# ON- BOARD RAIL CATERING SERVICE QUALITY AND CUSTOMER SATISFACTION IN MADARAKA EXPRESS, KENYA

BY

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# DECLARATION

**Declaration by Student**

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## DEDICATION

This thesis is dedicated to my parents for instilling in me the virtue of discipline and hard work.

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# ABSTRACT

Service quality result in higher levels of customer satisfaction increased patronage intentions and sales. There are myriad of passenger complaints on the quality of on-board rail catering services that affect customer satisfaction. The purpose of this study was to investigate on-board rail catering service quality effects on customer satisfaction in Madaraka express. The specific objective was to examine the effects of on-board rail catering service reliability, tangibility, assurance and responsiveness on customer satisfaction. The study was guided by SERVQUAL Model and employed both descriptive and explanatory research designs. The target population was 603 customers while the sample size was 235 customers. Purposive sampling technique was used to select passenger trains while simple random sampling was used to select customers. The instrument for collecting data was structured questionnaires. Multiple linear regression was used to analyze data and test the hypotheses. The regression model coefficient determination of $R^2=.547$, indicates that on-board rail catering service quality explain 54.7% variation in customer satisfaction. Results revealed that reliability ($\beta= .551, p=0.001$), responsiveness ($\beta= .207$, $p=0.004$) and tangibility ($\beta= .526$, $p=0.001$) of on-board rail catering service had a positive significant effect on customer satisfaction ($p<.05$) while assurance ($\beta= .107$, $p=0.117$) of on-board rail catering service had a positive insignificant effect on customer satisfaction ($p>.05$). The study concludes that reliability, responsiveness and tangibility affect customer satisfaction while assurance does not affect. The study recommends improvement in customer satisfaction by focusing on strategies to enhance reliability, responsiveness and tangibility of services. Further recommendations include; monitoring systems regularly and proactively to enhance reliability; improvement of seat arrangement and spacing for better tangibility and dining experience especially in the economy class and improve responsiveness through introduction of a dining coach in the economy class for easy accessibility. The study is expected to benefit policy makers and stakeholders in rail transport.

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## OPERATIONAL DEFINITION OF TERMS

**Assurance** – the employees' knowledge and courtesy, and the ability of the service to inspire trust and confidence. This dimension may be of particular concern for customers of health, financial and legal services (Saghier, 2015).

**Customer satisfaction** is defined as meeting customer expectations regarding the special parameters of satisfaction. It can also be defined as the notion to accomplish inner requests of consumers (Malik & Gaffor, 2012).

**Empathy** – the caring, individualized attention the service provides its customers. Small service companies are better placed (though not necessarily better at) for treating customers as individuals than their larger, invariably standardized counterparts. However, relationship marketing is designed to offer a more individualistic approach for customers of large organizations (Peter& Angela, 2006).

**On-board rail catering**- provision of food and beverage service on a train in transit (Siddhi, 2024)

**Reliability** – the ability to perform the promised service dependably and accurately. It is regarded as the most important determinant of perceptions of service quality. This dimension is particularly crucial for services such as railways, buses, banks, building societies, insurance companies, delivery services and trade services, e.g. plumbers, carpet fitters, car repair (Rauch *et al.,* 2015).

**Responsiveness** – the willingness to help customers and to provide prompt service. This dimension is particularly prevalent where customers have requests, questions, complaints and problems (Parasuraman *et al*., 1988).

**Service quality** is an approach to manage a business processes in order to ensure full satisfaction of the customers which helps to increase competitiveness and effectiveness of the business (Rahaman *et al*., 2012).

**Tangibility –** this is appearance of physical facilities, equipment, personnel and communication materials. All of these are used in varying degrees to project an image that will find favor with consumers. Tangibles will be of particular significance where the customer's physical presence at a service facility is necessary for consumption to occur, e.g. hair salon, hotel, and night club (Al-Azzam, 2015).

## CHAPTER ONE
## INTRODUCTION

**1.0 Overview**

This chapter described the Background of the Study, Statement of the Problem, Research Objectives, Research Questions, Significance of the Study, Justification of the study, Limitations of the Study, Scope of the Study and Conceptual Framework.

**1.1 Background of the Study**

A good service quality of public transport can provide a reliable service to the customers for which make them happy. Customer satisfaction and service quality are one the basic opportunities which help to run, to improve business and profit of the company especially to save loyalty of its customers. It's very important for companies to know how to measure consumer's perspective in order to better understand their needs hence satisfy them. Service quality improvements aim at satisfying customer's requirements in a better way by creating and distributing value to the customers. Over the last few years, companies have gradually focused on service quality and customer satisfaction. This strategy is very profitable for both companies and customers, particularly for transport agencies and passengers. An improvement of the supplied service quality can attract further users (Eboli and Mazzulla, 2007).

Service quality is an approach to manage business processes in order to ensure full satisfaction of the customers which will help to increase competitiveness and effectiveness of the industry. (Rahaman et al., 2012).Quality refers to something done by human beings at a very high level of excellence, often times in the sense of works of perfection as being distinctive from inferior performance (Sheetal and Harsh, 2004). Quality in service is very important especially for the growth and development of service sector business enterprises. Parasuraman et al., (1985) noted that the key

strategy for the success and survival of any business institution is the deliverance of quality services to customers. Companies providing high service quality as perceived by their customers, tend to be the most profitable companies. On the other hand, poor service has been identified as the primary reason why customers switch to competitors. In service giving organizations, all staff or employees must be customer orientated and interact with customers to satisfy their needs in order to increase customer satisfaction and there must be service commitment from employees and support from all levels of management. Therefore, it is important for managers and employees who provide goods or services that they must constantly keep track of information about the company's wellbeing as far as meeting its customers' needs are concerned (Adebayo &Joshua, 2021).

Acording to Siddhi (2024) The global On-board Rail Catering Market size was valued at USD 16.01 billion in 2022 and is projected to reach USD 21.89 billion by 2030, growing at a CAGR of 4.05% from 2023 to 2030. In the scope of work, the report includes products offered by companies such as Indian Railway Catering and Tourism Corporation Limited (IRCTC limited), Newrest Group Services SAS, Deutsche Bahn AG, Amtrak, Eurostar, Cremonini Group, Railrest, Rail Gourmet and others.

On-board rail catering refers to the provision of food and beverages to train passengers. It varies depending on the type of train and journey duration. Catering can include dining cars, café cars, or station options. Passengers can enjoy full meals or snacks and special dietary choices are often available. Pricing varies by class and focuses on quality, variety, health, and sustainability. Health and safety measures have recently gained importance in catering services. The onboard rail catering market has experienced robust growth, along with changing passenger preferences.

Passengers demand higher-quality and diverse food options, leading rail companies to upgrade their menus and integrate technology for better service. Sustainability and environmental concerns have been gaining importance, prompting rail operators to adopt eco-friendly practices. On the other hand, café cars provide a more casual setting, offering quick bites and beverages for those looking for a convenient and relaxed dining option. Additionally, many stations along the route offer diverse food choices, allowing passengers to explore local cuisines and flavors. With increased awareness of allergens and dietary restrictions, rail catering services have expanded their menus to accommodate various dietary needs, ensuring that all passengers can enjoy a satisfying meal. The rising emphasis on quality, variety, and sustainability guarantees a memorable dining experience, supports local suppliers, and reduces the environmental impact. Additionally, advancements in technology and the availability of online booking platforms make it easier for passengers to pre-order meals and customize their dining experience, further contributing to the potential growth of the on-board rail catering market (Siddhi, 2024).

The Parasuraman, Zeithaml, and Berry study suggested that customers perceive service quality in terms of ten potentially overlapping dimensions. Subsequent analysis of the dimensions of service quality led to a five-factor model and accompanying scale, SERVQUAL, that has become the gold standard of service-quality measurement. SERQUAL is consisted of four intangible and one tangible construct. The intangible constructs include reliability (e.g., ability to perform the service accurately and dependably), responsiveness (e.g., willingness to help customers and provide prompt service), assurance (e.g., courtesy of employees and ability to create trust and confidence in customers), and empathy (e.g., caring,

individual attention to customers). The tangibles construct addressed the physical facilities, equipment and appearance of personnel

## 1.2 Statement of the Problem

Individuals anticipate a specific level of service when they are about to engage in a purchase transaction. When they utilize the actual service, they form valid perceptions of service performance. According to Prakash & Mahonty (2007) Service quality can pay rich dividends when done well. Higher levels of service quality produce higher levels of customer satisfaction that lead to increased patronage intensions and increased sales. While a price or product strategy can also yield these outcomes, service quality if done well is more difficult to imitate and can have a more enduring competitive advantage; service quality done well is an asset that has to be managed. After all, it is more complicated to do service well than to change the price or to alter the inventory of goods available. So, competing on price or product may be dangerous because the price of entry is relatively cheap.

To improve service quality organization need to make the best use of information they already have on quality of service and they need to regularly collect and use feedback from service users

In an effort to improve on the service quality on Madaraka express Kenya railways suspended the directive prohibiting passengers from carrying food and drinks on Madaraka express and resorted to negotiation with the service provider to improve Food and beverage on board the trains. This was after public outcries on the quality of service provided in Madaraka express (Ouma, 2019; Otieno, 2019) this clearly indicates that there is a service quality gaps which can be solved by research on the customer needs.

According to Parasuraman *et al*. (1985), Gap 5.-The expected service-perceived service gap: this gap states that the best way to achieve a good service quality is when the expectations of the customers are actually met or even exceeded, and hence the customers judgment of a high or a low service quality will always depend on the way of how customers perceive the real presentation of the service and how they were expecting it.

## 1.3 Purpose of the Study

The purpose of the study was to establish effects of on-board rail catering service quality on customer satisfaction in Madaraka express, Kenya. The study will seek to determine the effect of on-board rail catering service quality dimensions such as responsiveness, reliability; assurance and tangibility on satisfaction of customers.

## 1.4 Research Objectives

### 1.4.1 Main Objective

The main objective of the study was to establish effects of on-board rail catering service quality on customer satisfaction in Madaraka express, Kenya.

### 1.4.2 Specific objectives

a) To examine the effect of on-board rail catering service reliability on customer satisfactions in Madaraka express, Kenya.

b) To determine the effect of on-board rail catering service tangibility on customer satisfactions in Madaraka express, Kenya.

c) To establish the effect of on-board rail catering service assurance on customer satisfactions in Madaraka express, Kenya

d) To determine the effect of on-board rail catering service responsiveness on customer satisfactions in Madaraka express, Kenya.

## 1.5 Hypotheses

**H$_{01}$** On-board rail Catering service reliability has no effect on customer satisfaction in Madaraka express, Kenya.

**H$_{02}$** On-board rail catering service tangibility has no effect on customer satisfaction in Madaraka express, Kenya.

**H$_{03}$** On-board rail Catering service assurance has no effect on customer satisfaction in Madaraka express, Kenya.

**H$_{04}$** On-board rail Catering service responsiveness has no effect on customer satisfaction in Madaraka express, Kenya.

## 1.6 Assumptions of the Study

All customers were treated as homogeneous because similar food and drinks are served irrespective of the class that is first class and economy class. The sample population of study participants has enough homogeneity regarding their travel purpose, expectations, and backgrounds to allow for comprehensive insights into catering service impacts. Therefore questionnaires were given to a sample of customers and it was generalized to all customers using Madaraka express passenger services.

The study assumed that passengers have a basic awareness of quality indicators in catering services and can assess these factors, leading to their satisfaction levels. Customer satisfaction is a subjective experience influenced by personal preferences, cultural backgrounds, and individual expectations regarding on-board rail catering.

The study also assumed that external factors, such as traveling conditions such as delays, train cleanliness, overall service environment, do not significantly impact the specific relationship between catering service quality and customer satisfaction. An

assumption was made that passengers are willing and able to provide honest feedback about their experiences with on-board catering services. In addition, the effects of service quality on customer satisfaction are stable over the period of the study, assuming that no major service changes occur during data collection.

## 1.7 Significance of the Study

This study is significant because the company needs to understand their customers to be able to provide superior quality in the public transportation in Kenya. Improved service quality will have a positive impact on the customer satisfaction leading to repeat customer and improved overall customer experience. The significance of studying the effect of on-board rail catering service quality on customer satisfaction in trains is multifaceted and can have far-reaching implications for train operators, passengers, and the broader transportation industry. Understanding the relationship between catering service quality and customer satisfaction can help train operators identify key areas for improvement, leading to an enhanced travel experience. Insights gained can enable operators to tailor their catering services to meet the specific preferences and expectations of different passenger demographics, thus increasing overall satisfaction.

In the increasingly competitive transportation market, providing high-quality on-board rail catering can serve as a key differentiator. This research can highlight how effective catering contributes to a brand's unique selling proposition. High levels of customer satisfaction with catering can enhance a train service's reputation, attracting new passengers and encouraging repeat business. Improved customer satisfaction is often correlated with higher spending on food and beverages, leading to increased revenue from on-board rail catering services. Identifying the critical elements that contribute to perceived service quality can optimize resource allocation, reducing

waste and enhancing profitability. A positive travel experience driven by quality catering can cultivate brand loyalty among passengers, resulting in increased customer retention. Satisfied customers are more likely to share their experiences, thereby enhancing the brand's reputation through positive word-of-mouth and social media referrals.

Research into service quality can help ensure that catering operations meet safety and health regulations, mitigating risks associated with foodborne illnesses. Understanding passenger concerns regarding health and nutrition can lead to better menu offerings that align with current trends and standards. Studying customer satisfaction in relation to catering services can yield valuable insights into passenger behavior, preferences, and expectations, contributing to a better understanding of customer motivations. Examining how on-board rail catering influences travel choices can inform marketing strategies and operational adjustments.

With the growing emphasis on sustainability, research can explore how catering service quality impacts customer perceptions of environmental responsibility, influencing choices towards greener options. The study can assess how offering sustainable, locally-sourced meal options affects overall customer satisfaction and loyalty. Insights into passenger satisfaction can identify training needs for staff, enhancing service quality through better customer interaction and food handling practices. Understanding preferences can assist in menu development, leading to offerings that are not only appealing but also practical and cost-effective. The findings can enable railway operators to make informed, data-driven decisions regarding their catering services, leading to more effective strategic planning. Evidence of a strong link between catering quality and customer satisfaction can help justify investments in training, technology, and supplier partnerships.

This study can contribute to the existing body of knowledge in hospitality management, transportation studies, and customer service, filling gaps in research related to on-board dining experiences. The findings may pave the way for further research in related areas, such as cross-modal comparisons or longitudinal studies on service quality over time. The significance of studying the effect of on-board rail catering service quality on customer satisfaction in trains lies in its potential to drive improvements across multiple dimensions. From enhancing passenger experiences and fostering loyalty to generating economic benefits and promoting sustainable practices, such research can inform strategic initiatives that benefit train operators and passengers alike. Ultimately, it's a critical exploration of how service quality shapes customer perceptions and behaviors, contributing to the overall success of rail as a mode of transport.

## 1.8 Scope of the Study

This research was carried out in Mombasa-Nairobi Madaraka express passenger service train. This research covered on-board rail catering service reliability; responsiveness, assurance and tangibility as independent variables and customer satisfaction as the dependent variable. The research was carried out between the months of March, 2024 and April, 2024 using questionnaires. The study was quantitative and applied Multiple Linear Regression for analysis.

## 1.9 Limitation of the study

Kenya Railways being a government owned entity is highly regulated by several confidentiality clauses and accessing information for purpose of research was quite difficult. However, Kenya Railways management was assured that the finding from the study was purely for academic purpose.

Customer satisfaction levels can be highly subjective, influenced by personal preferences, individual travel experiences, cultural backgrounds, and expectations, making it challenging to generalize findings. This was managed using similarity of scales. Variability in interpretation arising from different passengers who may interpret quality and satisfaction differently. This was managed by testing reliability of the instruments. External factors, such as delays, cabin comfort, or overall train experience, can impact customer satisfaction but may not be controlled for in the analysis, confounding results. This was handled by ensuring all requirements of multiple linear regression are fulfilled such as testing the assumptions.

## CHAPTER TWO

## LITERATURE REVIEW

## 2.1 Introduction

This chapter is concerned with the theoretical framework and empirical studies in relation to service quality and customer satisfaction. It contains literature on studies done by other scholars. The literature on service quality and its determinants is reviewed. Then, literature on customer satisfaction in railway industry is reviewed. Finally, literature shall be summarized.

## 2.2 Customer Satisfaction

Malik and Ghaffor (2012) define the concept of customer satisfaction as meeting customer expectations regarding the special parameters of satisfaction. Zairi (2000) also defines this notion as the accomplishment of inner requests of consumers. Indeed, this concept has been defined differently by field scholars. Customer satisfaction is "an indicator of whether customers will return to a restaurant" (p. 39) as Dube et al. (1994) suggest. Vavra (1997, p. 8) also consider customer satisfaction as "the leading criterion for determining the quality actually delivered to customers through the product/service and by the accompanying servicing."

Indeed, as the most significant concept influencing service management, customer satisfaction has received a lot of attention from marketers and researchers (Ghazali, 2015). The concept of customer satisfaction has thus been applied to service industry by many scholars (e.g. Andaleeb & Conway,). In addition, Yüksel and Yüksel (2002) connect this satisfaction concept to the intention for repeat purchasing and positive word-of-mouth. The expectancy/disconfirmation paradigm in process theory (Mohr, 1982) provides the grounding for the vast majority of satisfaction studies and

encompasses four constructs: Expectations; Performance; Disconfirmation and Satisfaction

Disconfirmation arises from discrepancies between prior expectations and actual performance. There has been significant effort in the past to look at the area of service quality, customer satisfaction and, to a lesser extent, service loyalty. However, there is considerable confusion in the demarcation between service quality and customer satisfaction. GroÈnroos (1984, 1990) and Parasuraman et al. (1985, 1988,), both argue that perceived service quality results from the comparison that customers make between expected quality and experienced or outcome quality. The expectancy/disconfirmation paradigm that ultimately results in satisfaction or dissatisfaction makes a similar point. Regarding the chronological order, service quality happens first and then leads to customer satisfaction. According to Cronin and Taylor (1992, 1994), customer satisfaction is regarded as an antecedent of service quality; nevertheless, their research the opposite. Thus, Service quality was proposed as one of the contributing aspects of customer satisfaction (DeRuyter et al., 1997; Spreng & Mackoy, 1996).

