



Influence of Alternative Banking Channels on Customers' Satisfaction Among Tanzanian Commercial Banks

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Abstract: Tanzania's banking system has seen substantial upheaval as a result of the introduction and growth of alternative banking channels such as Automated Teller Machines (ATMs), mobile banking, internet banking, and agency banking. This general objective of the study is to investigate the effect of alternative banking channels on customer satisfaction among Tanzanian commercial banks while specific objectives are to assess the effect of mobile banking, agent banking, online banking and tradition banking services on customer satisfaction among Tanzanian commercial banks. The study used a quantitative and qualitative research approach while descriptive research design employed to the study, primary and secondary data employed to the study. NMB Bank, CRDB Bank, and Tanzania Postal Bank served 304 clients in Singida Municipality used as sample size. Data were gathered through surveys and interviews and analysed using descriptive statistics while binary logistic regression model opted in data analysis. The study found that mobile banking and tradition banking services had negative statistically on customers' satisfaction among Tanzanian commercial banks while ATMs, agent banking and online banking had a positive statistically significant influence on customer satisfaction in among Tanzanian commercial banks. The R demonstrated a strong positive association between mobile banking, agent banking, online banking and tradition banking services and customer satisfaction. This study adds to the body of knowledge on alternative banking channels and consumer satisfaction in Tanzania by presenting actual data from Singida Municipality. The study's findings will help commercial bank management understand the impact of alternative banking channels in increasing customer satisfaction. Bank management may utilise the findings to enhance the quality, dependability, accessibility, and security of digital banking services. The study suggested that various banking stakeholders improve the technological infrastructure of their industries by focusing more on alternative banking channels services and products, as this will allow them to reach a larger number of customers while also providing flexibility, interactivity, and greater accessibility when compared to traditional banking. Commercial banks must spend extensively in technology since it will greatly increase the adoption of electronic banking technologies, which will have an impact on the customer satisfaction of banks. There is also a need for Tanzanian banks to expand education and awareness campaigns about alternative banking channels, as this improves their customer satisfaction.

Keywords: Banking Channels; Customer's Satisfaction; Tanzania

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1. Introduction

The global banking business has experienced fast technological transition as a result of advances in information and communication technologies. These advancements have dramatically altered the way

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financial institutions provide services to their consumers. Banking technologies such as mobile banking, online banking, Automated Teller Machines (ATMs), and agency banking have become essential conduits for banks to increase efficiency, accessibility, and client satisfaction. According to Mugambi and Imaita (2022), technological innovation has altered banking operations by increasing the speed, dependability, and accessibility of financial services. Similarly, Gadal (2022) contends that the success of alternative banking channels is primarily dependent on users' approval and continuous use of digital banking services. In industrialised economies, banks have made significant investments in technology advancements such as branch automation, telebanking, internet banking, and integrated banking systems to increase operational performance and consumer satisfaction. These technology improvements have altered the financial sector, allowing for speedier transactions, lower operating expenses, and higher service quality (Regmi, 2024). Patnaik et al. (2025) also stated that the effective deployment of alternative banking channels necessitates a dependable internet infrastructure, appropriate legislative frameworks, greater digital literacy, and customer awareness. As a result, computerised banking services have become critical instruments for increasing client satisfaction and sustaining competitiveness in the banking industry.

Alternative banking channels are progressively being integrated into banks' strategic operations throughout Europe and other advanced countries in order to improve customer experience and institutional reputation (Harb, 2022). In addition, alternative banking has emerged as a critical tool for client retention and acquisition in highly competitive financial markets (Etim et al., 2023). African countries have also seen substantial expansion in digital banking services, owing to increased financial sector rivalry and initiatives to expand financial inclusion. Nigeria and Ghana are among Africa's top users of alternative banking technology (Senanu & Narteh, 2023).

