Correlation between Service Quality Dimensions and Customer Satisfaction at Tanzania Railway Corporation (TRC)

Happiness Charles Swai[1], Wilfred Johnson Kileo[2], MsabahaJuma Mwendapole[3]

[1,2]Science and Management, Dar es Salaam Maritime Institute, Tanzania
[3]Maritime Transport, Dar es Salaam Maritime Institute, Tanzania

Abstract- Public railway transport must offer good service quality to meet and supply a wider range of diverse customer needs to retain and draw in more customers. It is critical to synthesize knowledge about what affects customers satisfaction and dissatisfaction in the public railway transport industry if we are to design a public transport system that is both appealing and marketable. The study aimed to examine correlation between service quality and customer satisfaction. The study adopted a cross-sectional research design with both qualitative and quantitative methods. A total of 120 passengers and employees of the Tanzania Railway Corporation made up the study's sample size. Questionnaire and interviews were used for data collection. SPSS version 26 was applied to perform inferential statistics on the data. Regression analysis results demonstrated that the promotion of tangibility, reliability, responsiveness, assurance, and empathy in services at TRC was responsible for the large change in customer satisfaction. The study concluded that a positive factor in customer satisfaction is service quality. The study revealed that TRC is providing quality railway transportation resulting into satisfying the need of the customers. As a result of TRC's promotion of tangibility, reliability, responsiveness, assurance, and empathy while passengers receive services. The quality of services offered is evident and has been upheld. The study recommended that passengers should always be very careful with the facilities of railway transport especially when using the services. The maintenance of facilities calls for cooperation of both users and services provider.

Index Terms- Service quality, Customers satisfaction, Railway transportation, Passengers

I. INTRODUCTION

The definition of "service quality" has changed over time because of various historical perspectives; today, it refers to the way in which customers are treated when receiving services (Mojeed et al., 2022). According to Stanley (2021), service quality is seen as a synthesis of several interactions between clients and the workplace environment. The simplest way to gauge service quality is to prioritize the needs of the client while comprehending the service qualities (Komba et al., 2021). Long wait times, in the opinion of the client, are detrimental to how they view the level of service (Komboso et al., 2021).To improve their service and keep clients, the business should be very concerned with how little time customers must stand while receiving service (Komboso et al., 2021). Due to the public's complaints about the TRC's bad services in the past, the company lost clients and eventually went out of business (Mchomvu, 2018). The company has been working to enhance its tactics, technologies, and equipment in an effort to become more efficient while also raising the standard of service provided by the railway.

The Tanzania Railways Corporation (TRC) aims to provide efficient and satisfactory railway services to its customers. However, Railway transport has not yet shown to be a dependable and sustainable means of transport or to be competitive with other modes of transport due to shortcomings in defining the expectations of the passengers (Stanley, 2021). Despite significant efforts made by the government and its partners, the Tanzanian railway sector is experiencing a period of unparalleled stress because of the poor state of the train infrastructure (Mchomvu, 2018). As a result, compared to other means of transportation like road transportation, railway transportation has become slow, unpredictable, uncertain, and prone to schedule delays.

Therefore, it was necessary to evaluate how service quality affected customer satisfaction to spot potential improvement areas and improve the entire customer experience. In the context of the Tanzania Railways Corporation, this study investigatedcorrelationamongst service quality and customer satisfaction.

II.   LITERATURE REVIEW

Study discusses literature reviews, both theoretical and empirical, in this part. In a theoretical literature review, essential study concepts linked to a study topic are examined, but in an empirical literature review, various prior viewpoints and ideas of researchers who have conducted research on themes relating to this study are presented. After linking the findings of many studies, study gaps are identified herein.

A. Theoretical Literature

The initial emphasis of the SERVQUAL Model was on the progress of quality systems for product quality. The need to raise the class of connected services got more pressing over time. A competitive advantage may can be attained through improved service quality for organizations (Mrema, 2020). Due to the rising significance of service in general in the 1980s, the SERVQUAL Model had a significant impact. The concept of gauging service was vague and difficult to define back then (Mrema, 2020).

