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**Impact of Service Quality Dimensions on Citizens'
Satisfaction with Land Services in Rwanda.**



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Impact of Service Quality Dimensions on Citizens' Satisfaction with Land Services in Rwanda.

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Abstract

Purpose: This study aimed to establish the correlation between service quality dimensions and citizen satisfaction with land transfer services in Rwanda.

Methodology: The study employed a mixed research approach; in quantitative research, two two-stage simple random sampling techniques were used to select the sample to be surveyed while key informants were selected purposively from service seekers. Data were gathered from a sample of 422 service seekers who obtained land transfer services from January to December 2019 using a five-item Likert scale. Sixteen (16) key informant interviews were carried out with representatives of service seekers to gather their experience of the service received. A reliability test was conducted and produced a result of 0.932, which is greater than 0.7 indicating excellent reliability of the research tool.

Findings: The findings indicate that all five service quality dimensions are positive and significant predictors of customer satisfaction. The predictive power of each of the five service quality dimensions is as follows: responsiveness (B: 3.349, SE: .4755, Exp. (B):28.473: P-value: 0.00<0.05); tangibles (B: 3.267, SE: .4969, Exp. (B): 26.231: P-value: 0.00<0.05); reliability (B: 2.747, SE: .4293, Exp. (B): 15.596: P-value: 0.00<0.05); empathy (B: 2.248, SE: .4362, Exp. (B): 9.467: P-value: 0.00<0.05) and assurance (B: 1.827, SE: .4490, Exp. (B):6.215: P-value: 0.00<0.05).

Contribution to Theory, Policy, and Practice: The study established that the five service quality dimensions are significant and positive predictors of satisfaction and recommends that, where resources are limited, institutions should focus more efforts on dimensions (Responsiveness, Tangibles and Reliability) that predictor satisfaction more than others. It is also recommended that land service delivery model be redesigned in line with decentralisation policy and to fully digitize land services to ensure that, the time taken to process land transfer services is reduced.

Keywords: *Service Quality, Service Quality Dimensions, Customer satisfaction, Land Services, Service quality measurement.*

INTRODUCTION

The current competitive environment for business requires unique and consistent strategies to guarantee profitability and success. Customers have their needs and preferences and to ensure that customers are attracted and maintained, service providers are required to endeavour to meet their needs to sustain their engagement. Offering high-quality service to service seekers is a fundamental aspect of withstanding the contemporary competitive business setting. Service seekers remain engaged with organizations that care for their needs and will desire to come again and again for the same service if their needs are well served (Nitin et al., 2023). Customer satisfaction is heavily dependent on the quality of services offered by providers. Organizations should always ensure that they have a sustainable way of assessing whether they are living up to their customers' standards defined in their service charters. Many authors argue that the satisfaction of customers is usually an outcome of efficiency in delivering services which mainly enhances customer engagement and interrelationships (Chang et al., 2017; Chonsalasin et al., 2021; Slack & Singh, 2020; Peitzika et al., 2020; Phan et al., 2021). Service quality is influenced by several factors – reliability, responsiveness, tangibles, assurance, and empathy (Gogoi, 2020) which customers use to evaluate business performance.

The service sector contributes significantly to the advancement of the economies of countries (Ghani & O'Connell, 2016). Services play a role in job creation, growth of GDP, and alleviation of poverty more than other sectors such as industry; it is highlighted that more than 75% of the global economy comes from services, and 45% of this is a share of developing countries (Eman, 2019). In the case of Rwanda, in the year 2021, the share of the service sector to GDP was 48% (10.944 billion) and is expected to grow to over 70% by 2024 (NISR, 2016). The government of Rwanda considers service delivery as a governance imperative that enhances citizen-centered governance. The government of Rwanda is doing everything possible to continuously improve the delivery of quality service to citizens (Masiya et al., 2019; Parker et al., 2023) and measurement mechanisms have been put in place to gauge the status and propose improvements based on evidence (Eneanya, 2018; Masiya et al., 2019).

Problem Statement

Rwanda's 2050 vision envisages an innovative service sector to drive the national transformation where it is anticipated to contribute 46% of GDP by 2035 and 42% by 2050 (MINECOFIN, 2020). It also anticipates that 100% of government services will be offered online by 2024. Since 2006, the government of Rwanda initiated a decentralization system and IMIHIGO (literally translated as performance contracts) across the public institutions to improve service delivery to citizens. Surveys to assess the satisfaction of citizens with service delivery were also initiated. The surveys indicated an improvement in the satisfaction of citizens with the quality of services they receive from local government entities from 67.7% (Rwanda Governance Board, 2016) to 70.7% (Rwanda Governance Board, 2019).

Despite the efforts invested in promoting service delivery including the regular assessment done to gauge the satisfaction of citizens, the level of citizens' satisfaction is still low at 70%

(Rwanda Governance Board, 2019) against a target of 90% by 2024. With this growth rate, it is highly unlikely that this target will be met. Even when the satisfaction of citizens with service delivery in other sectors continued to show a slight improvement, citizens' satisfaction with land services showed a decrease from 67.3% in 2016 to 63.9% in 2019.

This research was carried out to establish the factors that influence the satisfaction of citizens with the quality of land services and the process taken in delivering land services to inform strategies for improvement. There is no prior research carried out in Rwanda on the relationship between service quality factors and the satisfaction of citizens with land services.

Research objectives

- (1) To identify the current process of land transfer services
- (2) To measure citizens' satisfaction with land transfer services and its relationship with factors that affect service quality
- (3) To establish a new model of land transfer services

LITERATURE REVIEW

The significant influence of service quality on customer satisfaction has been discussed extensively in the literature. The quality of service has become a common talk among businesses and has attracted the attention of scholars and organizational leaders as a fundamental part of customer satisfaction and business success (Priyo et al., 2019; Ali et al., 2014; Ramachandran & Chidambaram, 2012). Several authors have shown that service quality significantly impacts the satisfaction and loyalty of customers (Slack & Singh, 2020; Fida et al., 2020). Priyo et al. (2019) also highlighted that service quality plays an essential part in enhancing the satisfaction and loyalty of customers. Grönroos (1984) defined two service elements; technical quality and functional quality. He called technical the outcome of the interface between the customer and provider and the functional quality of the process of delivering the service which may include the amount of time taken to offer the service, care given to the customer, and the courtesy given to the customer. When these two elements are analyzed critically, they can be related to the service quality dimension of tangibles, reliability, responsiveness, assurance, and empathy (Parasuraman et al., 1991).

Research has shown that service quality dimensions such as responsiveness, reliability, tangibles, assurance, and empathy have a positive influence on customer satisfaction and loyalty (Iddrisu et al., 2015; Sah & Pokharel, 2021). Many organizations comprehend that service quality has a very significant impact on the overall satisfaction and loyalty of customers (Orel and Kara, 2014). The service quality dimensions appear to be unique in determining the satisfaction of customer satisfaction but their significance is not always the same (Souren et al., 2021).

