



THE EFFECT OF SERVICE QUALITY ON HEALTH SECTOR CUSTOMER LOYALTY A CASE OF NHIF-CERTIFIED HEALTH FACILITIES IN MWANZA CITY, TANZANIA

By

Josephine John¹, Samwel Mseti², Tibuhinda T. Ngonzi³

¹Department of Finance and Accounting, St. Augustine University of Tanzania, P. o. Box 307, Mwanza,

^{2,3}Department of Procurement and Logistic Management, Marketing and Human Resource Management, St. Augustine University of Tanzania, P. O. Box 307, Mwanza



Article History

Received: 15/11/2024

Accepted: 05/12/2024

Published: 08/12/2024

Vol – 1 Issue – 3

PP: -54-69

DOI:10.5281/zenodo.

14332914

Abstract

The paper highlights a significant concern regarding the relationship between service quality and customer loyalty in health insurance facilities in Mwanza City. By understanding the impact of service quality dimensions on customer loyalty, this research aims to provide insights for healthcare providers to enhance patient satisfaction and retention. The primary objective of the research was to examine how various dimensions of service quality impact customer loyalty towards NHIF services. The examination focused on five key aspects of service quality: reliability, assurance, tangibility, responsiveness, and empathy, utilizing both regression and descriptive analyses alongside primary and secondary data collection methods. Findings indicate that tangibility, assurance, empathy, and reliability are statistically significant contributors to enhancing customer loyalty. This suggests that patients generally hold a favorable perception of the services offered by accredited health facilities, which in turn affects their view of NHIF services. The results underscore the importance of these facilities in helping NHIF formulate strategies to ensure high-quality service delivery to its clients. Moreover, the study reveals a positive correlation between service reliability and patient loyalty concerning the curative services provided by authorized medical facilities. This relationship indicates that improving service reliability could bolster patient loyalty. However, the analysis also identifies responsiveness as a factor that does not significantly influence patient satisfaction. The findings suggest that enhancing regulatory review and training to service providers in relation to five dimension of service quality is essential with particular emphasize on responsiveness. Overall, the study provides valuable insights for NHIF and healthcare providers in Tanzania to enhance service quality and customer satisfaction.

Keywords: Service Quality, Customer, Loyalty, and NHIF

1. INTRODUCTION

The paper emphasizes the critical importance of quality service in the healthcare sector, particularly in the context of increasing competition and evolving patient expectations. It highlights that maintaining patient satisfaction is essential for success, as it fosters trust and loyalty (Onjewu et al., 2023). The healthcare industry is undergoing a significant shift from a profit-centric approach to one that prioritizes quality service, which has been shown to enhance financial performance and patient loyalty (Sima et al., 2020 and Carter et al., 2023).

Historically, healthcare providers have focused on profitability at the expense of patient satisfaction. However, recent research such as Hoe & Mansori (2018), Nam et al.

(2020) and Sharma & Kumar (2022) underscores the economic advantages of prioritizing quality service, including improved patient loyalty and positive word-of-mouth. The evolution of service quality assessment has been ongoing since the late 1970s, with a growing body of research dedicated to enhancing service quality in healthcare settings (Weinstein, 2016). Effective management is now recognized as crucial for sustaining high-quality services, particularly in urban healthcare facilities (Benoit et al., 2017).

The National Health Insurance Fund (NHIF) in Tanzania plays a vital role in improving access to quality healthcare (Andeshi, 2019 and (Kibambila, 2017). By collaborating with various healthcare providers, NHIF aims to ensure affordability and enhance patient experiences. Despite these



efforts, challenges remain in achieving customer satisfaction within the health insurance sector, particularly in urban areas like Mwanza. The effectiveness of quality assurance programs in public hospitals has been explored, revealing the need for a deeper understanding of the relationship between service quality and patient satisfaction (Zaibaf et al., 2013; Waari et al., 2018; Hendrawan & Anggraeni (2020) and Khisa, 2023).

Satisfied patients contribute positively to healthcare systems, as they are more likely to return and recommend services to others (Campos et al., 2017; Amankwah et al., 2019; Subiyakto & Sebastian, 2020; Alavi & Moghaddasi, 2021 and Amankwah et al., 2023). Conversely, dissatisfaction can harm a provider's reputation (Waari et al., 2018) and Kirumbi, 2020). The study aims to investigate the relationship between NHIF's service quality initiatives and patient loyalty, focusing on the impact of service reliability, assurance, tangibility, empathy, and responsiveness on customer loyalty. This research seeks to fill existing gaps in understanding the influence of service quality on patient loyalty within this specific context, ultimately aiming to enhance healthcare service delivery and patient satisfaction.

2. THEORETICAL MODEL

The paper discusses the development and application of various models to assess customer satisfaction (CS) and service quality, particularly focusing on the SERVQUAL model. This model, established by Berry et al. in 1980, identifies five key components: tangibles, reliability, responsiveness, assurance, and empathy, which are essential for evaluating service quality and customer loyalty. The SERVQUAL model is recognized for its ability to quantitatively measure service quality across diverse sectors and cultural contexts.

The study emphasizes the importance of continuous evaluation of customer satisfaction to accurately understand customer needs. It highlights that while the SERVQUAL model has been widely adopted, there is ongoing debate regarding the best methods for evaluating consumer satisfaction. The model's advantages include its adaptability to various service settings, the ability to track customer perceptions over time, and its statistical validity due to extensive testing. Implementing the SERVQUAL model can lead to improved customer retention, loyalty, and overall financial performance for organizations.

However, the SERVQUAL model is not without its limitations. Criticisms include concerns about its validity, reliance on an expectation-based framework, and operational challenges such as item composition and the potential for respondent confusion during surveys. Despite these drawbacks, the SERVQUAL model remains a significant tool for understanding customer perceptions and enhancing service quality.

3. LITERATURE REVIEW

This study reviews various studies on healthcare service quality, focusing on reliability, consumer satisfaction, and loyalty in hospitals. Ali et al. (2023) explored the literature on

healthcare service quality to identify and analyze models and dimensions, revealing that different models and dimensions have evolved since SERVQUAL in healthcare service quality literature. There is still a need to develop new models and incorporate the perspective of service providers as respondents.

Meesala & Paul (2018) studied service quality, consumer satisfaction, and loyalty in hospitals using data from 40 different private hospitals in Hyderabad, India. The study found that reliability (not responsiveness, empathy, tangibility, and assurance) impacted patients' satisfaction, rejecting the null hypothesis that reliability does not significantly affect customer loyalty. Patient satisfaction is directly related to patients' loyalty to the hospital. Marital status and age have no impact on the regression weights of the variables analyzed, but it was found that to some extent gender does.

Pekkaya et al. (2019) examined the SERVQUAL generic model, modified by James Carman for use in the healthcare sector, to gauge the perceived quality of a service. They gathered data from Turkish hospitals using the Carman-developed instrument. The analysis showed that reliability was an important factor for achieving customer satisfaction.

Elizar et al. (2020) studied service quality, customer satisfaction, customer trust, and customer loyalty in the service of a pediatric polyclinic over Private H Hospital of East Jakarta. The study used the SEM method on 190 respondents to obtain the results. The findings met the criteria of Goodness of Fit, with the t-value of service quality to customer satisfaction being 14.71, service quality to customer trust being 16.10, service quality to customer loyalty being 2.16, customer satisfaction to customer loyalty being 0.83, and customer trust to customer loyalty being 3.13.

Ismail & Yunan (2016) researched service quality as a predictor of customer satisfaction and loyalty. The methodology used was self-report questionnaires gathered from patients at army medical centers in West Malaysia. The findings showed that service quality dimensions, namely tangible, reliability, responsiveness, assurance, and empathy, were significantly correlated with customer satisfaction and loyalty. This finding confirms that the capability of service providers to appropriately implement the quality dimensions in providing medical services has enhanced customer satisfaction and loyalty in the organizational sample.