Fundamentally, the SERVQUAL Model is a qualitative analysis. The observed quality is measured using general, ambient criteria when a satisfaction survey primarily depends on interactions between the supplier and the consumer (Parasuraman et al., 1985).The service's problems can be found and fixed using this framework. That is why it is a "GAP Analysis." The level of service obtained is compared to what was anticipated (Mchomvu, 2018).

The SERVQUAL Model's central concept is the space between expectations and perceptions, or predicted pattern of service quality. It can be determined whether there is a difference in quality by comparing what was anticipated and what was experienced. The SERVQUAL Model can be used by businesses to pinpoint the factors that affect how customers form their expectation patterns. This strategy enables the company to plan forward and move forward while considering this pattern of expectation (Masalu and Kamuzora, 2016).

Internal and external communications, as well as communication between the two, are all important for the effectiveness of the services that an organization offers. Businesses benefit from being aware of client expectation patterns. The SERVQUAL Model thus identifies five discrepancies between the services that an organization offers and needs of customers (Masalu and Kamuzora, 2016). The SERVQUAL Model also takes five service quality criteria into account. Tangibility, dependability, responsiveness, assurance, and empathy are the five characteristics listed above.

B. Empirical Literature

A study by Liuet al., (2021), studied how customer happiness in Chinese rail transportation is affected by service quality.The study adopted questionnaire to gather data from 427 passengers, then structural equation modelling to analyses the data. The results of the study showed that factors relating to service quality, including dependability, responsiveness, assurance, empathy, and tangibility, significantly improved customer satisfaction. Furthermore, the study discovered that in Taiwanese rail transport, dependability was the key component of service quality in predicting customer happiness. According to Mojeede et al. (2022), this study looked into how South-West Nigerian Inter-City Rail System passengers perceived the quality of the service. In order to accomplish this, data collected by a questionnaire survey from 300 passengers on a single route was analyzed using a descriptive research approach. The data obtained from the questionnaire was analyzed with the aid of SPSS using statistical methods including descriptive and inferential analysis. Rail accessibility has a significant impact on passenger satisfaction, whilst security and safety measures have a significant impact on passenger happiness. The main conclusion of the survey is that passengers gave the intercity train system's level of service a middling rating. As a result, the government should seek to develop a solid road network so that people who frequently use rail service can access train stations more readily. Additionally, fundamental standards and monitoring of passengers' assets must be rigorously evaluated to ensure the protection of their goods.

Onyango and Kimani (2019) examined how customer happiness is affected by service quality in Kenya's commuter rail transportation industry. Following the completion of a questionnaire survey with 321 passengers, regression analysis was used to examine the data. The study found that factors including tangibility, dependability, responsiveness, certainty, and empathy greatly increased customer satisfaction in Kenya's commuter railway transportation industry. Stanley (2021) investigated the stance between service quality and customer happiness at Tanzania Railways Corporation (TRC) Ltd. Data was gathered through a questionnaire and analyzed with SPSS version 22 using both descriptive and inferential statistics. The findings demonstrated that customer satisfaction was statistically significantly predicted by service quality. It was determined that business made its services easily accessible, had excellent customer service, had dependable services, and responded quickly to any inquiries. The investigation concluded that the business had efficient means of letting its clients know about its policies about service pricing. According to the survey, in order to improve customer happiness, which in turn affects customer loyalty, carriers should prioritize service quality and provide client-oriented services. Mrema (2020), examined the association between service quality and customer satisfaction in Tanzania's railway system, using the Central Line as a case study. Regression analysis was utilized to analyze the data after the study employed questionnaire to collect

data from 310 passengers.The study discovered that dimensions of service quality; tangibility, reliability, responsiveness, assurance, and empathy, significantly improved customer satisfaction.