East African nations such as Kenya, Uganda, and Tanzania have made significant investments in banking technologies to improve service delivery and consumer access. However, issues such as faulty network infrastructure, technical service failures, cyber-security concerns, and poor digital literacy continue to impede the efficiency and dependability of alternative banking services, particularly in developing countries (Dimitrieska et al., 2022). In Tanzania, commercial banks are rapidly turning to alternative banking channels in response to rising competition and shifting client preferences. Despite these improvements, many customers continue to express unhappiness with transaction delays, system failures, security issues, and poor customer assistance.

Although multiple studies have investigated alternative banking and consumer satisfaction in various contexts, the majority of past research has focused on industrialised nations and big metropolitan centers, with little attention paid to Tanzanian municipalities and semi-urban regions. Furthermore, many previous research focused widely on digital banking adoption without examining how diverse alternative banking channels affect consumer satisfaction in commercial banks. This leaves a contextual and empirical study gap, notably in Singida Municipality, where the acceptance and efficacy of alternative banking services are understudied.

As a result, this study is unique in that it focuses on assessing the impact of numerous alternative banking channels including mobile banking, internet banking, ATM banking, and agency banking on customer satisfaction among commercial banks operating in Singida Municipality. Unlike prior research, which focused mostly on urban areas or overall digital banking adoption, this study focuses on consumer satisfaction in a semi-urban Tanzanian environment. The findings are anticipated to give practical

guidance to commercial banks, regulators, and financial service providers on how to improve the quality, dependability, and accessibility of alternative banking services in order to increase customer satisfaction and competitive advantage.

2. Literature Review

Consumer behaviour theory and diffusion of innovations theory serve as the theoretical underpinning for this study, which seeks to understand how alternative banking channels impact customers' happiness with commercial banks. The theories describe how clients accept, use, perceive, and are satisfied with technical financial services such as mobile banking, online banking, ATM banking, and agency banking. (Chindengwike, 2024). Alfred Marshall established consumer behaviour theory, which describes how customers choose and use goods and services based on their preferences, expectations, income, habits, and perceived value. The idea implies that customers make logical decisions and select items and services that maximise their happiness (Kim, 2022). Customers compare alternative banking channels based on convenience, transaction speed, accessibility, security, dependability, and service pricing. Customers are more inclined to accept and use alternative banking channels if they believe they offer more benefits than traditional branch banking.

The theory is directly related to the research variables since the dependent variable, customer satisfaction, is impacted by consumers' views and experiences with the independent variables, which include mobile banking, internet banking, ATM banking, and agency banking (Dimitrieska et al., 2022). Customers may prefer mobile banking since it allows them to access banking services at any time and from any location, but ATM banking may boost satisfaction due to faster cash withdrawals and less congestion in banking halls. As a result, consumer behaviour theory helps explain how consumers' choices and evaluations of alternative banking channels affect their happiness with commercial banks. Despite its importance, customer behaviour theory has limits in understanding technological adoption since it focuses solely on customer choice and happiness, failing to effectively consider the impact of innovative features and societal influence in technology acceptance. As a result, the study incorporates the Diffusion of innovations theory to supplement the shortcomings of Consumer Behaviour Theory (Dimitrieska et al., 2022).

Everett Rogers established the Diffusion of inventions Theory, which describes how inventions are introduced, adopted, and spread across society over time. According to the idea, acceptance of new technologies is determined by criteria such as perceived utility, compatibility, simplicity, observability, and relative benefit of the invention (Chindengwike, 2024). In the banking business, technology advances such as mobile banking, online banking, ATM services, and agency banking have altered financial service delivery by increasing client convenience, flexibility, and accessibility. The hypothesis is closely related to the study's aims since it explains why customers choose or reject alternative banking channels, as well as how such adoption affects satisfaction with banking services. Customers are more inclined to utilise banking technologies that are simple to use, secure, dependable, and capable of satisfying their financial demands effectively (Chindengwike, 2024). For example, mobile banking and internet banking may increase consumer satisfaction by shortening transaction times and providing 24-hour access to financial services. Similarly, agency banking may improve customer satisfaction by providing financial services to consumers who live far from bank offices.

