INSTITUTE OF ACCOUNTANCY ARUSHA

Accountancy and Business Review

Vol. 16(1), pp. 102-116, June 24 journals.iaa.ac.tz

The Influence of ICT Services Usage on Customer Satisfaction in Financial Institutions: A case of NMB bank – Lushoto branch

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Abstract

This study aimed at assessing the use of ICT services influences customer satisfaction in financial institutions. The DeLone and McLean Model of Information Systems Success and theory of Competitive Strategy were employed in this study. This study was undertaken using a descriptive study design. Under this research, the target population was customers and officials of NMB - Lushoto Branch. The simple random method was used to select citizens of the Lushoto District. Primary data was collected through questionnaires and interviews while document reviews were used to gather secondary data. In this study, qualitative data was analyzed using thematic analysis. Quantitative data was analyzed using descriptive and inferential statistics with the aid of SPSS. The study found that to the large extent, the use of ICT services influences customer satisfaction at NMB bank. Correspondingly, the study concludes that there is a positive relationship between the use of ICT Services and customer satisfaction. The researcher recommends further studies on the customers' perceptions and attitudes toward banking ICT services.

Keywords: ICT Services, Customer Satisfaction. Financial Institutions, Bank.

1. Introduction

ICT is an umbrella phrase that refers to all quickly growing, evolving, and converging computer, software, networking, telecommunications, Internet, programming, and information systems technologies (Rashid 2019). Information Technology (IT) in the banking industry refers to the automation of processes, controls, and information generation via the use of computers, telecommunications, software, and auxiliary equipment like as automated teller machines and debit cards (Amin 2020). The use of information and communication technology concepts, methodologies, policies, and implementation strategies for banking services has become a key issue for all banks, as well as a requirement for local and worldwide competitiveness in the banking business. As a result of technical advancements, the business environment in the financial industry is very dynamic and experiences frequent changes, necessitating banks' usage of the Internet to service their customers (Taap et al. 2022).

Globally, ICT is seen as a new revolution in traditional banking services, providing clients with the greatest convenience for doing financial operations electronically. Over the last few decades, all banks, particularly major banks and mutual banks, have gradually grown the amount of ICT services offered to consumers (Khan et al. 2021). Advanced ICT services have given rise to new methods of conducting financial transactions, particularly through the online banking channel. The banking business has become increasingly volatile and competitive across the world, characterized by a rising tendency toward internationalization, mergers, takeovers, and consolidation of the banking industry (Jackson, 2020). In light of the current financial crisis precipitated by COVID-19, financial institution CEOs are under increased pressure not just to retain customer happiness while lowering costs, but also to preserve market leadership (Khan et al. 2021). Bank executives have relied on excellent service quality and information technology infrastructures to reduce costs and retain market leadership. To communicate with this customer's demand, banks must use contemporary information technology. ATMs, Phone Banking, Internet Banking (IB), Credit Cards, and Debit Cards are examples of how information technology has altered the banking industry's business practices and ways of operation (Benso and Thea 2020).

In Africa, developments in information and communication technology (ICT) are fundamentally altering the way business is conducted. The advanced and developed ICT services aim to improve service delivery, customer happiness, and, as a result, client loyalty to the bank. According to Al-Madi (2010), Automated Teller Machines (ATM), cards, telephone banking, personal computer banking, and Internet banking are currently available in the financial system (Mwakelele, 2018). According to Reza et al. (2019), consumer dispositions toward convenience, service, technology, change, computer expertise, and the Internet influenced channel utilization. According to Shao (2020), the most significant elements driving customers to utilize online banking are lower fees, followed by less paperwork and human error, which reduces conflicts. According to Buyers and Lenderer (2011), electronic banking modifies consumer attitudes, which dictate changes in distribution channels; virtual banks can only be successful when the section that chooses electronic media is almost double the size of the segment that prefers street banks.