C. *Conceptual Framework*

Independent Variables   Dependent Variable

Service Quality in Railway Transport
➢ Tangibility
➢ Reliability
➢ Responsiveness
➢ Assurance
➢ Empathy

Customer Satisfaction
• Satisfaction
• Dissatisfaction
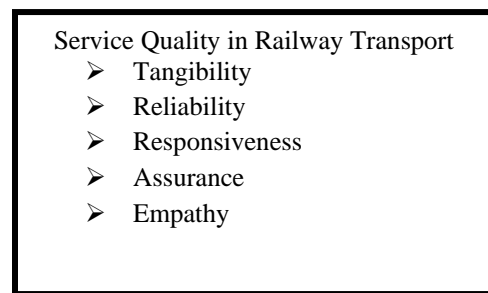
III.   RESEARCH METHODOLOGY

This section discusses various research methodologies.

A. Research design

The study adopted both qualitative and quantitative techniques in a cross-sectional research design. The investigations of the variables' theoretical and empirical relationships arewell handled by the design (Kothari, 2014).Cross-sectional research design was adopted to examine correlation between variables, recognized trends, and generalized about a population.

B. Population

The population of this study consisted of the passengers using the train transport offered by the Tanzania railway Corporation and staff of TRC who supports the operations at railway, both the long routes passengers and the short routes passengers. The sample size was made up of 120 participantswho includedpassengers and staffs at TRC (Maxwell, 2012).

C. Data collections methods

The study collected primary data by using a questionnaire and conducting interviews with respondents while out in the field. Self-administered questionnaires were used in the study. These gave respondents the option to pick among the researcher's alternatives (Creswell, 2014). Furthermore, interviews provided valuable insights and a deeper understanding of the experiences, perceptions, and opinions of both customers and service providers. The researcher collected information from both external and internal sources including reports on the railway transportation systems and the perception of passengers towards the services provided by authorities bestowed with the responsibility of providing services in public transportation.

D. Data Analysis

Data from the study were analyzed using quantitative data analysis. Whereas, utilizing customer satisfaction as the dependent variable and service quality parameters as the independent variables, inferential statistics were employed to study correlation between service quality and customer satisfaction. Multiple regression analysis was done to study the effect of independent variables on dependent variable (Saunders et al., 2009).

IV.   ANALYSIS AND DISCUSSION OF FINDINGS

The collected data were coded, looked over, and interpreted. Below is an analysis and discussion of the findings.

The correlation between service quality and customer satisfaction

The goal of the study was to establish how customer satisfaction and service quality are connected. The dependent variable, customer satisfaction, served as a benchmark against which the five dimensions of quality of tangibility, dependability, responsiveness, assurance, and empathy were evaluated.

Regression analysis was utilized to determine the correlation between tangibility, dependability, responsiveness, assurance, empathy, and customer happiness. The five factors were evaluated to see how they affected the customers' satisfaction with the railway transportation services provided by TRC.

Table 1: Coefficients between service quality and customer satisfaction

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	.237	.227		1.045	.000
	Tangibility	.443	.107	.356	4.134	.000
	Reliability	.731	.083	.630	8.821	.000
	Responsiveness	.545	.086	.504	6.339	.000
	Assurance	.957	.065	.806	14.806	.000
	Empathy	.991	.054	.861	18.384	.000

The results of the study showed that customer satisfaction grows along with service tangibility. Additionally, the study found that there is a statistically significant correlation between the tangibility of services and customer satisfaction, with the Sig value being.000, which was less than.05. Less than the permitted limit of 0.05, the significant change in customer satisfaction brought on by the promotion of tangibility is 0.000. Every 1% improvement in the promotion of tangibility in the services at TRC results in an increase in customer satisfaction of.443 (B value). The results agreed with those of Han and Ryu (2013), who argued that greater degrees of tangibility in rail travel, such as clean stations and well-maintained trains, can enhance consumer happiness.