On the basis of the above, customer satisfaction is indicated as acting as a mediator in the link between service quality and service loyalty. In the satisfaction literature "expectation reflect anticipated performance" (Churchill and Suprenant, 1982, p.492) made by the customer about the levels of performance during a transaction. Mittal and Lassar (1998) refer to the strong connection between satisfaction and customer loyalty. In addition, Oliver (1993) considers the satisfaction variable as the central part of the marketing philosophy of any business. Lim (2010) contends that the physical environment in restaurants can have a great effect on customers' pleasure.

**2.3 The Relationship between the Catering Industry and Customer Satisfaction**

The service sector has grown incredibly through the last decades and the catering (or food service) industry hasn't been an exception, in fact, it has been described for many authors as the fastest growing industry at a global level, but the economic crisis has disfavored it as it has done to any other single industry (Hass, 2008). It is important to bear in mind that customers' preferences are capable of highly influence on the catering industry (Waldfogel, 2008), and this can be considered as the main reason whereby the elaboration of a service quality analysis can be way too complex and even abstract either for the catering industry or for any other (Cronin & Taylor, 1992).

Research related to customer satisfaction within the catering service industry has revealed that one of the most influential elements that determines the level of satisfaction in customers is the quality they perceived during the moment their getting the service, and even influencing them to the repurchase option in the future, while the place and the ambience it offers are considered not as influential factors in the customer satisfaction area (Bojanic & Shea, 1997). On the other hand, Abdullah *et al*., (2013) express that in the catering service industry the mere facts of offering a perfect food and an outstanding service cannot always be enough in order to attract the customers, and in fact, the catering providers should be able of providing their meals within a proper place with a comfortable ambience, influencing customers to chose establishment for having some food.

 Additionally, the catering industry can be divided in two kinds: the first one is related to the tangibles which is basically conformed by the food and the environment where it is being provided, and the second one are the intangibles such as the employees of the food retailer and their relationship with the customers, and when these are

combined in the best possible way the service is perceived as high (Lee et al., 2003). Some researchers have discovered that this intangible element mentioned before about the interpersonal relationship that customers and the staff of the food retailer while they interaction between them is occurring it is not so influential for the perception of the customers and it actually plays a small role in customers' overall perception of the service, while some other factors need to be considered as even more influential for customers such as value or price, the environment, the atmosphere, the location and the service and the food (Johns & Howard, 1998).

## 2.4 Service Quality

According to Peter and Angela (2006), it is widely acknowledged, that effort to define and measure the quality of products has proved more successful than the definition and measurement of service quality. Even the word itself has evoked a variety of views as to its meaning. For services the setting of standards represents one way of communicating quality. However, the workings of the service organization itself must come under scrutiny in the quest for delivering quality. The Gaps Model is a useful framework for understanding the impact of the organization on quality. A technique for determining what to measure, and how, has been developed for service quality. It is called SERVQUAL.

Service Quality is a major aspect in a railway operation company since it determines the firm's value and also satisfies customer needs. Service quality is considered in a given context and aims at meeting the passengers' " needs and wants, and how well the service delivered conforms to passengers" expectations (Namukasa, 2013). It may therefore, be defined as the general impression created by the consumer in relation to the efficiency of the business and its services (Park et al., 2004).It has also been defined as the difference between what customers expected regarding the service they

perceived and actually received. Staffs play an important role in service quality, since each delivery of service may be unique. In service giving organizations all staff or employees must be customer orientated and interact with customers to satisfy their needs in order to increase customer satisfaction and there must be service commitment from employees and support from all levels of management. Therefore, it is important for managers and employees who provide goods or services that they must constantly keep track of information about the company's wellbeing as far as meeting its customers' needs are concerned (Dayang and Francine, 2010).

According to Fanta (2018), Passengers make informed decision on form of transport they use; each passenger will choose the form of transport that serves him or her best. However, best form of transport may be viewed differently by each traveler, therefore, in recent years; the attention of most public transport companies has to be shifted from the supply side, which focuses on service provision, to the demand side, in which one of the goals is the improvement of the service quality. Achieving and sustaining a high level of customer satisfaction is a key part of a transit agency's efforts to increase public transit leadership, especially regular Light Rail transit. To achieve these goals transport agencies must measure their performance. In order to measure the transportation service quality performance companies should know several attributes or characteristics that have impacts on service quality and satisfaction.

## 2.5 Service Quality Measurements (SERVQUAL model)

Always there exist important questions: why should service quality be measured? Measurement allows for comparison before and after changes, for the location of quality related problems and for the establishment of clear standards for service delivery. Edvardsen et al., (1994) state that, in their experience, the starting point in

developing quality in services is analysis and measurement. The SERVQUAL approach, which will be used in this study, is the most common method for measuring service quality. Clearly, from a Best Value perspective the measurement of service quality in the service sector should take into account customer expectations of service as well as perceptions of service. It is apparent that there is a little consensus of opinion and much disagreement about how to measure service quality (Robinson, 1999). One service quality measurement model that has been extensively applied is SERVQUAL model developed by Parasuraman *et al*., (1985, 1986, A Shahin, 1988, 1991, 1993, 1994; Zeithaml et al., 1990). SERVQUAL as the most often used approach for, measuring service quality has been to compare customers' expectations before a service encounter and their perceptions of the actual service delivered (Gronroos, 1982; Lewis and Booms, 1983; Parasuraman et al., 1985). The SERVQUAL instrument has been the predominant method used to measure consumers' perceptions of service quality. It has five generic dimensions, (van Iwaarden et al., 2003). In growth of services in the last decades, many researchers have recognized the need to develop measures of service quality. One of the most often used measures is the SERVQUAL based on extensive research in generic determinants of perceived service quality (Parasuraman, Berry et al., 1985; 1988; 1991; 1993; 1994). Zeithaml et al., 1990).Their model claims that the consumer evaluates service quality experience as the outcome of the gap between expected and perceived quality (Service quality = Perception – Expectation). The model emphasizes on the key requirements for a service provider delivering the expected service quality. Parasuraman and Zeithaml, (2006) defined service quality as the degree and direction of discrepancy between customers' service perceptions and expectations. Thus if the perception is higher than expectation, then the service is said

to be of high quality. Likewise, when expectation is higher than perception, the service is said to be of low quality.

According to Peter and Angela (2006), Service quality is viewed as a multi-dimensional concept. Consumers assess and evaluate a number of factors or dimensions. The fifth gap in the Gaps Model of Service Quality gave rise to SERVQUAL, a self-administered questionnaire purported to be a generic measure of service quality. In other words, it was designed to be applicable to a wide variety of services. The dimensions to be measured in the scale are:

Reliability – the ability to perform the promised service dependably and accurately. It is regarded as the most important determinant of perceptions of service quality. This dimension is particularly crucial for services such as railways, buses, banks, building societies, insurance companies, delivery services and trade services, e.g. plumbers, carpet fitters, car repair.

Responsiveness – the willingness to help customers and to provide prompt service. This dimension is particularly prevalent where customers have requests, questions, complaints and problems.

Assurance – the employees' knowledge and courtesy, and the ability of the service to inspire trust and confidence. This dimension may be of particular concern for customers of health, financial and legal services.

Empathy – the caring, individualized attention the service provides its customers. Small service companies are better placed (though not necessarily better at) for treating customers as individuals than their larger, invariably standardized

counterparts. However, relationship marketing is designed to offer a more individualistic approach for customers of large organizations.

Tangibles – the appearance of physical facilities, equipment, personnel and communication materials. All of these are used in varying degrees to project an image that will find favor with consumers. Tangibles will be of particular significance where the customer's physical presence at a service facility is necessary for consumption to occur, e.g. hair salon, hotel, and night club.

### 2.5.1 Tangibility of Service Quality on Customer Satisfaction

Developed as one of the five dimension of SERVQUAL, tangibility represents physical facilities, equipment and appearance staff (Al-Azzam, 2015), Also defined as the ambience and general appearance of the physical facilities, rooms, restaurants, equipment, personnel, and communication materials (Eshetie *et al*., 2016). According to Pena *et al*., (2013), tangibility of a service describes the way a client perceives physical facilities, equipment, personnel, and material. It includes anything that can be sensed by the five basic human senses. According to previous studies, tangibility is one of the factors that influence service quality and have a direct impact on customer expectations in the service industry.

One of the key differences between services and goods is that goods are tangible and services are intangible. The intangible nature of service can complicate the measurement of service to understand the factors that must be improved to achieve the highest standards of quality (Yarimoglu, 2014). The term 'perceived service quality' was developed to help in the development of basic dimensions that can be help in the measure of service quality. It is the outcome of comparison of different perceptions about the process of service delivery and final result of a service. Several

methods have been developed to help in the measurement of perceived service quality. The study acknowledged SERVQUAL is the most tools to measure perceived service quality (Bharwana *et al.,* 2013) despite the limitations pointed in different studies.

The fact that perceived quality is highly subjective complicates the discussion on the connection between customer satisfaction and service quality. A tangibility that may be considered high quality by one customer can be viewed as low quality by another customer. It is a statement that acts a constant reminder that the attitude of the customer towards a service is what entails perceived quality. One of the most important issues facing the service industry in the contemporary world is the pressure to achieve customer satisfaction (Sharma & Nitesh Goyal, 2010).

Tangibility is key dimension of service quality that has a direct impact on customer satisfaction levels (Rauch *et al.,* 2015). Examples of factors are significantly associated with banks including comfortable shop design, up-to-date equipment for customer use, and adequate staffing to provide service .These aspects are important for banks because there are a lot of face-to-face relationship between customers and employees. Therefore, maintaining a professional environment and convenient stores can improve customer satisfaction (Al-Azzam, 2015). Further, quality of equipment differentiates the level of customers (Oanda, 2015).

## 2.5.2 Reliability of Service Quality on Customer Satisfaction

Reliability is defined as a service provider performing a service with dependability, consistency and accuracy (Rauch *et al.,* 2015). Reliability involves the ability of the organization to perform the promised service dependably and accurately (Tuan & Linh, 2012). In service provision, the reliability of a quality service refers to how the

company are performing and completing their promised service, quality and accuracy within the given set requirements between the company and the customer (Oyuko, 2022).Lastly, reliability defines mechanism in which Service Company offers accurate and flawless service to customers' directly from the first time on and does that in the promised time (Al-Sabi, 2019).

The reliability differentiates the quality of a service or product offered. High level of service consistency is decisive for reliability. Quality service that is reliable is render reliably and accurately, in accordance with promises made to the clients (Maric *et al.,* 2016). In simple terms, service quality can be described as the overall assessment done by the customer about the superiority of a service (Lau, Cheung, Lam, & Chu, 2013). The evaluation of a service is more complicated than that of a good because it entails evaluating the entire process of service delivery.  The impression of a customer is a main determining factor when it comes to service quality (Lau, Cheung, Lam, & Chu, 2013). However, reliability is provided through employees' courtesy and knowledge, conveying their confidence and selfconfidence to client Empathy encompasses understanding the clients' needs by means of individual approach (Juwaherr, 2004) as cited in (Maric *et al.,* 2016).

Reliability depends on handling customer service issues, performs the services right the first time; offers services on time, and maintain a record of error-free. Reliability has been defined as the most significant factor in conventional service (Parasuraman *et al*., 1988). Reliability also consists of the right order fulfillment; accurate records; accurate quote; right in the bill; Results are more accurate than commissions; keep the promise of service. Reliability has also been mentioned as the most significant factor in banking services.

Reliability can also refer to the ability to provide a service in dependable and accurate manner. It helps in building trust between the service provider and the customer. It is a critical component when it comes to gaining loyal customers. The lack of reliability erodes confidence and makes the customer to view the service provider in negatively. A service provider is bound by ethics to deliver services that meets all the promises made about service delivery, problem resolution, and pricing (Mamilla *et al.,* 2013). It is clear that the connection between reliability and customer satisfaction is direct because a customer who has been disappointed is not satisfied (Abu El Samen *et al*., 2013; Wahid *et al.,* 2017).

Research shows reliability is an important factor in customer satisfaction as because every customer wants to know if their supplier is reliable and fulfill the set requirements with satisfaction. Such satisfactions are achieved with the internal controls. Internal control is a process designed to provide reasonable assurance regarding the achievement of objectives related to the reliability (IAASB, 2011). To improve reliability in hotels, the internal control needs to be improved by special team to act as a quality management group of the hotel that is responsible for continuous service quality improvement in hotel. This team is responsible for research to understand customers' needs and preferences and give detail strategies to enhance customer satisfaction (Tuan & Linh, 2012).

### 2.5.3 Responsiveness of Service Quality on Customer Satisfaction

Responsiveness is defined as providing prompt services and being willing to help customers (Parasuraman *et al*., 1988). Furthermore, Johnston (1997) defines responsiveness such as speed and timeliness of service delivery. This consists of processing speed and service capabilities to respond promptly to customer service requests, and wait a short and queuing time. More specifically, responsiveness is

defined as the willingness or readiness of employees to provide services. It contains the timeliness of service (Parasuraman *et al*., 1985). It also contains understanding the needs and requirements of the customer, easy operation time, individual attention provided by the staff, attention to the problem and customers' safety in their dealings (Kumar, 2014).

Other researchers have defined responsiveness as "the degree to which service providers are willing to help customers and provide prompt service" (Al-Azzam, 2015). Responsiveness can be measured differently in a study but the common indicators or questions include: Gives individual attention to guests Provides prompt services, Willingness of staffs to help guests, and Availability of employees when needed (Saghier, 2015). Further, Peoples' behavior and conviviality including: timeliness, speed, communication, warmth, friendliness, attitude, tone of voice, dress, neatness, politeness, anticipation, handling complaints, solving problems can be classified as items under responsiveness and some as reliability based on how the question was formed (Yarimoglu, 2014).

According WHO (World health Organization); the concept of 'responsiveness' has been incorporated to complement 'user satisfaction', which it had used since the 1960s. 'Satisfaction' contemplates the various dimensions involved in health care, from the doctor-patient relationship to quality of clinical care and of health personnel. In contrast, 'responsiveness' is a concept that relates to non-medical aspects of care. The concept relates to how health systems recognize and respond to individuals' expectations regarding non-medical aspects of care (Comes, Trindade, Shimizu, Hamann, Bargioni & Santos, 2016). The responsiveness Service Quality refers to the willingness of the company to help its customers in providing them with a good, quality and fast service (Obiero, 2018).

While Vaitsman and Andrade operationalized the concept of responsiveness with the following variables: quality of installations; access to patient social support networks; freedom to choose the health service; and respect for people, compromising respect for dignity, confidentiality of user health information, autonomy to participate in health related decisions and client guidance, including prompt care, with the possibility to choose according to needs (Comes, Trindade, Shimizu, Hamann, Bargioni & Santos, 2016). Banking sector looks at the responsiveness as the readiness of banking service providers at a specific headquarters to provide punctual services as perceived by specific bank customers (Al-Azzam, 2015). This shows diversification of responsiveness term based on the industry. However, this research looks at responsiveness in summary as, the willingness or readiness of employees to provide service, timeliness of service such as mailing a transaction slip immediately, calling the customer back quickly, giving prompt service (Yarimoglu, 2014).

### 2.5.4 Assurance of Service Quality on Customer Satisfaction

According to Saghier (2015), assurance is the extent to which service providers are able to inspire trust and confidence by being knowledgeable and courteous when performing a service. Assurance is also described as hotel's ability to build trust in customers about hotel services, hotel staff's knowledge and skills (Minh *et al*., 2015). Further, in hospitality industry, assurance entails instilling confidence in guests, convenience of service availability, and occupational knowledge of employees and lastly, provision of a safe and secure place for guests (Tuan & Linh, 2012).

The dimensions used to measure assurance are comfortable, polite, confident, no complaint and believe (Ismail & Yunan, 2016). It's because of such that guarantee is also used as a term that defines assurances; guarantee - an expressed or implied assurance of the quality of goods offered for sale or the length of satisfactory use to be

expected from a product (Naung *et al.,* 2016). Though there are different terms and definition, assurances is majorly defined as knowledge and courtesy of the employees and their ability to use such knowledge to convey trust and confidence to its customer (Tuan & Linh, 2012). Customers compare their expectations towards services with actual performance outcome. However, in some industries such as hospitality and tourism industry, customers will always expect a high quality service before experiencing them hence the personnel plays an important role that affects customers perception in service settings (Suki, 2013).

Although the importance of service quality and service quality measurement has been recognized, there has been limited research that has addressed the structure and antecedents of the concept for the hotel industry. The clarification of the dimensions is important for managers in the hotel industry as it identifies the bundles of service attributes consumers find important (Al Khattab & Aldehayyat, 2011). The importance of assurance as one of the five dimension of SERVQUAL model on customer satisfaction is also outlined as follow from previous researches.

### 2.5.5 Empathy of Service Quality on Customer Satisfaction

Parasuraman *et al*., (1985) defined empathy as a caring and individual attention that the firm provides to its clients. It contains giving individual attention to employees who understand the needs of their customers and customer facilities during business hours. Empathy is the provision of caring, individualized attention to customers which entails informing the customers in a language they can understand, understanding customer's specific needs, and providing individualized attention (Omido, 2009). Also, Johnston (1997) defined empathy as the ability to make customers feel welcome, especially by staff contacts (Al-Azzam, 2015). These definitions have similarity on 'caring' and individualized attention the firm provides its customers'

(Tuan & Linh, 2012). Further this is application where the employees search for solution (Oanda, 2015).

