Available online @ https://jjem.jnnce.ac.in
https: www.doi.org/10.37314/JJEM.SP0408
Indexed in International Scientific Indexing (ISI)
Impact factor: 1.395 for 2021-22
Published on: 31 May 2025

The Effects of Internet Banking Adoption on Customer Satisfaction in Tanzania. A Case of Tanzania Commercial Bank

Dr Frank Mtaki[1*],

1* Ardhi University

frank.maira@yahoo.com

Abstract

The research utilized the Theory of Reasoned Action (TRA) and the Technology Acceptance Model (TAM). The study has 119 respondents in total. The checklist was used to collect the primary data. Data analysis was done with the SPSS (27) program. Multiple regression analysis was employed. Perceived usefulness and customer satisfaction were found to be positively correlated, information security and customer satisfaction were found to be negatively correlated, and perceived ease of use and online customer support were found to be positively correlated. It was recommended that banks research more in understanding the needs for internet banking to satisfy the customers and make every determination to satisfy various needs of the internet services offered by internet banking
.

Key words:Internet banking adoption,Customer satisfaction,Tanzania

1. Background to the study

Internet banking is being rapidly improved by the banking sector as a practical and effective instrument for increasing client value. Many banks have converted from traditional "bricks and mortar" to "clicks and mortar" due to the recent rise of internet commerce (Agarwal & Kothari, 2018). In order to move towards a cashless economy, online banking systems are growing globally, especially in industrialized nations where the cards (plastic money), and the internet (digital money) are being introduced (Sandada, et al., 2016). The increasing use of Internet banking solutions is demonstrated by Hassan & Farmanesh's (2022) finding that there were 7.9 million Internet banking transactions in 2022 compared to 5.4 million in 2018. The value of transactions made through Internet banking increased to Sh66. 47 trillion in 2020 from Sh 47. 5 trillion in 2021.

One type of e-banking is internet banking as said by (George & Kumar, 2014). Additionally, Malik and Oberoi (2017), and Isac & Drigă (2015) noted that online banking, commonly referred to Internet banking that emerged as a novel means of distributing banking services and is a crucial prerequisite for maintaining company competitiveness. Online banking has generally been embraced by banks as a tool for e-commerce, which greatly improved banking operations and services, particularly in cost reductions and the ability for clients to do financial activities "anytime and anywhere" (Salimon, et al., 2017). With ongoing technological advancements, banks can provide their retail clients a broad array of goods and services via an electronic channel (Mutesi, et al., 2016). Customers are being completely upended by the rapid changes in banking procedures brought about by the use of these new disruptive technologies (Rahi, *et al.*, 2017).

Internet banking has enhanced service quality and distribution within the banking industry, according to Sikdar & Kumar (2018). Outstanding financial service excellence leads to customer satisfaction, and happy consumers are more likely to be retained with the banking services that are provided Assegaff (2020). Moreover, Shanka (2020) pointed out that a key indicator of how well a customer's wants and requests are met is satisfaction. Furthermore, the author contends that because it raises customer satisfaction, boosts competitive advantage, and promotes customer retention, quality of service is particularly important in the context of financial services. Nonetheless, Munusamy *et al.,* (2021) contend that since consumers are growing more value-sensitive, banks must continuously innovating and updating to match client demands and offer dependable, practical services, and suitable services.

According to Liébana-Cabanillas *et al.,* (2021), presented that the banking industry is paying more attention to customer satisfaction as a result of rising rivalry and recent technological advancements. Liang & Nguyen (2022), on the other hand, contend that while the increasing necessity of conducting financial transactions online may present a greater opportunity to implement internet banking services, banks may find it challenging to market these services to consumers if they fail to meet their needs. As a result, Daneshvar & Ramesh (2021) point out that understanding the primary variables influencing client happiness and service excellence is essential for success to the online banking industry. Furthermore, Mutesi *et al.,* (2016) contend that, in order to enhance delivery of service, online banking service providers ought to collect additional client data.

International financial institutions make investments in technology to gain a competitive advantage; however, the degree at which these resources are utilized determines whether the intended results of increased client satisfaction and the exploitation of technology resources are realized Sharma &Govindaluri, (2014). Safeena *et al.,* (2022) have shown in their research that although the usage of internet banking has grown significantly, there is no indication that customers find it acceptable, and half of those who have used the services will stop using them. Furthermore, they said that people's reservations about the acceptance of internet banking have arisen from well-publicized security flaws.
Furthermore, there is a clear relationship between customer contentment and how simple online banking is to use, therefore making online banking more convenient for consumers can increase their level of pleasure.