Nguyen et al. (2021) conducted a study on the impact of service quality on in-patient satisfaction, perceived value, and customer loyalty in Vietnam's private healthcare sector. The study used a mixed-method approach, with a sample size of five inpatients and 368 inpatients. The qualitative analysis incorporated literature to develop a conceptual model, while the quantitative phase tested the relationship between each construct. The findings revealed that four dimensions of service quality were emotion, function, social influence, and trust. These dimensions significantly impacted customer perceived value and satisfaction based on the assurance they received from service providers. However, emotion and

function did not significantly influence customer perceived value. Social influence, an underrepresented variable in service quality literature, had the most substantial impact on customer perceived value and satisfaction. The study suggests that private healthcare providers and the Vietnamese government should allocate resources to improve service quality, invest in social branding, and e-services to reach customers. Future research should focus on cost-benefit analysis and compare the effectiveness of service quality dimensions on customer behavioral intention.

The paper reviewed studies on the reliability, assurance, tangibility, and empathy of healthcare services and their impact on customer loyalty. Studies have shown that factors such as reliability, assurance, tangibility, and empathy play a significant role in determining customer satisfaction and loyalty. For example, studies by Ali et al. (2023) and Meesala & Paul (2018) found that reliability and empathy were important factors in determining patient satisfaction and loyalty. Similarly, studies by Elizar et al. (2020) and Ismail & Yunan (2016) found that customer trust and satisfaction were influenced by service quality dimensions. Additionally, studies by Nguyen et al. (2021) and AIomari & Hamid (2022) highlighted the importance of perceived value, service quality, and pricing satisfaction in determining customer satisfaction. Overall, these studies suggest that factors such as reliability, assurance, tangibility, and empathy play a crucial role in shaping customer perceptions and loyalty in healthcare facilities.

4. CONCEPTUAL FRAMEWORK

The study assumes that there are dependent and independent variables. The study assumes that the dependent variable of the study is customer loyalty to NHIF. This depends on the perception of NHIF clients' responsiveness, reliability, and accessibility. These assumptions are summarized in Figure 2.

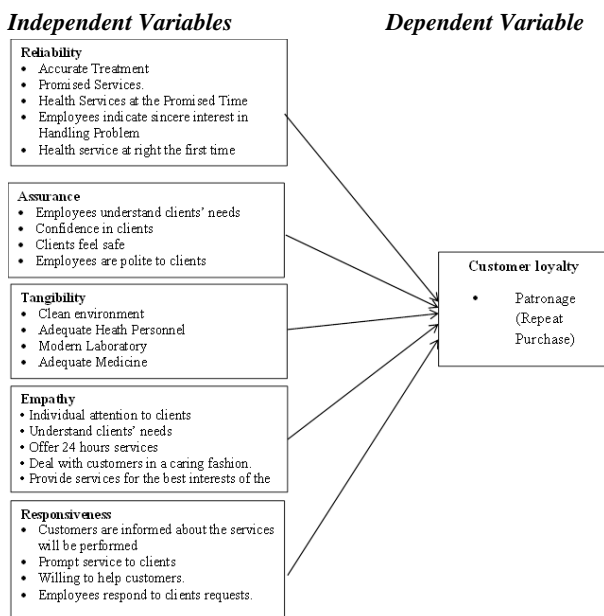


Figure 1: Conceptual Framework

Source: Researcher, 2024

5. METHODOLOGY

Research Approach

This study uses a deductive approach to deduce a hypothesis based on existing theories and empirical scrutiny. The SERVQUAL model is used to assess service quality in NHIF-accredited health facilities. Data on consumer expectations and perceptions is collected to understand customer satisfaction and the factors affecting these perceptions. Quantifiable data collected from respondents helps in accepting or rejecting alternative hypotheses, providing insights into customer satisfaction.

Research Strategy

Quantitative methods used to analyze data and respond to research objectives. Quantitative strategies focus on data collection and analysis from the SERVQUAL model. This approach ensures high reliability and validity, while also describing SERVQUAL model attributes and importance to customers. Both methods allow generalization and consideration of biases, making findings replicable.

Research Design

This study uses a cross-sectional design to examine service quality perceptions in NHIF-accredited health facilities. The design allows for simultaneous data collection and analysis of patterns of association. The SERVQUAL model dimensions are used to measure customer expectations and perceptions. The study's limitations, such as the inability to control variables like gender, age, and social background, make social surveys an appropriate choice for business research. This cross-sectional design allows for both quantitative and qualitative assessment and conclusions.

Study Area

The study was conducted at Mwanza City with the coordinates of 020 35'S 032055'E. This area was selected because it is the second largest city in Tanzania and has a high number of the operating healthcare facilities which provide different medical services to customers. The Sukuma tribe primarily is the majority in Mwanza City. Agriculture accounts for 62.8 percent of the economically active population, while the rest engage in simple jobs, trade, small enterprises, and fishing. Generally Mwanza region's Gross Domestic Product (GDP) was TZS 7,451,706 million in 2016, with a GDP per person of TZS 2,004,353. The region has a high Human Development Index (HDI) of 0.646, ranking eighth nationally, and a low Multidimensional Poverty Index (MPI) score of 0.228, ranking 14th out of 26 regions. However, the poverty rate is 49.01%, slightly higher than the national rate of 47.40% (Tanzania Human Development Report, 2017).



Key:
 Boundary of Mwanza City
 Lake Victoria
 Figure 1: A Map of Mwanza City

Population
 The targeted population of this study comprises a total of 51,471 as shown in Table 1.

Table 1: Population under the study

No	Facility Name	Facility Level	No. of Client	No. of Head of Departments	Number of Employees
1	Bugando Medical Centre	Zonal Referral	24,000	9	1270
2	Sekou toure Hospital	Regional hospital	3,600	8	622
3	Kamanga Medics	Zonal Referral	9,000	8	235
4	Aga khan Hospital	Regional Hospital	5,500	7	250
5	Hindu Memorial Hospital	Regional Hospital	2600	7	155
6	Buzuruga H/C	Health Centre	340	4	52
7	Rainbow Polyclinic	Polyclinic	2400	4	56
28	Misagaro Dispensary	Dispensary	600	3	23
9	Huduma H/C	Health Centre	650	3	26
10	Mkolani Dispensary	Dispensary	20	1	18
Total			48,710	54	2,707

Source: NHIF (2024)

Sample Size and Sampling Procedures

This study examines the relationship between service quality and customer loyalty in NHIF-certified health facilities in Mwanza City, Tanzania. The researchers used a sample size to ensure reliability and generalizability of their findings. The study strategically selected participants to provide a nuanced understanding of how service quality influences customer loyalty, offering insights for targeted improvements in healthcare services and enhancing patient satisfaction.

Sample Size

In the study, the sample size for quantitative data has been determined by the Statistical Table Krejcie and Morgan (1970) which is suitable for quantitative studies as shown in Table 2.

Table 2: Sample Distribution

No	Facility Name	Facility Level	No. of Client	No. of Head of Departments	Number of Employees	Total Population	Population Proportional to size (in %)	sample distribution
1	Bugando Medical Centre	Zonal Referral	24,000	9	1270	25,279	49%	189
2	Sekou toure Hospital	Regional hospital	3,600	8	622	4,230	8%	30
3	Kamanga	Zonal	9,000	8	235	9,243	18%	68



	Medics	Referral						
4	Aga khan Hospital	Regional Hospital	5,500	7	250	5,757	11%	42
5	Hindu Memorial Hospital	Regional Hospital	2600	7	155	2,762	5%	19
6	Buzuruga H/C	Health Centre	340	4	52	396	1%	3
7	Rainbow Polyclinic	Polyclinic	2400	4	56	2,460	5%	18
8	Misagaro Dispensary	Dispensary	600	3	23	626	1%	45
9	Huduma H/C	Health Centre	650	3	26	679	1%	45
10	Mkolani Dispensary	Dispensary	20	1	18	39	1%	1
Total			48,710	54	2,707	51,471	100	381

Source: Researcher, 2024

Sampling Procedures

This study used stratified, convenience, and simple random sampling techniques to gather data from health facilities employees. Stratified sampling grouped employees into two groups, while simple random sampling selected employees with detailed knowledge of facilities and support services. Convenience sampling targeted clients from various health facilities.