Empathy is related to how the service providers are keen to care for customers' personal attention and the level of understanding they demonstrate relative to customer needs (Rauch *et al.,* 2015). Empathy (providing individualized attention to the customers): It means the employees' ability to understand customers' problems, acting towards their benefit and treating them as individuals. This informs the need for individualized cares and attentions that the firm provides to its customers (Tuan & Linh, 2012). Empathy includes also that the opening times of the company are suitable based on the client needs (Al-Ababneh, 2016).

When it comes to empathy and tangible tools, the empathy dimension represents the provision of caring and individualized attention to customers including access or approachability and ease of contact, effective communication, and understanding the customers (Parasuraman, *et al*., 1991) as cited by (Srinivasm & Padma, 2013). This informs the importance of empathy as studies have proven in hospitality and hotel industry, consumers generally tend to attach more importance to intangible attributes. The guests primarily find it important to feel confidence in the hotel's staff, and be sure that no aspect of the provided service will lead to a mistake or misunderstanding. Precision, accuracy, security, speed of service, staff's courtesy and personal attention are service quality elements important to hotel guests (Maric et al., 2016).

Though there are clear aspect that defines empathy informs the variable of interest when studying empathy, different variables have been used in different researches to inform empathy. According to (OluOjo 2008), the critical aspect of caring and customized responsiveness to customers contains communication, access and

understanding the customer. In hotel industry, this is attributed to availability of tools or apparatuses, the location is easily findable and served food must be packed (Shafiq, Shafique, Din, & Cheema, 2013).

Ananth et al. (2011) demonstrates empathy in their research of private sector banks by the following variables: individual attention, easy operation time, give personal attention, and understand the specific needs of customers. Obambo (2013) used the following variables to attribute empathy: giving customers individual attention, dealing in a caring fashion, having customers best interest at heart, convenient business/operating hours, understanding the needs of the customers (Obambo, 2013).

When it comes to quality of service, some researchers have argued the quality also informs empathy. Quality service based on empathy refers to how the company cares and gives individualized attention to their customers, to make the customers feeling extra valued and special. This affect customer satisfaction as studies have proved if the customers feel they get individualized and quality attention there is a very big chance that they will return to the company and do business there again (Delgado & Ballester, 2004) as cited by (Gunarathne, 2014). However, there is disagreement on how quality of service informs empathy. In a meta-analysis examining the relationship between different kinds of empathy and pro social behaviors such as helping, sharing, and giving to others, researchers found significant positive relationships between the two, regardless of how empathy was measured (Konrath & Grynberg, 2013).

Empathy in psychology is a powerful communication skill that is learnable and has tangible benefits for both clinician and patient. Appropriate use of empathy as a communication tool facilitates the clinical interview, increases the efficiency of

gathering information, and honors the patient (Ioannidou F, Konstantikaki, 2008). Similarly, this is applicable in hotel industry. Considering that empathizing makes people kinder and more cooperative, it is not surprising to find that empathy may have positive implications within close relationships (Konrath & Grynberg, 2013) while prosocial behavior acting generally to all. Empathy works well in professional settings that require expression of care such as teaching, medicine, and clinical psychology. Teachers, doctors, and therapists with high empathy may positively influence their students' educational outcomes, and patients' physical health and mental health (Konrath & Grynberg, 2013).

## 2.6 Service Quality and customer satisfaction

 The frequency and the variety of encounters between customers and services in the marketplace has increased exponentially as the time went by, and with it, its interest from scholars and managers during the last years, and they have being focusing on its various aspects regarding to the way a service is delivered and also on how it is perceived (Sivakumar, Mei and Beibei, 2014). Firms dedicated to services have put efforts to set standards for the diverse elements of the service that they deliver, while on the other hand, customers are creating expectations from the different aspects they perceive from these services. In this regard Parasuraman, Zeithaml and Berry (1988) have clearly expressed that a precondition for a firm to achieve success within the marketplace is by the delivering of superior service quality in comparison to its competitors.

Service quality has been defined and put to operation by many researchers under the terms of what consumers really value in an encounter with a service provider (Parasuraman, Zeithaml and Berry, 1988; Farrell, Souchon and Durden, 2001). According to Bogomolova

(2011), service quality is very important for the fact that its measurement is the basis of performance for service providers. Nowadays, service quality has gain such relevance among companies all around the world for the key reason that it is able to provide the opportunity to achieve competitive advantages and therefore bringing customer satisfaction. Ghylin et al (2008) also mark that those service companies who clearly understand a definition of service quality are capable of providing their service with a higher quality which is likely to bring as a result an increased level of customer satisfaction, and with it customer loyalty and the its success, and additionally Zeithaml, Berry and Parasuraman (1991) suggest that service quality by creating the retention of customers may also create an impact on the way customers behave and this can be both detectable and measurable.

For this investigation, the service quality definition considered is the one of Parasuraman, Zeithaml and Berry (1985), which is the difference between the expectations of the customers before receiving the service and their actual perception when the service is perceived. According to Meirovich and Little (2013) customer expectations has become an important factor of understanding in the marketing field for a long time, and they can be defined as the various standards against which customers measure the performance of the providers. Another meaning of customer expectation in service quality literature is regarded to the desires or wants of the customers towards a service provider (Parasuraman, Zeithaml and Berry, 1988). Regarding to this, Asutonberg, McCleary and Swan (1996) strongly state that the expectation of the customers can be used in order to evaluate service quality and this is because when performance surpasses their expectations quality is high, and the exact opposite takes place when the performance does not meet the customer's expectations.

On the other hand, and regarding to the customers perceptions of a service, it can be described as the perception of an individual concerning to the outcome and the process of such service; being the outcome the quality or the value added, while the process refers to the role play by the consumer (Parasuraman, Zeithaml and Berry, 1988). Also, the perceive quality has been defined as a kind of attitude that might be similar but is not the same that the feeling of satisfaction, and it comes from the consumption of both expectations and perceptions of the performance, which means that better way to know how customers perceive service quality of the catering provider in their workplace is throughout better understanding of the attitudes of the consumers. In the situation of the catering provider, this investigation is looking forward not only to study and learn about the variety of elements related to the perception of service quality by customers, but also how this service quality can be measured and therefore being able of provide a way to improve it (If it is needed to) with the purpose of bring customer satisfaction.

According to Scotti, Harmon and Behson (2009), the pursuit of quality by consumers in the service sector has become imperative established, and for those customers who are continuously seeking for high levels of quality both in services and products have become way more challenging and also fewer tolerant to "failures" in quality perception. These three authors also make mention that the service provider's employees are likely to influence on the service quality perceived by the customers, which supposes that service quality is highly judged on how it is finally delivered at the moment of the service  process and its last result on the perception of the customers.

Customer satisfaction has been recognized as an important topic within the marketing field due to its importance as a set goal for all organizations and the realizations of its

vital role has originated innumerable amount of research about for years (Yi, 1990). Customer satisfaction has been defined by Cronin and Taylor (1992) as the positive or negative experience of a customer regarding to an encounter with a particular service, whilst Negi (2009) states that customer satisfaction can be described as a feeling that appears when customers compare their expectations to what they finally received, and Yi (1990) considers it simply as an attitude. All these assumptions lead to a not general definition of customer satisfaction but to a fact that is purely on the customer's experience towards a product or a service.

 Researchers have found that a positive impact on customer satisfaction within the service sector can strongly influence in the creation of customer loyalty towards the service, which is also at the same time highly connected with the success of the company or conversely its failure (Bion, 1993), and also it can be used as a good indicator to predict the future profits of any organization (Reichheld and Sasser, 1990). Therefore, it is not surprising that a "must do" strategy for the firms provider of services is to understand and to provide high levels of service quality with the main purpose to have a better opportunity to achieve a top position in the marketplace and in a more effective way, and this is due to the presence of a loyal customer for the main fact of being satisfied, which has the characteristics of a better level of purchase and a higher willingness to pay and repurchase, influencing positively by word of mouth recommending the company and hence determining its success (Cronin & Taylor, 1992). In this regard, Wicks and Roethlin (2009) point out that organizations that are looking forward to improve their processes to satisfy their customers in the best possible way are likely to show high levels of customer retention (customer loyalty) and therefore higher levels of profitability. For this reasons, the knowledge of

the comparison between customer expectations and perception would be helpful to keep customers with high levels of satisfaction.

For this study, the passengers of Mombasa-Nairobi standard gauge railway are the chosen ones to evaluate the service quality of the catering provider in the passenger train, bearing in mind a variety of important quality attributes in the service offered, which are likely to indicate the customers' level of satisfaction (or dissatisfaction) and hence an opportunity for the catering service provider to take any improvement if needed.

## 2.7 Theoretical Framework

## 2.7.1 Disconfirmation theory

Disconfirmation theory indicates that customers compare a new service experience with a standard they have developed. Their belief about the service is determined by how well it measures up to this standard. The theory presumes that customers make purchases based on their expectations, attitudes, and intentions (Oliver 1980). Later, during or after consumption, a perception of performance occurs as customers evaluate the experience. The process is completed when customers compare the actual service performance with their pre-experience standard (Beardon & Teel 1993, Cardozo 1965, Day 1977, Oliver 1980) or expectation. The result is confirmation, satisfaction, or dissatisfaction. There are four components to this paradigm – expectations, perceived performance, disconfirmation, satisfaction. The level of expectations represents pre-consumption expectation. Performance refers to the customer's perception of service. Disconfirmation results if there is a discrepancy between expectations and performance. Finally, satisfaction is determined by combining the satisfaction outcomes for the various attributes of the service. The first three components affect satisfaction but it is not determined whether or not these lead

to satisfaction or dissatisfaction. Neither is there consensus on how the variables interrelate.

## 2.7.2 SERVQUAL model

SERVQUAL model is one of the most used aspects of service providers in case of measuring the customer's satisfaction as the top priority paradigm (Karim, 2020). Organizations use this model for assessing the customer perceptions of service quality and their satisfaction level. It is the analytical techniques and priority matrix reporting where gaps in service/customer satisfaction exist and positioning in terms of meeting requirements, in which service indicators are tracked along with additional metrics such as loyalty and recommendation. The service provider's main task is to maintain the service quality of customers and it is the crucial factor for creating customer loyalty, customer relationship, profitability, motivation, and retention and cost reduction. The five main dimensions of service quality model are Tangibility, Reliability, Responsiveness, Assurance and Empathy which are adapted from (Cheng and Tang, 2000). Aspects of SERVQUAL in a catering setup are as below.

**2.8 Attributes for catering service quality measurement**

| Dimension | Attributes |
|---|---|
| **Tangibility** | **Assurance** |
| − Visually attractive parking areas and building | − Employee can answer questions completely. |
| − Visually attractive dining area. | − Comfortable and confident feeling. |
| − Clean, neat and appropriately dressed staff. | − Staff provides information about menu items, ingredients and preparation. |
| − Décor typical of its image and price range. | |
| − Easily readable menu. | − Feeling safe |
| − Visually attractive menu. | − Anticipation of customer individual attention. |
| − Comfortable seats in the dining room. | |
| − Clean dining area. | − Restaurant supports the employees. |
| − Comfortable seats in the dining. | |
| **Responsiveness** | **Reliability** |
| − Maintaining speed and quality of service during busy times. | − Service in the promised time. |
| | − Quick correction of wrong service. |
| − Provision of prompt service | − Dependable and consistent restaurant. |
| − Extra effort for handling special requests. | |
| | − Accurate bill |
| | − Error-free served orders. |

**Empathy**
− Employee provides individual attention.
− Special feeling and customers best interests at heart.
− Anticipation of customer individual needs and wants.
− Sympathetic and reassuring employees.

**2.9 Conceptual Framework**

This study will adopt a conceptual framework where service quality dimensions will be itemized as independent variables and passenger satisfaction is itemized as dependent variable.

**Independent Variable**                    **Dependent Variable**
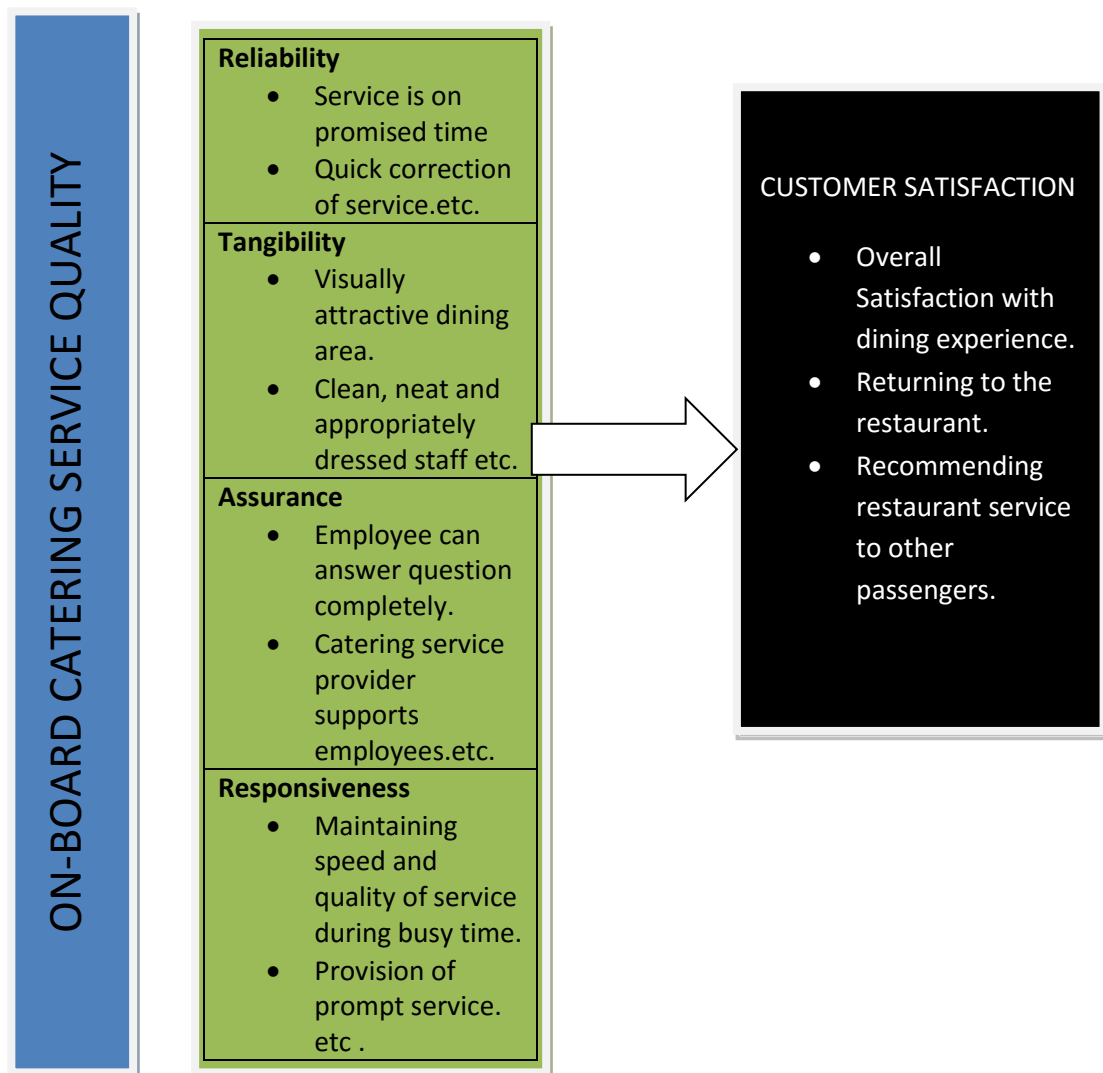


**Figure 2.1: Conceptual Framework**

Source: Adopted and modified from Parasuraman et al., (1985); Cheng and Tang, (2000); Malik and Ghaffor (2012)

## CHAPTER THREE

## RESEARCH METHODOLOGY

**3.0 Overview**

This chapter discusses the study area and research methodology that was used in carrying out this study. Research methods will be discussed and the test results presented.

**3.1 Study Area**

The Madaraka Express Passenger Service is designed to transport customers comfortably between Mombasa County and Suswa station in Narok County. The service operates between the below routes: Mombasa Terminus to Nairobi Terminus, our study area, which operates daily as follows; Inter-county (8:00 am); Afternoon Express train (15:00 pm); and the Night Express train (22:00 pm). The train traveses Kwale, Kilifi, Taita Taveta, Makueni, Machakos and Kajiado counties. The Inter-county train stops at Mariakani, Miasenyi Voi, Mtito Andei, Kibwezi, Emali, Athi River, Nairobi Terminus, Ongata Rongai, Ngong and Maai Mahiu stations. The Suswa Leisure train operates between Nairobi Terminus and Suswa station every Friday, Saturday and Sunday. It traverses Nairobi County, Ongata Rongai and Ngong towns in Kajiado County, Nachu in Kiambu county, Maai Mahiu in Nakuru county and Suswa town in Narok County. The train departs Nairobi Terminus at 0850 hrs to arrive in Suswa at 1110 hrs. The return trip is same day with the train departing at 1550 to arrive in Nairobi at 1810 hrs (Kenya Railways, n.d)

NAS Airport services provide catering services for Mombasa-Nairobi Madaraka express passenger service. NAS Airport services is the local subsidiary of Servair, the third-largest airline catering and logistics business globally. The company is also the

official caterer of Kenya Airways and holds a franchise license for US-based fast food chain Burger King (Njanja, 2018)

## 3.2 Research Design

Research design is the arrangement of conditions for collection and analysis of data in a manner that aims to combine relevance to the research purpose with economy as procedure (Kothari, 2008). According to Mugenda & Mugenda (2013), research design is the plan, structure and strategy of investigation conceived so as to obtain answers to research questions. Based on the research problem and the research questions formulated for the study, the research design to be used are descriptive survey design and explanatory research design. Descriptive survey design sought to collect data without manipulating the research variables or the respondents in an attempt to uncover the existing status of on-board rail catering service quality on Mombasa-Nairobi Madaraka express passenger service and to find out its effects on the passenger satisfaction. The respondents were also required to provide information on their perceptions of on-board rail catering service quality in Madaraka express, Kenya. The choice of descriptive survey research design enabled the researcher find the real situation of the effect of catering service quality on passenger satisfaction as the design does not allow manipulation of the study variables. Descriptive research design takes raw data and summarizes it in a useable form. Questionnaires were utilized in data collection.