Tanzania's financial system has come a long way from the colonial era. Traditional banking tasks such as withdrawing and depositing money, checking balances, and requesting bank statements were mostly carried out using manual banking systems (Loyaichi, 2021). These procedures, however, have been updated by the use of an electronic banking system. Many Tanzanian banks have rapidly adopted the use of information and communication technology in their service delivery, resulting in intense rivalry in the banking industry. As a result, many financial institutions are targeting their strategies toward enhancing customer pleasure and loyalty through enhanced service quality, as it provides banks with a competitive edge by lowering operational costs and giving the highest client satisfaction (Mchomba 2018). In the long term, this is intended to increase financial inclusion by lowering transaction

costs, boosting transaction convenience, availability, and timeliness, and expanding accessibility for better fund administration. Although ICT services give numerous options for banks, they also utilize the Internet, which is limited by security, complexity, network breakdown, and inability to access money at other branches, referrals to branches owing to network disruption, identity theft, and costly visa transaction fees. Furthermore, difficulties such as frequent ATM malfunctions and a lack of an adequate alternative system that replaces ATM service when a temporary problem occurs in the machine have raised uncertainties in the minds of consumers, lowering their level of satisfaction. If these problems continue bank will lose lot of customers as customers always search for excellent services.

Today's bank clients are looking for more than just low interest rates. They desire technologies that are useful, dependable, and dependable. Several scholars have sought to investigate the effects of ICT services on customer satisfaction in financial institutions. Some of the studies conducted include; Zhuola et al., (2015) investigated strategic marketing and business performance. Kyeremeh (2019) investigates the impact of information and communication technology (ICT) on bank performance in terms of service delivery in Ghanaian financial while Shaban (2019) sought to find out the effects of mobile banking on customer satisfaction. Bello and Dogarawa (2020) also examined and assessed the impact of e-banking services on customer satisfaction in the Nigerian banking industry; Mahotra and Singh (2017) investigated the influence of Internet banking on the performance and risk of Indian banks and; Benson (2018) explored the influence of information, communication, and technology on customer retention in the banking business using Kotido as a case study. Also, Chebet (2017) investigates the impact of outsourced information and communication technology developments on customer satisfaction in the service business in Nairobi, Kenya as well as Didy (2020) investigates the influence of ICT service quality on customer satisfaction at Kenya Commercial Bank (KCB). None of these studies focused on the effect of ICT services on customer satisfaction in financial institutions especially of NMB bank – Lushoto branch. It is natural for banks which do not provide automated services to lose clients to competitors (Afiff Astuti 2019). Banks use ICT technologies to improve client satisfaction with banking services (Kevi, 2021; Bei 2021). In the long term, this is intended to increase financial inclusion by lowering transaction costs, boosting transaction convenience, availability, and timeliness, and expanding accessibility for better fund administration. As a result, NMB Bank managers have been forced to do more to rectify the situation and improve customer services. Efforts that the bank has made include adopting new ICT services meet customer needs; the bank has changed most of its information systems which is believed satisfy customers; The bank has also made efforts to increase digital services by automating all of its services. However, despite of the efforts made by bank, which are collectively taken as strengthening customer satisfaction; customer services in NMB Bank have not improved to expected levels of satisfying customers to the maxim. This has caused customers to feel betrayed by the banks, believing that banks have violated the norms or ethics of a customer-

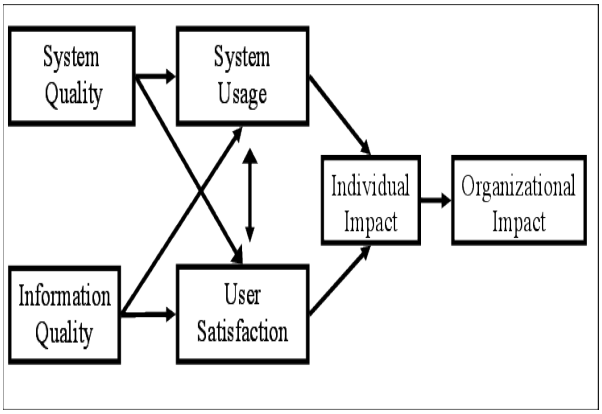
bank relationship. Therefore, this study sought to assess the use of ICT services influence customer satisfaction in financial institutions using NMB bank – Lushoto branch as case study.

2. Literature Review

2.1 The DeLone and McLean Model of Information Systems Success

The measurement of information system success or efficiency is acute to every one's understandings of the value and efficacy of IS management and IS investment. In 1992, D&M published a paper in which they attempted to bring some awareness and structure to the dependent variable IS success in IS research and developed a model known as D&M IS success model. According to D&M's model of information system success (1992), the model acts as a framework for conceptualizing and operationalizing IS success. They urge that the semantic level is the success of information in conveying the intended meaning while the effectiveness level is the effect of information on the receiver.