Table 3 Sampling techniques

S/N	Respondents	Frequency (N)	(%)	Sampling design	Data collector tools
1	Heads of Departments of Health Facility	43	11	Stratified and simple random	Interview
2	Employees/Nurses/Doctor	127	33	Stratified and simple random	questionnaire
3	NHIF clients/customers	213	56	Convenient sampling	Questionnaire and Interview
Total		381	100		

Source: Researcher, 2024

Data Collections Methods

The study utilized questionnaires and interviews to gather quantitative and qualitative data on service quality at NHIF Certified Health Facilities in Mwanza City, Tanzania. The questionnaires were administered by the researcher and research assistants, covering gender, age, academic qualification, knowledge, and work experience. The closed-ended questions aimed to understand the impact of service quality on customer loyalty.

Data Analysis

Data were collected, cleaned, arranged according to specific objectives, coded, analyzed, and interpreted. Statistical Package for Social Sciences (SPSS) version 20 was deployed to aid the analysis of data. Data were analyzed using a linear

regression model to determine the association between service quality and customer loyalty. The rationale for using linear regressions is based on the fact that the dependent variable customer loyalty is a continuous variable.

Generally, the computational model employed for data analysis is summarized as follows.

$$Y_i = \beta_0 + \beta_1 X_{1i} + \beta_2 X_{2i} + \beta_3 X_{3i} + \beta_4 X_{4i} + \beta_5 X_{5i} + \epsilon_i \dots \dots \dots (1)$$

- Where: Y1 = Brand Loyalty
- X1i = Reliability
- X2i = Assurance
- X3i = Responsiveness
- X4i = Tangibility

*Corresponding Author: Josephine John.



X5i = Empathy

Reliability and Validity of Data

This research explores the importance of both reliability and validity in data collection. Reliable data ensures consistency in findings, meaning similar observations and conclusions would be reached by other researchers. Validity focuses on whether the data accurately measures what it's intended to. The concept of reliability is drawn from Bryman and Benn (2004), who define it as the degree to which a data collection method yields consistent results. This includes transparent methods for interpreting raw data.

Validity of Data

In this study, content, face, and criterion validity were ensured as follows: Content validity was done to ensure that the data collected aligns with the research objectives and measures the constructs of interest it intended to measure. Content validity was determined by research supervisors and experts to review the research questions, questionnaires, and interview guide to assess if they cover relevant aspects of service quality and customer loyalty. Face validity sake inputs from research experts in the field to evaluate if the data collection methods and instruments can measure what they are intended to measure. Criterion-related validity was ensured by comparing the collected data with existing validated measures or established benchmarks to evaluate the degree of correlation or agreement.

Reliability of Data

The reliability of the questionnaire was observed through an internal consistency reliability test, which estimates the consistency of results generated from different items of the same construct. A pilot study of 10 respondents was

conducted to ensure reliability, and responses were coded and analyzed using SPSS version 20. A Cronbach's alpha value equal to or greater than 0.7 was sufficient to determine a high level of inter-relatedness between items studied.

Ethical Consideration

This study adhered to research ethical standards. All participants provided informed consent, ensuring voluntary participation. Data was collected and analyzed anonymously to protect privacy and confidentiality. Potential risks and benefits were communicated to participants, and their well-being was prioritized throughout the study.

6. FINDINGS AND DISCUSSION

Descriptive Statistics

To determine the service quality of NHIF accredited health facilities affecting customer loyalty in the study area, a regression model was built. The dependent variable (customer loyalty) and the five independent variables (reliability, responsiveness, tangibility, assurance and empathy) were analyzed using linear regression analysis. The R-Square score of 0.383 (Table 4) shows that the variation in the independent variables accounts for 38.3 percent of the variation in customer loyalty. The model's high level of significance ($p \leq 0.000$) shows that perceptions of NHIF accredited health facilities clients' reliability, responsiveness, tangibility, assurance and empathy all affect customer loyalty. These results concur with those of Khisa (2023), who found that consumers were satisfied with NHIF accredited health facilities services as a result of their positive perceptions of NHIF clients' reliability, responsiveness, tangibility, assurance and empathy.

Table 4: Model Fitting Information

Model R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					
				R Square Change	F Change	df1	df2	Sig. F Change	
1	.619 ^a	.383	.373	.594	.383	36.031	5	290	.000

a. Predictors: reliability, responsiveness, tangibility, assurance and empathy

Using a five-point Likert scale (1=strongly disagree, 2=disagree, 3=neutral, 4=agree, and 5=strongly agree), respondents were asked to rate the reliability, responsiveness, tangibility, assurance, and empathy of NHIF-accredited health facilities services. The participants were tasked with evaluating the levels of effect in each independent variable dependent variable customer loyalty.

Reliability of Services and Customer Loyalty

Table 5 presents descriptive statistics on respondents' views on the effect of the reliability of NHIF-accredited health facilities' services on customer loyalty.

Table 5: Reliability of Services of Health Facilities

	N	Mean	Std. Deviation
I receive accurate diagnosis and treatment in accredited health facility	300	3.43	.775
The accredited health facility offer promised health services	300	3.35	.798
The accredited health facility provides health services at the promised time	304	3.23	.811
Employees indicate sincere interest in handling problem	301	3.25	.830
Valid N (listwise)	297		

I receive accurate diagnosis and treatment in accredited health facility	300	3.43	.775
The accredited health facility offer promised health services	300	3.35	.798
The accredited health facility provides health services at the promised time	304	3.23	.811
Employees indicate sincere interest in handling problem	301	3.25	.830
Valid N (listwise)	297		

Source: Field data, 2024

The results of the effect of the reliability of NHIF-accredited health facilities' services in customer loyalty are explained in Table 5. According to the data, the reliability scored the minimum mean of 3.23 with a standard deviation of 0.811, and the computed average score above the neutral value of 3.



This finding suggests that a significant proportion of respondents indicate reliability of NHIF-accredited health facilities' services plays a significant role in influencing customer loyalty. These findings affirm those reported by Loth & Godwin (2018) and Kahemela (2017) that NHIF-accredited health facilities' services have provided good services having a mean score above the cutoff point of 3.

Assurance of Services and Customer Loyalty

Table 6 present descriptive statistics findings on the view of respondents concerning the effect of perceived service assurance in building customer loyalty.

Table 6: Assurance of Services of Health Facilities

	N	Mean	Std. Deviation
I am informed about the time the services will be performed	300	3.08	.983
The accredited health facility offer prompt service to NHIF clients	304	3.13	.882
Employees of the accredited health facility are willing to help NHF clients	304	3.47	.770
Employees respond to clients requests	304	3.49	.619
Employees of NHIF are kind and polity	304	3.35	.835
NHIF staff provide knowledge to clients on various NHIF products	304	3.50	.800
NHIF staff provides feedback on time in case of any inquiry	304	3.20	.949
NHIF staff respond quickly and on time for any inquiry	304	2.99	.975
Valid N (listwise)	300		

Source: Field Data, 2024

According to the data in Table 6, service assurance exhibited an average mean score of 2.99, and standard deviation of 0.975, and maximum mean score of 3.50, and a standard deviation of 0.800 surpassing the cut threshold of 3.0. The influence of quality services on customer loyalty is evident in the endorsement of service assurance by NHIIF-accredited health facilities.

Tangibility of Health Facilities and Customer Loyalty

Table 7 present descriptive statistics findings on the view of respondents concerning the effect of the tangibility of NHIF-accredited health facilities on customer loyalty.

Table 7: Tangibility of NHIF Accredited Health Facilities

	N	Mea n	Std. Deviation
The accredited health facilities offer good service to NHF clients	304	3.38	.794
The accredited health facilities have clean and hygienic environment	301	3.50	.710

There is adequate heath personnel (e.g. doctors and nurses) in accredited health facilities	304	3.22	.869
The accredited health facilities have modern laboratories	304	3.19	.830
There is adequate medicine in the accredited health facilities	304	2.95	.929
Valid N (listwise)	297		

Source: Field data, 2024

Table 7 shows the tangibility in fostering customer loyalty to the NHIF-accredited health facilities. The tangibility of NHIF-accredited health facilities had a minimum mean score of 2.95 with a standard deviation of 0.929 and a maximum mean value of 3.50 with a standard deviation of 0.710 above the cut point of 3.0 suggesting that the tangibility of NHIF-accredited health facilities increases the chance of customer loyalty.

These findings are in line with those of Kahemela (2017) study. The study asserted that most of the accredited healthcare facilities offer quality services. This involves; the presence of competent doctors, good laboratories and hospital environment, cleanliness in rooms and wards, special attention provided by physicians, nurses, supportive staff, and outstanding follow-up care.