The Diffusion of Innovations Theory also complements the study's goal of investigating the impact of alternative banking channels on customer happiness, since it emphasizes that effective technology adoption improves service quality and customer experiences. Nonetheless, the theory has been criticised for assuming that technological adoption always results in positive outcomes, when in reality, factors such as poor network connectivity, cyber-security concerns, low digital literacy, and technical failures can all have a negative impact on customer experiences and satisfaction (Qing et al., 2023). The combination of the two theories enhances this research by offering a full explanation of both client decision-making behaviour and technological adoption processes. The consumer behaviour theory describes client perceptions, preferences, and satisfaction with banking services, whereas the Diffusion of Innovations Theory explains the uptake and acceptance of financial technology. Together, the theories form a solid theoretical foundation for investigating how alternative banking channels affect consumer satisfaction with commercial banks in Singida Municipality (Dimitrieska et al., 2022).

The survey discovered that NMB bank offers a variety of electronic banking services, including ATMs, SMS (mobile) banking, and debit cards. Also, there was some diversity among NMB subscribers in terms of age, gender, level of education, and length of time with the bank. Furthermore, the data suggest that respondents had a good opinion of the introduction of electronic banking products at NMB bank in terms of usage, convenience, time savings, transportation costs, and speed of service delivery (Dimitrieska et al., 2022). Finally, the study discovered that customer satisfaction with electronic banking establishments was not at its peak, as customers were less dissatisfied with the insufficient availability of electronic banking products such as online banking systems and VISA cards, education and training for existing systems, as well as electronic banking costs such as service fees.

Qing et al. (2023) investigated the application of agency banking by commercial banks in Kenya. The study's findings indicate that the agent had trouble administering proper oversight, and customer teamwork was random with the entire banking control structure. Agents must be constantly prepared on diversifications in operations procedures and policies in order to eliminate the existence of mistakes and errors that can impede the upward and penetration of agency banking in Kenya, indicating banks' fiscal stability (Majeed et al., 2022). The report advised that NMB Bank's management invest heavily in information technology to promote even more efficient and seamless service delivery. There is also a need to broaden the development of E-banking products and provide thorough customer education to allow more consumers to use the service, as well as review service charges and costs for optimum satisfaction. The survey failed to evaluate consumer satisfaction levels across traditional and alternative banking channels, necessitating more investigation.

Tiganis et al. (2023) investigated the characteristics that influence consumer satisfaction with ATM banking in Malawi in comparison to traditional banking. The study used descriptive research approach. The poll was completed by a sample of 353 ATM card holders from five banks. The study looked at 12 major factors that determine customer satisfaction with ATM banking compared to traditional banking channels. The survey discovered that all 12 features, which include ATM fees imposed, ATMs not out of order, cleanliness of ATMs and ATM stations, accuracy of ATM transactions, convenience of access to ATMs, readable slips, convenient location, personnel accessibility to fix ATM problems, and privacy at ATM stations, Employee quickness in resolving ATM difficulties, simplicity of application for ATM cards, and cash availability at ATMs were shown to be crucial in increasing customer satisfaction when compared to traditional banking channels. The study suggested that commercial banks in Malawi should

establish alternative banking channels to increase customer satisfaction rather than remaining strict with existing banking channels.

This study did not clearly describe how customer satisfaction was assessed, and the factors were significant for ATMs but not for regular banking channels. Tuti and Sulistia (2022) investigated the characteristics that determine consumer satisfaction with alternative banking vs traditional banking in Finland. The study compared alternative banking channels such as online banking and branch banking. The study used a descriptive study design. A total of 268 samples were collected from users who used online banking. The data were gathered via a questionnaire and a phone interview. The acquired data was analysed via descriptive statistics (Chahal et al., 2026).