Service quality

Service quality is referred to as the ability of an institution to effectively respond to the needs of its clients to satisfy them and retain them to support its continuity and profitability (Ramya

et al., 2019). The activities that take place during the delivery of the service may have a lasting impact on the perception of the customer regarding the quality of the service. Therefore, service organizations need to know that, service quality is not one action but rather a chain of related and complementary actions performance until a service is consumed by the customer.

Customer satisfaction

Customer satisfaction depends on the value a customer derives from consuming a good or service. It is defined as the fulfilment derived from consuming a good or service that may either meet his/her expectations or exceed them (Agnihotri, et al., 2019). The extent to which customers are satisfied determines their repeat purchases or not. The individual who buy and consume a service to meet their needs expect to derive satisfaction from experiencing the service (Gunawan, 2022; Hamzah & Shamsudin, 2020; Lim et al., 2020). Both the organization or service providers and service seekers derive impetus from a satisfying service; the service seekers/customers stay with a desire to come back for the same service and service providers are motivated to keep on satisfying them (Ilias & Shamsudin, 2020; Zakari & Ibrahim, 2021).

Service Quality and Customer Satisfaction

The central distinction between the quality of service and the satisfaction of customers is that service quality is more of an impression one gets even before consuming a service while satisfaction is derived from service experience (Segoro & Limakrisna, 2020). Both service quality and customer satisfaction are essential precursors for enhancing the market share of business undertakings (Hamzah and Shamsudin, 2020) as well as trust and legitimacy for public institutions responsible for delivering services to the people. Satisfaction depends on numerous perceptive and expressive features that may include feelings, ascriptions, and equity whereas quality shows fewer conceptual precursors (Lei et al., 2022).

Relentless advancement and sustained business success depend on the extent of satisfaction their customers derive from consuming their services (Hamzah and Shamsudin, 2020). Management's commitment to prioritizing customer satisfaction determines the extent to which customers stay loyal to the organization. Although some authors argue that, neither satisfaction nor quality may be an antecedent to the other (Lina, 2022; Syahsudarmi, 2022) some others believe that, quality and satisfaction are very closely correlated (Sokchan et al., 2018).

Service quality measurement

Parasuraman et al. (1985) developed a service measurement scale which they named SERVQUAL to evaluate the customers' perceived service quality about their expectations of service quality. SERVQUAL is commonly used to support organizations' management to determine service gaps between variables that influence service quality and appropriately address them (Jonkisz et al., 2021).

Service quality dimensions and hypotheses development

This study employed SERVQUAL to examine the relationship between tangibles and customers' (citizens') satisfaction with land transfer services in Rwanda. The five service quality dimensions (tangibles, Reliability, Responsiveness, Assurance, and Empathy) defined by Parasuraman et al. (1985) have been used to measure service quality in various fields (Zygiaris et al., 2022). The predictive power of each of the dimensions varies depending on the nature of the service being measured.

Reliability

Reliability refers to the preparedness of the service providers to offer the service as pledged and the accompanying service delivery activities to deliver the service accurately (Devesh 2019). Earlier research showed that there is a positive influence of reliability on customer satisfaction in the financial sector (Alabbodi, 2019; Famiyeh et al., 2018; Kant and Jaiswal 2017). The study aims at examining whether there is a relationship between reliability and customer satisfaction. Therefore, the hypothesis is as follows:

H0₁: There is a positive relationship between reliability and citizens' satisfaction with land transfer services in Rwanda

H1₁: There is no positive relationship between reliability and citizens' satisfaction with land transfer services in Rwanda

Tangibles

Tangibles refer to the physical aspects of the service delivery which may include: the appearance of buildings in which services are delivered; service delivery equipment; cleanliness of the place where the service is offered and the appearance of employees delivering the service (Parasuraman et al., 1985). Many studies found a significant positive relationship between tangibles and customer satisfaction in the banking sector (Fida et al., 2020; Kant and Jaiswal 2017; Inbalakshmi & Krishnamoorthy, 2015; Selvakumar, 2015). One researcher did not find any significant association between tangibility and customer satisfaction in the banking sector in Tunisia (Ghorbanzadeh et al., 2022). Based on the above literature, the hypothesis proposed is as follows:

H0₂: There is a positive relationship between tangibles and citizens' satisfaction with land transfer services in Rwanda

H1₂: There is no positive relationship between tangibles and citizens' satisfaction with land transfer services in Rwanda

Responsiveness

Responsiveness refers to the promptness with which an adequate service is offered to the customer (Endara et al., 2019). Responsiveness is also referred to as the capacity of service providers to offer services timely whether in electronic or manual form (Uddin et al., 2015). Some

authors have carried out research in the banking sector and found that responsiveness has a positive relationship with customer satisfaction in the banking sector (Kant and Jaiswal 2017; Negassa & Japee, 2023; Sardana & Bajpai, 2020; Selvakumar 2015; Khan et al. 2021; Vencataya et al., 2019). Other studies have however found no significant relationship between responsiveness and customer satisfaction (Famiyeh et al., 2018; Fida et al., 2020; Yun & Park, 2022). The hypothesis for this dimension is:

H0₃: There is a positive relationship between responsiveness and citizens' satisfaction with land transfer services in Rwanda

H1₃: There is no positive relationship between responsiveness and citizens' satisfaction with land transfer services in Rwanda

Assurance

Assurance symbolizes the extent to which an organization honours its obligations in delivering services to customers. Honouring commitments builds trust and confidence in the service organizations among its customers. Many researchers demonstrate that there is a positive and significant association between assurance and customer satisfaction in the banking sector (Fida et al., 2020; Kant and Jaiswal 2017; Khan et al., 2021; Pakurár et al., 2019; Tofik et al., 2021). On the other hand, Famiyeh et al. (2018) conducted research in the banking sector in Ghana and did not find any significant correlation between assurance and customer satisfaction. The hypothesis for this service quality dimension is:

H0₄: There is a positive relationship between Assurance and citizens' satisfaction with land transfer services in Rwanda

H1₄: There is no positive relationship between Assurance and citizens' satisfaction with land transfer services in Rwanda

Empathy

Empathy encompasses the extent to which a service organization can offer services that are tailored to customer needs. It refers to the consideration and individualized attention and care offered to customers based on understanding their needs and endeavoring to tailor the service to these needs. Service organizations that can recognize, interrelate, and effectively communicate with customers demonstrate empathy to them (Gatari, 2016). Studies indicate that there is a positive relationship between empathy and customer satisfaction especially in the banking sector (Huda et al, 2023; Janahi and Al Mubarak, 2027; Khan et al., 2021; Markovic et al. 2018). In this context, the hypothesis for the dimension is:

H0₅: There is a positive relationship between Empathy and citizens' satisfaction with land transfer services in Rwanda.

H1₅: There is no positive relationship between Empathy and citizens' satisfaction with land transfer services in Rwanda.