2. Statement of the Problem

Internet banking is still at low level in developing nations. While some banks use the web to simply give information about products and services, very few are creating these kinds of services. Therefore, it can be said that bank clients are still not used to handling their financial matters through electronic means. This low adoption rate is a sign of the risks associated with launching new goods and services into the market; most product and service innovations fail, often at great financial expense to the businesses that first introduce them. Furthermore, it's important to identify the services that these adopters believe are essential. For the purpose of market targeting, it is essential to identify the qualities associated with Internet banking adoption. Additionally, identifying novel aspects can assist banks in designing their products and creating promotional strategies that will promote the service.

Conventional financial institutions aim to further increase their market share by lowering operational costs, improving the superiority of banking services, and improving client relationship management through provision of Internet banking services. Studies revealed that online consumer banking may be more successful than traditional banking, with reports of more profitable, devoted, and loyal users (Fox, 2022).

3. Research Objectives

General Objective

To examine the effects of Internet banking adoption on customer satisfaction in Tanzania. A case of Tanzania Commercial Bank.

Specific Objectives

- To examine the effects of Perceived Usefulness of Internet banking adoption on customer satisfaction.
- To examine the effects of Perceived Ease of Use of internet banking adoption on customer satisfaction
- To examine the effects of Information Security of Internet Banking adoption on customer satisfaction.
- To examine the effects of online customer support of Internet Banking adoption on customer satisfaction.

4. Significance of the Study

The study's conclusions are crucial to Tanzanian commercial bank management because they help them comprehend how internet banking affects both their institutions' profitability and consumer complaints. This significantly contributes to the bank's attainment of its goals and, ultimately, to the growth of shareholder value. Furthermore, the results assist those involved in the banking sector in recognizing obstacles that their clients encounter and developing solutions. Because the study gives an avenue for future studies on electronic banking and serves as a foundation for future research, it will be of appropriate significance to researchers.

5. Empirical Literature Review

Appu & Muthamizhan's (2021). Assessed the effects of electronic banking services on client retention. The study utilized a descriptive methodology to examine customer retention with respect to commercial banks' online banking offerings. The E-S-Qual model was used to gauge the level of service quality for the 84 clients that made up the study sample. The results of the study brought to light a number of important factors that greatly affect client retention.
These components included improved privacy, simple user access, transactional assistance, interbank payments, and high-quality customer service. These elements have become the main drivers of customer retention for those who utilize online banking services. In addition to making online banking services as user-friendly as possible, the report suggests that efforts be made to strengthen data security and privacy. The deficiency in the body of research is the small number of studies that have explicitly looked at the significance of

customer retention in the context of online banking services.

Joan (2021), looked into how e-banking affected Ugandan commercial banks' ability to retain customers. To direct her research, she used the Technology Acceptance Model (TAM) as the theoretical framework. A sample of sixty respondents completed questionnaires to provide data, and the study concentrated on descriptive statistics such as percentages and frequencies. The study's findings showed that a considerable number of consumers were switching from traditional offline banking methods to electronic channels, indicating a major growth in the adoption of Internet banking services. This change was ascribed to the successful application of customer retention antecedents, which include elements like responsiveness, utility, dependability, and empathy. According to Joan's research, the adoption of electronic banking services and the effective integration of these antecedents are responsible for the favorable effect on customer retention in the setting of Internet banking.

Hussam (2022) identified the primary barriers to e-banking adoption in Libyan commercial (public and private) banks. According to the research, there are three primary barriers preventing e-banking from being widely used: technological, legal, and cultural. The study also found that there were no differences in the respondents' answers regarding the existence of these Barriers caused by Bank Ownership. Regardless of whether they worked for privately held or publicly traded banks, the majority of participants seemed to concur on the challenges facing the adoption of e-banking. They proposed that in order for Libyan commercial banks to effectively adopt electronic banking, bank employees need to be trained in current banking technology.