Moreover, the researcher also used explanatory research design. This enabled the establishment of the relationship between on-board rail catering service quality and passenger satisfaction. The design also allowed in depth acquisition of knowledge and insight into the study population and the variables under study. Additionally, the

design allowed the use of inferential statistics to establish the significant relationships between the dependent and the independent variables (Dowdy & Chilko, 2011).

## 3.3 Target Population

According to Mugenda and Mugenda (2013), target population is a population to which a researcher would like to generalize the results of a study. The main target unit for analysis of the study was 603 customers, which is 50%    sitting capacity of a passenger train operating in Mombasa- Nairobi Madaraka express passenger service. According to Otieno (2019) about 50% of passengers consume a meal in a train, reason being Madaraka express allows customers to carry food into the train. A single train has a total of 11 coaches, 9 economy coaches with a sitting capacity of 118 and 2 first class coaches with a sitting capacity of 72 passengers.

## 3.4 Sampling Design

According to Mugenda and Mugenda (2013), the term sample design refers to the procedures or processes used to obtain the sample size for the study. The sample size on the other hand, is the number of cases involved in the study from which the researcher collects data.

## 3.4.1 Sample size

The sample size was statistically obtained by calculating the sample size from a purposively selected Passenger trains in Mombasa-Nairobi Madaraka Express passenger service. A sample size of 235 respondent was statistically obtained, by calculating the sample size for each stratum while adjusting to round off decimals to one person. Mugenda and Mugenda (2003) formula for calculating the sample size was applied.

$$Nf = \frac{n}{1 + n)/N}$$

Where:

Nf = the desired sample size (when the population is less than 10,000).

n=the desired sample size (when the population is more than 10,000).

N=the estimate of the population size.

Therefore, if the desired sample size is 384 when the population is less than 10,000, on a precision of 5% and a confidence level of 95% (Mugenda and Mugenda, 1999), the sample size for this study was attained a follows;

$$Nf = \text{ less than } 10{,}000 = \frac{384}{1 + 384)/603}$$

$$=235$$

The sample of 235 was divided proportionally among the coaches according to target population, first class having 2 coaches of and economy class 9 coaches. This gave a sample of 14 and 23 respondents per coach in first class and economy class respectively.

**Table 3.1 Sample size determination/distribution**

| Coach | Number of Coaches | Target Population | Percentage | Sample size | Each Coach |
|---|---|---|---|---|---|
| First Class | 2 | 72 | 11.94 | 28 | 14 |
| Economy | 9 | 531 | 88.06 | 207 | 23 |
| **TOTAL** | | **603** | **100.00** | **235** | |

**3.4.2 Sampling Procedure**

Sampling procedure is the process of deriving a sample from a given population according to certain rules. It is normally done with the keen understanding of the characteristics of a population including size, distribution and other features that distinguish the elements in the population to ensure all aspects of a population are captured in the selected sample.

Purposive sampling was used to select passenger trains with relevant information for the study. The target population was first divided into divided into strata's of first class and economy class passengers. Simple random sampling was used to select the required cases so as to raise the sample size of 235 cases.

**3.5 Data Collection**

This subsection discusses the data types and sources to be used in the study, the data collection instruments and validity of the instruments.

**3.5.1 Data types and sources**

**3.5.1.1 Primary data**

This is raw data that was collected from the field, using questionnaires. These data was collected from train passengers of selected trains in Mombasa-Nairobi Madaraka express service.

**3.5.1.2 Secondary data**

A major advantage of using secondary data is that it is more economical in terms of data collection compared to primary data. This data  focused on what other researchers and writers have written concerning catering service quality and customer satisfaction in organizations and was collected from both published and unpublished materials such as books, journals, research papers and internet.

### 3.5.2 Pilot Study

A pilot study is a small-scale preliminary study conducted to test the feasibility, time, cost, risk, and adverse events involved in a research project (Van Teijlingen, & Hundley (2001)..It allows researchers to test the research design, data collection methods, and measurement tools. This helps identify potential logistical issues before the full-scale study. Researchers can identify flaws in the study's methodology, such as ambiguous survey questions or inefficient sampling methods, allowing for adjustments before the main study.

The pilot study was conducted in Mombasa-Nairobi Madaraka Express passenger service in January, 2024 to refine the questionnaire, identify loopholes in the questionnaire and anticipate any logistical problems during the actual survey. This was done by administering the questionnaires to 12 customers (5% of the sample size of 235). In social science research, the recommended sample size for a pilot study often ranges from 10 to 30 participants, with some guidelines suggesting up to 50 participants (Bujang, & Adnan, 2016). This range can help researchers identify potential issues in study design and data collection methods without requiring the resources needed for a full-scale study. While smaller sample sizes can provide useful insights, a well-considered approach to sample selection is crucial for validating data collection methods (Leon, Davis, & Kraemer, (2011). From the pilot study, minimal changes were made to the questionnaire.

### 3.5.3 Validity and Reliability of Research instruments.

Validity refers to how accurately a tool measures what it is intended to measure. If a tool has high validity, which means it produces results that correspond to real properties, characteristics, and variations in the physical or social world (Kothari, 2004). A pilot test was conducted to test the content validity of the data collection

instruments. Mugenda and Mugenda (2013) allude that pilot testing of questionnaires assists in identifying deviance, finding out how long the questionnaire takes to complete, clarity of the instruction, questions that are unclear and attractive; suitable data analysis methods for the study and other comments. On this basis, construct validity was achieved through comprehensively reviewing literature on customer satisfaction and catering service quality to ensure that the questionnaire has items relevant to this concept. Expert judgment was used to determine construct validity.

Reliability refers to how consistently a method measures something. If the same result can be consistently achieved by using the same methods under the same circumstances, the measurement is considered reliable, this was measured using the Cronbach's Alpha at a level of 0.7%. Cronbach's alpha generally increases as the inter-correlations among test items increase, and is thus known as an internal consistency estimate of reliability of test scores. Because inter correlations among test items are maximized when all items measure the same construct, that is, the higher the coefficients, the better the measuring instrument (Cohen & Morrison *et al.,* 2017).

### 3.6 Data Analysis

After data collection, the data was cleaned, coded and entered into the computer and analyzed with the aid of Statistical Package for Social Sciences (SPSS) version 25.0. Missing values were checked. Descriptive and inferential statistics was performed. Descriptive statistics makes use of measures of central tendency such as means, median and mode and measures of dispersion such as range deviation and variance to describe a group of subjects.

The assumptions of multiple regression identified as of primary concern in the research included; normality, linearity, homoscedasticity, multicollinearity and

autocorrelation. Normality was checked using Q-Q plots, linearity was established using scatter plots; homoscedasticity levene statistics; multicollinearity using Variance Inflation Factor (VIF) and autocorrelation using Durbin–Watson (DW).

Multiple regressions was conducted to check multiple independent variables (on-board rail catering service quality: reliability, tangibility, assurance and responsiveness) against the dependent variable (customer satisfaction). A multiple regression was used to explain the relationship between on-board rail catering service quality and customer satisfaction determinants. The regression model was as follows:

$Yi = \beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \beta_4X_4 + \mu$

Where, $Yi$ = Customer Satisfaction

$X_1$ = Reliability

$X_2$ = Tangibility

$X_3$ = Assurance

$X_4$ = Responsiveness

$\beta_0$ = Constant term

$\beta_1, \beta_2, \beta_3, \beta_4$ = Regression coefficients

$\mu$ = Error term

## 3.7 Ethical Issues

The study was undertaken with special considerations of all ethical concerns. The major ethical issues addressed by the study included informed consent, privacy and confidentiality, anonymity and researchers 'responsibility (Mugenda and Mugenda, 2013). Informed consent was upheld by providing the respondents with adequate information about the study. This included the purpose of the study, the procedures to be followed; the benefits of the study to them and the industry as a whole and the

extent of privacy and confidentiality to be maintained. This information was the basis upon which the selected respondents made an informed decision on whether or not to participate in the study. The study respected privacy of the respondents and maintain confidentiality of all data collected to the extent that was agreed between the two parties. All collected data was used for the purpose for which the study was undertaken and was not be divulged to unauthorized persons.

# CHAPTER FOUR

# DATA ANALYSIS, PRESENTATION AND INTERPRETATION

## 4.0 Introduction

This chapter presents an analysis of the data collected from the field on on-board rail catering service quality effects on customer satisfaction in Madaraka Express, Kenya. The research aimed at fulfilling the following objectives: To examine the effect of on-board rail catering service reliability on customer satisfactions in Madaraka express, to determine the effect of on-board rail catering service tangibility on customer satisfaction in Madaraka express passenger service, to establish the effect of on-board rail catering service assurance on customer satisfactions in Madaraka express and to find out the effect of on-board rail catering service responsiveness on customer satisfaction in Madaraka Express.

It is subdivided into two sections; the first section presents results of descriptive analysis and the second section presents results on inferential statistics. Descriptive statistics were used to present distribution of scores using indices while inferential statistics were used to make inferences about the population based on the results obtained from the sample. The results and discussions are based on the questionnaire responses of Passengers onboard Madaraka Express, Kenya travelling between Mombasa and Nairobi.

## 4.1 Response Rate

The respondents were chosen from customer who had used catering service in their travel. 235 questionnaires were issued; only 155 that were appropriately filled were analyzed. The response rate yielded was 66 % which is good. Basing on recommendations that a response rate of approximately 60% and above is ideal

(Draugalis, Coons & Plaza, 2008), this response rate was found ideal for purposes of the study.

## 4.2 Data Screening

This sub-section will present information on missing values and univariate statistics.

### 4.2.1 Missing Values

Baraldi and Enders (2010) observe that fatigue and questions on sensitive issues and social phenomena are some of the reasons that lead to missing data. From figure 4.1, there were no missing values hence complete data was at 100%
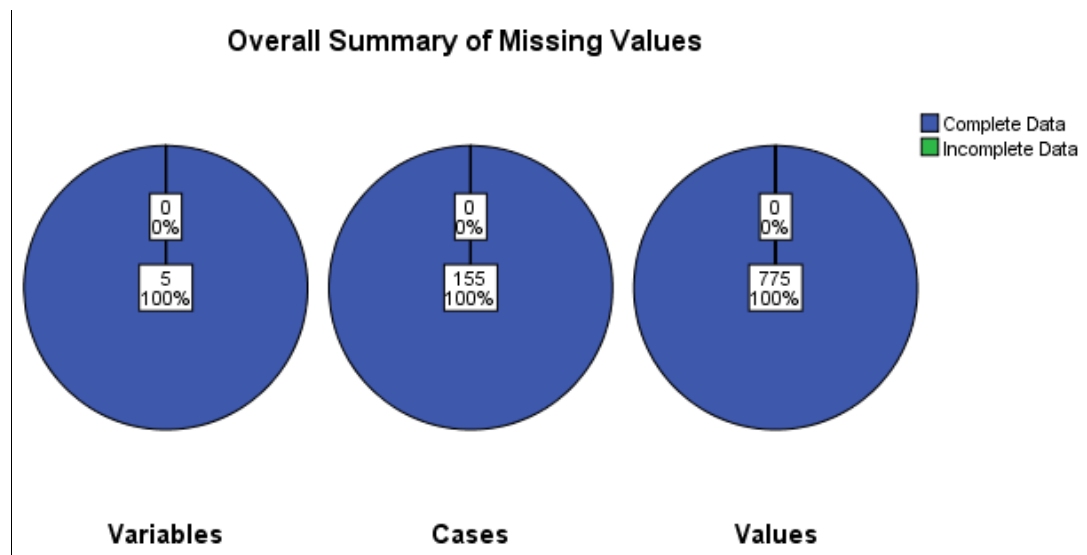


**Figure 4.1: Missing Values**

Source: Data Analysis (2024)

### 4.2.2 Univariate Missing Values

Table 4.1 revealed that there are no cases outside the range for reliability and responsiveness, one case outside the range for tangibility and two cases outside the range for Satisfaction. For reliability and responsiveness, all 155 cases fall within the expected range (Q1 - 1.5IQR, Q3 + 1.5IQR). This suggests that these two variables

have relatively little to no outliers, indicating that the data is likely to be normally distributed or at least symmetrically distributed. This implies that the data is consistent and reliable. For tangibility, only 1 case falls outside the expected range. This could indicate that there might be some unusual or anomalous data point in this variable. It's possible that this case is an error or an outlier that doesn't accurately represent the typical values for tangibility. For satisfaction, 2 cases fall outside the expected range. This could indicate that there are some unusual or extreme values in this variable. It's possible that these cases are genuine outliers, or they could be errors or anomalies in the data collection process but are not representative of a larger pattern.

**Table 4.1: Univariate Statistics**

**Univariate Statistics**

| | N | Mean | Std. Deviation | Missing | | No. of Extremes[a] | |
|---|---|---|---|---|---|---|---|
| | | | | Count | Percent | Low | High |
| Reliability | 155 | 4.0039 | .51141 | 0 | .0 | 4 | 0 |
| Responsiveness | 155 | 3.8085 | .67215 | 0 | .0 | 0 | 0 |
| Tangiblity | 155 | 3.5690 | .52139 | 0 | .0 | 0 | 3 |
| Assurance | 155 | 3.6923 | .58016 | 0 | .0 | 0 | 0 |
| Satisfaction | 155 | 3.8839 | .69977 | 0 | .0 | 2 | 0 |

a. Number of cases outside the range (Q1 - 1.5*IQR, Q3 + 1.5*IQR).

## 4.3 Reliability Tests

Cronbach's alpha was used to test the reliability of the data collected. The highest value stood at 0.830 while the lowest value stood at 0.705. These results showed that the indicators used to measure the variables were reliable in explaining each of the variables under study because they were all above the 0.7 threshold. The independent variables for the study were on-board rail catering reliability, on-board rail catering

responsiveness, on-board rail catering tangibility and on-board rail catering assurance. On-board rail catering reliability which was denoted as X1 had five indicators with a Cronbach's Alpha of 0.796. On-board rail catering responsiveness denoted as X2 with five indicators had a Cronbach's Alpha of 0.739. Outcomes of on-board rail catering reliability conflict denoted as X3 with six indicators had a Cronbach's Alpha of 0.705.The dependent variable customer satisfaction (Y) with four indicators had a Cronbach's Alpha of 0.783. A summary of the results are illustrated in table 4.2 below.

**Table 4.2: Reliability Results**

| Reliability statistics | N of items | Cronbach's Alpha |
|---|---|---|
| Reliability ($X_1$) | 5 | 0.796 |
| Responsiveness($X_2$) | 3 | 0.739 |
| Tangibility ($X_3$) | 6 | 0.705 |
| Assurance ($X_4$) | 3 | 0.757 |
| Customer Satisfaction(Y) | 4 | 0.783 |
| All Variables (X1,X2,X3,X4,Y) | 21 | 0.830 |

**Source:** *Data Analysis*, (2024)

## 4.4 Descriptive Statistics

Descriptive statistics involves the elementary transformation of data in a way that describes the basic characteristics such as central tendency, distribution, and variability. They describe basic Characteristics and summarize the data in a straightforward and understandable manner. Descriptive statistics describe characteristics of a population or sample. Thus, calculating a mean and a standard deviation to "describe" or profile a sample is a commonly applied descriptive statistical approach. Means, medians, modes, variance, range, and standard deviation are widely applied descriptive statistics (Zikmund, Carr and Griffin, 2010).

**4.4.1 Demographic Information of the Respondents**

The demographic profile of the respondents was generated from the bio data collected through the questionnaires which specifically focused on their age, gender, academic qualification, reason for travel, frequency of travel and nationality. The results in table 4.3 indicate that 49.0% of the respondents were male while 51.0% were female.

Majority (67.1%) of the respondents were below 40 years while only 32.9% were above 40 years, which means that majority of travelers in Madaraka Express are young. Regarding the level of education, majority (52.3%) of the respondents had attained university level education, followed by college level education (34.8%), 11.0 % had secondary level education while only 1.9% had primary level education. This could mean that most of the travelers on Madaraka express are well educated.

**Table 4.3: Customers demographic information**

| | VARIABLE | PERCENT (%) |
|---|---|---|
| **Gender** | Male | 49.0 |
| | Female | 51.0 |
| | TOTAL | 100 |
| **Age** | 18-25 years | 14.8 |
| | 26 - 40 years | 52.3 |
| | Above 40 years | 32.9 |
| | TOTAL | 100 |
| **Academic qualification** | Primary | 1.9 |
| | Secondary | 11.0 |
| | College | 34.8 |
| | University | 52.3 |
| | TOTAL | 100 |
| **Reason for travel** | Business | 27.7 |
| | Leisure | 28.4 |
| | Work duties | 31.6 |
| | Others | 12.3 |
| | TOTAL | 100 |
| **Frequency of travel** | Weekly | 34.8 |
| | Monthly | 35.5 |
| | Yearly | 23.2 |
| | First Timer | 6.5 |
| | TOTAL | 100 |
| **Nationality** | Kenyan | 88.4 |
| | Others | 11.6 |
| | TOTAL | 100 |

Source: Data Analysis (2024)

With regard to the reason for travel, Majority travel for work duties (31.6%).28.4 % of the travelers are for Leisure possibly because Mombasa is one of the top tourist destination in Kenya.27.7% of the respondent travelled for business while 12.3% travelled for other reasons such as visiting friends and relatives or going to their homes.

On Frequency of travel, 35.5 % of the respondents travelled at least once per month, followed closely by 34.8 % who travelled weekly on average. This can be explained by majority of travelers travelling for business or work related reasons and therefore

have to travel frequently. Kenyans accounted for 88.4% of the respondent while other nationalities accounted for a substantial 11.6% of the travelers.

## 4.5 Descriptive Statistics of Variables

## 4.5.1 Reliability of on-board services

Majorities of the respondent (85.8%) were in agreement or strongly agreement that catering service was provided on promised time; only 2.6% of the respondents were in disagreement, a significant 11.6 % were neutral.