Conceptual framework of the study

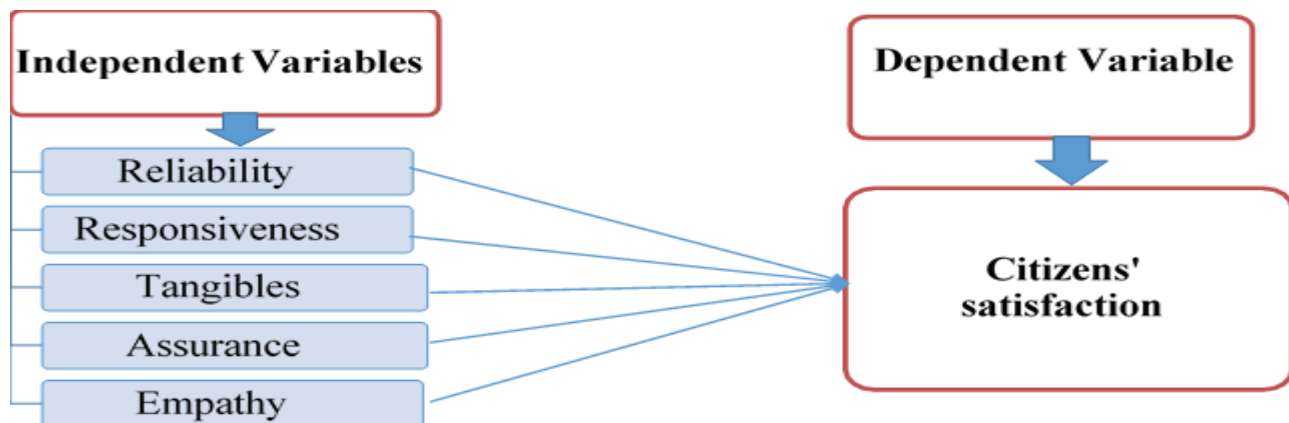


Figure 1: Conceptual Framework

Source: Researcher (2023)

METHODOLOGY

Data collection methods and procedure

The research used both quantitative and qualitative approaches for triangulation and complementarity (Hitchcock & Onwuegbuzie, 2020; Strijker et al., 2020). The study population for the survey was 53,158 people who obtained land transfer services from January 1st – December 31st, 2019 (NLA, 2019). The sample of the study was 422 people who were selected randomly from the above population who all responded to the questionnaire. The questionnaire was based on the SERVQUAL tool made of the five service quality dimensions namely; reliability, assurance, tangibles, empathy, and responsiveness (Parasuraman et al., 1985). The questionnaire had two parts – part one comprised of demographic information of respondents and part two was comprised of service quality dimension items. A five-point Likert scale was used to measure the satisfaction of citizens who experienced land transfer services. Sixteen key informant interviews were also conducted with respondents who were purposively selected from service seekers.

Data analysis

Data cleaning was undertaken to remove any data items with issues and the actual analysis followed. The analysis was conducted using Statistical Package for Social Sciences (SPSS). Descriptive statistical analysis, analysis of variance (ANOVA), and logistics regression analysis were used to analyze the data. The use of descriptive statistics helped to present the demographic information of respondents in an easy-to-understand and manageable form (Yellapu, 2018). P-values in the ANOVA output were used to determine if the differences between means under the scale items were statistically significant (Ntumi, 2021). The researcher employed logistics regression analysis to test the study hypotheses. The logistic Regression Model was chosen because the dependent variable was binary and the variables were ordered requiring the application of ordinal logistic regression. The hypotheses were tested using logistics regression analysis to decide

whether a significant relationship exists between the independent and the outcome variables. The analysis of qualitative data was done manually since the interviews were few and easy to arrange, categorize, code, and analyze.

Validity and reliability

The data collection tool was tested for reliability using Cronbach's alpha and produced an output of 0.932. The test result of $0.932 > 0.7$ on the 30-item scale shows the excellent reliability of the tool (Barbera et al., 2021; Taber, 2018). Explanatory factor analysis was also carried out that confirmed the unidimensionality of the item variables. Additionally, Analysis of Variance (ANOVA) was used to test the statistical significance of the differences between the means under the scale items employed (Ntumi, 2021; Patel et al., 2015) and resulted in a significance level of $0.000 > p\text{-value of } 0.05$. The researcher used the Pearson correlation coefficient to test the statistical significance and the produced results indicated that all the actual values were greater than the critical value of 0.444 demonstrating the comprehensiveness and validity of the data collection tool (questionnaire).

FINDINGS

Analysis of demographic features of respondents

Tables 1, 2, and 3 below display the demographic features of respondents that include gender, age, residence, and education levels.

Table 1: Respondents by Gender

District	Measurement	Sex		Total
		Male	Female	
Rwamagana	% within district	74.9%	25.1%	100.0%
	% of the total	37.4%	12.6%	50.0%
Kayonza	% within district	87.0%	13.0%	100.0%
	% of the total	15.9%	2.4%	18.2%
Nyanza	% within district	75.0%	25.0%	100.0%
	% of the total	6.4%	2.1%	8.5%
Nyaruguru	% within district	65.9%	34.1%	100.0%
	% of the total	6.4%	3.3%	9.7%
Burera	% within district	84.2%	15.8%	100.0%
	% of the total	11.4%	2.1%	13.5%
All districts	% Total	77.5%	22.5%	100.0%

Source: Primary data (2023)

As presented in the 1 above, the majority of respondents (77.5%) were males while 22.5% of them were females. Rwamagana and Kayonza districts have the highest number of respondents who sought land transfer services with 50% and 18.2% respectively.

Table 2: Respondents by Age Category

Age interval	Frequency	Valid Percent
21-30	34	8.1%
31-40	171	40.5%
41-50	142	33.6%
51-60	39	9.3%
61 and above	36	8.5%
Total	422	100.0%

Source: Primary data (2023)

The majority of those who sought land transfer services are in the age category of 31-50 years as shown in table 2 above. Young people (below 30 years) and adults above 51 years of age required less of the land transfer services compared to other age categories. Youth make up less than 10% of all people who sought land transfer services while adults aged 30 years and above make up over 90% of those who sought the same service.

Table 3: Respondents by Education Level

Education level	Measure	All surveyed districts					Total per education level
		Rwamagana	Kayonza	Nyanza	Nyaruguru	Burera	
None	%	0.50%	5.20%	0.00%	9.80%	3.50%	2.60%
Primary	%	14.20%	20.80%	36.10%	36.60%	43.90%	23.50%
Secondary	%	26.50%	31.20%	13.90%	29.30%	29.80%	27.00%
TVET (ordinary diploma)	%	4.70%	1.30%	0.00%	4.90%	0.00%	3.10%
IPRC (advanced diploma)	%	0.50%	0.00%	0.00%	0.00%	0.00%	0.20%
Bachelors' degree	%	40.30%	36.40%	47.20%	14.60%	21.10%	35.10%
Post Graduate	%	13.30%	5.20%	2.80%	4.90%	1.80%	8.50%
Total per district	%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

Source: Primary data (2023)

The majority (35.1%) of respondents had a bachelor's degree as indicated in the table above, followed by those with secondary level (27%), and primary education (23.5%). A small percentage (2.6%) of the respondents did not have any formal education.