In addition, the study found a significant link between customer happiness and service dependability. According to a study, consumer happiness rises along with increased reliability. The reliability's Sig value was also.000, which is less than.05. According to the study, customer happiness and service dependability are statistically significantly correlated. Less than the permitted maximum of 0.05, 0.000 represents the significant shift in customer satisfaction brought on by the promotion of reliability. The customer satisfaction rises by .731 (B value) for every 1% increase in the promotion of reliability in the services at TRC Findings support with Mojeed *etal.,*(2022),who revealed when customers experience reliable services with minimal delays and cancellations, it contributes to customer satisfaction.

Additionally, study showed that there is a strong correlation between responsiveness in services and customer satisfaction study revealed that when responsiveness in services increases customer satisfaction also increases. Also, the Sig value of responsiveness was .000 which is less than.05. Study indicated that there is a statistically significant correlation between responsiveness in services and customer satisfaction. The significant change in customer satisfaction caused by the promotion of responsiveness is 0.000, which is less than the allowed limit of 0.05. Customer satisfaction rises by .545 (B value) for every 1% increase in the promotion of responsiveness in the services at TRC. Findings support Lukrozo (2020), who asserted that when customers receive quick and effective responses from railway staff regarding their concerns or inquiries, it can enhance their satisfaction.

Also, study indicated that there is a strong connection between assurance in services and customer satisfaction. Study revealed that when assurance in services increases customer satisfaction also increases. Also, the Sig value of assurances was .000 which is less than.05. Study indicated that there is a statistically significant correlation between assurances in services and customer satisfaction. The significant change in customer satisfaction caused by the promotion of assurance is 0.000, which is less than the allowed limit of 0.05. Customer satisfaction rises by .957 (B value) for every 1% increase in the promotion of assurance in the services at TRC. Findings support Stanley (2021), who established that when customers perceive a high level of assurance, they are more likely to feel confident and satisfied with the service they receive.

Again, study indicated that there is a strong connection between empathy in services and customer satisfaction. Study displayed that when empathy in services increases customer satisfaction also increases. Also, the Sig value of assurances was .000 which is less than.05. The study displayed that there is a statistically significant correlation between empathy in services and customer satisfaction. The significant change in customer satisfaction caused by the promotion of empathy is 0.000, which is less than the allowed limit of 0.05. Customer satisfaction rises by .991 (B value) for every 1% increase in the promotion of empathy in the services at TRC. The results agreed with those of Mrema (2020), who claimed that empathy fosters symbiotic and recursive relationships during an exchange process. In other words, empathy can be strengthened when one party shows it, which result in favorable consequences.

Results from both correlation matrix and regressions implied there is a positive relation between services quality (tangibility, reliability, responsiveness, assurance, empathy) and the satisfaction of customer at railway transport offered by TRC. Whereby a change in any of the variables including empathy, tangibility, responsiveness, assurance, and reliability during the provision of services at TRC had impact on the passenger's satisfaction. Therefore, study revealed that customer satisfaction was achieved because of reliability of services, tangibility, responsiveness in services, assurances in service and empathy in service.

Results were consistent with Mchomvu's (2018) who showed that service quality traits such dependability, responsiveness, tangibles, assurance, and empathy had a substantial beneficial impact on customer satisfaction in Tanzania's railway passenger transport. Masalu and Kamuzora (2016) discovered that customer satisfaction with commuter transport in Dar es Salaam was significantly positively impacted by service quality characteristics such as tangibility, reliability, responsiveness, assurance, and empathy. According to Stanley (2021), customer satisfaction in the Dar es Salaam commuter train was significantly positively impacted by service quality aspects such as dependability, responsiveness, assurance, empathy, and tangibility.

V. CONCLUSION

The quality of services is a good attribute towards customer satisfaction; study revealed that TRC are providing railway transportation which is of quality resulting into satisfying the need of the customers. As a result of TRC's promotion of tangibility, reliability, responsiveness, assurance, and empathy when delivering services during railway transportation, clients have recognized the quality of services offered and have been sustained. The study further concluded that customer satisfaction can be attained and maintained when there is quality of services. Dimension of quality which included tangibility, reliability, responsiveness, assurance, and empathy are statistically significant with customer satisfaction. Thus, quality of service has a positive and significant correlation with customer satisfaction and changes a unit change in any of the dimension quality of service increases or decreases the level of customer satisfaction respectively.

