

Branchless Banking Services and Financial Stability of Commercial Banks in Kenya

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Abstract

Purpose: Financial stability is a key goal for commercial banks, as it allows them to operate effectively in fulfilling their role as intermediaries in the financial system. Technological advancements, creative financial products, shifting consumer needs, and the utilization of different distribution channels are all having an impact on the banking sector. The purpose of this study was to investigate how Kenyan commercial banks' financial stability is impacted by branchless banking services.

Methods: Using an explanatory research approach, the study concentrated on all 38 commercial banks as of December 31, 2023. From commercial banks, primary and secondary data spanning the years 2016 to 2022 was gathered. Data collecting sheets were used to gather secondary data. The gathered data were coded, cleaned, tabulated, and shown in tables before analysis. Statistics, both descriptive and inferential, were used to conclude. Descriptive statistics included the mean and standard deviation and inferential statistics included regression analysis. STATA 15 software was used for the analysis in this study.

Results: The study found a positive and significant relationship between agency, mobile, and online banking services and financial stability.

Conclusion: Agency, mobile, and online banking services have a positive and significant effect on financial stability of commercial banks. The study made recommendations that commercial banks should implement measures that will lead to increased use of branchless services such as ATM banking, agency banking, mobile banking, and online banking to improve their financial stability. The study also recommended that policymakers should make policies that aim at increasing the use of branchless banking services.

Keywords: Automated teller machines services, agency banking services, mobile banking services, online banking services, financial stability, commercial banks

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1. Introduction

Commercial banks are the most prominent intermediators of financial system throughout the world. Financial system plays a critical role in economic growth and it enhances people's living standards. It encourages savings and investment by creating a link between savers and investors (Suresh, 2018). It is important to note that financial stability is predominant for economic growth worldwide since most transactions in real economy are made through financial system. The dynamism of the banking industry and branchless banking services have propelled the financial sector's expansion (Chipeta & Muthinja, 2018). Despite the improved performance, the banking sector in Kenya still has some challenges reflected in annual supervision report where five banks violated the requirement of capital adequacy and one bank failed to meet a liquidity ratio of twenty percent (Central Bank of Kenya Report, 2021).

Both developed countries and developing countries have been hit by the deteriorating economic outlook, heightened by uncertainty and tighter global financial conditions which have led to a reduction in investments. Global economic growth is diminishing and borrowing costs have gone up thus increasing the risk of financial stability (Bank of England, 2022). Following the global economic impact of the COVID-19 outbreak, banks worldwide have seen a notable decline in loan growth and an increase in non-performing assets. Low interest rates combined with a steady rise in non-performing loans created a banking risk bubble that threatened the soundness of banks' finances (Tran *et al.*, 2022).

In modern world and global environment, e-banking strategy is regarded as a key tool for banks to employ and use effectively to remain afloat in a dynamic and quickly changing industry. It is a resource to keep competitiveness and additionally increase sales and gain and retain a sizeable market share. From a global perspective, branchless banking services have been observed as a game changer for commercial banks because of immense changes in consumer perception of technology and adaption of the same in day-to-day life. In line with the survey by Fanera Ltd, five million dollars had been transacted through online money depositing in the Middle East, and an expected 30 out of a hundred of all deposit-taking and loan lending firm transactions were carried out through online channels in 2018. In line with a 2019 survey, sixty-two out of a hundred respondents stated that the Internet is their preferred money depositing technique (Kavila, & Kilika, 2023).

An examination of patterns in Brazil, Peru, and Colombia clarifies why agent banking adoption was sluggish in the first two years (2016 and 2017) before picking up steam in the third or fourth year. As a result, these banks' financial growth declined in the aforementioned years (Núñez, & Oneto, 2019). Data collected in Mexico's first year of agent banking, however, suggests that the nation's number of banking agents is anticipated to climb quickly in the initiative's second year, paralleling growth observed in Peru's and Colombia's fourth and sixth years. The financial stability of Mexico will be significantly impacted by the new rules that permit the opening of savings accounts and the operation of various types of financial organizations through bank agents. These policies also position Mexico as a leader in agent banking in Latin America (Reynoso & del Río, 2023).

Nigerian banks were performing worse than they used to (Obamuyi, 2018). Between 2012 and 2017, the banks' total revenue in Nigeria decreased by 13%. Worsening investments in branchless banking services were linked to the worsening performance. It might not be possible for most banks to fund innovation initiatives. The global economic turmoil and the belief that

the majority of the metrics used to gauge banks' accomplishments had been made public may have been the catalysts for this (Agboola et al., 2019).

In Kenya, the financial sector has been struggling to raise capital, loans, profit margins, and product offerings in recent years (Jairus, 2018). Escalating national and global competitiveness, economic meltdown, changing rapidly market dynamics, and unpredictable money markets have all appended to pressuring institutions to come to grips with pragmatic reactions to withstand the competition and achieve success. Banks' position in a financial system is vitally important since they execute monetary policies and provide means to facilitate domestic and foreign trade payouts for commodities. Notwithstanding the stabilization and fortitude of the banks in 2015, Dubai Bank Ltd flew into bankruptcy attributable to solvency risk and inadequate provisioning for non-performing loans in the second quarter of 2015. Charter House Bank was also positioned under legally enforceable control because of economic risk (CBK, 2017).