Hypothesis testing

The results presented below indicate that the model fits the data and the construction of the parameter model of the outcome variable and its predictor variables are as follows:

Table 4: Omnibus Test

Omnibus Test ^a		
Likelihood Ratio Chi-Square	Df	Sig.
544.097	5	.000

Source: Primary data (2023)

Table 5: Tests of Model Effects

Source	Type III		
	Likelihood Ratio Chi-Square	df	Sig.
Responsiveness	80.965	1	.000
Assurance	21.902	1	.000
Reliability	57.171	1	.000
Tangibles	78.236	1	.000
Empathy	38.334	1	.000

Source: Primary data (2023)

Table 6: Predictors' Coefficients with Tolerance and VIF

Model		Collinearity Statistics	
		Tolerance	VIF
1	Responsiveness	.523	1.913
	Assurance	.453	2.209
	Reliability	.639	1.566
	Tangibles	.723	1.383
	Empathy	.547	1.829

Source: Primary data (2023)

Table 7: Pseudo R-square

Cox and Snell	.733
Nagelkerke	.882
McFadden	.743

Source: Primary data (2023)

Graphical Representation of Pseudo R-square Distribution

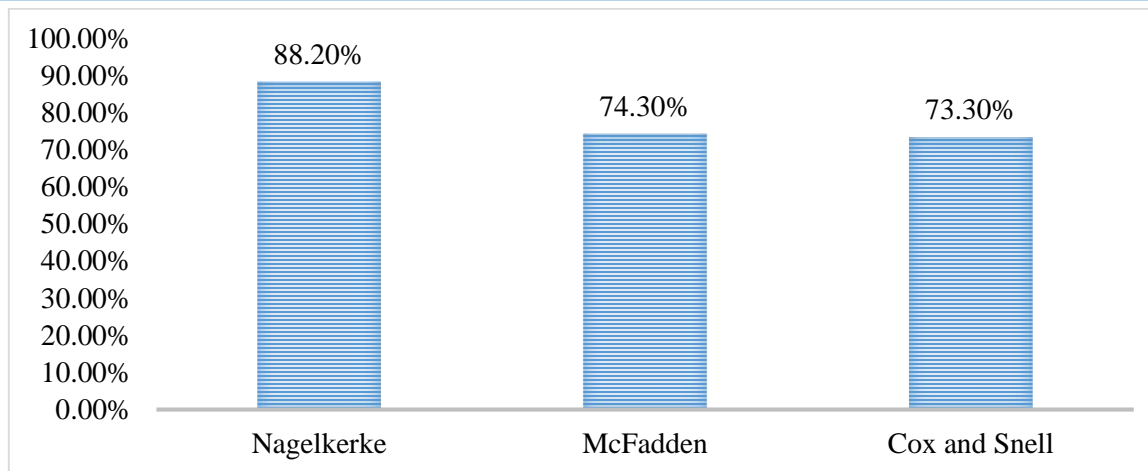


Figure 2: Pseudo R-square Distribution

Source: Primary data (2023)

Table 8: Collinearity Diagnostics

Model	Dimension	Eigenvalue	Condition Index	Variance Proportions					
				Constant	Responsiveness	Assurance	Reliability	Tangibles	Empathy
1	1	5.885	1.000	.00	.00	.00	.00	.00	.00
	2	.040	12.138	.11	.29	.11	.01	.14	.00
	3	.024	15.570	.15	.08	.00	.10	.02	.68
	4	.020	17.314	.01	.43	.14	.43	.24	.02
	5	.017	18.853	.00	.18	.71	.15	.20	.22
	6	.015	19.969	.72	.02	.04	.31	.40	.08

Source: Primary data (2023)

Table 9: Parameter Estimates

Parameter	B	Std. Error	95% Confidence Interval		Wald Hypothesis Test			Exp. (B)	95% Confidence Interval for Exp. (B)	
			Lower	Upper	Wald Chi-Square	df	Sig.		Lower	Upper
Threshold [SS' satisfaction=2.0]	34.506	3.9443	26.776	42.237	76.533	1	.000	9.681	4.251	2.204
	[SS' Satisfaction=3.0]	49.794	5.5779	38.862	60.727	79.692	1	.000	4.220	7.540
Responsiveness	3.349	.4755	2.417	4.281	49.609	1	.000	28.473	11.213	72.305
Assurance	1.827	.4490	.947	2.707	16.554	1	.000	6.215	2.578	14.985
Reliability	2.747	.4293	1.906	3.588	40.950	1	.000	15.596	6.724	36.175
Tangibles	3.267	.4969	2.293	4.241	43.226	1	.000	26.231	9.905	69.468
Empathy	2.248	.4362	1.393	3.103	26.553	1	.000	9.467	4.026	22.260

Source: Primary data (2023)

DISCUSSION

The hypothesis testing proved that all five service quality dimensions are positive and significant predictors of the satisfaction of citizens with land transfer services.

H0₁: A positive relationship exists between reliability and citizens' satisfaction with land transfer services in Rwanda. The test results show that reliability positively and significantly predicts the satisfaction of citizens with land transfer services (**Exp. (B): 15.596: P-value: 0.00<0.05**). The results indicate that if reliability increased by one point, the satisfaction of citizens would increase by 16.595 points in the ordered log odds when the other variables in the model are constant.

H0₂: A positive relationship exists between tangibles and citizens' satisfaction with land transfer services in Rwanda. Here, the null hypothesis was also accepted based on the test results with **Exp. (B): 26.231: P-value: 0.00<0.05** indicated in table 10 above. This implies that a one-

point increase in tangibles score would increase citizens' satisfaction with land services by 26.231 points in the ordered log-odds if other predictor variables in the model remained constant.