The study discovered that internet banking users prefer internet banking over branch banking because visiting bank branches is time-consuming due to long queues and makes them more satisfied, but IB users are not eager to queue at branches, which affects their satisfaction with adopting alternative banking channels. As a result, it is feasible to argue that the benefits of online banking over traditional banking methods encourage customers to use it and be satisfied with it in comparison to branch banking channels.

Tiganis et al. (2023) evaluated the influence of alternative banking channels on reducing consumer barriers to banking services. The study used a case study methodology for customers utilising ABC banking services in Kenya. The sample of 154 clients was conveniently selected depending on their availability and willingness to participate in the survey. The data were gathered through questionnaires and interviews. The acquired data was coded with SPSS and evaluated using descriptive data analysis techniques.

3. Research Methodology

The study used a quantitative and qualitative research approach while descriptive research design employed to the study, primary and secondary data employed to the study. NMB Bank, CRDB Bank, and Tanzania Postal Bank served 304 clients in Singida Municipality used as sample size. Data were gathered through surveys and interviews and analysed using descriptive statistics.

The surveys were primarily composed of closed-ended items scored on a five-point Likert scale ranging from strongly disagree to strongly agree. The key study factors covered by the questionnaire items included mobile banking, internet banking, ATM banking, agency banking, and consumer satisfaction. Semi-structured interviews with bank executives were undertaken to collect specific information about operational problems, customer experiences, and service quality related to banking technology. To guarantee validity, academic supervisors and research professionals thoroughly assessed the study instruments to ensure that the questions were relevant and clear. Before beginning the data collecting procedure, a pilot study was carried out to identify unclear questions and refine the instrument structure.

The reliability of the research instruments was guaranteed by pilot testing and the use of Cronbach's Alpha coefficient to assess the internal consistency of questionnaire questions, with a coefficient value of 0.70 or above being appropriate for the study. To provide relevant statistical results, quantitative data acquired through questionnaires was coded and analysed using the Statistical Package for the Social Sciences. Descriptive statistics such as frequencies, percentages, means, and standard deviations were

utilised to sum up respondents' characteristics and answers to alternative banking channels. Multiple regression analysis was used to assess the impact of mobile banking, internet banking, ATM banking, and agency banking on consumer satisfaction.

3.1. Model Specification

The study used a binary logistic regression model since the dependent variable, customer satisfaction, was recorded as a dichotomous variable with only two potential outcomes. consumer satisfaction was classified as 1 if the consumer was pleased with alternative banking methods and 0 if dissatisfied. The independent variables were mobile banking, internet banking, ATM banking, and agency banking. These characteristics were assessed using responses on a five-point Likert scale ranging from 1 (Strongly Disagree) to 5 (Strongly Agree). The Likert scale items measured customers' impressions of the accessibility, convenience, dependability, security, and efficiency of alternative banking channels provided by commercial banks in Singida Municipality.

The binary logistic regression model was used to assess the probability of customer satisfaction based on the independent factors. The model specification is supplied below:

$$\log\left(\frac{\pi(x)}{1-\pi(x)}\right) = \beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \beta_4X_4 + \varepsilon \dots \dots \dots (i)$$

Where $\pi(x)$ represents the probability that customer satisfaction is high, β_0 is the constant term, and $\beta_1, \beta_2, \beta_3, \beta_4$ are regression coefficients. The variables are defined as follows: X_1 = Mobile Banking, X_2 = Internet Banking, X_3 = ATM Banking, and X_4 = Agency Banking, while ε represents the error term. The left side of the equation expresses the log odds of customer satisfaction occurring relative to dissatisfaction.