Regarding quick correction of service, 67.8% were in agreement or strong agreement while 5.2% of the respondents were in disagreement. In addition, 69.4% of the respondent agreed that the restaurant was dependable and consistent while 6.5% disagreed. In reference to whether the bills were accurate 80.6% indicated that they agreed with bills accuracy while 9.7% disagreed. 81.3% of the respondent agreed that their orders were served-error free while only 1.9% disagreed, 16.8% were neutral. Summary of the results are presented in table 4.4 below.

**Table 4.4 On-board rail catering service reliability**

| | Strongly disagree 5 | | Disagree 4 | | Neutral 3 | | Agree 2 | | Strongly Agree 1 | | STATISTICS | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Statements | F | % | f | % | f | % | f | % | f | % | M | SD |
| The service is provided in promised time. | 0 | 0 | 4 | 2.6 | 18 | 11.6 | 79 | 51 | 54 | 34.8 | 4.18 | 0.734 |
| There is quick correction of wrong service. | 0 | 0 | 8 | 5.2 | 42 | 27.1 | 70 | 45.2 | 35 | 22.6 | 3.85 | 0.734 |
| The restaurant dependable and consistent. | 0 | 0 | 10 | 6.5 | 39 | 25.2 | 81 | 52.3 | 25 | 16.1 | 3.78 | 0.792 |
| The bills are accurate. | 7 | 4.5 | 8 | 5.2 | 15 | 9.7 | 69 | 44.5 | 56 | 36.1 | 4.03 | 1.038 |
| The orders are served error-free. | 2 | 1.3 | 1 | 0.6 | 26 | 16.8 | 64 | 41.3 | 62 | 40 | 4.18 | 0.825 |

Source: Data Analysis (2024)

## 4.5.2 Responsiveness

From table 4.5, 25.8% of the respondent strongly agreed that staff maintain speed during busy time while 45.2 % agreed; a significant 20.6% remained neutral while only 8.4% disagreed with the statement. On provision of prompt service 20 % strongly agreed, 45.2 % agreed, 25.2 were neutral and 9.7% disagreed with the statement. Regarding putting in extra effort to handle special request, 24.5 % strongly agreed, 34.8% agreed, 35.5% were neutral while only 5.2% disagreed.

**Table 4.5 On-board rail catering service responsiveness**

| | Strongly disagree 5 | | Disagree 4 | | Neutral 3 | | Agree 2 | | Strongly Agree 1 | | STATISTICS | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Statements | F | % | f | % | f | % | f | % | f | % | M | SD |
| The staffs maintain speed during busy time | 0 | 0 | 13 | 8.4 | 32 | 20.6 | 70 | 45.2 | 40 | 25.8 | 3.88 | 0.890 |
| There is provision of prompt service | 0 | 0 | 15 | 9.7 | 39 | 25.2 | 70 | 45.2 | 31 | 20 | 3.75 | 0.885 |
| The staff put in extra effort to handle special request. | 0 | 0 | 8 | 5.2 | 55 | 35.5 | 54 | 34.8 | 38 | 24.5 | 3.79 | 0.875 |

Source: Data Analysis (2024)

### 4.5.3 Tangibility

The study sought to find out the respondents opinion on indicators measuring tangibility. Regarding visual attractiveness of the dining area 18.7% were in agreement with visual attractiveness of the dining area. , 13.5 % strongly agreed, a significant 43.2% were neutral on the statement while 5.8% strongly disagreed. Majority of the respondent (54.2%) agreed that staff were clean, neat and appropriately dressed, 41.3% strongly agreed while an insignificant 4.5% of respondent remained neutral regarding the statement. Additionally, on the menu readability, 28.4% strongly agreed, 50.3% agreed, 16.1% were neutral while an insignificant 5.2% of the respondent disagreed that the menu was easily readable. In reference to visual attractiveness of the menu, 24.5% strongly agreed, 50.3% agreed, 16.1% were neutral while 5.2 % of the respondent disagreed that the menu was visually attractive. Finally on the comfort ability of the seats in the dining area, a significant 45.2 % were neutral, 10.3% strongly agreed, 14.8% agreed, 21.3% disagreed and 8.4 % strongly disagreed that there were comfortable seats in the dining area. Results are presented in table 4.6 below.

**Table 4.6 On-board rail catering service tangibility**

| | MEASUREMENTS | | | | | | | | | | STATISTICS |
| | SD | | D | | N | | A | | SA | | |
| Statements | F | % | f | % | f | % | f | % | f | % | M | SD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Dining area/coach is visually attractive | 9 | 5.8 | 29 | 18.7 | 67 | 43.2 | 29 | 18.7 | 21 | 13.5 | 3.15 | 1.064 |
| The staffs are clean, neat and appropriately dressed. | 0 | 0 | 0 | 0 | 7 | 4.5 | 84 | 54.2 | 64 | 41.3 | 4.37 | 0.570 |
| The dining area is typical of image and price rage. | 14 | 9.0 | 17 | 11.0 | 70 | 45.2 | 37 | 23.9 | 17 | 11.0 | 3.17 | 1.062 |
| The Menu easily is readable. | 0 | 0 | 8 | 5.2 | 25 | 16.1 | 78 | 50.3 | 44 | 28.4 | 4.02 | 0.810 |
| The Menu is visually attractive. | 0 | 0 | 10 | 6.5 | 60 | 38.7 | 47 | 30.3 | 38 | 24.5 | 3.73 | 0.907 |
| There are comfortable seats in the dining area. | 13 | 8.4 | 33 | 21.3 | 70 | 45.2 | 23 | 14.8 | 16 | 10.3 | 2.97 | 1.057 |

**Source: Data Analysis (2024)**

### 4.5.4 Assurance

The study sought to find out the respondents opinion on indicators measuring assurance. As presented in table 4.7, on the ability of employees answering all questions in complete, 53.5% agreed, 27.7 % strongly agreed, 13.5% were neutral while 5.2% of the respondent disagreed that employees were able to answer all the questions completely. Regarding staff providing menu information about menu items ingredient and preparation method, 16.8 % strongly agreed, 25.2% agreed, 32.9 were neutral while 25.2% disagreed with the statement. In reference to safety in the dining area, 19.4 % strongly agree, 34.8% agree, 42.6 % were neutral while 3.2 % disagreed that their safety was assured in the dining area.

**Table 4.7: On-board rail catering service Assurance**

| | MEASUREMENTS | | | | | | | | | | STATISTICS | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | SD 5 | | D 4 | | N 3 | | A 2 | | SA 1 | | | |
| Statements | F | % | f | % | f | % | f | % | f | % | M | SD |
| The employee can answer questions completely | 0 | 0 | 8 | 5.2 | 21 | 13.5 | 83 | 53.5 | 43 | 27.7 | 4.04 | 0.789 |
| Staffs provide menu information about menu items, ingredients and preparation method. | 0 | 0 | 39 | 25.2 | 51 | 32.9 | 39 | 25.2 | 26 | 16.8 | 3.34 | 1.034 |
| There is assured safety in the dining area. | 0 | 0 | 5 | 3.2 | 66 | 42.6 | 54 | 34.8 | 30 | 19.4 | 3.70 | 0.815 |

Source: Data Analysis (2024)

### 4.5.5 Customer satisfaction

The results indicated in table 4.8 shows that 81.3 % of the customers were satisfied with their needs being fulfilled while an insignificant 5.8 % disagreed that their needs had been fulfilled, 12.9% of the respondents remained neutral. Regarding intention to return to the restaurant, 23.2 % strongly agreed, 41.3 % agreed, 26.5 % were neutral, 6.5% disagreed, while2.6% strongly disagreed that they intended to return to the restaurant in their future trips. In reference to recommending the restaurant to other passengers, 27.7% of the respondent strongly agreed they would recommend the

restaurant to other customers, 29.7% agreed, 35.5 % were neutral, 6.5 % disagreed while 0.6 % strongly disagreed. Finally, on enjoying the dining experience, 27.1% strongly agreed they enjoyed the dining experience, 48.4% agreed, 19.4 % were neutral, 3.9% disagreed while 1.3% strongly disagreed.

**Table 4.8: Customer Satisfaction**

| | MEASUREMENTS | | | | | | | | | | STATISTICS | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | SD | | D | | N | | A | | SA | | | |
| | 5 | | 4 | | 3 | | 2 | | 1 | | | |
| Statements | F | % | f | % | f | % | f | % | f | % | M | SD |
| I feel my need were fulfilled | 0 | 0 | 9 | 5.8 | 20 | 12.9 | 82 | 52.9 | 44 | 28.4 | 4.04 | 0.805 |
| Intend to return to the restaurant in future trips | 4 | 2.6 | 10 | 6.5 | 41 | 26.5 | 64 | 41.3 | 36 | 23.2 | 3.76 | 0.968 |
| I will recommend the restaurant to other passengers | 1 | 0.6 | 10 | 6.5 | 55 | 35.5 | 46 | 29.7 | 43 | 27.7 | 3.77 | 0.950 |
| I enjoyed the dining experience. | 2 | 1.3 | 6 | 3.9 | 30 | 19.4 | 75 | 48.4 | 42 | 27.1 | 3.96 | 0.860 |

Source: Data Analysis (2024)

## 4.6 Inferential Statistics

Inferential statistics deal with inferences about population based on results obtained from samples. This study employed multiple regression analysis to analyze the data obtained from sampled customers of Madaraka express, Kenya. Assumption of regression were first tested before the multiple linear regression.

### 4.6.1 Assumptions of Regression

Assumptions of regressions normality, linearity, homogeneity, multicollinearity and autocorrelation were examined. It is argued that regression analysis and more so multiple regressions works best on the basis of certain assumptions (Tabachnick & Fidell, 2013).

### 4.6.1.1 Normality Assumption

Normality in distributions of data across the constructs was examined using the quantile – quantile (Q-Q) plots. Cramer and Howitt (2004), identify normality of

distributions as a pre-requisite for conducting multivariate analysis of the type of regression analysis. Loy, Follett and Hofman (2015) observe that Q-Q plots have the ability to point out non-normal features of distributions, making them more suitable for testing normality. In the Q-Q plot, normality is achieved if plotted data representing a given variable follow a diagonal line usually produced by a normal distribution. The normal Q-Q plot shows that data dots were largely along the diagonal line, which signifies that data distribution for catering service quality (Figure 4.2) and customer satisfaction (Figure 4.3).
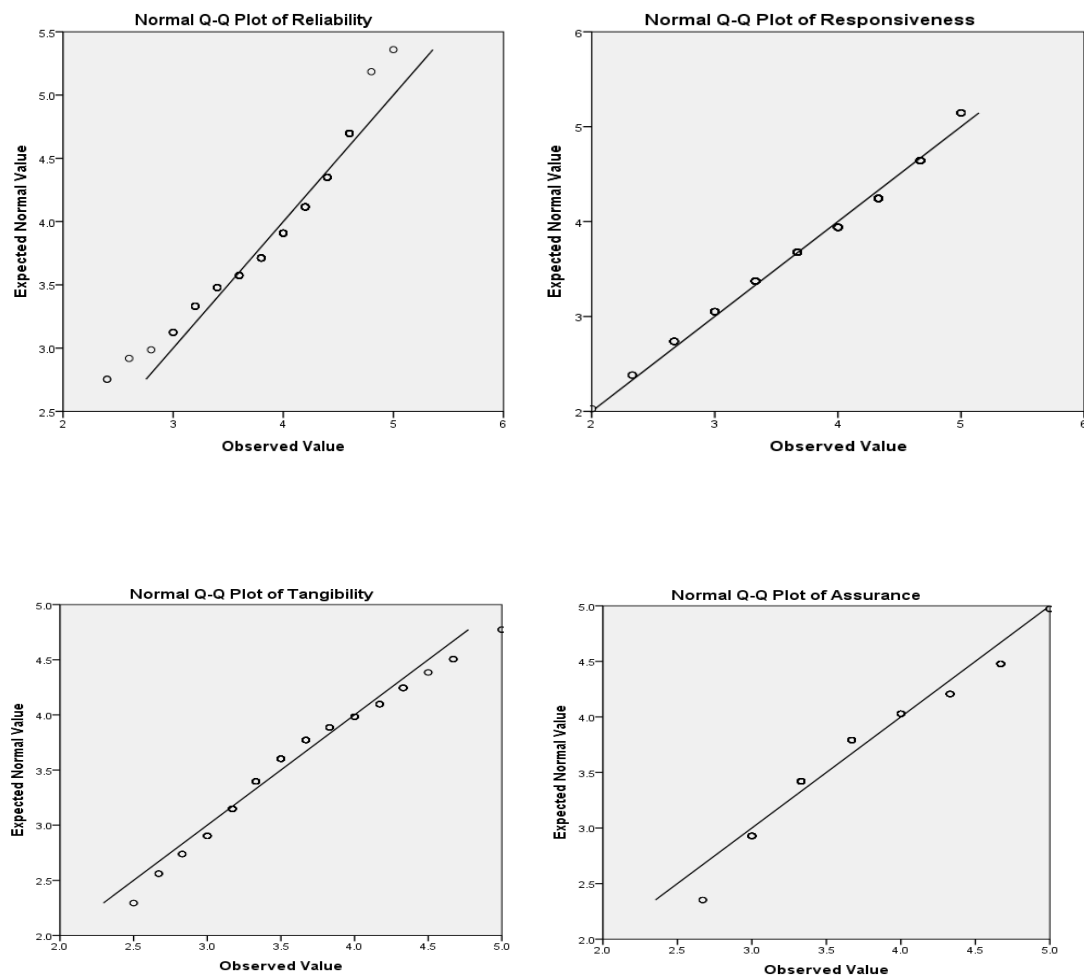


**Figure 4.2: Normality for Reliability, Responsiveness, Tangibility and Assurance**
Source: Data Analysis

**Figure 4.3: Normality for Customer Satisfaction**

Source: Data Analysis (2024)

**4.6.1.2 Linearity Assumption**

The Bivariate Scatter plots were used to examine the degree of linear relationship among the study variables. Tabachnick and Fidell (2013) recognize linearity as one of the assumptions upon which regression analysis is pegged. They contend that Bivariate Scatter plots capture linearity better than Pearson correlation which is only limited to capturing the linear component of the relationship. Linearity among variables was confirmed if variables produced elliptical or oval scatter plots. Figure 4.4 indicates that this was the case with the variables under study hence linearity assumption was not violated.
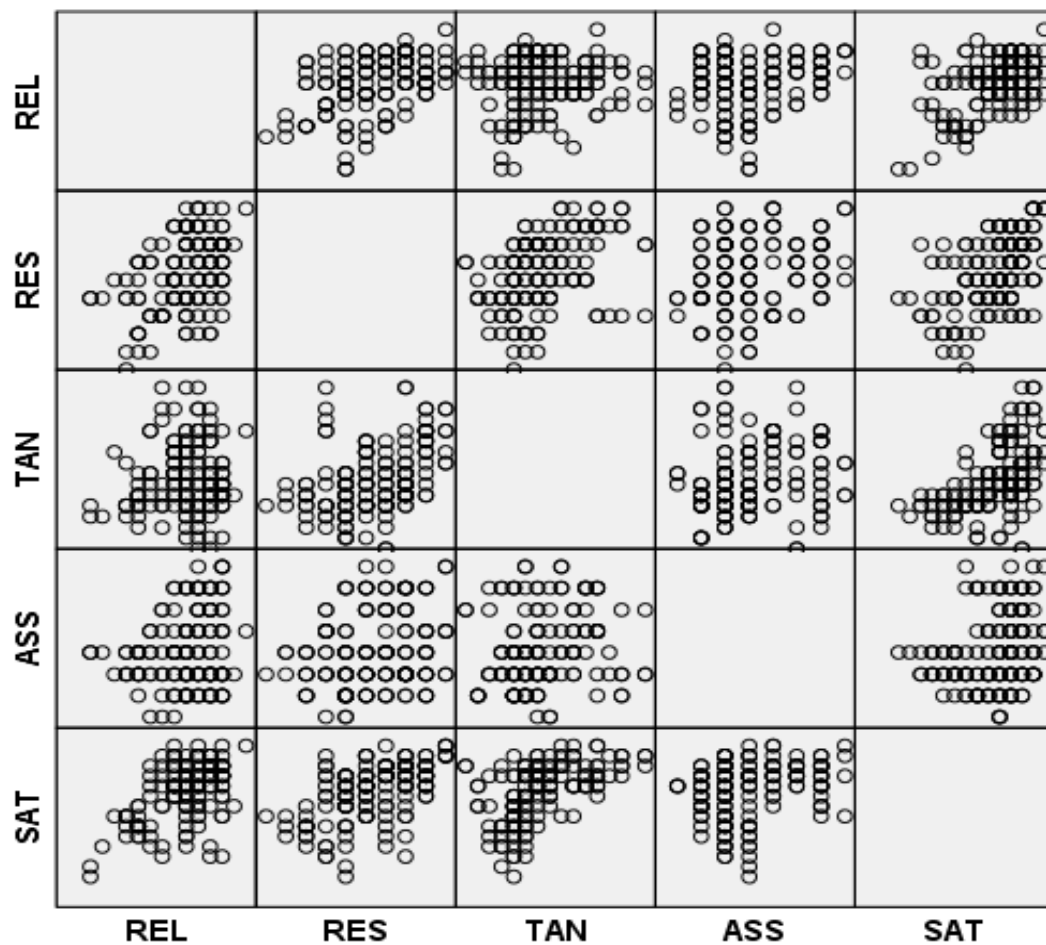
Key: **REL** Reliability, **RES** Responsiveness, **TAN** Tangibility, **ASS** Assurance, **SAT**

Satisfaction

**Figure 4.4: Linear relationship of variables**

Source: Data analysis, (2024)

### 4.6.1.3 Homogeneity of Variances Test

Homogeneity of variances was tested using Levene statistics of the five constructs. Tabachnick and Fidell (2013) observe that homogeneity of variances relates to the assumption that variability in the scores of one continuous variable is roughly the same at all values of another continuous variable. Using the 5% level of significant the study tested whether the scores in the catering service quality was the same across customer satisfaction. The null hypothesis for Levene's test is that the variances of

Satisfaction are equal across the groups defined by the independent variables (Reliability, Responsiveness, Tangibility, Assurance, and their interactions).