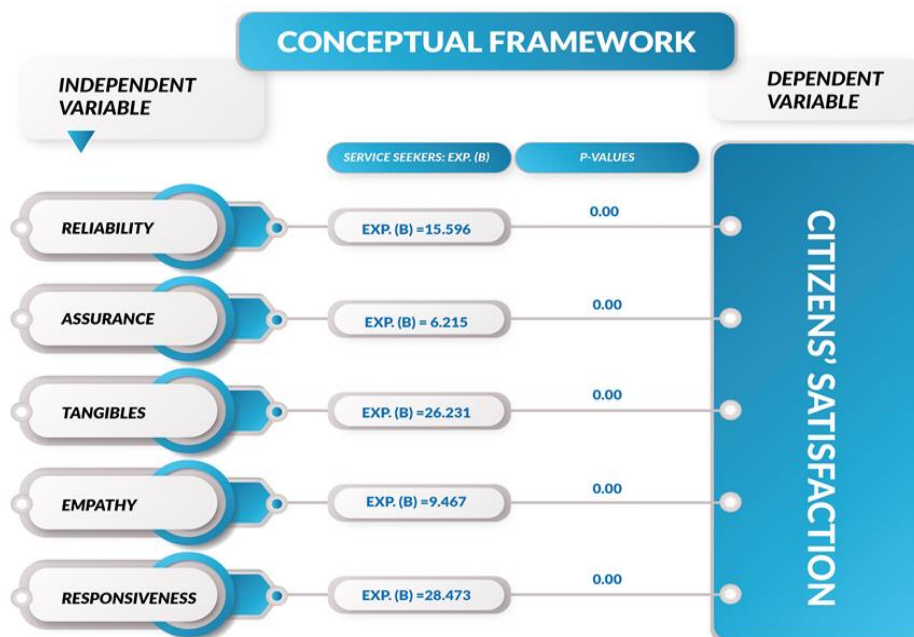
H0₃: A positive relationship exists between responsiveness and citizens' satisfaction with land transfer services in Rwanda. The test results show a positive and significant relationship between responsiveness and citizens' satisfaction with land services (Exp. (B):28.473; P-value: $0.00 < 0.05$). the implication here is that an increase of a one-point score in the regression slope in responsiveness increases the log odds of the satisfaction of citizens by 28.473 points keeping other model variables constant. This resulted in the acceptance of the null hypothesis.

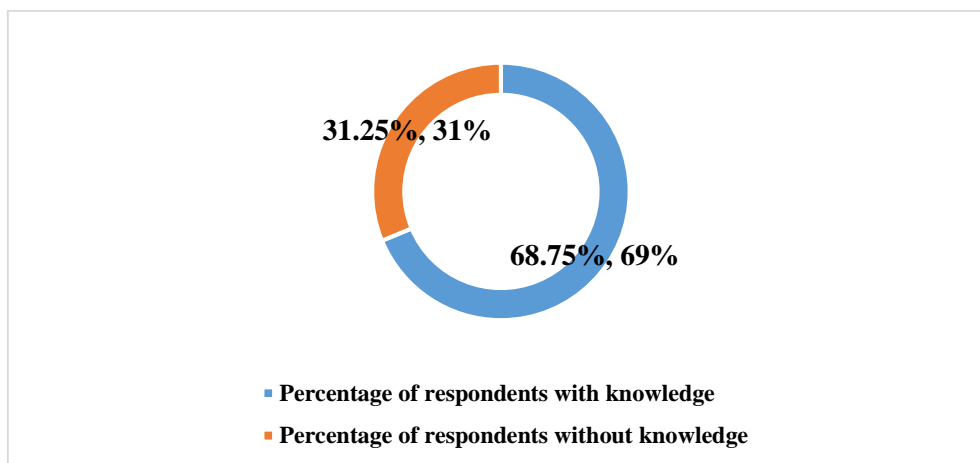
H0₄: There is a positive relationship between Assurance and citizens' satisfaction with land transfer services in Rwanda. The hypothesis test results show that assurance has a positive and significant relationship with citizens' satisfaction with land services as confirmed by **Exp. (B):6.215; P-value: $0.00 < 0.05$** . The implication of this is that a one-point increase in assurance increases citizens' satisfaction with land transfer services by 6.215 points in the ordered log-odds if other model variables remain constant.

H0₅: There is a positive relationship between Empathy and citizens' satisfaction with land transfer services in Rwanda. As in the other four service quality dimensions, empathy was also found to be a positive and significant predictor of satisfaction of citizens with land services with **Exp. (B): 9.467; P-value: $0.00 < 0.05$** . This implies that a one-point increase in empathy score increases the satisfaction of citizens with land services by 9.467 points in the ordered log odds if other model variables remained unchanged.

Based on the above results from the hypotheses testing, the conceptual model is adjusted as follows:

Modified Conceptual Framework



*Figure 3: Modified Conceptual Framework**Researcher (2023)***Discussion of the findings of the qualitative assessment***Figure 4: Respondents' with knowledge of the process of land transfer services**Source: Primary data (2023)*

The findings show that the majority (68.75%) of respondents knew the process of the land as well as the requirements to get these services. This means that the remaining percentage of 31.25% did not have information on the requirements – this is a significant portion of the respondents. The lack of knowledge obliged them to either first travel to land offices to ask for information or to ask their colleagues who received the same service before them. Those who had information regarding the requirement to acquire land transfer services mentioned that they saved time and money by not going to the land offices first just to get the information. Land is a great resource many development activities and delivery of land-related services need to be effective starting with providing sufficient information to people to allow them to know what needs to be done to acquire these services without wasting time and other resources.

Regarding objective three of this research, figure 3 demonstrates the cycle of land transfer services. It shows how applications are received at sector offices, sent to the provincial land for processing, and then back to sector offices to be given to their owners. The second figure 3 shows a proposed model of how the flow should look to enhance service delivery in line with the decentralization policy.

Existing Model of Land Transfer Services

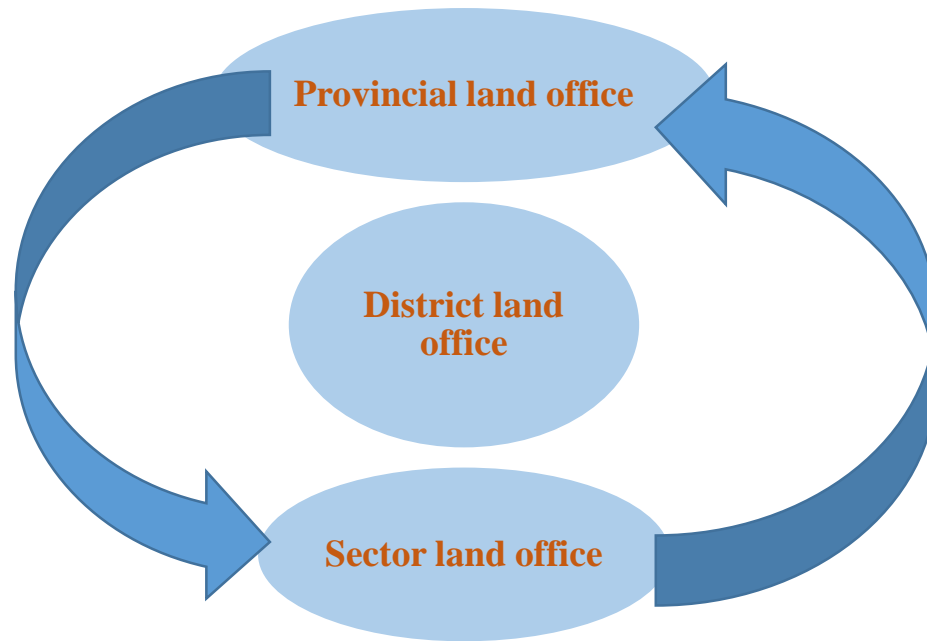


Figure 5: Existing Model of Land Transfer Services

Source: Researcher (2023)

In Figure 4 above, land transfer service seekers' application files are received at the sector land offices and are directly forwarded to the land office at the province land office to be processed. The processed documents are sent back to the sector land office to be given to their owners. The district land office is not involved in this process not even in monitoring the delivery of the service even when it's the one directly supervising the sector. I believe that there is a problem here in terms of efficiency and timeliness of service delivery especially because it contradicts the policy of decentralization aimed at bringing services closer to the people. Based on this study, a new service delivery model below is proposed to enhance the delivery of land transfer services.