Empathy of Service Delivery and Customer Loyalty

Table 8 presents descriptive statistics findings on the view of respondents concerning the effect of perceived service empathy in building customer loyalty to NHIF-accredited health facilities.

Table 8: Empathy of Service Delivery by employees and Customer Loyalty

	N	Mean	Std. Deviation
I feel safe to get services in accredited health facilities	304	3.43	.759
Employees of the health facilities use polite language to clients	300	3.22	.862
The accredited health facility offer 24 hour services	304	3.30	.890
Valid N (listwise)	300		

Source: Field data, 2024

Table 8 shows that empathy fosters customer loyalty to the NHIF-accredited health facilities. Empathy among the staff of NHIF-accredited health facilities had a minimum mean score of 3.22 with a standard deviation of 0.862 and a maximum mean value of 3.43 with a standard deviation of 0.59 above the cut point of 3.0 suggesting that empathy of NHIF-accredited health facilities increases the chance of customer loyalty.



Responsiveness of Employees and Customer Loyalty

Table 9 presents descriptive statistics on respondents' views on the effect of responsiveness in raising customer loyalty in NHIF-accredited health facilities.

Table 9: Responsiveness of Employees of Health Facilities

	N	Mean	Std. Deviation
I am informed about the time the services will be performed	300	3.08	.983
The accredited health facility offer prompt service to NHIF clients	304	3.13	.882
Employees of the accredited health facility are willing to help NHF clients	304	3.47	.770
Employees respond to clients requests	304	3.49	.619
Employees of NHIF are kind and polity	304	3.35	.835
NHIF staff provide knowledge to clients on various NHIF products	304	3.50	.800
NHIF staff provides feedback on time in case of any inquiry	304	3.20	.949
NHIF staff respond quickly and on time for any inquiry	304	2.99	.975
Valid N (listwise)	300		

Source: Field data, 2024

Data in Table 9 show that the responsiveness of NHIF-accredited health facilities staff exhibited a minimum mean score of 2.99 with a standard deviation of 0.975 and a maximum mean score of 3.50 with a standard deviation of 0.88 surpassing the cut threshold of 3.0 averagely showing that respondents confirm that responsiveness of NHIF accredited health facilities staff depicts customer loyalty. This is contrary to Afriyie et al. (2024) study which found that lower-level facilities have poorer quality of care. This has decreased lower-level facilities' ability to benefit from the insurance and improve their capacity to deliver quality care

Regression Results

The regression results for each of the variables utilized in this study are as shown in Table 10.

The Effect of Reliability on Customer Loyalty

Regression results presented in Table 10 show that reliability has a positive impact on customer loyalty at a 10 percent confidence interval (t = 1.698 and P < 0.091). The coefficient value of 0.090 implies that an increase in one unit of reliability improves customers' loyalty by 9 percent. The findings of this study agreed with those of Kidola, (2022), Choge et al. (2021), and Agbi et al. (2020), who found similar results, showing the degree of customer loyalty is influenced by service quality factors such as empathy, responsiveness, and reliability. Additionally, this study indicated that

assurance and tangibility had no discernible impact on consumer satisfaction, which conflicts with findings indicating certainty and tangibility drive customer contentment.

Table 10: Marginal Effect of the Relationship between Reliability and Customer Loyalty

Model	Unstandardized Coefficients			Standardized Coefficients	Sig.
	B	Std. Error	Beta		
1 (Constant)	1.051	.200		5.244	.000
1 Reliability	.090	.053	.091	1.698	.091

a. Dependent Variable: Customer Loyalty

The Effect of Assurance on Customer Loyalty

Moreover, the regression analysis as per Table 11 shows that assurance significantly affects customer loyalty for t-statistic = 6.822 while P < 0.000. Further, a beta coefficient of 0.388 implies that a unit increase of assurance of NHIF-accredited health facility services increases the probability of customer loyalty by 38.8 percent. These results concur with those by Al-Mhasnah et al. (2018) who discovered that patient was influenced by assurance of the service they receive. Additionally, it found that the SERVQUAL model was a suitable tool for evaluating the caliber of hospital medical services. According to a study by Abu-Salim et al. (2017), although highly satisfied health insurance customers are likely to keep their existing service providers, unhappiness with the customer does not always result in termination.

Table 11: Marginal Effect of the Relationship between Assurance and Customer Loyalty

Model	Unstandardized Coefficients			Standardized Coefficients	Sig.
	B	Std. Error	Beta		
1 (Constant)	1.051	.200		5.244	.000
1 Assurance	.388	.057	.392	6.822	.000

a. Dependent Variable: Customer Loyalty

Now, the new regression equation can be:

$$CL_i = 1.051 + 0.200X_{1i} - 0.054X_{2i} + 0.090X_{3i} + 0.125X_{4i} + 0.388X_{5i} + \epsilon_i \dots \dots \dots (2)$$

The Effect of Tangibility on Customer Loyalty

The regression results as presented in Table 12 show that tangibility bears a coefficient of 0.200 implying that a unit increase in tangibility of NHIF-accredited health services raises the likelihood of customer loyalty by 20 percent.



Further, the regression results at a five percent confidence interval ($p < 0.000$), indicate a t-statistic of 3.608 which is above the threshold t-value of 1.96 showing the significant value of tangibility effect on customer loyalty. This implies that the medical facilities have facilities and equipment that are set up for the delivery of health services. These results are compatible with the study by Zubayer & Hoque (2019) who discovered that hospitals accredited by the NHIF have sufficient medical supplies. Health facilities must meet the requirements set forth by NHIF to receive accreditation. These respondents are comparable to those from interviews.

Table 12: Marginal Effect of the Relationship between Tangibility and Customer Loyalty

Model	Unstandardized Coefficients		Standardized Coefficients	Sig.
	B	Std. Error		
1 (Constant)	1.051	.200	5.244	.000
1 Tangibility	.200	.055	.213	3.608 .000

a. Dependent Variable: Customer Loyalty

The Effect of Empathy on Customer Loyalty

Regarding the effect of empathy on customer loyalty, the regression results indicate that at a five percent confidence interval, empathy significantly affects the loyalty of customers to NHIF-accredited facilities ($t = 3.169$ and $P < 0.002$).

Additionally, the beta coefficient of 0.125 entails that a unit increases in empathy raises the likelihood that a client would be loyal by 12.5%. According to the findings, health facility staff members generally speak courteously to patients. The study by Kahemela (2017), which found that the majority of authorized healthcare facilities offer their patients high-quality services, is similar to the one at hand.

Table 13: Marginal Effect of the Relationship between Empathy and Customer Loyalty

Model	Unstandardized Coefficients		Standardized Coefficients	Sig.
	B	Std. Error		
1 (Constant)	1.051	.200	5.244	.000
1 Empathy	.125	.039	.157	3.169 .002

a. Dependent Variable: Customer Loyalty

The Effect of Responsiveness on Customer Loyalty

Table 14 presents the regression results which indicate that responsiveness has insignificant effect on customer loyalty ($t = -1.315$, $P \geq 0.189$).

The t-value of -1.315 which is below threshold (1.96) connotes a non-significance of responsiveness and customer loyalty. These results are contrary to those by Agbi *et al.* (2020) and Kidola, (2022) whose study showed that, the degree of customer loyalty is influenced by staff responsiveness.

Table 14: Marginal Effect of the Relationship between Responsiveness and Customer Loyalty

Model	Unstandardized Coefficients		Standardized Coefficients	Sig.
	B	Std. Error		
1 (Constant)	1.051	.200	5.244	.000
1 Responsiveness	-.054	.041	-.071	-1.315 .189

a. Dependent Variable: Customer Loyalty

Discussion of the Findings

The study aimed to identify the perception of NHIF clients on the quality of accredited health facilities. The results showed that most of the respondents (50.0 percent) strongly agree that accredited health facilities offer good service to NHF clients, which implies that most of the NHIF clients are satisfied with the services and are fully utilizing them. This has attracted even those who are not compulsorily liable to join the scheme, such as self-employed people and part-time workers who have joined the scheme as voluntary members.