Lusaya & Kalumba (2018) investigated the challenges in e-banking adoption through a descriptive study with a sample size of fifty randomly chosen banking customers in Kasama. Their results confirm that the availability of information plays a crucial role in the adoption of e-banking services. This is because, in accordance with the principle of reasoned action, a consumer can only accept a service or product if he is fully informed about how to utilize it. They also came to the conclusion that the only obstacles to e-banking use are information availability, educational attainment, and service costs.

Abubakar (2017) looked into how government restrictions, transaction costs, bank risk perceptions, and e-banking investment affected the uptake of e-banking services in Somalia. For this research, self-administered, closed-ended questionnaires were used to collect quantitative data. Version 20 of SPSS was used to examine the data that were gathered. The study concludes that independent variables have a significant and positive impact on Somalia's use of e-banking services. The paper makes the case that e-banking in Somalia might be encouraged by appropriate legislative frameworks and security precautions. Furthermore, the sustainability and future growth of electronic banking may confer a competitive advantage in offering customers superior services at a reduced cost.

Komulainen & Saraniemi, (2019), looked at customer-centricity in mobile banking. This study was conducted as a phenomenological case study connected to an interpretive consumer study. A diary approach and fourteen semi-structured theme interviews were used to gather empirical data. The data was analyzed using a content analysis approach. The results emphasize the importance of customer-centricity in the context of mobile banking by stressing the customer experience and related value in new mobile banking services. Through the addition of value related to process, use case, and result, the study broadens the current understanding of customer experience as a multifaceted and intricate phenomenon. Additionally, it acknowledges that temporality affects and links each of these elements. The study identifies several elements that help us understand the advantages that users of mobile banking services enjoy.

6. Research Methodology

Research Design

In order to acquire quantitative data from the field for additional analysis, the study used quantitative research methods. Both descriptive and inferential statistics were used to analyze the quantitative data.Utilizing a survey method, the study took a deductive approach to determine the variables influencing customer satisfaction in relation to the uptake of Internet banking. As advised by (Yin, 2003), the research employs a descriptive case study technique with a primary focus on answering issues about the adoption of Internet banking.

Study Area

The Dar es Salaam Region served as the study's location. Tanzania Commercial Banks have been providing lending to services, deposits, insurance, guarantee, asset protection, and credit creation. The Bank has taken note of the unrivalled benefits the digital transformation brings, and has fully integrated the digital finance solution with all national payment systems.

Population and Sample Size

Population

To ensure consistency in demographic data, the research population would consist primarily of customers who routinely use digital services provided by banks. Even if all consumers have access to digital services, not all of them will necessarily use them, thus it's important to focus on the ones that do. This lessens bias in the process of population selection. The precise population number is unclear due to privacy concerns; hence a representative sample must be used.

Sample size

An element chosen from the population to provide the necessary information is called a sample (Adam, 2007). Customers of banks that actively use digital banking services made up the sample frame. Since convenience sampling offers a reachable pool of clients who actively utilize these services, it was used. Greater representativeness is ensured by a bigger sample size, which is desired. However, the actual sample size may differ because of different study limitations. Given the five variables in the study and the minimum observation-to-variable ratio of 5:1 recommended by Hair et al. (2018), a minimum sample size of 100 is needed.

7. Data Collection method and instruments

Primary data

The study collected the primary data from the Tanzania Commercial Bank customers in Dar es Salaam.The survey strategy was used to collect data about facts and perceptions of a sample using a closed-ended questionnaire having a structured 5-Likert scale statement.

8. Data Analysis

Outliers were eliminated from the field data, and the Multicollinearity Test and Normal distribution were examined. Pearson After comparing the variables to see if they match, the correlation test was employed to make sure the data was relevant. The process of evaluating quantitative statistical findings was known as data analysis. Using SPSS (27) to evaluate quantitative data, descriptive statistics, such as frequency, mean, mode, median, standard deviation, etc. Using percentages, means, and frequencies, descriptive statistical techniques were used to the respondents' demographic data.