New Model of Land Transfer Services

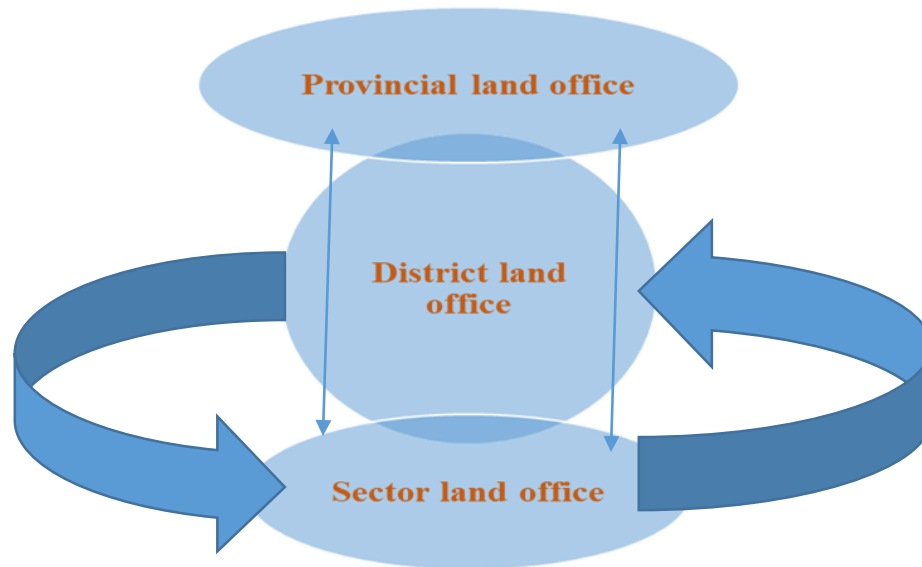


Figure 6: New model of land services delivery

Source: Researcher (2023)

The proposed model in Figure 5 above is aimed at ensuring that all activities of land transfers are done by the entities that are close to the people (district and sector land offices) to enhance efficiency and effectiveness. The province as an entity responsible for coordination, monitoring, and evaluation, will play a role in ensuring that services are delivered which aligns with the decentralization policy.

CONCLUSION AND RECOMMENDATIONS

Conclusion

Service quality is a growing factor in the success and profitability of business organizations globally. Many studies have been conducted to establish the influence of service quality dimensions on the satisfaction of customers but there is very little research in Rwanda on the same particularly on land-related services. Objectives of the study were (1) to identify the current process of land transfer services, (2) to measure citizens' satisfaction with land transfer services and its relationship with factors that affect service quality, and (3) to establish a new model of land transfer services. The findings showed that a significant proportion of the population (31.25%) did not know the process of land transfer. The findings have indicated that the five service quality dimensions are positive and significant predictors of citizens' (customer) satisfaction with land services. The study shows that; responsiveness is the highest predictor of satisfaction (Exp. (B):28.473; P-value: $0.00 < 0.05$) followed by tangibles (Exp. (B): 26.231; P-value: $0.00 < 0.05$); reliability (Exp. (B): 15.596; P-value: $0.00 < 0.05$); empathy (Exp. (B): 9.467; P-value: $0.00 < 0.05$) and assurance (Exp. (B):6.215; P-value: $0.00 < 0.05$) in that order. The study proposed a new model of land transfer services that is believed to bring services closer to the people and enhance their satisfaction. The findings established the bottlenecks to service delivery effectiveness and offered recommendations for improvement.

Recommendations

- It is recommended that the land service delivery model be redesigned in line with decentralization policy and to fully digitize land services to ensure that, the time taken to process land transfer services is reduced.
- Land services providers should fully digitize land services to bring efficiency in land service delivery. In this way, time wasted by service seekers traveling to seek the service will be used to for other developmental activities.
- It is imperative to address the issue of insufficient staff at the sector level to free the land officer to handle only land-related matters. The majority of interviewees (56.25%) showed that land officers in most cases are handling other tasks and get little time to do tasks related to land transfers which delay land service delivery.
- Establish and implement a clear land services delivery performance management system. Land services providers should set clear targets in both institutional and staff performance contracts with clear indicators and a monitoring and evaluation plan.
- Offer regular training to land officers to enhance their technical skills and customer service attitude.
- Address the issue of unreliable equipment and internet that affect business processes and consequently delay service provision.
- Improve communication between land officers and land transfer service seekers. The interviewees emphasized the issue of insufficient information especially on the progress of their files after submitting their application to land offices which requires them to travel to land offices to know the progress of their applications.

REFERENCES

- Agnihotri, R., Yang, Z., & Briggs, E. (2019). "Salesperson time perspectives and customer willingness to pay more: roles of intra-organizational employee navigation, customer, and firm innovation climate". *Journal of Personal Selling and Sales Management*, 39(2), 138-158. Google Scholar
- Alabboodi, A. S. (2019). The effect of customer satisfaction on service quality: The case of Iraqi banks. *International Journal of Applied Research*, 5(1), 146-152. Google Scholar
- Ali, Z., Tuladhar, A. M., Zevenbergen, J. A., & Bhatti, M. A. (2014). Implementing Total Quality Management Concepts to Land Administration System in Pakistan. *American Journal of Rural Development*, 2(4), 74-80. DOI:[10.12691/ajrd-2-4-3](https://doi.org/10.12691/ajrd-2-4-3)
- Barbera, J., Naibert, N., Komperda, R., & Pentecost, T. C. (2021). Clarity on Cronbach's Alpha