Since the p-value (0.586) is greater than the typical significance level of 0.05, we do not have sufficient evidence to reject the null hypothesis. Therefore, based on this test, the variances of Satisfaction do not significantly differ across the groups defined by the independent variables and their interactions as presented in Table 4.9. The homogeneity of variances assumption was not violated (p>0.05).

**Table 4.9: Levene's Test of Equality of Error Variance**

Dependent Variable:  Satisfaction

| F | df1 | df2 | Sig. |
|---|---|---|---|
| .958 | 140 | 14 | .586 |

Tests the null hypothesis that the error variance of the dependent variable is equal across groups.

a. Design: Intercept + Reliability + Responsiveness + Tangiblity + Assurance + Reliability * Responsiveness + Reliability * Tangiblity + Reliability * Assurance + Responsiveness * Tangiblity + Responsiveness * Assurance + Tangiblity * Assurance + Reliability * Responsiveness * Tangiblity + Reliability * Responsiveness * Assurance + Reliability * Tangiblity * Assurance + Responsiveness * Tangiblity * Assurance + Reliability * Responsiveness * Tangiblity * Assurance

Source: Data analysis, (2024)

### 4.6.1.4 Multicollinearity Test

Multicollinearity assumption was tested using the Variance Inflation Factor (VIF) (Tabachnick & Fidell, 2013). The rule of thumb for a VIF value should be less than ten and tolerance should be greater than 0.2 (Keith, 2006; Shieh, 2010). This was also supported by the VIF value, which fall below 5 and the least tolerance of 0.2, which is well below the cut-off of 10 and 0.2 respectively. Therefore, there is no violation of the multicollinearity assumption has not been violated.  Table 4.10results showed that all the VIF values were below the threshold indicating that multicollinearity was not an issue in the study.

**Table 4.10: Collinearity Statistics**

| Model | Collinearity Statistics | |
| | Tolerance | VIF |
|---|---|---|
| 1   (Constant) | | |
| Reliability | .779 | 1.284 |
| Responsiveness | .652 | 1.534 |
| Tangibility | .804 | 1.244 |
| Assurance | .931 | 1.704 |

### 4.6.1.5 Autocorrelation Test

Autocorrelation (independence of errors) was tested using the Durbin–Watson statistics. According to Hair *et al.,* (2013), regression analysis assumes that regression residuals are independent of one another. In retrospect, a Durbin–Watson statistic in the range $1.5 \leq d \leq 2.5$ suggests lack of autocorrelation (Verbeek, 2012). Durbin–Watson statistics for the three independent variables was 2.319 (table 4.9) hence within the range $1.5 \leq d \leq 2.5$, an indication of lack of autocorrelation.

### 4.6.2 Index Construction

Customer Satisfaction which was the dependent variable was denoted as Y. customer satisfaction was made up of four indicators namely; Needs were fulfilled, intentions to returning in the restaurant, recommending the restaurant and customers enjoying the experience. These four indicators were summed up and averaged to obtain customer satisfaction. The independent variables were on-board rail catering service reliability ($X_1$), on-board rail catering service responsiveness ($X_2$), on-board rail catering service tangibility ($X_3$) and on-board rail catering service assurance ($X_4$).

Each of these independent variables was made up of sub variables which were averaged to derive the main independent variables. The sub independent variables

averaged to derive reliability included: - the service is provided in promised time, there is quick correction of wrong service, the restaurant dependable and consistent, the bill is accurate and orders are served error-free.

Responsiveness was made up by the average of the following indicators: - The staffs maintain speed during busy time, there is provision of prompt service, and staff put in extra effort to handle special request.

The sub independent variables that constituted tangibility included: - The dining coach/area is visually attractive; staffs are clean, neat and appropriately dressed, the dining area is typical of its image and price range, the menu is easily readable, menu is visually attractive and there are comfortable seats in the dining area.

Assurance  were derived from the average of the following sub independent variables including; The employee can answer questions completely, the staff provides information about menu items, their ingredients and method of preparation and  there is assured safety  in the dining area.

### 4.6.3 Model Summary

**Table 4.11: Model Summary**

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate | Change Statistics | | | | | Durbin-Watson |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | R Square Change | F Change | df1 | df2 | Sig. F Change | |
| 1 | .747ᵃ | .558 | .547 | .47121 | .558 | 47.407 | 4 | 150 | .000 | 2.319 |

a. Predictors: (Constant), Assurance, Tangibility, Reliability, Responsiveness.
b. Dependent variable: Customers Satisfaction
**Source: Survey data, 2024**.

**4.6.3.1 R square (R$^2$)**

The coefficient of multiple determination (R$^2$) is by definition the proportion of total variation in the dependent variable (Y) explained by the multiple regression of say Y on $X_1$ and $X_2$ (Koutsoyiannis, 1993).

R$^2$ was found to be 0.547. From this figure, it can be deduced that the multiple regression of Y on $X_1$, $X_2$, $X_3$ and $X_4$ explains 54.7% of the variations in the dependent variable. R$^2$ of 54.7% implies the model is significant in studying customer satisfaction in Madaraka express, Kenya and that the model has captured the important variables. The rest of the variations (100 – 54.7) % can be attributed to factors included in the error term.

**4.6.3.2 Adjusted R$^2$**

The adjusted R$^2$ adjusts for the number of explanatory terms in a model. It increases only if the new term improves the model more than would be expected by chance. The adjusted $R^2$ can be negative, and will always be less than or equal to $R^2$.

The sample R$^2$ tends to optimistically estimate how well the model fits the population. The model usually does not fit the population as well as it fits the sample from which it is derived. Adjusted R$^2$ corrects R$^2$ to more closely reflect the goodness of fit of the model in the population. R$^2$ takes care of the fact that inclusion of more independent variables is likely to increase Regression Sum of Squares (RSS) for the same total sum of squares (TSS) and thus R$^2$ is made to increase. To take into account the reduction in degrees of freedom as additional explanatory variables are added, Adjusted R$^2$ is computed (Koutsoyiannis, 1993).

Adjusted R$^2$ = 0.547. From this figure, it can be inferred that the multiple regression of customer satisfaction on $X_1$, $X_2$, $X_3$ and $X_4$ explains 54.7 % of total variations in Y.

### 4.6.4 Multiple Regression Analysis

Multiple regression analysis is used for testing hypothesis about the relationship between a dependent variable (Y) and two or more independent variables ($X_s$) (Koutsoyiannis, 1993)

The OLS method was chosen because according to Koutsoyiannis, (1993), the parameter estimates obtained from ordinary least squares (OLS) are unbiased, exhibit least variance, are efficient, Best Linear Unbiased (BLU), least mean square error (MSE) and sufficient.

Secondly, the computational procedure of OLS is fairly simple as compared with other statistical techniques and the data requirements are not excessive. Thirdly, the least squares method has been used in a wide range of relationships with fairly satisfactory results. Fourthly, the mechanics of least squares are simple to understand.

A regression analysis of Y (Customer satisfaction) against $X_1$ (reliability), $X_2$ (Responsiveness), $X_3$ (Tangibility) and $X_4$ (Assurance) was done and the results are summarized in tables 4.11 and 4.12 below.

The regression function adopted for the purposes of this study was given as;

$$Y = \beta_o + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \varepsilon_i$$

Where Y – Customers satisfaction

$X_1$ – Reliability

$X_2$ – Responsiveness

$X_3$ – Tangibility

$X_4$ – Assurance

$\beta_o$ – Constant term

$\beta_{is}$– Regression Coefficients

$\varepsilon_i$ – Stochastic error term

The assumptions of this model includes;-

i. $\varepsilon_i$ is normally distributed with mean zero and variance $\delta^{2-}$, denoted as

$\varepsilon_i \sim N(0, \delta^2)$

(Assumption of homoscedacity or constant variance)

ii. $X_i$ is measured without error. (X is fixed)

iii. The error terms are uncorrelated such that cov $(\varepsilon_i, \varepsilon_i) = 0$ for $i \neq j$

(Koutsoyiannis, 1993).

**Table 4.12: Regression Coefficients**

| Model | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. | Correlations | | | Collinearity Statistics | |
|---|---|---|---|---|---|---|---|---|---|---|
| | B | Std. Error | Beta | | | Zero-order | Partial | Part | Tolerance | VIF |
| 1 (Constant) | -1.383 | .412 | | -3.36 | .001 | | | | | |
| Reliability | .551 | .084 | .403 | 6.547 | .001 | .540 | .471 | .355 | .779 | 1.284 |
| Responsiveness | .207 | .070 | .199 | 2.961 | .004 | .560 | .235 | .161 | .652 | 1.534 |
| Tangibility | .526 | .081 | .392 | 6.476 | .001 | .523 | .467 | .351 | .804 | 1.244 |
| Assurance | .107 | .068 | .089 | 1.579 | .117 | .275 | .128 | .086 | .931 | 1.704 |

a. Dependent Variable: Customer satisfaction
**Source: Data Analysis Survey Data, 2024**

The regression equation

$Y_i = \beta_o + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \varepsilon_i$

$Y_i = -1.383 + 0.551 X_1 + 0.207 X_2 + 0.526 X_3 + 0.107 X_4 + \varepsilon_i$

From the above model, it is clear that there exist a positive relationship between customer satisfaction (Y) and Reliability ($X_1$), Responsiveness ($X_2$) Tangibility ($X_3$) and Assurance ($X_4$).

$\hat{\beta}_1 = -0.551$ Was the sample parameter estimate of the population parameter $\beta_1$. It shows that when reliability goes up by one unit percentage, customer satisfaction increases by 55.1%. It follows then that a unit increase in reliability in terms of the service is provided in promised time, there is quick correction of wrong service, the restaurant dependable and consistent, the bill is accurate and orders are served error-free, would increase customer satisfaction of Madaraka Express by 55.1%.

$\hat{\beta}_2 = -0.207$ Was the sample parameter estimate of the population parameter $\beta_2$. It shows that when responsiveness goes up by one unit percentage, customer satisfaction increases by 20.7 %. It follows then that unit increases in responsiveness in terms of staffs maintain speed during busy time, there is provision of prompt service, and staff put in extra effort to handle special request would increase customer satisfaction of Madaraka Express by 20.7%.

The estimate $\hat{\beta}_3 = 0.526$ tells us that when tangibility goes up by a unit percentage, customer satisfaction of Madaraka Express town increases by 52.6%. Thus a one percent upsurge in the level tangibility in Madaraka Express which includes aspects such as dining coach/area is visually attractive; staffs are clean, neat and appropriately dressed, the dining area is typical of its image and price range, the menu is easily readable, menu is visually attractive and there are comfortable seats in the dining area. Will generate 52.6% increase in customer satisfaction in Madaraka Express, Kenya.

$\hat{\beta}_4 = 0.107$ was the sample parameter estimate of the true parameter $\beta_4$. From the figure, it can be deduced that a one percentage improvement in Assurance in Madaraka Express, Kenya would bring about a 10.7% improvement in customer

satisfaction of in Madaraka Express. Indeed, a unit improvement in assurance would encompass all the sub variables that made it up including employee can answer questions completely, the staff provides information about menu items, their ingredients and method of preparation and there is assured safety in the dining area. The deductions above about the signs of the parameter estimates are further supported by the results of the partial correlation coefficients.

### 4.6.5 Correlation

Partial correlation coefficient is by definition; "The measure of strength of the relationship between the criterion or dependent variable and a single predictor variable when the effects of the other predictor variables in the model are held constant" (Johnson and Bhattacharyya, 1973). Partial correlation coefficient is used to identify the independent variable with the greatest incremental predictive power beyond the predictor variables already in the regression model. The results of the partial correlation coefficient for this study are summarized as below;

$$rYX_1.X_2X_3X_4 = 0.471$$

$$rYX_2.X_1X_3X_4 = 0.235$$

$$rYX_3.X_1X_2X_4 = 0.467$$

$$rYX_4.X_1X_2X_3 = 0.128$$

The figures reveal that reliability is the most important determinant of customer satisfaction among the studied customers in Madaraka Express, Kenya. This is evident by the large partial correlation coefficient between the two variables; $rYX_1.X_2X_1X_4 = 0.471$ reliability is closely followed in importance by tangibility, in the determination of customer satisfaction in Madaraka express, Kenya, with partial

correlation coefficient of $rYX_3.X_1X_2X_4 = 0.467$. The third most important factor in the determination of customer satisfaction was responsiveness with a partial correlation coefficient of $rYX_2.X_1X_3X_4 = 0.235$. Of the four independent variables, Assurance ranked lowest in determination of customer satisfaction among the sampled customers of Madaraka express with a partial correlation coefficient of $rYX_4.X_1X_2X_3 = 0.128$. To improve customer satisfaction I Madaraka express, more emphasis should be put improving reliability, followed by tangibility, responsiveness and finally assurance.

## 4.6.6 Tests of Research Hypotheses

**H$_{01}$** on-board rail Catering service reliability has no effect on customer satisfaction in Madaraka express, Kenya.

The sample estimate ($\hat{\beta}_1 = 0.551$, p=0.001) was found to be statistically significant with t$_1$ = 6.547. Clearly therefore, reliability is a significant determinant of customer satisfaction in Madaraka express, Kenya. With this result, the hypothesis is rejected that on-board rail catering service reliability has no affect on customer satisfaction. This is because the calculated value of t$_1$ =6.547 was greater than the critical value of tα =-3.360. Moreover, p value was <0.05.

**H$_{02}$** on-board rail catering service responsiveness has no effect on customer satisfaction in Madaraka express, Kenya

$\hat{\beta}_2$ Which is the coefficient that relates responsiveness stood at ($\hat{\beta}_2 = 0.207$ p=0.004) Responsiveness ($X_2$) was found to be statistically significant with t$_2$= 2.961. With this result, the hypothesis is rejected that on-board rail catering service tangibility has no effect on affect customer satisfaction in Madaraka express, Kenya. This is because the

calculated value of $t_2 = 2.961$ was greater than the critical value of $t\alpha = -3.360$. Also`, p value was $<0.05$.

**H03** on-board rail catering service tangibility has no effect on customer satisfaction in Madaraka, express, Kenya

$\hat{\beta}_2$ Which is the coefficient that relates tangibility stood at ($\hat{\beta}_2 = 0.526$ p=0.001) Tangibility ($X_2$) was found to be statistically significant with $t_2 = 6.476$. With this result, the hypothesis is rejected that on-board rail catering service tangibility does not significantly affect customer satisfaction in Madaraka express, Kenya. This is because the calculated value of $t_2 = 6.476$ was greater than the critical value of $t\alpha = -3.360$. Also`, p value was $<0.05$.

*H04* on-board rail Catering service Assurance has no effect on customer satisfaction.

The sample estimate ($\hat{\beta}_1 = 0.107$, p=0.117) was found to be statistically insignificant with $t_4 = 1.579$. Clearly therefore, Assurance is a insignificant determinant of customer satisfaction in Madaraka express, Kenya. With this result, the hypothesis is accepted that on-board rail catering service Assurance has no effect on customer satisfaction. This is because the calculated value p value was $>0.05$.even if the t value was more than $t\alpha = -3.360$.

**Table 4.13: Summary of results of hypotheses testing**

| HYP | STATEMENT | RESULTS |
|-----|-----------|---------|
| *H01:* | On-board rail Catering service reliability has no effect on customer satisfaction in Madaraka Express, Kenya. | REJECTED |
| *H02:* | On-board rail catering service responsiveness has no effect on customer satisfaction in Madaraka Express, Kenya. | REJECTED |
| *H03:* | On-board rail Catering service tangibility has no effect on customer satisfaction in Madaraka Express, Kenya. | REJECTED |
| *H04:* | On-board rail Catering service assurance has no effect on customer satisfaction in Madaraka Express, Kenya. | ACCEPTED |

**Source:** *Regression analysis*, 2024

# CHAPTER FIVE

# DISCUSSION, CONCLUSION AND RECOMMENDATIONS

## 5.0 Overview

The chapter presents discussions, conclusions, recommendations and Areas for further research for the study.

## 5.1 Summary of Findings

A regression analysis of customer satisfaction against on-board rail catering service reliability, responsiveness, tangibility and assurance was done and the results indicated that there existed a positive relationship between customer satisfaction and all variables about the signs of the parameter estimates were further supported by the results of the partial correlation coefficients. Partial correlation coefficient was used to identify the independent variable with the greatest incremental predictive power beyond the predictor variables already in the regression model. The figures revealed that on-board rail catering service reliability was the most important determinant of customer satisfaction among the studied customers of Madaraka express, Kenya. On-board rail catering service reliability was closely followed in importance by on-board rail catering service tangibility, in the determination of customer satisfaction of Madaraka express, Kenya. The third most important factor in the determination of customer satisfaction was on-board rail catering service responsiveness and of the four independent variables, on-board rail catering service assurance ranked lowest in determination of customer satisfaction among the sampled customer satisfaction, assurance had a p value of .0.05 and therefore rejected as a hypothesis. It was therefore concluded that to improve customer satisfaction on on-board catering service in Madaraka express, Kenya, more emphasis should be put on reliability, followed by tangibility, and finally responsiveness.

**5.2 Discussions**

**5.2.1 On-board rail catering service reliability and customer satisfaction.**

The first objective was to determine the reliability of service quality on customer satisfaction in Madaraka express. The correlation output indicated Reliability was found to be positive and significant related to customer satisfaction which implies that the instrument used to collect data on service reliability was reliable.