Figure 2.1: The DeLone and McLean Model of Information Systems Success



Source: DeLone and McLean, (2003).

The main purpose of the D&M information systems research was to synthesize previous research involving Managing Information System (MIS) for a clear ground of wisdom and to guide researches that might be conducted in future for the same aspect. D&M's model combined both process and casual explanations of IS success. D&M urges that considering a process model, an IS is developed with a range of different categories of systems and information quality. The end users and their managers then through the use of the categories mentioned above acquire satisfaction or are dissatisfied by the systems performance and the quality of information it produces. D&M concludes that it is through frequent use of the system that its information results creates impact or influences every systems user in performing their work and it is through these individuals impact that collectively becomes organizational impact as well. A casual or variance on the other hand assesses various dimensions that lead to its success in order to determine whether any relationship might exist among them. They urge that the systems high quality will results into higher user satisfaction and use and all end results will be the positive impacts to the individual users produce hence improvement in organizational performance and productivity. The D&M's model consists of six interrelated dimensions of success: System quality, Information quality, System use, user satisfaction, Individual impacts, and Organizational impacts. The interrelationship which is embedded in these dimensions plays a major fundamental role when it comes to determine the IS success in empirical studies through; measuring, analyzing and reporting. This theory helped the researcher to assess the effect of ICT services on customer satisfaction in NMB bank.

2.2 The Theory of Competitive Strategy

Porter's theory may aid in demonstrating the competitive advantage that organizations have gained as a result of technical improvements. Porter devised the concepts of the five forces framework, which influence market attractiveness (1979). The framework includes forces that influence a company's capacity to service its consumers and produce revenue. If any of the dynamics in the marketplace change, the firm is expected to assess its marketplace. The framework includes the following forces: the threat of replacement products, the threat of new entrants, consumer bargaining power, and supplier negotiating power. The previous four forces interact with other variables to impact the last force, which is the amount of competitiveness in an industry. Companies strive to be market leaders in order to get more consumers and earn more profit. When a company seeks to gain a competitive advantage over other enterprises, it employs a competitive strategy. Banking technology advancements help banks gain a competitive advantage while enhancing client happiness. Banks gain a competitive edge through accuracy in data processing and reporting, dependable and better service supply to clients, lower operating costs through greater resource use, and improved relationships with suppliers as a result of efficiency (Hamil, 2014). This theory helped the researcher to establish the benefits of ICT services on customer satisfaction in NMB bank.

2.2 Empirical Literature Review on

Mchomba (2018) indicated many implications impacting bank consumers who utilize e-banking services and products, including accessibility, time factor, availability, user friendliness, and security. It was also shown that education and income levels had a stronger influence on consumer satisfaction. According to the findings, 63.6 percent of respondents say they spend less time using E-banking. There were other e-banking difficulties disclosed, such as network failure, limited withdraw amount, no fast aid in case of transaction failure, and insufficient cash on ATMs, particularly on weekends. Customers favour ATMs over other e-banking products and services due to their accessibility, time savings, and availability. It was suggested that clients be given information about e-banking services in order to promote and attract more bank customers to use the services and products.

Kyeremeh (2019) investigates the impact of information and communication technology (ICT) on bank performance in terms of service delivery in Ghanaian financial institutions. According to the study, ICT has a significant beneficial influence on performance owing to increased customer service delivery. This has an impact on Barclays Bank's growth. ATM service issues such as withdrawal disparities, defective card issuance, and excessive wait times for applied ATM cards prevent most users from using the service. According to the findings of this study, Barclays Bank could improve the performance of their ATMs and networks in order to increase customer satisfaction. Mahotra and Singh (2017) found that use of ICT Services has significant impact on customer satisfaction. Although, Internet banks are more lucrative than non-Internet banks and operate at a lower cost than non-Internet banks, demonstrating the Internet banks' efficiency. Benson (2018) revealed a good association between the various

ICT services usage, E-transfer, and Telephone banking on customer retention. The data also indicated that consumer unfavourable perceptions of ICT, particularly telephone banking, have dramatically altered since the advent of ICT in banking. It is advised that bank management spend heavily in ICT in order to create more effective and smoother ICT delivery in banks.