- Use. *Journal of Chemical Education*, 98 (2), 257-258.
<https://doi.org/10.1021/acs.jchemed.0c00183>
- Chang, M., Jang, H. B., Li, Y. M., & Kim, D. (2017). The relationship between the efficiency, service quality, and customer satisfaction for state-owned commercial banks in China. *Sustainability*, 9(12), 2163. <https://doi.org/10.3390/su9122163>
- Chonsalasin, D., Sajjakaj, J., & Vatanavongs, R. (2021). Measurement Model of Passengers' Expectations of Airport Service Quality. *International Journal of Transportation Science and Technology*, 10: 342–52. <https://doi.org/10.1016/j.ijtst.2020.11.001>.
- Devesh, S. (2019). Service quality dimensions and customer satisfaction: empirical evidence from the retail banking sector in Oman. *Total Quality Management & Business Excellence*, 30(15-16), 1616-1629. <https://doi.org/10.1080/14783363.2017.1393330>
- Eman, A. (2019). The Role of Manufacturing and Service Sectors in Economic Growth: An Empirical Study of Developing Countries. *European Research Studies Journal*, XXII (1), 112-127. DOI: 10.35808/ersj/1411
- Endara, Y. M., Ali, A. B., & Yajid, M. S. A. (2019). The influence of culture on service quality leading to customer satisfaction and moderation role of type of bank. *Journal of Islamic Accounting and Business Research*, 10(1), 134-154.
<https://doi.org/10.1108/JIABR-12-2015-0060>
- Eneanya, A. N. (2018). Performance management system and public service delivery in Nigeria: Impacts, problems, challenges, and prospects. *Africa's Public Service Delivery and Performance Review*, 6(1), 1-9. DOI: <https://doi.org/10.4102/apsdpr.v6i1.201>
- Famiyeh, S., Asante-Darko, D., & Kwarteng, A. (2018). Service quality, customer satisfaction, and loyalty in the banking sector: The moderating role of organizational culture. *International Journal of Quality & Reliability Management*, 35(8), 1546-1567. DOI:[10.1108/IJQRM-01-2017-0008](https://doi.org/10.1108/IJQRM-01-2017-0008)
- Fida, B. A., Ahmed, U., Al-Balushi, Y., & Singh, D. (2020). *Impact of Service Quality on Customer Loyalty and Customer Satisfaction in Islamic Banks in the Sultanate of Oman*. SAGE. <https://doi.org/10.1177/2158244020919517>
- Gatari, E. N. (2016). *Factors Influencing Customer Satisfaction in the Banking Industry in Kenya: A Case Study of Investments and Mortgages (I&M) Bank Ltd*. Ph.D. thesis, United States International University Africa, Nairobi, Kenya.
- Ghani, E., & O'Connell, S. D. (2016). Can services be a growth escalator in low-income

- countries. *Revue deconomie du developpement*, 24(2), 143-
. <https://doi.org/10.3917/edd.302.0143>
- Ghorbanzadeh, M., Abdelhadi, A., Ghorbanzadeh, M., & Abdelhadi, A. (2022). Quality of Service and Resource Allocation in Communication Systems. *Practical Channel-Aware Resource Allocation: With MATLAB and Python Code*, 1-16. DOI:[10.1007/978-3-030-73632-3_1](https://doi.org/10.1007/978-3-030-73632-3_1)
- Gogoi, D. B. J. (2020). Service quality measures: How it impacts customer satisfaction and loyalty. *International Journal of Management (IJM)*, 11(3), 35
4-365: <https://ssrn.com/abstract=3585157>
- Grönroos, C. (1984). "A Service Quality Model and its Marketing Implications," *European Journal of Marketing*, 18(4), 36–44. <https://doi.org/10.1108/EUM0000000004784>
- Gunawan, I. (2022). Customer Loyalty: The Effect of Customer Satisfaction, Experiential Marketing, and Product Quality. *KINERJA: Jurnal Manajemen Organisasi dan Industri*, 1(1), 35-50. <https://doi.org/10.37481/jmoi.v1i1.6>
- Hamzah, A. A., & Shamsudin, M. F. (2020). Why customer satisfaction is important to business? *Journal of Undergraduate Social Science and Technology*, 1(1).
- Hitchcock, J. H., & Onwuegbuzie, A. J. (2020). Developing Mixed Methods Crossover Analysis Approaches. *Journal of Mixed Methods Research*, 14(1), 63–83.
- Huda, M. N., Beurekat, B., Melati, M., & Digidowiseiso, K. (2023). The Influence of Reliability, Responsibility, Assurance, Empathy and Physical Evidence on Customer Satisfaction with Disabilities at Tangerang Station. *Jurnal Syntax Admiration*, 4(5), 843-856.
- Iddrisu, A. M., Nooni, I. K., Fianko, K. S., & Mensah, W. (2015). Assessing the impact of service quality on customer loyalty: a case study of the cellular industry of Ghana. *British Journal of Marketing Studies*, 3(6), 15-30.
- Ilias, S., & Shamsudin, M. F. (2020). Customer satisfaction and business growth. *Journal of Undergraduate Social Science and Technology*, 2(2).
- Inbalakshmi, M., & Krishnamoorthy, V. (2015). Assessing the Influence of Call Taxi Service Quality and Passenger Satisfaction. *Asian Journal of Research in Marketing*, 4(6), 18-33.
- Janahi, M. A. & Al Mubarak, M.M.S. (2017). "The impact of customer service quality on customer satisfaction in Islamic banking". *Journal of Islamic Marketing*, 8(4), 595-
. <https://doi.org/10.1108/JIMA-07-2015-0049>

- Jonkisz, A., Karniej, P., & Krasowska, D. (2021). SERVQUAL Method as an "Old New" Tool for Improving the Quality of Medical Services: A Literature Review. *International Journal of Environmental Research and Public Health*, 18(20), 10758
- Kant, R., & Jaiswal, D. (2017). The impact of perceived service quality dimensions on customer satisfaction: An empirical study on public sector banks in India. *International Journal of Bank Marketing*, 35(3), 411-430.
- Khan, A. G., Lima, R. P., & Mahmud, M. S. (2021). Understanding the service quality and customer satisfaction of mobile banking in Bangladesh: Using a structural equation model. *Global Business Review*, 22(1), 85-100.
- Lei, L. P., Lin, K. P., Huang, S. S., Tung, H. H., Tsai, J. M., & Tsay, S. L. (2022). The impact of organizational commitment and leadership style on job satisfaction of nurse practitioners in acute care practices. *Journal of Nursing Management*, 30(3), 651-659.
- Lim, L. G., Tuli, K. R., & Grewal, R. (2020). Customer satisfaction and its impact on the future costs of selling. *Journal of Marketing*, 84(4), 23-44.
- Lina, R. (2022). Improving Product Quality and Satisfaction as Fundamental Strategies in Strengthening Customer Loyalty. *AKADEMIK: Jurnal Mahasiswa Ekonomi & Bisnis*, 2(1), 19-26.
- Markovic, S., Iglesias, O., Singh, J. J., & Sierra, V. (2018). How does the perceived ethicality? of corporate services brands influence loyalty and positive word-of-mouth? Analyzing the roles of empathy, affective commitment, and perceived quality. *Journal of Business Ethics*, 148, 721-740.
- Masiya, T., Davids, Y. D., & Mangai, M. S. (2019). Assessing Service Delivery: Public Perception of Municipal Service Delivery in South Africa. *Theoretical and Empirical Researches in Urban Management*, 14(2), 20–40.
- National Institute of Statistics of Rwanda (NISR) (2016). *Gross Domestic Product – 2016*. Republic of Rwanda, available on: <http://www.statistics.gov.rw>
- Negassa, G. J., & Japee, G. P. (2023). The Effect of Bonding, Responsiveness and Communication on Customer Retention: The Mediating Role of Customer Satisfaction. *Journal of Relationship Marketing*, 22(2), 115-131.
- Nitin, L.R., Anand A. & Saurabh P. C. (2023). Enhancing Customer Loyalty Through Quality of Service: Effective Strategies to Improve Customer Satisfaction, Experience, Relationship, And Engagement. *International Research Journal of Modernization in*

