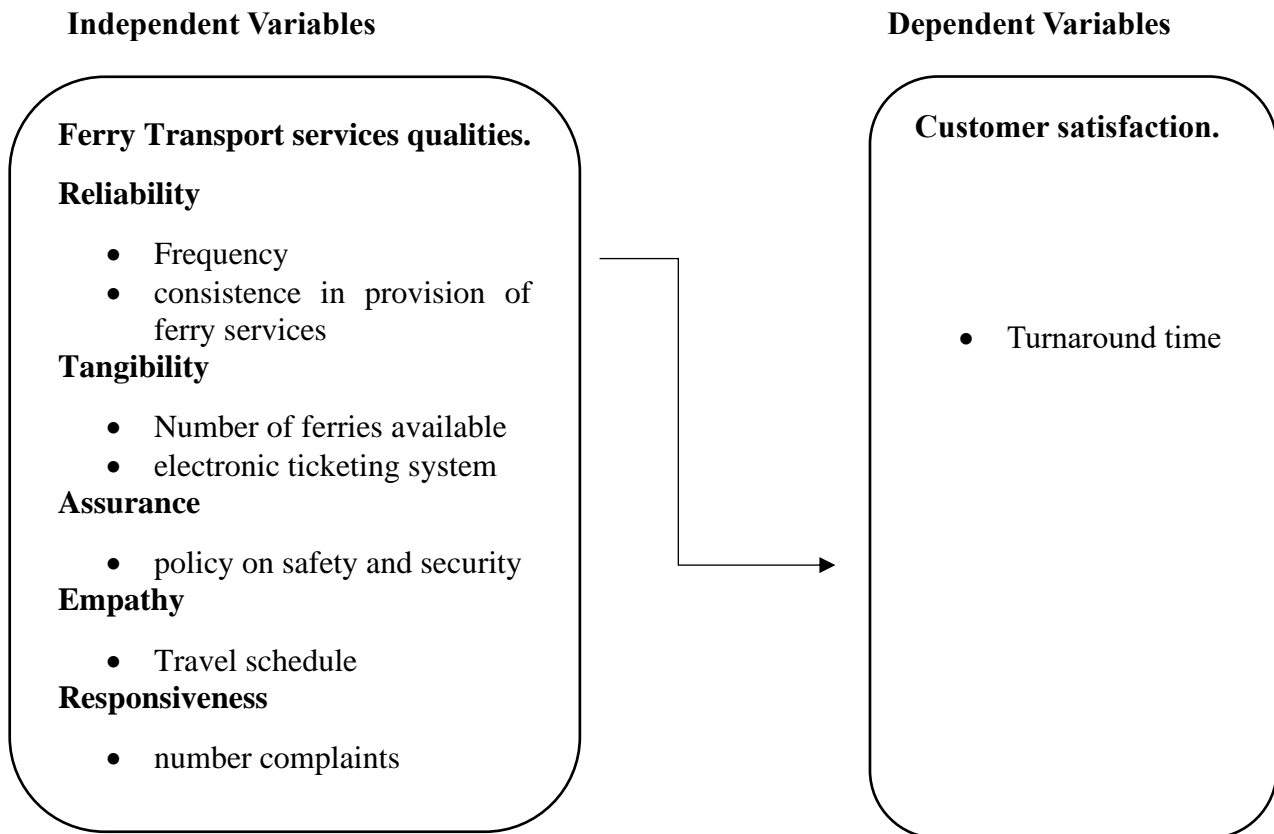
Moreover, the relationship between QoS and passenger satisfaction is dynamic and multifaceted. A study by Faisal et al. (2019) highlights that perceived service quality positively correlates with passenger satisfaction, suggesting that meeting or exceeding passengers' expectations regarding service standards enhances their overall satisfaction levels. Conversely, instances of poor service quality, such as delays, overcrowding, or inadequate facilities, can lead to dissatisfaction and negatively impact the reputation of ferry operators (Mak, 2018). Therefore, ferry operators need to prioritize improving QoS to enhance passenger satisfaction and maintain competitiveness in the market.

Furthermore, the importance of QoS in influencing passenger loyalty and retention cannot be overstated. Research by Zhang et al. (2018) indicates that satisfied passengers are more likely to become repeat customers and recommend the ferry service to others, contributing to long-term profitability and sustainability. Thus, investing in enhancing QoS not only improves immediate passenger satisfaction but also fosters loyalty, leading to a positive ripple effect on the ferry company's bottom line (Jen & Liu, 2013).

#### **4.4 Conceptual Framework**

A conceptual framework is a structured model that define and clarify the relationships among key concepts or variables including dependent and independent variables. Independent variables including attributes of ferry transport service qualities including Reliability in terms of frequency of ferries during operation at KFT, and efficiency of ferry operation to minimize waiting time, Assurance in terms of government policies and regulation related to effectiveness of safety and security at KFT, Tangibility in terms of physical facilities which including number of ferries and technology integration relates to electronic ticketing and payment system , Empathy in terms of KFT travel schedule and Responsiveness in terms of number of complaints. The dependent variables including attributes of ferry passenger's satisfaction including Turnaround time of ferry passenger relates to waiting time and service time. The conceptual framework for this research is portrayed below.