According to Robinson (2021), ICT increases the interaction between the service provider (e.g., bank) and the consumer by bringing financial services directly to the customer's home, workplace, or mobile phone. This fosters client loyalty. The author goes on to say that online services are essential for banks, which must compete with a rising variety of services from other financial institutions, investment firms, and insurance companies. This is due to the fact that banking is no longer bound by time and location. As a result, global rivalry is projected to become more intense. Didy (2020) discovered that the quality components, cooperation, dependability, and resources were evaluated low, while responsiveness, assurance, tangibility, and empathy were rated decent, and none of the quality features were rated great. These findings indicate that improvement in the quality of ICT services boost customer satisfaction. Nupur (2017) revealed that there is a link between electronic banking services and consumer satisfaction. The primary characteristics investigated are dependability, empathy, responsiveness, and assurance, which results in properly pleasing clients, however the tangibles factor has no relation to customer pleasure.

Ankit (2018) study's findings revealed that banking needs such as convenience, privacy, risk, and problem resolution are the most important determinants that have a positive impact on customer satisfaction, whereas the availability of features and customer retention have a very minor impact on customer satisfaction. According to Santouridis et al., (2019), empirical research on online banking in Greece is being conducted through measuring consumer satisfaction and the quality of electronic banking services. In their study, service accessibility was shown to have the strongest and biggest influence on customer satisfaction, and it was advised that the banking industry enhance the characteristics that did not have a relationship with the degree of consumer satisfaction. From the various empirical studies highlighted in the chapter, it is clear multiple researches have been conducted in relation to ICT services and customer satisfaction in various capacities. However, there was a gap on effect of ICT services on customer satisfaction in financial institutions in Tanzania particularly NMB bank. This study therefore spught at assessing the the use of ICT services influence customer satisfaction in financial institutions particularly NMB bank – Lushoto branch.

3. Methodology

This study was undertaken using a descriptive study design. The research was carried out in the Lushoto District, especially among customers of the National Microfinance Bank - Lushoto Branch. The rationale for this choice is because National Microfinance Bank is a government-owned bank that provides ICT services to consumers in a stagnant and backward manner. The current research adopted both qualitative and

quantitative research strategies. The purpose of adopting this form of research is that both qualitative and quantitative research, in combination, provides a better understanding of a research problem.

Under this research, the target population was customers and officials of NMB - Lushoto Branch. Purposive sampling technique was used to select employees from NMB bank. The simple random method was used to select citizens of Lushoto District. The sample size for this study will consists of 204 respondents of which 170 are customers and 34 are employees of NMB bank – Lushoto branch (Total = 194).

The primary and secondary data were gathered by the researcher. Primary data was collected through questionnaires and interviews. The study used questionnaires to acquire information from customers of the National Microfinance Bank - Lushoto Branch. Also, series of semi-structured interviews were undertaken in this study to collect data from bank's officials. Document reviews was used to gather secondary data. In this study, qualitative data was analysed using thematic analysis. Quantitative data was summarized, classified, analysed, and assessed using descriptive and inferential statistics and easily available analysis methods such as the Statistical Package for Social Science (SPSS).

4. Findings

From the study, the sample size was 204 respondents. All respondents 204 responded and returned the questionnaire. Based on the mean values, the five-point scale ranges are as follows: mean scores of less than 1.5 represents no extent; mean scores of 1.5 but less than 2.5 represents little extent; mean scores of 2.5 but less than 3.5 represents moderate extent; mean scores of 3.5 but less than 4.5 represents large extent; mean scores of 4.5 to 5 represents very large extent.

4.1 Use of ICT Services Influence Customer Satisfaction

This section sought to capture different answers on how the use of ICT services influence customer satisfaction in financial institutions. The statement provided to respondents and the findings are as follow;

Table 1: Use of ICT Services Influence Customer Satisfaction

	Mean	Std. Deviation
ICT services provide 24/7 Services accessibility	3.5	.475
ICT services provide 24/7 Technical Support	3.4	.493
ICT services provide global accessibility	3.4	.480
ICT services have simplified access to bank services	4.4	.481
ICT services have enabled real time payments that has improved the movement of cash and has revolutionized the concept of payments	3.8	.487
ICT services have significantly reduced the costs associated with the search and markets which is mainly associated with ATMs, smart cards and Automated Clearing House (ACH) technologies	3.9	.497
ICT services have facilitated informal borrowing, perhaps even boosting it because it is so reliable	3.4	.485