The Effect of Tangibility on Customer Loyalty

From the regression results, it was found that a unit increase in the tangibility of NHIF-accredited health services raises customer loyalty by 20 percent. The same results show that at a five percent confidence interval tangibility significantly influences customer loyalty to NHIF-accredited facilities. Furthermore, the correlation analysis between tangibility and customer loyalty results in a positive correlation ($r = 0.459$).

Improvements in service quality, such as tangibility may improve customer retention. The results are compatible with the previous study by Zubayer & Hoque (2019) which indicated a direct relationship between service quality and customer retention. Their studies demonstrated that attributes such as tangibility have a substantial impact on customer retention. Furthermore, their findings point to a significant connection between tangibility and customer retention, suggesting that individuals favor private healthcare services that prioritize their well-being. The correlation analysis revealed a strong relationship between customer loyalty and service excellence. However, the regression analysis indicated that client loyalty may not be significantly predicted by service quality. Improving client loyalty within the healthcare sector may not always follow improving components of service quality, such as reliability, assurance, tangibility, empathy and responsiveness.

To improve customer loyalty, the study suggests that improvements in tangible equipment, a clean environment, sufficient rooms, qualified nurses, reliable services, good location, proper patient records, responsiveness to client needs, and assurance and empathy activities can lead to improved customer loyalty. A significant number of respondents (at a significant level of $p \leq 0.000$) with a unit positive increase in tangibility agree that accredited health facilities have a clean environment. This is high and implies that customers expect a lot from NHIF-accredited health facilities' tangibility. For hospitals to be accredited by NHIF, they should have a good environment to offer health services. For the accredited health provider to be reimbursed for the services they provided to NHIF beneficiaries, they must adhere to NHIF guidelines and standards, which may result in adjustments or rejection of the amount, claimed.

The Effect of Responsiveness on Customer Loyalty

The study findings reveal that service responsiveness negatively impacts customer loyalty by 5.4 percent. Additionally, a negative t-value of -1.315 implies a non-significance of responsiveness and customer loyalty. These findings contradict previous research by Agbi et al. (2020) and Kidola (2022), which found that staff responsiveness influences customer loyalty. The non-significant of responsiveness and customer loyalty depict respondents perceived accredited health facilities offer bad services because there are inadequate health personnel (e.g. doctors, nurses, pharmacists, and laboratory technicians). A large number of respondents (32.9%) disagreed that they were not informed about the time the services would be performed. This implies that most of the clients are dissatisfied with services offered by accredited health facilities because they are not informed about the time the services will be performed. Responsiveness indicates whether the accredited health facilities are willing to help their customers readily. Service quality is assessed by the following conditions: If the perceived service is greater than the expected service, it results in quality surprise or exceptional quality. If the customers' expectations match with the actual service performance, then it results in service quality or satisfactory quality. If the customers' expectations are unmet or unfulfilled or fall short, then it results in "unacceptable quality."

Michubu (2018) studied Perceived Customer Service Quality Practices and Satisfaction in NHIF Accredited Health Facilities in Kiambu County and revealed that there was clear indications that satisfied customers will educate other potential customers concerning the administrations they get from the well-being office henceforth help select more individuals. These findings from Michubu's (2018) study are consistent with the literature in the study which supports that customer satisfaction is one of the major determinants of the success or failure of any business as customers tend to be sensitive to the responsiveness based on type and quality of service that they get from the service providers. The findings indicate a direct and positive direct of $p \leq 0.000$ between the responsiveness of service providers and customer satisfaction. The regression model in the analysis showed that there is a

statistically significant relationship between responsiveness and customer satisfaction hence the study model is significant, therefore taking the responsiveness, dimension at zero; customer satisfaction will be positive. The study recommended that health facilities incorporate the views of the clients into the quality of service by the wants of customers and this would go a long way in satisfying them. It further recommends that NHIF-accredited health facilities have to offer quality service to their customers. This would increase the number of customers seeking services from the fund's accredited health facilities and the facility will realize improved performance. The study suggested that a similar study should be undertaken focusing on all the hospitals in Kenya. The respondents should be broadened not only to the customers but also to the top management in the accredited health institutions and all the people who work in the hospitals.

CONCLUSION

The study's findings indicate that clients who recognize service reliability from NHIF-accredited health facilities tend to experience greater satisfaction compared to those who do not. Furthermore, the research highlights that assurance significantly contributes to fostering customer loyalty towards these accredited facilities. NHIF health facilities are noted for delivering high-quality care, which encompasses several factors: the availability of qualified medical professionals, well-maintained laboratories and health facility conditions, cleanliness in patient rooms and wards, attentive care from medical staff and nurses, as well as exceptional follow-up services. It can be inferred that service quality, particularly in terms of tangibility, enhances customer loyalty within the NHIF-accredited health facilities in the studied region. Tangibility emerged as a primary factor influencing customer loyalty in the context of health insurance services. Additionally, the study concludes that recognized medical facilities excel in service delivery due to the courteous assistance provided by the staff of NHIF-accredited health facilities. Customers report higher satisfaction levels when effective curative therapies are accessible at these facilities. Through its extensive network of healthcare providers, NHIF facilitates easier access to medical treatments for its clients.

RECOMMENDATIONS

The research highlights several key recommendations aimed at enhancing customer loyalty within NHIF-accredited health facilities. It emphasizes the importance of tangibility, assurance, and empathy in influencing customer loyalty, suggesting that these facilities should prioritize the quality of medical services. Regular maintenance of equipment and ongoing staff training are essential to ensure consistent service delivery and reduce wait times, thereby fostering trust and loyalty among customers.

While responsiveness was found not to significantly impact customer loyalty, the study advocates for improvements in staff responsiveness to enhance customer relations. It recommends that NHIF invest in effective communication channels, such as online portals and mobile applications, to

facilitate easy access to information and timely responses to inquiries and complaints, thereby demonstrating a commitment to customer satisfaction.

Additionally, the establishment of a feedback system is deemed crucial for gathering customer insights on service quality. The NHIF is encouraged to conduct audits of accredited medical facilities to reinforce the expected standards of care, provide training handbooks on insurance administration, and organize seminars to educate healthcare staff about medical schemes. This initiative aims to improve awareness of medical insurance, thereby building trust and confidence in healthcare services.

To further enhance customer loyalty, the study suggests improving the physical environment of NHIF-certified facilities, including waiting areas and consultation rooms, to create a welcoming atmosphere. Finally, training healthcare personnel to be empathetic and compassionate, actively listen to patient concerns, and provide personalized care is recommended to foster a supportive environment that encourages customer loyalty.

AREAS FOR FURTHER STUDIES

Future studies should involve a large sample to increase the validity and reliability of data collection. In addition, conduct longitudinal studies on satisfied customers to gather any changes in quality of services provision. Future studies should to examine measures that can be used to a selecting and accrediting health care facilities on many regions around Tanzania before generalization of study results.