The regression results are interpreted in terms of how each independent variable affects the chance of customer satisfaction. A positive coefficient suggests that increased usage or efficacy of a certain banking channel enhances the likelihood of customer satisfaction, whereas a negative coefficient indicates a drop in consumer satisfaction. The coefficient exponentiation, often known as odds ratios, demonstrates how the odds of customer satisfaction vary as the explanatory variable increases by one unit. As a result, the binary logistic regression model allowed the researcher to estimate the size and direction of the association between alternative banking channels and consumer satisfaction with commercial banks.

4. Results and Discussion

4.1. Demographic Characteristics of the Respondents

The survey had 304 respondents, the majority of whom were female (63.16%), with male respondents accounting for 36.84%, showing that females participated more in the study. In terms of marital status, the majority of respondents (43.09%) were married, followed by those who were cohabiting (27.30%), single (25.66%), and a tiny fraction divorced (3.95%), indicating that many respondents were in family connections. In terms of income, the data suggest that the majority of respondents (63.49%) were self-employed, while 36.51% were formally employed, demonstrating that self-employment was the most common source of income among participants. Furthermore, the distribution of personal income levels

revealed that the majority of respondents earned between 700,000 and 1,499,000 (29.93%), followed by 300,000-699,000 (25.99%), with smaller proportions earning 0-299,000 (17.76%), 1,500,000-3,000,000 (17.76%), and more than 3,000,000 (8.55%), indicating that the majority of respondents were middle-income.

Table 1. Demographic Characteristics of the Respondents

Gender	Freq.	Percent
Male	112	36.84
Female	192	63.16
<i>Total</i>	<i>304</i>	<i>100.00</i>
Marital Status	Freq.	Percent
Married	131	43.09
Single	78	25.66
Co-habitat	83	27.30
Divorced	12	3.95
<i>Total</i>	<i>304</i>	<i>100.00</i>
Source income	Freq.	Percent
Employed	111	36.51
Self employed	193	63.49
<i>Total</i>	<i>304</i>	<i>100</i>
Personal source of income	Freq.	Percent
0 - 299,000	54	17.76
300,000 – 699,000	79	25.99
700,000 – 1,499,000	91	29.93
1,500,000 – 3,000,000	54	17.76
>3,000,000	26	8.55
<i>Total</i>	<i>304</i>	<i>100</i>

Source: Research Findings, 2026

4.2. Comparative Overall Customer Satisfaction

Table 2 compares total customer happiness in alternative banking channels using one-way ANOVA and STATA version 15 to compare customer satisfaction in Dodoma city. The banking channels were divided into five categories: ATMs, Mobile Banking Channels, Traditions, Agent Banking Channels, and Online Banking Channels. This discovery is corroborated by Harb, Thoumy and Yazbeck (2022). who claims that there is a statistical link between alternative banking and consumer happiness in South Africa.

Table 2. Comparative Overall Satisfaction summary in Alternative Banking channels

Banking Channels	Mean	Std. Dev.	Freq.
ATMs	1.7382	0.2614	109
Mobile banking	1.7788	0.1120	51
Agent banking	1.7726	0.1581	62
Online banking	1.3819	0.2638	53
Tradition banking services	1.6717	0.2453	29
Total	1.6837	0.2629	304

Source: Research Findings, 2026

ANOVA analysis was used to determine whether customer satisfactions such as ATMs, Mobile-banking Channels, Traditions, Agent Banking Channels, and Online Banking Channels have a significant impact on the business performance of Tanzania’s banking sector. The ANOVA findings show a significant difference between groups ($F = 0.00$, $sig > .05$). Thus, it can be inferred that the vast majority of respondents are quite happy with the services given by their particular alternative banking channels.

Table 3. Analysis of Variance

Analysis of Variance					
Source	SS	df	MS	F	Prob > F
Between groups	6.10976103	4	1.52744026	30.75	.0000
Within groups	14.903978	300	0.049679927		
Total	21.013739	304	0.069124142		

Source: Research Findings, 2026

4.3. Results of Inferential Statistics using Binary Logistic Regression

Table 4 shows the results of a Binomial Logistic Regression Model used to investigate the factors impacting alternative banking channels on customer satisfaction. The model contained five predictor (independent) variables. ATMs, mobile banking, agent banking, online banking, and traditional banking services are all considered independent variables.