ICT services have increased access to bank services	4.0	.497
ICT services have simplified to loan uptake process in bank	3.4	.490
ICT Services have speed up the access to financing in a manner that could not have been possible with traditional banking	3.5	.499
ICT Services are effective in in helping users to cope with fluctuations in income	3.4	.480
ICT Services offers users a high-quality, efficient, personalised service that leads to greater confidence in the bank	4.0	.603
ICT Services has enhanced transparency between bank and its customers	3.9	.547
ICT Services has enhanced usage of banking services to unbanked communities	3.9	.473
ICT Services has led to a better understanding of products offered by the bank	3.7	.501
COMPOSITE MEAN	**3.71**	

The study results in table above indicate that the respondents agreed with the following statements describing the use of ICT services influence customer satisfaction in financial institutions:ICT services provide 24/7 Services accessibility (Mean = 3.5, SD =.475), ICT services provide 24/7 Technical Support (Mean = 3.4, SD =.493), ICT services provide global accessibility (Mean = 3.4, SD =.480) and ICT services have simplified access to bank services (Mean = 4.4, SD =.481). Respondents added that:

“Customers may access their accounts 24 hours a day, seven days a week, thanks to advances in information technology" (NMB Bank – Employee).

Customers may use online banking to get financial services whenever they need them, without having to visit a bank office" (NMB Bank – Employee).

"With ICT, banking is available everywhere." You may do business from out-of-region or out-of-country, anyplace there is an internet connection"(NMB Bank – Employee).

To the large extent, majority of the respondents agreed that ICT services have enabled real time payments that has improved the movement of cash and has revolutionized the concept of payments (Mean = 3.8, SD =.487) and ICT services have significantly reduced the costs associated with the search and markets which is mainly associated with ATMs, smart cards and Automated Clearing House (ACH) technologies (Mean = 3.9, SD =.497) while to the moderate extent ICT services have facilitated informal borrowing, perhaps even boosting it because it is so reliable (Mean = 3.4, SD =.485). Respondents posited that:

"Because of decreased operational expenses, internet banks provide highly appealing incentives." (NMB Bank – Customer).

"It's quick and saves you time that traditional banking cannot provide." Your transactions are completed in a couple of seconds. You can print your receipt for your records and perform numerous things at the same time” (NMB Bank – Customer).

Respondents indicated that, to the large extent ICT services have increased access to bank services (Mean = 4.0, SD =.497) while to the moderate extent ICT services have simplified to loan uptake process in bank (Mean = 3.4, SD =.490). During the interview, respondents stated that:

“Online banking helps you save money. No more last-minute treks to the post office or utility company to pay your bills. There will be no more stamps or envelopes to purchase. You may also request that your invoices and monthly bank statements be emailed to you"(NMB Bank – Customer).

"... consumers may apply for a loan or a mortgage straight from the website and receive a timely response” (NMB Bank – Customer).

To the large extent, majority of the respondents asserted that ICT Services have speed up the access to financing in a manner that could not have been possible with traditional banking (Mean = 3.5, SD =.499) and ICT Services are effective in in helping users to cope with fluctuations in income (Mean = 3.4, SD =.480). Respondents pinpointed that:

“"In quickly changing and rising economies, ICT boosts banks' competitive positioning" (NMB Bank – Employee).

Saving time is an important element that determines customers' preferences for electronic banking. Banks may make product and service information available on their website, which is a beneficial offer” (NMB Bank – Employee).

Respondents indicated that, to the large extent ICT Services offers users a high-quality, efficient, personalised service that leads to greater confidence in the bank (Mean = 4.0, SD =.603); ICT Services has enhanced transparency between bank and its customers (Mean = 3.9, SD =.547) and ICT Services has enhanced usage of banking services to unbanked communities (Mean = 3.9, SD =.473) as well as ICT Services has led to a better understanding of products offered by the bank (Mean = 3.7, SD =.501). On the interview, respondents proclaimed that:

"With the help of an electronic banking platform, customers are now purchase anywhere, at any time, without leaving their homes." They buy things and transfer money from their bank accounts to the receivers' bank accounts via numerous delivery routes" (NMB Bank – Employee).

"The advancement of digitalization in various sectors has led NMB Bank to recognize that banking is no longer about saving and lending, but about data and keeping it safe for the security of consumers while meeting their needs" (NMB Bank – Employee).

"ICT services have become increasingly crucial for the NMB bank in aligning its aims with how it operates its operations." The bank is improving its application platforms so that consumers may conduct financial operations on their own via mobile and internet banking" (NMB Bank – Employee).