REFERENCES

1. Abu-Salim, T., Mustafa, N., Onyia, O. P., & Watson, A. W. (2019). Gender in service quality expectations in hospitals: The role of cognitive and affective components. *International Journal of Quality and Service Sciences*, 11(4), 604-619.
2. Afriyie, D. O., Loo, P. S., Kuwawenaruwa, A., Kassimu, T., Fink, G., Tediosi, F., & Mtenga, S. (2024). Understanding the role of the Tanzania national health insurance fund in improving service coverage and quality of care. *Social Science & Medicine*, 347, 116714.
3. Agarwal, M., & Tanwar, S. (2020). The Effect of Service Quality on Customer Loyalty: A Review Study. *Global Journal of Research in Management*, 10(2), 36.
4. Agbi, F. A. (2020). Assessing Service Quality in the Ghanaian Private Healthcare Sector: The Case of Comboni Hospital.
5. Akhade, S. A., McCrum, I. T., & Janik, M. J. (2016). The impact of specifically adsorbed ions on the copper-catalyzed electro reduction of CO₂. *Journal of The Electrochemical Society*, 163(6), F477. 4.
6. Alavi, H., & Moghaddasi, H. (2021). Evaluating the Effectiveness of Quality Assurance Programs on Patient Satisfaction in Public Hospitals. *Journal of Health Policy and Management*, 30(2), 142-158
7. Albassam, T. (2013). *A model for measuring service quality in internet-based services: The case study of internet banking services in the Kingdom of Saudi Arabia* (Doctoral dissertation, Brunel University School of Engineering and Design PhD Theses).
8. Ali, J., Jusoh, A., Idris, N., Nor, K. M., Wan, Y., Abbas, A. F., & Alsharif, A. H. (2023). Applicability of healthcare service quality models and dimensions: future research directions. *The TQM Journal*, 35(6), 1378-1393
9. Al-Mhasnah, A., Salleh, F., Afthanorhan, A., & Ghazali, P. J. M. S. L. (2018). The relationship between services quality and customer satisfaction among Jordanian healthcare sector. *Management Science Letters*, 8(12), 1413-1420.
10. AlOmari, F., & A. Hamid, A. B. (2022). *Strategies to improve patient loyalty and medication adherence in Syrian healthcare setting: The mediating role of patient satisfaction*. *PLoS One*, 17(11), e0272057.
11. Amankwah, O., Choong, W. W., & Boakye-Agyeman, N. A. (2023). *The relationship between facilities management service quality and patients' health-care experience: the mediating effect of adequacy of health-care resource*. *Facilities*, 41(1/2), 108-125.
12. Amankwah, O., Choong, W. W., & Mohammed, A. H. (2019). Modelling the influence of healthcare facilities management service quality on patients satisfaction. *Journal of Facilities Management*, 17(3), 267-283.
13. Amole, B. B., Oyatoye, E. O., & Adebisi, S. O. (2015). *Prioritization of service quality influences on patients satisfaction using analytic hierarchy process: The Nigeria experience*. *Economics and Applied Informatics*, 3, 25-35.
14. Amu, H., Dickson, K. S., Kumi-Kyereme, A., & Darteh, E. K. M. (2018). Understanding variations in health insurance coverage in Ghana, Kenya, Nigeria, and Tanzania: evidence from demographic and health surveys. *PloS one*, 13(8), e0201833.
15. ANDESHI KIYOYA, Y. O. H. A. N. A. (2019). *Assessing the Level of Beneficiaries's Healthcare Satisfaction under National Health Insurance Fund (NHIF) in Dar es Salaam Region, Tanzania* (Doctoral dissertation, Universitas Gadjah Mada).
16. Assefa, E. S. (2014). The effects of justice oriented service recovery on customer satisfaction and loyalty in retail banks in Ethiopia. *EMAJ: Emerging Markets Journal*, 4(1), 49-58.
17. Babchishin, K. M., & Helmus, L. M. (2016). The influence of base rates on correlations: An evaluation of proposed alternative effect sizes with real-world data. *Behavior research methods*, 48, 1021-1031.
18. Baruch, Y., & Holtom, B. C. (2008). Survey response rate levels and trends in organizational research. *Human relations*, 61(8), 1139-1160.

19. Benoit, S., Klose, S., & Ettinger, A. (2017). Linking service convenience to satisfaction: Dimensions and key moderators. *Journal of Services Marketing*, 31(6), 527-538.
20. Calnan, R. R., Cours, D. A., & Williams, M. S. (2020). Connecting to the real world: Incorporating student consulting projects in real estate programs. *Journal of Education for Business*, 95(1), 59-65.
21. Campos, D. F., Negromonte Filho, R. B., & Castro, F. N. (2017). Service quality in public health clinics: perceptions of users and health professionals. *International Journal of Health Care Quality Assurance*, 30(8), 680-692.
22. Carter, S. R., Ahmed, A. M., & Schneider, C. R. (2023). The role of perceived service quality and price competitiveness on consumer patronage of and intentions towards community pharmacies. *Research in Social and Administrative Pharmacy*, 19(5), 717-727.
23. Cho, W. H., Lee, H., Kim, C., Lee, S., & Choi, K. S. (2004). *The impact of visit frequency on the relationship between service quality and outpatient satisfaction: a South Korean study*. *Health services research*, 39(1), 13-34.
24. Choge, C. (2021). Domestic private sector participation in faecal sludge management (Doctoral dissertation, Loughborough University).
25. Coovadia, H., Jewkes, R., Barron, P., Sanders, D., & McIntyre, D. (2009). The health and health system of South Africa: historical roots of current public health challenges. *The lancet*, 374(9692), 817-834.
26. Dalinjong, P. A., & Laar, A. S. (2012). *The national health insurance scheme: perceptions and experiences of health care providers and clients in two districts of Ghana*. *Health economics review*, 2, 1-13.
27. Denis, D. J. (2020). Univariate, bivariate, and multivariate statistics using R: quantitative tools for data analysis and data science. John Wiley & Sons.
28. Dong, B., Li, M., & Sivakumar, K. (2019). Online review characteristics and trust: A cross-country examination. *Decision Sciences*, 50(3), 537-566.
29. Elizar, C., Indrawati, R., & Syah, T. Y. R. (2020). *Service quality, customer satisfaction, customer trust, and customer loyalty in service of Paediatric Polyclinic over Private H Hospital of East Jakarta, Indonesia*. *Journal of Multidisciplinary Academic*, 4(2), 105-111.
30. Fatima, T., Malik, S. A., & Shabbir, A. (2018). Hospital healthcare service quality, patient satisfaction and loyalty: An investigation in context of private healthcare systems. *International journal of quality & Reliability Management*, 35(6), 1195-1214
31. Fatima, T., Malik, S. A., & Shabbir, A. (2018). Hospital healthcare service quality, patient satisfaction and loyalty: An investigation in context of private healthcare systems. *International journal of quality & Reliability Management*, 35(6), 1195-1214.
32. Flynn, B. B., Schroeder, R. G., & Sakakibara, S. (1995). *The impact of quality management practices on performance and competitive advantage*. *Decision sciences*, 26(5), 659-691.
33. Forsythe, S. M., & Shi, B. (2003). Consumer patronage and risk perceptions in Internet shopping. *Journal of Business research*, 56(11), 867-875.
34. Ganesan, P., & Sridhar, M. (2016). *Service innovation and customer performance of telecommunication service provider: a study on mediation effect of corporate reputation*. *Corporate Reputation Review*, 19, 77-101.
35. Ginting, Y., Chandra, T., Miran, I., & Yusriadi, Y. (2023). Repurchase intention of e-commerce customers in Indonesia: An overview of the effect of e-service quality, e-word of mouth, customer trust, and customer satisfaction mediation. *International Journal of Data and Network Science*, 7(1), 329-340.
36. Ginting, Y., Chandra, T., Miran, I., & Yusriadi, Y. (2023). Repurchase intention of e-commerce customers in Indonesia: An overview of the effect of e-service quality, e-word of mouth, customer trust, and customer satisfaction mediation. *International Journal of Data and Network Science*, 7(1), 329-340.
37. Griffin, J. (1995). *Customer loyalty* (p. 135). Jossey-Bass.
38. Grönroos, C. (2014). *What can a service logic offer marketing theory?* In *The service-dominant logic of marketing* (pp. 372-382). Routledge.
39. Harriet, N., Arthur, N., Komunda, M. B., & Mugizi, T. (2024). Service Quality, Customer Loyalty and Customer Retention among Private Health Care Services in Mbarara City. *Open Journal of Social Sciences*, 12(01), 101-126.
40. Hartline, M. D., & Jones, K. C. (1996). Employee performance cues in a hotel service environment: Influence on perceived service quality, value, and word-of-mouth intentions. *Journal of business research*, 35(3), 207-215.
41. Hendrawan, D., & Anggraeni, R. (2020). Is the loyalty program effective in creating loyalty program satisfaction and store loyalty? An evidence from Indonesia retail industry. *Jurnal Aplikasi Manajemen*, 18(4), 645-655.
42. Hoe, L. C., & Mansori, S. (2018). The effects of product quality on customer satisfaction and loyalty: Evidence from Malaysian engineering industry. *International Journal of Industrial Marketing*, 3(1), 20.
43. Hom, W. (2000). *An Overview of Customer Satisfaction Models*.
44. Hoque, U. S., Akhter, N., Absar, N., Khandaker, M. U., & Al-Mamun, A. (2023). Assessing service