The study recommended to the Government of Tanzania, to regularly find good services provider who would emphasize the attainment of quality in the services provided. Previously, the inefficiency of the chosen service provider was to blame for the inefficiency of the railway transportation. The TRC's observed improvement in service quality can be attributed to the wise choice of a service provider who has continuously worked to emphasize service quality. As a result, the government should continue to implement policies that would lead to the selection of the appropriate service provider.

ACKNOWLEDGMENT

REFERENCES

[1] Creswell, J. W. Research design: qualitative, quantitative, and mixed methods approach. Sage publications, 2014.

[2] Komba, H., Masoud, A. M., & Lema, M, Service quality and customer satisfaction in railway transport: Evidence from Tanzania. International Journal of Retail & Distribution Management, 2021, 49(3), pp. 284-298.

[3] Komboso, A. T., Eshetu, E. A., & Teshome, E. M, Service quality and customer satisfaction in Ethiopia railway transport. Transportation Research Interdisciplinary Perspectives, 2021, 10, pp. 100431.

[4] Kothari, C. Research Methodology: Methods and Techniques. (3rd Ed) . New Delhi, India: New Age International (P) publishers,2014.

[5] Li, X., Ding, C., Li, X., & Liu, Y, Assessment of the relationship between service quality and customer satisfaction: Evidence from high-speed rail in China. Journal of Rail Transport Planning & Management, 2021, 15, 100298.

[6] Lukrozo Z, An Application of The Rail-Servqual Model for Improving Service Quality at a Selected Rail Organization in South Africa: Unpublished dissertation submitted to Cape Peninsula University of Technology, 2020.

[7] Masalu, R. M., &Kamuzora, F, Customer satisfaction and service quality in commuter transportation in Dar es Salaam, Tanzania. Journal of Transport and Supply Chain Management, 2016, 10(1), 1-9.

[8] Maxwell, Qualitative Research Design.AnMohan, 2012.

[9] Mchomvu, Y, Assessment of the influence of service quality on customer satisfaction in the Tanzania railway passenger transport. Journal of Transport Economics and Policy, 2018, 52(2), pp. 164-182.

[10] Mrema, G. S. The relationship between service quality and customer satisfaction in Tanzania railway system: A case of central line. International Journal of Marketing and Business Communication, 2020, 9(2), 57-68.

[11] Mojeed G, Ghadir S, Olorunnimbe R, Passenger Expectations about the Quality of Service on the InterCity Rail System in South-West Nigeria: European Journal of Business and Management, 2022, Vol.14, No.10,

[12] Parasuraman, A., Zeithaml, V. A., & Berry, L. L, A conceptual model of service quality and its implications for future research. Journal of Marketing, 1985. 49(4), pp. 41-50.

[13] Parasuraman, A., Zeithaml, V. A., & Berry, L. L. SERVQUAL: A multi-item scale for measuring consumer perceptions of service quality. Journal of Retailing, 1988,64(1), pp. 12-40.

[14] Saunders, M.N.K., Lewis, P. & Thornhill, A, Research methods for business student: 5th edition. . Harlow: FT Prentice Hall, 2009.

[15] Stanley G, The Effects of Service Quality on Customer Satisfaction. A case of Tanzania Railways Corporation (TRC) in Tanzania. Unpublished Dissertation Submitted Open University of Tanzania, 2021.

AUTHORS

First Author – Happiness Charles Swai,Master's candidate, Dar es Salaam Maritime Institute.
Second Author – Wilfred Johnson Kileo, PhD, Dar es Salaam Maritime Institute.
Third Author – MsabahaJumaMwendapole, PhD, Dar es Salaam Maritime Institute.

Correspondence Author – Msabaha Juma Mwendapole,mwendapole.msabaha@gmail.com