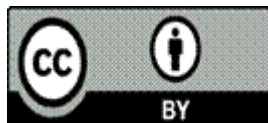
Engineering Technology and Science, 5(5), 427-452. DOI:
<https://www.doi.org/10.56726/IRJMETS38104>

- Ntumi, S. (2021). Reporting and Interpreting One-Way Analysis of Variance (ANOVA) Using a Data-Driven Example: A Practical Guide for Social Science Researchers. *Journal of Research in Educational Sciences*, 12(14), 38 - 47.
- Pakurár, M., Haddad, H., Nagy, J., Popp, J., & Oláh, J. (2019). The Service Quality Dimensions that Affect Customer Satisfaction in the Jordanian Banking Sector. *Sustainability*, 11(4):1113. <https://doi.org/10.3390/su11041113>
- Parasuraman, A. P., Zeithaml, V., & Berry. L. (1985). A Conceptual Model of Service Quality and its Implication for Future Research (SERVQUAL). *The Journal of Marketing*, 49(4), 41-50.
- Parasuraman, A. P., Zeithaml, V., & Berry. L. (1988). SERVQUAL: A Multiple-item Scale for Measuring Consumer Perceptions of Service Quality. *Journal of Retailing*. 64(1), 12-40.
- Parasuraman, A., Berry, L. L., & Zeithaml, V. A. (1991). Refinement and Reassessment of the SERVQUAL Scale. *Journal of Retailing*, 67(4). 420-450.
- Patel, S., Naik, V., & Patel, P. (2015). An Analysis of the Application of Multiple Comparison Tests (post-doc) in ANOVA in Recently Published Medical Research Literature -. *National journal of community medicine*, 6(1), 117-120.
- Parker, S., Cluley, V., & Radnor, Z. (2023). A typology of dis/value in public service delivery. *Public Money and Management*, 43(1), 8-16. <https://doi.org/10.1080/09540962.2022.2124758>
- Peitzika, E., Sofia, C. & Dimitra, K. (2020). Service Quality Expectations in the Fitness Center Context: A Validation of the Expectations Component of the SERVQUAL Scale in Greece. *Services Marketing Quarterly*, 41: 89–104.
- Phan, T., Vinh, T. & Thao, Vu. (2021). Port Service Quality (PSQ) and Customer Satisfaction: An Exploratory Study of Container Ports in Vietnam. *Maritime Business Review*, 6: 72–94
- Priyo, J. S., Mohamad, B., & Adetunji, R. R. (2019). An examination of the effects of service quality and customer satisfaction on customer loyalty in the hotel industry. *International Journal of Supply Chain Management*, 8(1), 653-663.
- Ramachandran, A., & Chidambaram, V. (2012). A review of customer satisfaction towards service quality of banking sector. *Periodica Polytechnica Social and Management Sciences*, 20(2), 71-79.

- Ramya, N., Kowsalya, A., & Dharanipriya, K. (2019). Service Quality and its Dimensions. *EPRA International Journal of Research & Development (IJRD)*, 4(2), 39-41
- National Land Authority (2019). *Land transfer Services database*. Republic of Rwanda, Kigali.
- Sah, G. K., & Pokharel, S. P. (2021). The Effects of Telecommunication Service Quality Dimensions on Customer Satisfaction in Kathmandu Valley. *Journal of Nepalese Business Studies*, 14(1), 118-129.
- Sardana, S., & Bajpai, V. N. (2020). E-banking service quality and customer satisfaction: An exploratory study on India. *International Journal of Services and Operations Management*, 35(2), 223-247.
- Segoro, W., & Limakrisna, N. (2020). Model of customer satisfaction and loyalty. *Utopía y Praxis Latinoamericana*, 25(1), 166-175
- Selvakumar, J. J. (2015). Impact of service quality on customer satisfaction in public sector and private sector banks. *PURUSHARTHA-A journal of Management, Ethics and Spirituality*, 8(1), 1-12.
- Slack, N. J., & Gurmeet, S. (2020). The Effect of Service Quality on Customer Satisfaction and Loyalty and the Mediating Role of Customer Satisfaction: Supermarkets in Fiji. *The TQM Journal*, 32: 543–58.
- Souren, K., Abu, S. M & Rupsha, R. (2021). Impact of Service Quality on Satisfaction: An Empirical Investigation on Cosmetic Retail Stores in Burdwan District. *International Journal of Asian Business and Information Management (IJABIM)*, 12(3), 1-15. DOI: 10.4018/IJABIM.294103
- Sokchan, O., Suy, R., Chhay, L., & Choun, C. (2018). Customer satisfaction and service quality in the marketing practice: Study on literature review. *Asian Themes in Social Sciences Research*, 1(1), 21-27.
- Strijker, D., Bosworth, G., & Bouter, G. (2020). Research methods in rural studies: Qualitative, quantitative, and mixed methods. *Journal of Rural Studies*, 78, 262-270.
- Syahsudarmi, S. (2022). The Influence of Service Quality on Customer Satisfaction: A Case Study. *International Journal of Indonesian Business Review*, 1(1), 29–37.
- Taber, K. S. (2018). The Use of Cronbach’s Alpha When Developing and Reporting Research Instruments in Science Education. *Res Sci Educ* 48(6), 1273–1296.
- Tofik, S., Yitayal, M., Negash, W., & Debie, A. (2023). *Quality of healthcare services among*

adult outpatients at two Public Hospitals in East Ethiopia: Using service quality (SERVQUAL) assessment model.

- Vencataya, L., Pudaruth S, Devi, J, Dirpal, G. & Sumodhee, N. (2019). Assessing the Impact of Service Quality Dimensions on Customer Satisfaction in Commercial Banks of Mauritius. *Studies in Business and Economics*. 14(1), 259-270. 10.2478/sbe-2019-0020.
- Yellapu, V. (2018). Descriptive statistics. *International Journal of Academic Medicine*. 4(1). 60-63.
- Yun, J., & Park, J. (2022). The Effects of Chatbot Service Recovery with Emotion Words on Customer Satisfaction, Repurchase Intention, and Positive Word-Of-Mouth. *Front. Psychol.* 13:922503. doi 10.3389/fpsyg.2022.922503
- Zakari, A. A., & Ibrahim, U. A. (2021). Impact of customer satisfaction on business performance of SMEs in Nigeria. *International Journal of Research in Business and Social Science (2147- 4478)*, 10(5), 46–51. <https://doi.org/10.20525/ijrbs.v10i5.1291>
- Zygiaris, S., Hameed, Z., Ayidh Alsubaie, M., & Ur Rehman, S. (2022). Service Quality and Customer Satisfaction in the Post-Pandemic World: A Study of Saudi Auto Care Industry. *Frontiers in Psychology*, 13, 842141. <https://doi.org/10.3389/fpsyg.2022.842141>



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