- quality using SERVQUAL model: An empirical study on some private universities in Bangladesh. *Trends in Higher Education*, 2(1), 255-269.
45. Ibojo, B. O., & Asabi, O. M. (2015). Impact of customer satisfaction on customer loyalty: A case study of a reputable bank in Oyo, Oyo State, Nigeria. *International Journal of Managerial Studies and Research*, 3(2), 59-69.
 46. Idayati, I., Kesuma, I. M., Aprianto, R., & Suwarno, S. (2020). The Effect of Service Quality on Citizen's Expectation through Dimension of Tangible, Emphaty, Reliability, Responsiveness and Assurance (TERRA). *SRIWIJAYA International Journal of dynamic economics and business*, 241-252.
 47. Ingaldi, M. (2018). *Overview of the main methods of service quality analysis*. *Production Engineering Archives*, 18(18), 54-59.
 48. Ismail, A., & Yunan, Y. M. (2016). *Service quality as a predictor of customer satisfaction and customer loyalty*. *LogForum*, 12(4), 269-283.
 49. Jande, M., Katabalo, D. M., Sravanam, P., Marwa, C., Madlan, B., Burger, J., ... & Mwita, S. (2017). Patient-related beliefs and adherence toward their medications among the adult hypertensive outpatients in Tanzania. *Journal of comparative effectiveness research*, 6(3), 185-193.
 50. Kahemela, L. (2017). An Examination of the Relationship between Customer Satisfaction and Curative Quality Services Supported by the National Health Insurance Fund in Dar es Salaam (Doctoral dissertation, The Open University of Tanzania).
 51. Kazungu, J. S., & Barasa, E. W. (2017). *Examining levels, distribution and correlates of health insurance coverage in Kenya*. *Tropical Medicine & International Health*, 22(9), 1175-1185.
 52. Khamis, K., & Njau, B. (2014). *Patients' level of satisfaction on quality of health care at Mwananyamala hospital in Dar es Salaam, Tanzania*. *BMC health services research*, 14(1), 1-8.
 53. Khisa, A. (2023). *Impact of the quality of national health insurance fund service on customers' satisfaction in Bungoma County, Kenya (Doctoral dissertation, Moshi Co-operative University (MoCU))*.
 54. Khisa, A. (2023). *Impact of the quality of national health insurance fund service on customers' satisfaction in Bungoma County, Kenya (Doctoral dissertation, Moshi Co-operative University (MoCU))*.
 55. Khisa, A., Namwata, B., & Chikoyo, R. (2023). Influence of Empathy on Customer Satisfaction At National Health Insurance Fund In Bungoma County, Kenya. *Journal of African Interdisciplinary Studies*, 7(8), 65-86.
 56. Kibambila, V. (2017). Perceptions and demand for health insurance services offered under national health insurance fund (NHIF) scheme among civil servants in Tanzania. *Journal of Economics and Sustainable Development*, 8(9), 91-122.
 57. Kidola, M. K. (2022). *The Effects of Service Quality on Customer Satisfaction: A Case of National Health Insurance Fund (NHIF)-Kibondo District, Kigoma Region (Doctoral dissertation, The Open University of Tanzania)*.
 58. Kotler, P. (1994). *Reconceptualizing marketing: an interview with Philip Kotler*. *European Management Journal*, 12(4), 353-361.
 59. Kotzé, M., & Lamb, S. (2012). The influence of personality traits and resilience on burnout among customer service representatives in a call centre. *Journal of Social Sciences*, 32(3), 295-309.
 60. Kruk, M. E., Gage, A. D., Arsenault, C., Jordan, K., Leslie, H. H., Roder-DeWan, S., & Pate, M. (2018). High-quality health systems in the Sustainable Development Goals era: time for a revolution. *The Lancet global health*, 6(11), e1196-e1252.
 61. Kurata, H., & Nam, S. H. (2013). After-sales service competition in a supply chain: does uncertainty affect the conflict between profit maximization and customer satisfaction?. *International journal of production economics*, 144(1), 268-280.
 62. Kwarteng, A., Akazili, J., Welaga, P., Dalinjong, P. A., Asante, K. P., Sarpong, D., & Sankoh, O. (2020). The state of enrollment on the National Health Insurance Scheme in rural Ghana after eight years of implementation. *International journal for equity in health*, 19, 1-14.
 63. Kwesiga, D. (2010). *A comparative analysis of client satisfaction among people receiving HIV/AIDS care from public and private health facilities in Kabale District (Doctoral dissertation, Makerere University)*.
 64. La Salle, T. P., Zabek, F., & Meyers, J. (2016, March). *Elementary Student Perceptions of School Climate and Associations with Individual and School Factors*. In *School Psychology Forum (Vol. 10, No. 1)*.
 65. Lawal, A. F., Araba, K. T., & Yusuf, J. (2022). *The Context of Community-Based Health Insurance in Nigeria: Lessons for the African Continent*. In *The Palgrave Handbook of Global Social Problems (pp. 1-22)*. Cham: Springer International Publishing.
 66. Lengnick-Hall, C. A. (1996). *Customer contributions to quality: A different view of the customer-oriented firm*. *Academy of management review*, 21(3), 791-824.
 67. Leshabari, M. T., Muhondwa, E. P., Mwangi, M. A., & Mbembati, N. A. (2008). *Motivation of health care workers in Tanzania: a case study of Muhimbili National Hospital*. *East Afr J Public Health*, 5(1), 32-37.
 68. Lewis, B. R., Orledge, J., & Mitchell, V. W. (1994). *Service quality: Students' assessment of banks and*

- building societies. *International Journal of Bank Marketing*, 12(4), 3-12.
69. Linje, B., & MONUSCO's Force Intervention Brigade, F. I. B. (2015). *No Angels! Congolese Women Caught Up In Sexual Abuses By Un Peacekeepers, Government Soldiers And Rebels. Constructive Pathways: Stimulating and Safeguarding Components of WPS*, 243.
70. Liu, K., Cook, B., & Lu, C. (2019). Health inequality and community-based health insurance: a case study of rural Rwanda with repeated cross-sectional data. *International Journal of Public Health*, 64, 7-14.
71. Mangold, W. G., Babakus, E., & Smith, K. T. (2013). Trust and the online conversation: the case of online reviews. *International Journal of Internet Marketing and Advertising*, 8(2), 143-160.
72. Mangold, W. G., Babakus, E., & Smith, K. T. (2013). Trust and the online conversation: the case of online reviews. *International Journal of Internet Marketing and Advertising*, 8(2), 143-160.
73. Meesala, A., & Paul, J. (2018). Service quality, consumer satisfaction and loyalty in hospitals: Thinking for the future. *Journal of Retailing and Consumer Services*, 40, 261-269.
74. Mensah, J., Oppong, J. R., & Schmidt, C. M. (2010). *Ghana's National Health Insurance Scheme in the context of the health MDGs: An empirical evaluation using propensity score matching*. *Health economics*, 19(S1), 95-106.
75. Michubu, E. (2018). *Perceived Customer Service Quality Practices and Satisfaction in Nhif Accredited Health Facilities in Kiambu County* (Doctoral dissertation, University of Nairobi).
76. Nam, K., Baker, J., Ahmad, N., & Goo, J. (2020). *Determinants of writing positive and negative electronic word-of-mouth: Empirical evidence for two types of expectation confirmation*. *Decision Support Systems*, 129, 113168.
77. Nguyen, N. X., Tran, K., & Nguyen, T. A. (2021). *Impact of service quality on in-patients' satisfaction, perceived value, and customer loyalty: A mixed-methods study from a developing country*. *Patient preference and adherence*, 2523-2538.
78. Njoroge, W. W. (2013). *Employee factors and perceived service quality in the hotel industry in Nairobi, Kenya* (Doctoral dissertation, University of Nairobi).
79. Oakland, J. S. (2014). *Total quality management and operational excellence: text with cases*. Routledge.
80. Oliver, R. L. (1977). Effect of expectation and disconfirmation on post exposure product evaluations: An alternative interpretation. *Journal of applied psychology*, 62(4), 480.
81. Omar, N. A., & Musa, R. (2011). Measuring service quality in retail loyalty programmes (LPSQual): Implications for retailers' retention strategies. *International Journal of Retail & Distribution Management*, 39(10), 759-784.
82. Onjewu, A. K. E., Jafari-Sadeghi, V., Kock, N., Haddoud, M. Y., & Sakka, G. (2023). The catalyzing role of customer pressure on environmental initiatives and export intensity: A study of family firms. *Journal of Business Research*, 166, 114134.
83. Panda, T. K., & Das, S. (2014). The role of tangibility in service quality and its impact on external customer satisfaction: A comparative study of hospital and hospitality sectors. *IUP Journal of Marketing Management*, 13(4).
84. Parasuraman, A., Berry, L., & Zeithaml, V. (2002). Refinement and reassessment of the SERVQUAL scale. *Journal of retailing*, 67(4), 114.
85. Pekkaya, M., Pulat İmamoğlu, Ö., & Koca, H. (2019). Evaluation of healthcare service quality via Servqual scale: An application on a hospital. *International Journal of Healthcare Management*, 12(4), 340-347.
86. Philip, G., & Hazlett, S. A. (1997). The measurement of service quality: a new P-C-P attributes model. *International journal of quality & reliability management*, 14(3), 260-286.
87. Pitacco, E. (2014). *Health insurance. Basic Actuarial Models*, Cham, Switzerland: Springer Verlag.
88. Puteh, S. E. W., & Almuallm, Y. (2017). Catastrophic health expenditure among developing countries. *Health Syst Policy Res*, 4(1), 1-5.
89. Pynnönen, M., Hallikas, J., Ritala, P., & Mikkonen, K. (2014). Analyzing systemic customer value in scalable business services. *The Service Industries Journal*, 34(14), 1154-1166.
90. Rajić, T., Milošević, I., & Rakić, A. (2020). The Influential Factors of Health Care Customer Loyalty: Evidence from Serbia. *Management: Journal of Sustainable Business and Management Solutions in Emerging Economies*, 25(2), 77-87.
91. Reimann, C., Filzmoser, P., Hron, K., Kynčlová, P., & Garrett, R. G. (2017). A new method for correlation analysis of compositional (environmental) data—a worked example. *Science of the total Environment*, 607, 965-971.
92. Renggli, S., Mayumana, I., Mboya, D., Charles, C., Mshana, C., Kessy, F., & Pfeiffer, C. (2019). *Towards improved health service quality in Tanzania: contribution of a supportive supervision approach to increased quality of primary healthcare*. *BMC health services research*, 19(1), 1-16.
93. Rolo, A., Saraiva, M., Leandro, G., Nogueiro, T., & Alves, R. (2023, May). A Comparative Study of Service Quality in Portuguese and Angolan Higher Education Institutions. In International Conference on Quality Innovation and Sustainability (pp. 199-208). Cham: Springer Nature Switzerland.