4.3.1. Interpretation of Logistic Regression Analysis

Table 9: The omnibus test measures how well the strength of the predictors in the model predicts the predictor (dependent) variables. The study findings are noteworthy since the ‘P’ values are all 0.000, as shown in the table below, indicating that the data is adequately fit to the model; that is, at least one of the predictors is statistically associated to the response variable. Table 4 shows that the model fits with the independent variables added and that they provide a substantial contribution to the model. Senanu and Narteh (2023) confirm this conclusion, stating that there is a statistically significant relationship between alternative banking and consumer satisfaction in Russia.

Table 4. Omnibus Tests of Model Coefficients

Omnibus Tests of Model Coefficients				
		Chi-square	df	Sig.
Step 1	Step	132.619	5	0.000
	Block	132.619	5	0.000
	Model	132.619	5	0.000

Source: Research Findings, 2026

The Hosmer and Lemeshow test, which tests the model’s goodness of fit, yields non-significance, implying that the model sufficiently fits the data (Table 5 presents the estimate results using the best predictors model of the success probability). Four factors exceeded the statistical significance threshold and are all connected with an increased likelihood of success. Kim (2022) supports this conclusion, stating that the data fits adequately to the model.

Table 5. Model Summary

Model Summary			
Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1	259.267 ^a	.354	.488
a. Estimation terminated at iteration number 5 because parameter estimates changed by less than .001.			

Source: Research Findings, 2026

Table 6 shows that ATMs, mobile banking, agent banking, internet banking, and traditional banking channels were significant predictors of consumer satisfaction ($p < 0.05$). Thus, the variable produced significant findings; it seems that consumers who reported being unsatisfied with other banking channel services were satisfied with the service when compared to their counterparts who reported being highly satisfied is the most essential. Chindengwike (2023) supports this conclusion, stating that there is a statistically significant relationship between alternative banking and consumer satisfaction in Nigeria.

The regression coefficient (β) for mobile banking and traditional channel services shows a negative indication. The results were statistically significant at 95% confidence level ($p < 0.05$), indicating that the Odd Ratio $\text{Exp}(B)$ measure of effect size accurately estimates the change in the odds of customer satisfaction in alternate banking channel services for a one-unit increase in the predictor. Odds are the ratio of two probabilities: the likelihood of an event of interest occurring divided by the probability that the event does not occur. The odds ratios may be seen in Table 6, 'Variable in the Equation', column 'Exp (B)'. Tuti and Sulistia (2022) found a statistically significant relationship between alternative banking and consumer satisfaction in Nepal.

Table 6. Results of Inferential Statistics using Binary Logistic Regression

Variables in the Equation

		B	S.E.	Wald	df	Sig.	Exp(B)	95% C.I. for EXP(B)	
								Lower	Upper
Step 1a	ATMs	1.207	0.175	47.368	1	0.000	3.342	2.37	4.712
	Mobile banking	-1.159	0.177	42.876	1	0.000	0.314	0.222	0.444
	Agent banking	0.259	0.129	4.041	1	0.044	1.296	1.007	1.669
	Online banking	0.814	0.133	37.506	1	0.000	2.258	1.74	2.93
	Tradition banking services	-0.755	0.155	23.572	1	0.000	0.47	0.347	0.638
	Constant	0.535	0.859	0.388	1	0.533	1.708		

Variable(s) entered on step 1: ATMs, Mobile banking, Agent banking, Online banking, Tradition banking services.