“…ICT services enable unbanked and underbanked individuals to have access to cheap financial goods and services, which has a significant influence on their ability to undertake financial transactions that support their socioeconomic activities” (NMB Bank – Employee).

With the composite mean of 3.71, it can be inferred that to the large extent the use of ICT services influence customer satisfaction in NMB bank. ICT services have enabled NMB Bank to give simple access to financial services to existing clients while also increasing product supply and banking services to the unbanked population. ICT services have assisted them in overcoming hurdles to financial services.

4.2 Correlation Analysis

The correlation analysis between independent and dependent variables is shown in the table below.

Table 2: Correlations

		Use of ICT Services	Customer Satisfaction
Use of ICT Services	Pearson Correlation	1	
	Sig. (2-tailed)		
	N	204	
Customer Satisfaction	Pearson Correlation	**.591****	**1**
	Sig. (2-tailed)	.000	
	N	204	204

Table 3 above illustrate that there is a positive relationship between use of ICT Services and customer satisfaction due to the fact that it has correlation coefficient of 0.591 which is greater than 0 coefficient (no relationship) and negative coefficient.

4.3 Regression Analysis

The researcher conducted a multiple regression analysis so as to test joint effect of use of ICT services on customer satisfaction and the findings are as follow:

Table 3: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.787[a]	.620	.614	3.21228
a. Predictors: (Constant), Use of ICT Services				

As can be observed in Table above, R was 0.787 and R Square was 0.620 at 0.05 level of significance. The coefficient of determination indicates that 62.0% of the variations on customer satisfaction can be explained by use of ICT services. The remaining 38.0% can be explained by other variables not included in the study. R square and adjusted R is above average an implication that an above average variation can be explained by the model.

Table 4: ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	3361.131	3	1120.377	108.577	.000[b]
	Residual	2063.746	200	10.319		

	Total	5424.877	203			
a. Dependent Variable: Customer Satisfaction						
b. Predictors: (Constant), Use of ICT Services						

Further analysis of ANOVA as shown in Table above showed that significance of F statistics is 0.000, which is less than 0.05 and the value of F (14.715) being significant at 0.00 confidence level. This confirms that overall multiple regression model is statistically significant, in that it is a suitable prediction model for explaining how the selected independent variables affects the customer satisfaction

Table 5: Coefficientsa

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.705	1.901		.371	.011
	Use of ICT Services	.178	.061	.167	2.902	.004
a. Dependent Variable: Customer Satisfaction						

The study conducted a multiple regression analysis so as to determine the association between all the three categories of ICT services on the dependent variable (customer satisfaction). The multiple linear regression model was of the form:

Customer Satisfaction = 0.705 + 0.178Use of ICT Services + α.

According to the regression equation established, taking all factors into account with constant at zero, outcomes will be 0.705. Taking all other independent variables at zero, Use of ICT Services will result in a 0.178 increase in customer satisfaction.

5. Discussion of Findings

Technology is making a tremendous impact upon banks in general and the financial services sector is no exception. The study results found that the respondents agreed that ICT services provide 24/7 Services accessibility, ICT services provide 24/7 Technical Support, ICT services provide global accessibility and ICT services have simplified access to bank services. Correspondingly, The DeLone and McLean Model of Information Systems Success indicated that the systems high quality will results into higher user satisfaction and use and all end results will be the positive impacts to the individual users produce higher improvement in organizational performance and productivity. Also, Mchomba (2018) affirmed that customers favour ATMs over other e-banking products and services due to their accessibility, time savings, and availability. The NMB bank has created a virtual banking system for client convenience, allowing them to access their financial system at any time and from any location. The NMB bank online banking system is convenient since it is available 24 hours a day, 365 days a year. It overcomes difficulties that clients encountered in the old banking system. Individuals do not need to wait in line for money deportation or transfer.

To the large extent, majority of the respondents agreed that ICT services have enabled real time payments that has improved the movement of cash and significantly reduced the costs associated with the search and markets as well as facilitated informal borrowing,

perhaps even boosting it because it is so reliable. These findings are supported by Robinson (2021), who postulated that the ICT has increases the interaction between the bank and the consumer by bringing financial services directly to the customer's home, workplace, or mobile phone. This fosters client loyalty. Customers of NMB bank may transfer money and use it at any time, which is the most significant advantage of using internet banking. They do not need to visit banks to transfer money, which can be done from anywhere without physically visiting the institutions.