9. Data Analysis and Discussion of Findings

Multiple Regressions Analysis

Table 1: Multiple Linear Regression Analysis Results

Variables	*Coefficient*	*Std. Err.*	*t-statistics*	*P>t*	*(95% Conf.)*	*Interval*
Perceived Usefulness	0.601	0.003	0.410	0.015	0.005	0.007
Perceived Ease of Use	0.726	0.022	5.770	0.035	0.023	0.169
Information Security	-0.409	0.003	2.030	0.067	0.098	0.006
Online Customer Support	0.541	0.231	3.001	0.019	0.021	0.002
Customer Satisfaction	0.710	0.110	1.321	0.301	0.000	0.019
Const	1.632	0.155	-0.850	0.395	0.438	0.174

Dependent Variable: Customer Satisfaction

By utilizing the measurements in each predicting variable to the dependent variable, statistical analysis is used in this study to test the hypotheses and demonstrate the influence of predictor factors to the dependent variable. The regression analysis results revealed the varying effects between the study variables. Perceived ease of use (PE) had the most significant effect on customer satisfaction, with a coefficient of 0.726 and a p-value of 0.035. This was followed by perceived usefulness (0.601, pv = 0.015), online customer support (0.541, pv = 0.019), and information security (-0.409, pv = 0.067). Among these, perceived ease of use emerged as the most influential factor in predicting customer satisfaction, according to the regression output.

Presentation of Findings

Perceived Usefulness and Customer Satisfaction

According to the first hypothesis, there is a positive correlation between customer satisfaction and the perceived usefulness of adopting Internet banking. This hypothesis aimed to assess the influence of perceived usefulness on customer satisfaction.

The findings presented show that the coefficient for perceived usefulness is 0.601, with a p-value of 0.015, indicating a statistically significant positive relationship between perceived usefulness and customer satisfaction. This means that as perceived usefulness increases, customer satisfaction also increases. Specifically, a 1% increase in perceived usefulness is associated with a 60.1% increase in customer satisfaction.

These findings are aligned with the Technology Acceptance Model, which posits that perceived usefulness significantly impacts the acceptance and usage of new technologies, such as internet banking (Davis et al., 1989).

The rejection of the null hypothesis, supported by a p-value of 0.015 (less than the 0.05 significance level), further confirms that perceived usefulness positively and significantly influences customer satisfaction. These findings are consistent with previous research by Mtaturu & Muloli (2021), who observed similar trends regarding internet banking and customer satisfaction.

Perceived Ease of Use and Customer Satisfaction

The regression analysis results show that the coefficient for perceived ease of use is 0.726, with a p-value of 0.035, which indicates a statistically significant positive relationship between perceived ease of use and customer satisfaction. This means that a 1% increase in perceived ease of use results in a 0.726 increase in customer satisfaction.

This finding suggests that as the ease of use of internet banking services improves, customer satisfaction also increases. This result is in line with previous research, such as the study by Oyerinde et al., (2018), which also found that the perceived ease of use of a service positively affects customer satisfaction. Specifically, when a technology or service is easy to use, customers are more likely to be satisfied with it, which encourages greater engagement and continued usage.

Based on the p-value of 0.035, which is less than the 0.05 significance level, we can conclude that perceived ease of use has a positive and statistically significant relationship with customer satisfaction in the context of internet banking. This supports the idea that making internet banking services easier to use will contribute to higher levels of customer satisfaction.

Information Security and Customer Satisfaction

The results show that the regression analysis for information security revealed a negative coefficient of -0.409, suggesting an inverse relationship between information security and customer satisfaction. Specifically, a 1% decrease in information security was associated with a 0.067 increase in customer satisfaction. This finding indicates that as information security practices improve, customer satisfaction actually decreases, which is contrary to the original assumption that higher security would lead to higher satisfaction.

The p-value of 0.067 is greater than the critical p-value of 0.05, which means that the relationship between information security and customer satisfaction is statistically insignificant at the 5% level. Based on this, it is concluded that information security does not significantly influence customer satisfaction in the context of internet banking.

Online Customer Support and Customer Satisfaction

The results indicate that there is a strong positive relationship between online customer support and customer satisfaction. The regression analysis reveals that the coefficient for online customer support is 0.541, which suggests that for every 1% increase in the level of online customer support, customer satisfaction increases by

0.541. This finding demonstrates that enhanced online support positively impacts customer satisfaction, meaning that more accessible and responsive customer support leads to higher levels of satisfaction with internet banking services. This result is consistent with the findings of Ramzan et al. (2023), who highlighted the importance of online customer support in improving customer satisfaction.

Additionally, the p-value of 0.019, which is lower than the critical p-value of 0.05, indicates that the relationship between online customer support and customer satisfaction is statistically significant at the 5% level. Based on this, it is concluded that online customer support has a positive and significant impact on customer satisfaction in the context of internet banking.