Source: Research Findings, 2026

The binary logistic regression findings showed that alternative banking channels had a substantial impact on consumer satisfaction with commercial banks in Tanzania. ATM banking and online banking demonstrated strong positive and statistically significant relationships with customer satisfaction, indicating that customers who use these services on a regular basis are more likely to be satisfied due to convenience, accessibility, and faster transaction processing. Agent banking also had a good and

significant influence on client satisfaction, albeit to a lesser extent than ATM and internet banking services.

On the other hand, both mobile banking and traditional banking services had negative and statistically significant correlations with consumer satisfaction. The negative impact of mobile banking argues that issues such as network outages, transaction delays, security concerns, and technical disruptions affect client happiness. Similarly, traditional banking services have a negative impact on consumer satisfaction due to hassles associated with branch banking, such as lengthy lines, limited working hours, and sluggish service delivery. Overall, the data show that effective and dependable alternative banking channels increase customer satisfaction, but service inefficiencies have a detrimental impact on consumer experiences with commercial banks.

The study found that alternative banking channels significantly influence customer satisfaction with commercial banks in Tanzania. Specifically, ATM banking, online banking, and agent banking showed positive and statistically significant effects, indicating that customers value convenience, accessibility, speed, and service flexibility offered by these technologies. These findings are consistent with Consumer Behaviour Theory (Alfred Marshall), which suggests that consumers choose services that maximize utility and satisfaction, as well as Diffusion of Innovations Theory (Rogers, 2003), which explains that perceived relative advantage and ease of use drive adoption of innovations. Empirical studies such as Mugambi and Imita (2022) and Regmi (2024) also support the view that digital banking enhances service efficiency and customer satisfaction through improved accessibility and reduced transaction time.

In contrast, the study found that both mobile banking and traditional banking services had a negative and statistically significant impact on client satisfaction. The negative impact of mobile banking is mostly due to difficulties such as network instability, transaction failures, security concerns, and system disruptions, which affect client trust and satisfaction. This is consistent with the findings of Dimitrieska et al. (2022), who discovered that technological problems and insufficient digital infrastructure impair the efficacy of electronic banking services in emerging nations. Similarly, the negative impact of conventional banking reflects consumer discontent with lengthy lines, restricted service hours, and delayed service delivery, which aligns with the global move toward self-service banking models (Etim et al., 2023).

5. Conclusion and Recommendations

The study found that mobile banking and tradition banking services had negative statistically on customers' satisfaction among Tanzanian commercial banks while ATMs, agent banking and online banking had a positive statistically significant influence on customer satisfaction in among Tanzanian commercial banks. The R demonstrated a strong positive association between mobile banking, agent banking, online banking and tradition banking services and customer satisfaction. This study adds to the body of knowledge on alternative banking channels and consumer satisfaction in Tanzania by presenting actual data from Singida Municipality. The study's findings will help commercial bank management understand the impact of alternative banking channels in increasing customer satisfaction. Bank management may utilise the findings to enhance the quality, dependability, accessibility, and security of digital banking services. The study suggested that various banking stakeholders improve the

technological infrastructure of their industries by focusing more on alternative banking channels services and products, as this will allow them to reach a larger number of customers while also providing flexibility, interactivity, and greater accessibility when compared to traditional banking. Commercial banks must spend extensively in technology since it will greatly increase the adoption of electronic banking technologies, which will have an impact on the customer satisfaction of banks. There is also a need for Tanzanian banks to expand education and awareness campaigns about alternative banking channels, as this improves their customer satisfaction.

Financial authorities, such as the Bank of Tanzania, should tighten regulations and regulatory frameworks that control digital and alternative banking services to ensure security, dependability, and consumer protection. To safeguard clients from fraud and financial losses, regulators should set clear requirements for cybersecurity, data privacy, digital transaction safety, and operational dependability. Furthermore, the government and financial authorities should encourage investments in digital infrastructure, internet connection, and financial inclusion initiatives to expand access to banking services in both urban and rural regions. Regulatory authorities should also encourage commercial banks to innovate and compete fairly, while ensuring that service quality criteria are met.

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