Reliability depends on handling customer service issues, performs the services right the first time; offers services on time, and maintain a record of error-free. Reliability has been defined as the most significant factor in conventional service (Parasuraman, Zeithaml & Berry, 1988). Reliability also consists of the right order fulfillment; accurate records; accurate quote; right in the bill; Results are more accurate than commissions; keep the promise of service. Reliability has also been mentioned as the most significant factor in banking services (Yang et al., 2004). Another research in Egypt hospitality industry titled 'Managing Service Quality: Dimensions of service quality' outlined the importance of reliability in hospitality industry hence a significant relation between Reliability and Customer Satisfaction. The research illustrates the impact of the responsiveness on the Customer satisfaction, where an increase in reliability causes an increase in the customer satisfaction in hotel (Saghier, 2015). Therefore, from the studies from other researchers reliability has a significant relationship with customer satisfaction which is the same as the findings from this study.

Research findings indicating that services are reliable when delivered according to promised timelines carry several implications for businesses, consumers, and policymakers. These findings could enhance trust and reputation supported by

Zeithaml et al. (1996) who alluded that perceived reliability is a key determinant of customer satisfaction and loyalty. It also gives competitive advantage through consistent meeting or exceeding delivery timelines that gain a competitive edge in the market. This is supported by Jiang et al., (2019) that indicates timely service can attract more customers in competitive markets. Adhering to promised timelines requires efficient processes and resource management to be reliable which could align to the concept of "just-in-time" (JIT) delivery that highlights the importance of scheduling, reduced inventory costs and improved service delivery (Chopra & Meindl, 2016).

Reliable service is directly correlated with higher customer retention rates emphasized by Oliver (1999) that reliability creates a strong customer commitment, fostering long-term relationships. The study findings found reliability of services with reliable time delivery rates which according to Kotler & Keller, (2016) is a key factor in the perceived value of a product or service. The findings associated with the reliability of services based on timely delivery indicate significant implications for various stakeholders. Businesses that prioritize adherence to timelines can cultivate trust, enhance their market position, and ensure customer satisfaction. Consumers benefit from higher transparency and reliability, aiding their decision-making processes. The interconnected nature of these dynamics underscores the importance of delivering reliable services consistently in an increasingly competitive landscape.

The quick correction of wrong services has significant implications for customer satisfaction. Swiftly correcting service errors can enhance customer loyalty as supported by Tax et al. (1998) who demonstrated that effective service recovery after a failure leads to higher customer satisfaction than if the failure had never occurred,

thereby fostering loyalty. It also improved brand reputation by addressing mistakes quickly can improve the market. This is supported by Davidow (2003) who found that handling service failures effectively improve reputation and create positive word-of-mouth, outweighing the negative impact of the initial error. The fact that Madaraka is able to quickly correct wrong services can reduce customer churn. This is supported by shows Baker et al., (2012) who indicated that quick and effective resolution of service issues can lower customer attrition rates by up to 25-30%.

The ability to quickly correct wrong service also enhances employee morale and can instill a culture of accountability and empowerment among employees. This is supported by Heskett et al., (1994) who found that employees who are trained and empowered to resolve service issues not only perform better but also contribute to a positive workplace environment. The quick correction of wrong service directly increases customer satisfaction as collaborated by McKinsey (2016) who showed that customers who experience effective resolution of their issues are more likely to be satisfied compared to those whose issues were not resolved. Quick action foster trust and a sense of security in ongoing relationships with service providers as supported by the SERVQUAL model (Parasuraman et al., 1988) that highlights responsiveness as a key dimension of service quality, emphasizing that quick recovery from mistakes strengthens consumer trust. When mistakes are corrected promptly, customers feel their concerns are validated. This is well supported by findings from Wirtz & Matthiesen, (2004) who indicated that when customers perceive that their complaints are taken seriously and resolved promptly, it enhances their empowerment in the service relationship. The quick correction of wrong services has multifaceted implications across the business-consumer landscape.

The orders are served error free hence reliability of service in Madaraka Express. Effective service recovery can lead to increased customer loyalty, enhanced brand reputation, and improved satisfaction. For consumers, it fosters trust, validation, and a sense of agency in the service process. Additionally, it contributes to the overall improvement of service quality and managerial practices. The interconnected benefits of swift service recovery underline its essential role in contemporary customer service strategies.

The restaurant in Madaraka Express was dependable and consistent. Dependable and consistent services are critical to achieving customer satisfaction and loyalty, improving financial performance, and fostering positive brand reputation. Businesses that prioritize reliability in their service delivery not only retain customers but also benefit from increased advocacy and market success. The foundational role of dependable services in shaping customer perceptions and organizational success highlights its importance in today's competitive landscape. These findings are supported by Zeithaml, Parasuraman, and Berry (1990) in their SERVQUAL model that shows reliable service delivers what was promised consistently and significantly correlates with customer satisfaction. Customers expect services to be executed accurately and dependably, and failure to meet these expectations results in dissatisfaction.

### 5.2.2 On-board rail catering service responsiveness and customer satisfaction

The second research objective was to find out the responsiveness of service quality on customer satisfaction in Madaraka express, Kenya. The correlation result shows Responsiveness was insignificant compared to other variables related to customer satisfaction in this study. The mean on various aspect of responsiveness were above

average, speedy service, prompt service and extra effort in special service. According to research by (Obiero, 2018) in Nairobi hotels responsiveness has got no significant relationship on customer satisfaction. However, in Egypt, similar study revealed significant relation between responsiveness and customer satisfaction (Saghier, 2015). However, the study found that responsiveness affects customer satisfaction which is supported by Mattila and Enz (2002) that indicated responsiveness of staff to customer requests correlates positively with customer satisfaction and concluded that when staff proactively address special requests, satisfaction levels increase significantly.

Staffs were responsive by maintaining speed during busy time. The implications of staff responsiveness and maintaining speed during busy times are profound. They influence customer satisfaction and retention, operational efficiency, and revenue generation while also positively affecting employee morale and teamwork. Madaraka Express prioritizes responsiveness during peak hours thus create a competitive advantage that enhances their brand image and overall success. This highlights the importance of effective training, processes, and support systems to help staff meet the challenges of busy service periods. A study by Brady and Cronin (2001) found that aspects of service quality, including responsiveness, positively correlate with customer satisfaction. When staff can effectively attend to customers, even during busy times, customers leave with a positive experience. Kerr and Landau (2008) shows that when staff manage high demand effectively, it results in decreased anxiety and stress for customers, enhancing their overall experience.

The ability of staff to maintain speed during busy times has a substantial positive effect on customer satisfaction. Reduced wait times, enhanced perceptions of

efficiency, and an overall positive customer experience are crucial factors contributing to increased loyalty and positive word-of-mouth. Evidence from various studies clearly demonstrates that businesses that prioritize responsiveness, even during high-demand periods, can significantly boost customer satisfaction and ultimately drive business success. This indicates the importance of effective training, clear processes, and adequate staffing during peak times to enhance service delivery. Reichheld and Schefter (2000) founds that customers are more likely to continue patronizing businesses that deliver consistent and quick service, resulting in lower churn rates and stronger customer loyalty. Zeithaml et al. (1996) shows that responsiveness impacts customer perceptions of value, leading to enhanced customer experience and satisfaction. In addition, Monroe (1990) indicate that customers are willing to pay a premium for services that are delivered quickly and efficiently, especially during peak times.

There was provision of prompt service offered by Madaraka Express. The provision of prompt services is integral to enhancing customer satisfaction across various dimensions. From perceived value and reduced frustration to increased trust and improved brand image, the correlation between prompt service delivery and customer satisfaction is well-documented. Businesses that prioritize speed and efficiency in their service delivery processes create more satisfactory customer experiences, leading to better retention and loyalty. Overall, the evidence strongly supports that investing in systems and training to ensure prompt service can yield significant returns in customer satisfaction and long-term business success. These findings are supported by Reichheld and Schefter (2000) who concluded that satisfied customers who receive prompt service are more likely to return to the business and recommend it to others. The research shows that customers often become loyal to companies that

meet their needs swiftly, hence demonstrating strong correlation with customer satisfaction. This was also supported by Garbarino and Johnson (1999) who posit that when businesses deliver prompt services, it builds trust and nurtures long-term relationships with customers. Trust, in turn, enhances overall satisfaction, as customers feel valued and understood.

Staff put in extra effort to handle special request. Handling special requests is a critical factor in enhancing customer satisfaction. By demonstrating care, creating positive emotional experiences, and providing exceptional service quality, businesses can foster loyalty and generate favorable word-of-mouth. This is supported by McCole (2004) who found that customers are more likely to feel valued and appreciated when staff respond positively to special requests. Such interactions generate a feeling of personalized service, leading to higher satisfaction levels. Similarly, Kumar and Reinartz (2016) suggests that emotional experiences significantly affect customer satisfaction and loyalty. When staff go out of their way for special requests, it can create a lasting positive impression that enhances the overall customer experience. Focusing on personalized service and extra effort in meeting customer needs lead to higher satisfaction rates, repeat business, and an improved overall reputation. Pidduck and Heskett (2006) demonstrated that exceptional service and willingness to accommodate requests lead to repeat business. Customers who feel their special needs are met are more likely to return and recommend the business to others.

### 5.2.3 On-board rail catering service tangibility and customer satisfaction.

The third research objective was to establish the tangibility of service quality on customer satisfaction in Madaraka, Express, and Kenya. The correlation result

indicated tangibility was found to be positive and significant related to customer satisfaction. Visual attractiveness of the dining area, price typical of image and comfortable seats in the dining area had the lowest scores compared to other variables in the study. However, clean and neat staff had the best score in this study.

Tangibility is key dimension of service quality that has a direct impact on customer satisfaction levels (Rauch et al., 2015). Examples of factors are significantly associated with banks including comfortable shop design, up-to-date equipment for customer use, and adequate staffing to provide service .These aspects are important for banks because there are a lot of face-to-face relationship between customers and employees. Therefore, maintaining a professional environment and convenient stores can improve customer satisfaction (Al-Azzam, 2015). Further, quality of equipment differentiates the level of customers (Oanda, 2015).It is then noted from other studies that tangibility has a positive relationship with customer satisfaction which agrees with the findings of this study.

The dining area/coach was found to be visually attractive. The visual attractiveness of a dining area, including various elements of design, decor, and ambiance, plays a crucial role in customer satisfaction. When a dining space is visually appealing, it not only enhances the overall dining experience but can also influence customers' perceptions of the quality of food and service. The visual attractiveness of a dining area significantly influences customer satisfaction across multiple dimensions. From shaping first impressions and enhancing the dining experience to affecting perceptions of food quality and service, an appealing ambiance is integral to customer enjoyment. The supporting evidence indicates that restaurants investing in decor, spatial design, and overall aesthetics can create more satisfying dining experiences, foster customer

loyalty, and generate positive word-of-mouth. Therefore, enhancing the visual appeal of a dining space is a worthwhile investment for businesses aiming to improve customer satisfaction and long-term success. These finding area supported by Ryu and Jang (2008) who alluded that customers form strong first impressions based on the visual aspects of a dining environment and that an attractive setting can create high initial expectations for food quality and service, contributing to overall satisfaction. Kivela, Inbakaran, and Thompson (1999) indicated that customers find their dining experience more enjoyable when the environment is visually appealing. This enjoyment translates into higher satisfaction levels. Therefore, the visual attractiveness of a dining environment can positively influence customers' perception of the quality of food and service as supported by Spangenberg, & Crowley, (2001) who found that visually attractive environments can lead to higher perceived quality of food. Customers often equate ambiance with quality, so a well-decorated space can lead to greater satisfaction with the meal itself.

The study found that staff are clean, neat and appropriately dressed. The cleanliness, neatness, and appropriateness of staff attire play a significant role in influencing customer satisfaction in especially in food and beverage and hospitality sectors. When staff members present a clean and professional appearance, it positively impacts customer perceptions, experiences, and overall satisfaction. A clean and professional appearance generates positive first impressions and fosters trust. Smith and Smith (2009) found that customers form impressions based on employees' appearance within seconds. A neat and well-groomed appearance signals professionalism and can enhance customers' trust in the service provided. Additionally, staff appearance can directly affect how customers perceive the quality of products and services. This was supported by Ryu, Lee, and Gon Kim (2012) who demonstrated that an employee's

neatness and appropriateness of dress influence customers' perceptions of service quality.

Customers often associate well-dressed employees with higher quality and value, leading to greater satisfaction. Clean and appropriately dressed staff-instill confidence in customers regarding service delivery. This is supported by Lee and Chang (2016) who allude that customers feel more secure about the hygiene and quality of the service when staff are visibly clean and appropriately dressed. This confidence enhances overall satisfaction with the dining or service experience. Positive perceptions of staff appearance can lead to repeat visits and revenue growth. This is supported by Kwortnik and Thompson (2009) who found that customers who are satisfied with their service experiences, including staff appearance, are more likely to return to the business. A consistent presentation promotes a positive image that encourages customer loyalty.

The cleanliness, neatness, and appropriateness of staff attire significantly influence customer satisfaction across various dimensions. From generating trust and confidence to enhancing perceptions of service quality and brand image, a professional appearance plays a critical role in shaping customer experiences. Supporting evidence from several studies indicates that businesses that prioritize staff appearance and grooming standards can enhance customer satisfaction, improve engagement, and encourage repeat business. Therefore, investing in staff training on the importance of appearance and maintaining grooming standards is prudent for businesses aiming to improve customer satisfaction and overall success.

An easily readable and visually attractive menu plays a significant role in enhancing customer satisfaction in dining establishments. The design and presentation of a menu

are critical components of the overall customer experience, influencing not only the choice of food and beverages but also the perception of the restaurant as a whole. A well-designed menu that is easy to read improves customer understanding of the offerings. This is supported by Kahn and Mclendon (1998) found that clear and simple menu descriptions enhance customers' understanding and enable them to make informed choices. When customers can easily comprehend menu items, they feel more confident in their selections, leading to increased satisfaction. Attractive menu design captures customer attention and enhances engagement with the offerings as indicated by Tynan and McKechnie (2009) that visual elements, such as colors, fonts, and images, create a more engaging experience.

A visually appealing menu can stimulate appetite and excitement, positively impacting customer satisfaction. An attractive menu can influence customer preferences and encourage decision-making and result in customers recommending to others as supported by Van Ittersum and Candel (2012) who found that menu design affects customers' choices, with visually attractive and well-organized menus leading to higher sales of featured items. When customers feel drawn to the menu, they are more likely to choose items that enhance their satisfaction. The design of a menu, characterized by readability and visual appeal, has a profound impact on customer satisfaction in dining environments. From facilitating better understanding and decision-making to engaging customers and promoting specific items, an attractive and well-structured menu enhances the overall dining experience. Research supports the notion that restaurants investing in effective menu design can significantly improve customer satisfaction, foster loyalty, and ultimately drive sales. Therefore, attention to menu design is a critical aspect of creating positive dining experiences.

The seats in the dining area of Madaraka Express were found to be comfortable. The comfort of dining seats in a train setting has a direct impact on customer satisfaction. Passengers in transit, particularly on long journeys, seek not only quality food but also a comfortable environment to enjoy their meals. Comfortable seating enhances the physical well-being of passengers, which is crucial for enjoying meals during travel as highlighted by Hall (2019) highlighted that physical comfort is a major factor in travel satisfaction. Comfortable seating directly affects their ability to relax and enjoy their dining experience. In addition, ergonomic seat designs can help reduce discomfort during long journeys, contributing to overall satisfaction. Comfortable dining seats facilitate a more enjoyable dining experience, allowing passengers to focus on their meals rather than discomfort. This was supported by Hyun (2019) who found that factors enhancing dining comfort, including seating, can positively affect customers' overall dining experiences.

Passengers reported greater enjoyment of meals when seated comfortably, as it allowed for leisurely eating and social interaction. Passengers enjoyed the comfortable dining seats in Madaraka Express and are more likely to seek out the same service in the future. This finding is supported by   as Kwortnik and Thompson (2009) who discussed how customer satisfaction is linked to repeat patronage. When train passengers have positive experiences due to comfortable dining seats, they are more inclined to choose the same service for future travel, reinforcing loyalty. Therefore, the comfort of dining seats in trains significantly influences customer satisfaction by enhancing physical comfort and improving the dining experience. Comfortable seating not only contributes to the enjoyment of meals but also affects customers' overall perceptions of quality, value, and their likelihood of returning.

**5.2.4 On-board rail catering service assurance and customer satisfaction.**

The fourth objective was to establish the assurance of service quality on customer satisfaction in Madaraka express, Kenya. The correlation result shows, assurance was found to be positive and insignificant related to customer satisfaction compared to other variables in the study. Another research conducted in Nairobi to establish the effect of service quality on customer satisfaction in hotels the correlation results showed that assurance had a significant positive relationship with customer satisfaction (Obiero, 2018)It is then noted from other findings and of this study that assurance has a positive relationship ranging from insignificant to significant with customer satisfaction meaning it is an important dimension of customer satisfaction.

Employees ability to answer questions contributed to customer satisfaction. When employees answer questions it effectively play a crucial role in customer satisfaction in train services. Passengers often have inquiries related to various services including food, drinks, services, schedules, amenities, safety, and other aspects of their journey. When employees can provide thorough and accurate responses, it can significantly enhance the overall travel experience. Employees who can answer questions completely contribute to the perception of competence and professionalism within the service. Employees' ability to answer questions completely significantly impacts customer satisfaction in train services. By enhancing perceived competence, reducing anxiety, empowering customers, and fostering trust, knowledgeable staff contribute to a positive travel experience. Research supports that effective communication leads to increased satisfaction, loyalty, and positive word-of-mouth recommendations. Therefore, train operators should prioritize employee training and development to ensure staff can provide thorough and accurate information, ultimately enhancing the overall customer experience.

The assurance of safety in dining areas on trains is a critical component of customer satisfaction. Enhanced perceptions of hygiene, reduced health concerns, improved trust, and positive emotional experiences contribute significantly to overall passenger satisfaction. Research supports that when passengers feel secure while dining, it affects their willingness to engage with the service, their loyalty, and their likelihood of making positive recommendations. Train operators should prioritize safety and hygiene practices in dining areas to foster a secure environment that enhances customer satisfaction and promotes repeat business. These finding are supported by Bitner, Booms, and Mohr (1994) who indicated that employees' expertise and ability to provide accurate information enhance customer trust and confidence in the service. When passengers feel that staff are knowledgeable, they are more likely to view the overall service as reliable and high-quality, which boosts satisfaction. Offering complete answers to questions directly enhances the overall customer experience during travel. This was supported by de Vries, Galloway, and van Iwaarden (2018) who showed that efficient customer service, characterized by complete and helpful responses, significantly contributes to positive customer experiences. For train passengers having clear and comprehensive answers to their inquiries helps to alleviate concerns and enhances enjoyment of the journey.