**Figure 1: Conceptual Frame Work**



Conceptual framework shows the relationship between quality of ferry transport service aspects including Reliability (Frequency and consistence in provision of ferry services), Tangibility (Infrastructure and facility e.g. Number of ferries and availability of electronic ticketing system), Assurance (government policies and regulation related to safety and security), Empathy (Travel schedule) and responsiveness (number of complaints) as independent variables and customer satisfaction aspects turnaround time as dependent variable.

Ferry transport services quality attributes can influence customer satisfaction, these attributes including frequency of ferry to operate at KFT, consistence in provision of ferry services, number of ferries, government policies and regulation related to safety and security, Travel schedule services, number of complaints handled, ticketing and payment systems. By addressing these attributes and prioritizing ferry transport services quality, ferry operators can enhance the overall quality of service delivery and improve the passenger experience. Due to the fact that there are time and budget constraints only, few attributes of independent were considered in this research and the other attributes which were not considered can be gap for further studies which relate to this kind of research.

## 5.0 Descriptive of the Study Area



The study conducted at ferry terminal Dar es Salaam as a case study. The focus was based on the Kigamboni Ferry Terminal at Dar es Salaam city connecting the Ilala and Kigamboni districts. The area lying on coordinates 6.50'6.40" S39.17'37.65E. The researcher opted to research at this area because of accessibility, also the ferry station was one among the biggest in the country as it serves the large population of Dar es Salaam habitants and visitors.

The researcher selected the area on the anticipation of getting the projected data on time. The population of the study consisted people living at Kigamboni who used ferry on daily routine.

## **6.0 Methodology**

Primary data were collected using both qualitative and quantitative methods, where secondary data obtained from literature search and review of relevant official documents. The literature review further highlighted the various theories used to the previous study. Two phases of data collection and analysis were conducted. In the first phase, qualitative data based on the contents of the factors affecting service quality at Kigamboni Ferry Terminal in Dar Es Salaam. The second phase of data collection focused on quantifying some variables pertinent issues discussed during the in-depth interview, observation and focus group discussion.

## **7.0 Findings of the Study**

Based on the previous study conducted at Kigamboni Ferry terminal, the paper comes up with the following findings:

### **7.1 Inconsistency of government policies and Regulations**

The study indicated that the inconsistency of government policies and regulations affected the quality of services at Kigamboni Ferry Terminal. The government policies and regulations were not consistency to make management of Kigamboni ferry to work effectively. This situation had contributed to less efficiency of among the Ferry management.

Despite of this scenario, there were also some factors which affected much quality services at Kigamboni Ferry. These were: poor infrastructure and facilities; poor operational Efficiency; lack of staffing and Training; poor safety and security measures; low cleanliness and maintenance of vessels; poor environmental considerations (toilets, passengers' resting rooms, lack of air conditions and lack of ferry vessels. This situation had made ferry passengers to have a lot of grievances against the ferry management that they don not take care for improvement of working conditions.

### **7.2 Delaying of Ferry vessels**

The findings also showed that delaying of ferry vessels was contributing factor to poor service quality at Kigamboni Ferry. The vessels did not come on time and made passengers to spend to much hours waiting at the waiting room. One of the respondents from the category of passengers had the following views to the researcher:

“..... in fact, it is very terrible to see the passengers spending a lot of hours at the waiting room without seeing any vessels coming to take passengers. This demotivates us to use this kind of transport....”

Based to the above narrations, showed that there was poor quality service at Kigamboni ferry which discourage much people to use this kind of transport.

## **8.0 Conclusion**

Based on the above findings, the number of conclusions can be drawn from this paper. The paper starts clearly by trying to show how the public transport has been conducted globally and

finally in Tanzania, specifically in Dar Salaam region. The paper highlights some key concepts used in the previous study and their theories of transport as well conceptual frame of the study. The paper utilized literature review as the corner stone of giving some new knowledge to the researcher. Finally, the paper ends with analyzing some factors which contributed much to poor service quality at Kigamboni Ferry Terminal and some recommendations to be taken by the government to improve the situation.

### **9.0 Recommendations**

The paper tries to enumerate the following recommendations to be taken into considerations in order to bring good service quality at Kigamboni ferry Terminal:

- Infrastructure development should be established by the government in order to enable passengers to have enough rooms for waiting;
- The Kigamboni Ferry management should have good supervision and monitoring of funds obtained in order to enable them to build enough infrastructure;
- Recruitment and training of new employees should be done quickly to replace empty vacancy and to be sent in training to expand more their knowledge;
- Safety and Security Measures should be taken because of high population used the transport
- Cleanliness and Maintenance of vessel should be done frequently in order to avoid delaying of vessels or loss of life of people

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