94. Rosopa, P. J., Schaffer, M. M., & Schroeder, A. N. (2013). Managing heteroscedasticity in general linear models. *Psychological methods*, 18(3), 335.
95. Salari, P., Akweongo, P., Aikins, M., & Tediosi, F. (2019). *Determinants of health insurance enrolment in Ghana: evidence from three national household surveys*. *Health policy and planning*, 34(8), 582-594.
96. Setiono, B. A., & Hidayat, S. (2022). Influence of Service Quality with the Dimensions of Reliability, Responsiveness, Assurance, Empathy and Tangibles on Customer Satisfaction. *International Journal of Economics, Business and Management Research*, 6(09), 330-341.
97. Setó-Pamies, D. (2012). *Customer loyalty to service providers: examining the role of service quality, customer satisfaction and trust*. *Total Quality Management & Business Excellence*, 23(11-12), 1257-1271.
98. Sharma, R., & Kumar, P. (2022). *Linking Customer Satisfaction to Brand Loyalty in Healthcare: The Mediating Role of Service Quality*. *International Journal of Health Economics and Management*, 28(1), 120-135.
99. Shetty, D. K., Perule, N., Potti, S. R., Jain, M., Malarout, N., Devesh, S., & Naik, N. (2022). A study of service quality in Indian public sector banks using modified SERVQUAL model. *Cogent Business & Management*, 9(1), 2152539.
100. Sima, V., Gheorghe, I. G., Subić, J., & Nancu, D. (2020). *Influences of the industry 4.0 revolution on the human capital development and consumer behavior: A systematic review*. *Sustainability*, 12(10), 4035.
101. Sitthipon, T., Siripipathanakul, S., Phayaphrom, B., Siripipattanakul, S., & Limna, P. (2022). Determinants of customers' intention to use healthcare chatbots and apps in Bangkok, Thailand. *International Journal of Behavioral Analytics*, 2(2), 1-15.
102. Subiyakto, B., & Sebastian, K. O. T. (2020). The government reform on healthcare facilities from the standpoint of service quality performance. *International Journal of Economics and Finance Studies*, 12(1), 16-31.
103. Sugiarto, S., & Octaviana, V. (2021). Service Quality (SERVQUAL) Dimensions on Customer Satisfaction: Empirical Evidence from Bank Study. *Golden Ratio of Marketing and Applied Psychology of Business*, 1(2), 93-106.
104. Suharto, S., & Yuliansyah, Y. (2023). The Influence of Customer Relationship Management and Customer Experience on Customer Satisfaction. *Integrated Journal of Business and Economics*, 7(1), 403-417.
105. Swathi, S., Srinath, T. K., & Podder, S. K. (2023). Impact of Service Quality on Customer Satisfaction With Reference To NABH Accredited Hospitals. *Journal of Survey in Fisheries Sciences*, 10(1S), 6278-6285.
106. The World Health Report (2010). *Health Systems Financing: The path to universal coverage*. World Health Organization
107. Trivedi, R., & Jagani, K. (2018). Perceived service quality, repeat use of healthcare services and inpatient satisfaction in emerging economy: Empirical evidences from India. *International Journal of Pharmaceutical and Healthcare Marketing*, 12(3), 288-306.
108. Tungu, M., Amani, P. J., Hurtig, A. K., Dennis Kiwara, A., Mwangu, M., Lindholm, L., & San Sebastian, M. (2020). Does health insurance contribute to improved utilization of health care services for the elderly in rural Tanzania? A cross-sectional study. *Global Health Action*, 13(1), 1841962.
109. Umar, I., Oche, M. O., & Umar, A. S. (2011). Patient waiting time in a tertiary health institution in Northern Nigeria. *Journal of Public Health and Epidemiology*, 3(2), 78-82.
110. Van Der Wiele, T., Boselie, P., & Hesselink, M. (2002). Empirical evidence for the relationship between customer satisfaction and business performance. *Managing Service Quality: An International Journal*, 12(3), 184-193.
111. Waari, D., Bonuke, R., & Kosgei, D. (2018). Loyalty programs benefits and customer loyalty: The mediating role of customer satisfaction. *International Journal of Commerce and Management*, 6(4), 726-737.
112. Wahyuni, N. (2024). Effect of Service Quality, Price and Location on Costumers Satisfaction at Bangi Cafe Kota Wisata Cibubur. *International Journal of Scientific Multidisciplinary Research*, 2(7), 831-844.
113. Wallin Andreassen, T. (2000). Antecedents to satisfaction with service recovery. *European journal of marketing*, 34(1/2), 156-175.
114. Winston, W., & Weinstein, A. (2016). *Defining your market: winning strategies for high-tech, industrial, and service firms*. Routledge.
115. Yeong, S. N., Knox, D., & Prabhakar, G. (2022). Customer satisfaction and loyalty in Malaysian resort hotels: the role of empathy, reliability and tangible dimensions of service quality. *International Journal of Services and Operations Management*, 41(4), 444-462.
116. Zaibaf, M., Taherikia, F., & Fakharian, M. (2013). Effect of perceived service quality on customer satisfaction in hospitality industry: Gronroos' service quality model development. *Journal of Hospitality Marketing & Management*, 22(5), 490-504.
117. Zaim, H., Bayyurt, N., & Zaim, S. (2010). Service quality and determinants of customer satisfaction in hospitals: Turkish experience. *International*

- Business & Economics Research Journal* (IBER), 9(5).
118. Zeithaml, V. A., Parasuraman, A., & Berry, L. L. (1990). *Delivering quality service: Balancing customer perceptions and expectations*. Simon and Schuster.
119. Zubayer, M., & Hoque, S. (2019). Health care service quality and in patients' satisfaction: An empirical investigation on healthscape's tangible quality. *Global Journal of Arts, Humanities and Social Sciences*, 7(5), 39-55.