10. **Conclusion**

The study's main objective was to assess how internet banking usage impacted customer satisfaction. The study has 119 respondents in total. The checklist was used to collect the primary data. Data analysis was done with the SPSS (27) program. To review the information and assess the theories, multiple regression analysis was also employed. Perceived usefulness and customer satisfaction were found to be positively correlated, information security and customer satisfaction were found to be negatively correlated, and perceived ease of use and online customer support were found to be positively correlated. In order to satisfy the goals of the banking sector and guarantee client satisfaction, a well-organized online banking service is crucial for internet banking adoption.

References

1. Abdirad, M., & Krishnan, K. (2022). Examining the impact of E-supply chain on service quality and customer satisfaction: a case study. *International journal of quality and service sciences*, *14*(2), 274-290.
2. Bali, N., Shanko, A., & Feyisa, W. (2020). The impact of E-banking services on customer satisfaction: the case of Commercial Bank of Ethiopia in nekemte. *Technology*, *11*(12), 1630-1642.
3. Cash, P., Isaksson, O., Maier, A., & Summers, J. (2022). Sampling in design research: Eight key considerations. *Design studies*, *78*, 101077
4. Chandok, I. K., Afreen, H., Afreen, R., Haider, S., Moharana, D. P., Hussain, T., & Malik, M. Z. (2022). Functional Internet banking in banks. In *Mitigation of Plant Abiotic Stress by Microorganisms* (pp. 175-204). Academic Press
5. Cheung, G. W., Cooper-Thomas, H. D., Lau, R. S., & Wang, L. C. (2024). Reporting reliability, convergent and discriminant validity with structural equation modeling: A review and best-practice recommendations. *Asia Pacific Journal of Management*, *41*(2), 745-783
6. Daneshvar, P., & Ramesh, H. N. (2021). Gaining Competitive Advantage through Quality of Internet Banking Services--An Empirical Study in the Indian Private Bank Sector. *Journal of Marketing & Communication*, *6*(3).
7. Dangaiso, P., Mukucha, P., Makudza, F., Towo, T., Jonasi, K., & Jaravaza, D. C. (2024). Examining the interplay of internet banking service quality, e-satisfaction, e-word of mouth and e-retention: a post pandemic customer

perspective. *Cogent Social Sciences*, *10*(1), 2296590

8. Gautam, D. K., & Sah, G. K. (2023). Online banking service practices and its impact on e-customer satisfaction and e-customer loyalty in developing country of South Asia-Nepal. *SAGE Open*, *13*(3), 21582440231185580
9. George, A., & Kumar, G. G. (2014). Impact of service quality dimensions in internet banking on customer satisfaction. *Decision*, *41*, 73-8
10. Hair, J., & Alamer, A. (2022). Partial Least Squares Structural Equation Modeling (PLS-SEM) in second language and education research: Guidelines using an applied example. *Research Methods in Applied Linguistics*, *1*(3), 100027
11. Hassan, H., & Farmanesh, P. (2022). Customer adoption of self-service technologies in Jordan: Factors influencing the use of Internet banking, mobile banking, and telebanking. *Management Science Letters*, *12*(3), 193-206
12. MalikMohd Thas Thaker, H., Mohd Thas Thaker, M. A., Khaliq, A., Allah Pitchay, A., & Iqbal Hussain, H. (2022). Behavioural intention and adoption of internet banking among clients' of Islamic banks in Malaysia: an analysis using UTAUT2. *Journal of Islamic Marketing*, *13*(5), 1171-1197
13. Mordi, J. O. (2020). The role of internet-based technology in customer satisfaction in the banking sector: empirical evidence from Edo State, Nigeria
14. Moreno-García, E., García-Santillán, A., & Platas, D. (2021). Students Perception About Digital Financial Services. *International Journal of Financial Research*, *12*(4)
15. Munusamy, J., Chelliah, S., & Annamalah, S. (2021). Perceptual differences between internet banking adopters and non-adopters in the Malaysian retail banking sector. *International Journal of Management & Innovation*, *6*(1).
16. Tiwari, P. (2021). Electronic banking adoption in Ethiopia: an empirical investigation. SN Business & Economics, 1(9), 112.
17. Nel, J., & Boshoff, C. (2021). Traditional-bank customers' digital-only bank resistance: evidence from South Africa. International Journal of Bank Marketing, 39(3), 429-454.