According to the findings, ICT services have improved access to financial services while simplifying the loan application procedure in banks. With advanced ICT services, NMB bank's customers may apply for loans, insurance, and other services without having to visit the bank physically, demonstrating that the quality of e-banking is fast and effective. The NMB bank should aim to be more innovative in their service offerings by giving integrated solutions to their clientele. Ankit (2018) posited that banking needs such as convenience, privacy, risk, and problem resolution are the most important determinants that have a positive impact on customer satisfaction. On top of that, Santouridis et al., (2019) depicted that service accessibility was shown to have the strongest and biggest influence on customer satisfaction.

To the large extent, majority of the respondents asserted that ICT Services have speed up the access to financing in a manner that could not have been possible with traditional banking and ICT Services are effective in in helping users to cope with fluctuations in income. This agrees with the position held by Mchomba (2018) who indicated that customers spend less time using E-banking. The financial services provided by NMB bank via ICT have one significant benefit. They enable the cost-effective scaling of services via infrastructure, such as mobile internet, without the requirement for a physical presence to complete transactions. People who are unable to access banking and other financial services at a physical location can open an account online and conduct basic activities such as money transfers and bill payments, as well as access services such as loans and insurance.

Respondents indicated that, to the large extent ICT Services offers users a high-quality, efficient, personalised service that leads to greater confidence in the bank and ICT Services has enhanced transparency between bank and its customers. This is also the position held by Kyeremeh (2019) who established that ICT has a significant beneficial influence on performance owing to increased customer service delivery. Either, Didy (2020) findings designated that improvement in the quality of ICT services boost customer satisfaction. NMB bank ICT technologies such as Internet banking and SIM card banking have lowered operational expenses while improving service quality and transparency. They offer convenience and excellent customer service at a moderate cost. The NMB bank charges a low fee for operations, indicating that their services are affordable and efficient.

High service fees, a lack of monetary means, a lack of trust in financial institutions, a lack of closeness to financial institutions, and a lack of the necessary papers

to receive financial services are the primary obstacles to banking. Study findings revealed that ICT Services has enhanced usage of banking services to unbanked communities as well as ICT Services has led to a better understanding of products offered by the bank. This is in line with the Theory of Competitive Strategy that the technology advancements help banks gain a competitive advantage while enhancing client satisfaction. For NMB bank, ICT services have been found to boost business efficiency and service quality, allowing the bank to serve unbanked populations while also improving electronic banking services.

The correlation analysis revealed that, there is a positive relationship between use of ICT Services and customer satisfaction. These findings are in agreement with Mahotra and Singh (2017) who found that use of ICT Services has significant impact on customer satisfaction. Also, Benson (2018) revealed a good association between the various ICT services usage, E-transfer, and Telephone banking on customer retention as well as Nupur (2017) revealed that there is a link between electronic banking services and consumer satisfaction. NMB banks must strive to be more innovative in their ICT service offerings by attempting to give integrated solutions to their clientele. And develop ways of engaging with consumers that are more mindset-based and long-term for the bank. This will go a long way toward assisting the bank in reaping the full benefits of ICT services.

6. Conclusions and Recommendations

This study sought to assess the use of ICT services influence customer satisfaction in financial institutions using NMB bank – Lushoto branch as case study. The study concludes that there is a positive relationship between use of ICT Services and customer satisfaction. The development of good and suitable ICT services is required to address the difficulties of the banking industry's expansion and diversification. ICT services have enabled the NMB bank to provide a diverse variety of services in order to improve client satisfaction. The use of ICT in financial services aims not only to provide better services that please customers, but also to gain a competitive edge among them. NMB Bank should increase its marketing efforts to potential clients to encourage them to embrace ICT services such as internet banking and online banking. Customers may be supplied with quality online banking that is always available by investing in high-speed internet infrastructure. The bank should create new user-friendly systems and apps for their consumers, as well as programs that will reassure customers' safety with regard to ICT through sensitization while assisting the development of skills among bank employees. Also, further studies might be conducted to compare the effects of the same factors across other commercial banks in Tanzania. Furthermore, the researcher suggests that more studies be conducted on the factors that impact the use of digital banking services. In addition, the researcher proposes conducting a study to determine customers' perceptions and attitudes toward banking ICT services.

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