Knowledgeable employees can reduce passengers' anxiety and uncertainty related to their travel plans as alluded by Hoffman and Bateson (2016) that effective communication and clear information can reduce customer anxiety, leading to increased satisfaction. When train staff can thoroughly address questions about schedules, connections, or services, passengers feel more at ease during their travel, enhancing their overall experience. The capability of employees to answer questions completely often correlates with better problem resolution as emphasized by Tax and

Brown (1998) on the importance of service recovery efforts in enhancing customer satisfaction. Employees equipped to address inquiries can manage issues proactively, leading to quick resolution and ultimately improving customer satisfaction, especially in potentially stressful situations such as delays or disruptions. Employees who respond to questions thoroughly foster trust and loyalty among customers as found by Garbarino and Johnson (1999) that trust in service providers is a key determinant of customer loyalty. When train passengers receive complete and accurate information, they are more likely to develop a trust in the service, which can lead to repeat business and brand loyalty. Van der Kooij (2016) suggests that informed customers are more satisfied because they feel in control of their experiences. When train employees provide thorough information, passengers can make better choices regarding their travel, contributing to higher satisfaction levels.

The provision of detailed menu information by staff, including descriptions of menu items, ingredients, and preparation methods, plays a significant role in enhancing customer satisfaction in train dining services. When staff are knowledgeable and ready to share this information, it can lead to a variety of positive outcomes for customers. The ability of staff to provide detailed menu information significantly impacts customer satisfaction in dining contexts, including train dining services. By enabling informed decision-making, enhancing the dining experience, reducing anxiety, and promoting engagement, knowledgeable staff positively contribute to customer perceptions of value and service quality. Clear communication about menu items leads to a more enjoyable and fulfilling dining experience.

Providing comprehensive information about menu items enables customers to make informed choices that align with their preferences and dietary restrictions. This is

supported by Wansink et al. (2012) who suggests that detailed menu descriptions increase customer satisfaction by allowing guests to choose dishes that meet their personal tastes and dietary needs. This is particularly important for travelers who may have specific dietary restrictions or allergies. When staff explain menu items, they enhance the overall dining experience by creating a more engaging atmosphere. This effective communication according to Choi et al. (2017), contributes to a richer dining experience. Passengers who receive detailed descriptions feel more connected to their food, which can elevate their overall satisfaction. Knowledgeable staff can instill a sense of trust and confidence in the quality of the food being offered as established by Parasuraman et al. (1988) that customer perceptions of service quality are heavily influenced by employee expertise. When staff are able to convey detailed information about dishes, customers are more likely to trust that they are being offered high-quality food, thereby enhancing satisfaction.

Assured safety in the dining area was found to be a critical factor that significantly influences customer satisfaction. Passengers prioritize their well-being, especially when consuming food in spaces where cleanliness, hygiene, and overall safety are paramount. Passengers who perceive the dining area as safe and clean are more likely to enjoy their dining experience, leading to higher satisfaction levels. This is supported by Sweeney and Soutar (2001) who found that perceptions of hygiene directly influence customer satisfaction in restaurants. When dining areas in trains are maintained to high cleanliness standards, it sets a positive tone for the meal, increasing overall satisfaction. Assured safety reduces customers' anxiety about foodborne illnesses or contamination. This is indicated by Yi and Tjiptono (2007) that when customers feel secure about food safety, they are more comfortable and willing

to enjoy their meals. This is especially relevant in train dining, where concerns about food quality and handling can arise due to the transient nature of the service.

Ensuring safety fosters trust between customers and service providers, which enhances customer loyalty and satisfaction as alluded by Choudhury and Shil (2020), on prioritizing customer safety to yield higher trust levels from consumers. In train dining, this trust translates to a greater willingness to consume food and engage with the service, leading to improved satisfaction. A safe dining environment contributes to a positive emotional atmosphere, enhancing the overall dining experience highlighted by Schmitt (1999) that emotional responses to service environments significantly impact customer satisfaction. If passengers feel relaxed and secure in the dining area, they are more likely to enjoy their time and report higher satisfaction levels. Passengers who feel safe are more likely to choose the same train service for future travel. This is supported by McKinsey & Company (2021) who revealed that safety perceptions directly influence customer loyalty. Passengers aware of high safety standards in dining areas are more likely to return and recommend the service to others, thereby enhancing overall customer satisfaction. Safety assurances can help mitigate the effects of other negative experiences related to dining, such as delays or service issues. According to Davidow (2003) effective service recovery and safety measures can alleviate negative experiences. When customers feel secure, they may overlook minor service failures, contributing to an overall positive evaluation. Assured safety levels can positively influence passengers' choices, leading them to try new or specialty items on the menu by Ryu and Jang (2008) who highlighted that customers are more likely to order a wider range of foods when they feel safe and assured about hygiene practices. This willingness can lead to increased satisfaction with food quality and the overall dining experience. Positive safety experiences lead

to positive word-of-mouth, which is critical for sustaining customer satisfaction and attracting new customers supported by Anderson and Mittal (2000) who found that satisfied customers are more likely to recommend services. Passengers who experience a clean and safe dining environment are more inclined to share their favorable experiences, which influences potential customers and enhances the reputation of the service.

## 5.3 Conclusion

The study broad objective was to establish the effect of on-board rail catering service quality on customer satisfaction in Madaraka express, Kenya. The study concluded that reliability; tangibility and responsiveness dimensions of catering service quality have an influence on customer satisfaction on Madaraka express Passenger service while assurance does not influence customer satisfaction.

Reliability of catering services influence customer satisfaction in Madaraka Express. Passengers increasingly seek dependable and consistent experiences, which encompass timely departures and arrivals, consistent service quality, and the overall integrity of the travel experience. In this regard, reliability was identified as the most important dimension of service quality. Reliability is a cornerstone of customer satisfaction in train catering services. By focusing on improving operational consistency, communication, and service quality, train operators can significantly enhance passenger satisfaction, foster loyalty, and ultimately improve their competitive edge in the transportation market. Prioritizing reliability not only meets customer expectations but also creates a positive cycle of trust and satisfaction that benefits both passengers and service providers.

Tangibility of catering services significantly influences customer satisfaction in train travel. Tangibility including the quality of food, cleanliness of dining areas, the appearance and demeanor of staff, and the overall environment in which the service is delivered. By paying careful attention to the quality of food, cleanliness, staff professionalism, and the overall dining environment, train operators can create positive dining experiences that not only meet but exceed passenger expectations. Ultimately, focusing on the tangible aspects of catering can lead to higher customer satisfaction, loyalty, and positive word-of-mouth, providing a competitive advantage in the transportation industry.

Responsiveness of catering services influence customer satisfaction in Madaraka Express. Specifically, the ability and willingness of catering staff to address passenger needs, provide timely service, and adapt to changing circumstances. By ensuring prompt service, actively addressing passenger needs, communicating effectively, and handling feedback constructively, train operators can create a more satisfying and positive onboard dining experience. Ultimately, prioritizing responsiveness not only meets customer expectations but also enhances overall satisfaction, fostering loyalty and a positive reputation in the competitive landscape of train services.

Assurance of catering services does not influence customer satisfaction in Madaraka Express in terms of the knowledge, courtesy, and ability of catering staff to inspire trust and confidence among passengers. While this element is an important aspect of service quality, several factors suggest that it may not be as impactful on overall customer satisfaction in this specific context. Passengers may derive their satisfaction primarily from the tangible elements of service—such as food quality, responsiveness, and overall efficiency—rather than the assurance provided by staff. As such, train

operators should focus on enhancing tangible service delivery and responsiveness, as these aspects are more likely to resonate with passengers in terms of satisfaction.

## 5.4 Recommendations

Based on the findings from this study, the researcher recommends the following:

Reliability of on-board rail catering can be improved by Kenya railways having systems in place to monitor service quality and ensuring standards are maintained. Consequently, routine surveys should be carried out to ensure continuous service improvement. Investing in training staff to handle special requests can yield substantial benefits in customer loyalty and satisfaction. Consider implementing a mobile ordering system that allows passengers to view menu options and place orders in advance, minimizing wait times. Use technology to track real-time delivery times and meal availability, helping staff manage service efficiently. The management can regularly conduct surveys and gather feedback from passengers regarding their dining experience. Use this information to identify areas for improvement and employ mystery shoppers to evaluate catering services and gather unbiased feedback about the passenger experience.

Tangibility aspect of on-board rail catering the management should look into pricing of food and beverage on-board to ensure the price is typical of the image. The catering service provider can differentiate prices of food and beverage in economy and first class coaches. In addition, Kenya Railways management should look into the seat arrangement to ensure comfort of customer on-board the train; moreover a dining coach for economy class customer would also improve the customers dining experience as well as responsiveness to customer orders. Management should aim to enhance customer satisfaction by prioritizing the design and arrangement of dining

areas, focusing on comfort to ensure a pleasant travel experience. They also should prioritize staff training in menu knowledge to enhance customer satisfaction and overall dining experiences.

Responsiveness of on-board rail catering to be improved is recommended to Kenya Railways Management to consider technological advancement such as e-catering to improve the overall customer dining experience and customer satisfaction; such a concept has been employed in Indian railways and Chinese railways. Equip staff with efficient communication tools (e.g., handheld devices) to streamline orders, manage requests, and provide real-time updates on service availability to enhance staff responsiveness and help manage passenger expectations.

To improve assurance, the study recommends continuous training by the catering service provider to be undertaken to all front line employees serving the customers to ensure adequate product knowledge and food preparation method. Front line employee should serve as a link between the management and customers to ensure all customer feedback is worked upon. Establish Clear Standards by developing and publishing quality assurance standards that cover all aspects of catering, including food safety, service delivery, and customer interaction. Ensuring compliance with industry best practices and regulations is essential. In addition, the management can obtain relevant certifications (such as HACCP) to demonstrate adherence to food safety and hygiene standards. Also, have clear communication protocols and frequent passenger announcements to keep them informed about menu offerings, service timings, and any changes. Transparent communication can build trust and improve overall satisfaction.

**5.5 Areas for Further Research**

This study sought to establish the effects of the service quality dimensions of on-board rail catering service on customer satisfaction in Madaraka express, Kenya. Future studies should be carried out in Nairobi and Mombasa terminal station catering services and make a comparison. The study can also be carried out in Airlines on-board catering service in Kenya and make a comparison.

Comparative study on differentiation of catering services in first class and economy coaches to enhance customer satisfaction and value for money. Researchers can also investigate passenger preferences regarding menu items, including dietary restrictions (e.g., vegan, gluten-free) and regional cuisine and customer preferences for different service styles (e.g., full-service, buffet, pre-packaged meals) and their impact on satisfaction.

Future researchers can also examine customer sensitivity to price changes in on-board dining and how it affects their choice to dine on the train. Researchers can also explore the relationship between meal pricing and perceived value among different passenger demographics.

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## APPENDICES

### Appendix 1: Cover Letter

Dear respondent, I am a student undertaking a Master of Philosophy degree in Hospitality Management, Moi University. As part of my studies, I am carrying out a research on ―" **On-board rail catering service quality and customer satisfaction in Madaraka express, Kenya"** You have been chosen to participate in the named research as a respondent.

The research is being carried out using questionnaire with the sole objective of indentifying the effect of on-board rail catering service quality on customer satisfaction. It will examine the levels of on-board rail catering service reliability, tangibility, responsiveness and responsiveness and propose measures that will improve on overall catering service experience to passengers in the train.

The data and information provided in this research will enable the railway operator review its current catering service provider performance and inform its future reforms.

Any information you give is purely intended for academic purposes and was handled with utmost confidentiality. Your contribution, participation and co-operation will be highly appreciated. Thank you.

Yours Faithfully

Nicholas Kiboi Karuru

**Appendix 2: Questionnaire**

**Questionnaire Number**

**SECTION A: Personal information of the respondent. Please tick where appropriate:**

Gender                 Male [  ]        Female[   ]

Age in years           18-25 [   ]      26-40 [    ]        Above 40 [  ]

Academic               Primary [ ]      Secondary [ ]    College [   ]         University [   ]

qualification

Reason for travel      Business[ ]      Leisure[  ]        Work duties [  ]    Others [   ]

Specify……………………………………………………………………………….

Frequency of           Weekly [ ]   Monthly[  ]        Yearly [  ]            First Timer [  ]

travel

Nationality            Kenyan[  ]    Others Specify……………………………….……

**SECTION B: RELIABILITY OF ON-BOARD RAIL CATERING SERVICE**

1. Using the scale provided, tick to what extent you agree with the following statements pertaining to reliability of catering service provided to passengers in the train?

|   | Statements | Strongly disagree 1 | Disagree 2 | Neutral 3 | Agree 4 | Strongly Agree 5 |
|---|---|---|---|---|---|---|
| A | The Service is provided in promised time. | | | | | |
| B | There is prompt correction of wrong service. | | | | | |
| C | The restaurant is dependable and consistent. | | | | | |
| D | The bills are accurate. | | | | | |
| E | The orders are served error-free. | | | | | |

## SECTION C: RESPONSIVENESS OF ON-BOARD RAIL CATERING SERVICE

2. Using the scale provided, tick to what extent you agree that the following statements pertaining to responsiveness of catering service provided to passengers in the train?

|   | Statements | Strongly Disagree 1 | Disagree 2 | Neutral 3 | Agree 4 | Strongly Agree 5 |
|---|---|---|---|---|---|---|
| A | The staffs maintain speed during busy time. | | | | | |
| B | There is provision of prompt service. | | | | | |
| C | Staff put in effort to handle special request. | | | | | |

## SECTION D: TANGIBILITY OF ON-BOARD RAIL CATERING SERVICE

3. Using the scale provided, tick to what extent you agree that the following statements pertaining to tangibility of catering service provided to passengers in the train?

|   | Statements | Strongly Disagree 1 | Disagree 2 | Neutral 3 | Agree 4 | Strongly Agree 5 |
|---|---|---|---|---|---|---|
| A | The dining coach/area is visually attractive | | | | | |
| B | The staffs are clean, neat and appropriately dressed | | | | | |
| C | The dining area is typical of its image and price range | | | | | |
| D | The menu is easily readable | | | | | |
| E | The menu is visually attractive | | | | | |
| F | There are comfortable seats in the dining area | | | | | |

**SECTION E: ASSURANCE OF ON-BOARD RAIL CATERING SERVICE**

4. Using the scale provided, tick to what extent you agree that the following statements are true, pertaining to assurance of catering service provided to passengers in the train?

| | Statements | Strongly Disagree 1 | Disagree 2 | Neutral 3 | Agree 4 | Strongly Agree 5 |
|---|---|---|---|---|---|---|
| A | The employee can answer questions completely | | | | | |
| B | The staff provides information about menu items, their ingredients, and method of preparation | | | | | |
| C | There is assured safety in the dining area | | | | | |
| D | The management of the restaurant supports the employees | | | | | |

**SECTION F: CUSTOMER SATISFACTION**

5. Using the scale provided, tick to what extent you agree that the following statements pertaining to satisfaction of catering service provided to passengers in the train?

| | Statements | Strongly disagree 1 | Disagree 2 | Neutral 3 | Agree 4 | Strongly Agree 5 |
|---|---|---|---|---|---|---|
| A | I feel my needs were fulfilled | | | | | |
| B | I intend to return to restaurant in future trips | | | | | |
| C | I will recommend the restaurant to other passengers | | | | | |
| D | I enjoyed the dining experience | | | | | |

**Appendix 3: Authorization Request**



**To:** GM HRA                **REF:** P/02160

**From:** Asst.SM-Ngong         **Date:** 21st December, 2022

**RE: REQUEST FOR PERMISSION TO CONDUCT ACADEMIC RESEARCH**

**1.0  Introduction**

I am a student at Moi University undertaking a Master's degree in Hospitality Management. In Kenya Railways, I work as an assistant station Master in Ngong station. In the spirit of improving passenger service quality in our company and as part of the Masters Degree program requirement, I wish to conduct research on the **effects of on-board catering service quality on passenger satisfaction in Mombasa-Nairobi SGR**. I will conduct this research under the supervision of my lecturers Prof. Korir and Dr. Bor, they are both renowned researchers and practitioners in Hospitality industry in Kenya. The information obtained during this research will solely be used for academic purpose. However, the company under research will be given a copy of these research findings and is at liberty to use the recommendations and findings to improve its services or for other purpose. I have developed a research proposal, attached is a brief power point presentation and a questionnaire.

**2.0  Requested Action**

GM HRA is requested to give permission for data collection in Mombasa-Nairobi SGR passenger service and give any other necessary support in undertaking the research starting January, 2023.

Nicholas Kiboi Karuru
**Assistant Station Master-Ngong**

**Appendix 4: Authorization Letter**

MEMO

**To:** Nicholas Kiboi Karuru
ASM- Ngong

**Ref:** P/02160

**Thro:** APSM   ~~Forwarded~~ 23.1.23

**From:** General Manager-HR&A

**Date:** January 4, 2023

**RE: REQUEST FOR PERMISSION TO CONDUCT ACADEMIC RESEARCH IN MADARAKA EXPRESS ON BOARD CATERING SERVICES**
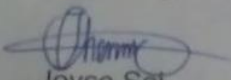
Reference is made to your memo dated 21st December, 2022 in connection with the above mentioned subject.

This is to inform you that your request to undertake research has been approved.

Kindly note that this data must only be used for academic purposes and a final copy of the research must be submitted to the Corporation for records.

You will be required to conduct the research personally.

We wish you well.

Joyce Soi
Human Resource Manager (TR&D)
**FOR: GENERAL MANAGER- HUMAN RESOURCE & ADMIN.**