Despite all these challenges, commercial banks in the country have been adopting e-money depositing techniques in addition to innovative developments in the technological environment. The deposit-taking and loan-lending firms use a variety of distribution channels, such as stationary economic group branches, cellular deposit-taking and loan-lending firm branches, automated teller machines (ATMs), online money depositing, and mobile money depositing, to provide their money-depositing offerings (Nduta, & Wanjira, 2019). Each of those distribution channels serves to enable customers and bank clients with a variety of options on how to transfer finances as and when needed. Records show that mobile banking has been utilized in the country with over 10 million mobile cash users in 2011. A diminishing shift back on investments for branches is mostly due to the push toward virtual customers and the high-fee infrastructure of physical money depositing locations (PWC, 2018).

1.1 Problem Statement

Any nation's financial system revolves around its banking sector since it serves as a conduit for capital flows, which are essential for the expansion and development of economies. Nguyen (2022). They also mobilize savings and finance Government economic activities which create an attractive environment for investors leading to the creation of employment opportunities, improved standard of living, and expansion of industries. The CBK observed that the utilization of various delivery channels, inventive financial products, evolving customer needs, and technology advancements were all affecting the Kenyan financial services sector. As a result, banks continued to launch new products, enhance their current offerings, and add new distribution channels to stay competitive in the changing environment (CBK Report, 2016).

The CBK annual supervisory report indicates that the banking industry's non-performing loan portfolio has been trending increasing. The World Bank study from 2018 indicates that, compared to 5.46% in 2014, the percentage of NPLs in Kenyan banks' total gross loans increased to 5.99%, 8.59%, 9.95%, and 11.69% in 2016, 2017, and 2018, respectively. Further, Central Bank of Kenya Report, (2022) indicated that NPL increased from KES 220,891 million in 2016 to KES 423,710 million in 2022. Furthermore, financial stability had pushed some commercial banks into liquidation, some opted for mergers and acquisitions. For example, the 2021 liquidations of Chase Bank, Charterhouse Bank, and Imperial Bank.

Research has been conducted to evaluate the effects of branchless banking on commercial banks' financial soundness. Digital payments and bank loans were the subject of a study by

Risman et al. (2021) in Indonesia, not Kenya, which discovered that digital finance improved banks' financial stability. However, not all transactions, including financial breakthroughs, were covered by the study. Winga and Ndede (2021) researched Kenya's tier-one commercial banks' adoption of financial innovation and financial deepening. Six tier-one commercial banks in Kenya were the only participants in the study, which used a correlational research design. Branchless banking was found by Kimonge et al. (2017) to have a positive impact on Kenyan commercial banks' financial performance. The indicators for the independent variable were investments in agency banking and investments in electronic banking.

It was evident that more focus on the dependent variable had been laid on financial performance and financial deepening. The majority of research has not examined the combined impact of the four indicators of the independent variable under investigation, which are the use of automated teller machines, agency banking, mobile banking, and online banking. Few studies were conducted in Kenya, while the majority were conducted outside the country. Therefore, the purpose of this study was to investigate the effect of Branchless Banking services on Financial Stability of Commercial Banks in Kenya.

1.2 Research Hypotheses

H0₁: Automated teller machine services have no substantial effect on financial stability of Kenya commercial banks.

H0₂: Agency banking services have no substantial effects on financial stability of Kenya commercial banks

H0₃: Mobile banking services have no substantial effects on financial stability of Kenya commercial banks.

H0₄: Online Banking services have no substantial effects on financial stability of Kenya commercial banks.

2. Literature Review

2.1 Theoretical Review

2.1.1 Financial Intermediation Theory

The work of Gurley and Shaw is where financial intermediation theory first emerged (1960). The agency theory and the notion of informational asymmetry serve as the foundation for the financial intermediation theory. Theoretically, three factors contribute to the presence of financial intermediaries: regulatory methods, high transaction costs, and a lack of timely information. This technique was developed and revised by Smith (1976) and Fama (1980) in response to participant differences in the technologies they used. Thus, a collection of private creditors or debtors that utilize the scale economy at the transaction technology level are referred to as intermediaries. The idea of transaction cost includes costs for oversight, evaluation, and research in addition to the costs involved in transferring foreign currency amounts. Therefore, the function of financial intermediaries is to change the attributes of assets, change the quality of financial assets, provide liquidity, and create chances for placement diversification (Mayowa, 2020).

Financial intermediation asserts that there is a need to match lenders who have excess funds with borrowers who need the money. The resource allocation models that underpin this theory are predicated on the perfect and full market hypothesis, which holds that there is no

information asymmetry and that the market is frictionless. The effective distribution of capital resources within the economy requires the involvement of commercial banks and other financial intermediaries. This hypothesis states that financial intermediaries serve as middlemen, which reduces net costs (Kimonge *et al.*, 2017). Strong predictions about the contracts employed by financial intermediaries are made by the model, which makes it possible to analyze key banking policy concerns in a way that improves sustainability and efficiency.

The fundamental tenet of financial intermediation theory, according to Bert and Dick (2003), is that intermediaries reduce transaction costs and informational asymmetries. According to financial intermediation theory, the depth of financial markets, deregulation, and information technology improvements tend to eliminate informational asymmetries and transaction costs, making intermediation inefficient. This runs counter to the practitioner's understanding of financial intermediation as an economic process that creates value. It also runs counter to financial intermediaries continued and expanding economic role. This paradox implies that the existence of financial intermediaries cannot be adequately explained by the existing theory of financial intermediation.

The main benefits of intermediaries are lower operational expenses and a consistent transfer of funds from units with surpluses to those with deficits. Because they can solve the problems of information asymmetry and market failure, they can also change the risk characteristics of assets.

Commercial banks use digital banking technology as the middlemen in this financial arrangement to expand their network and obtain more accessible deposits. These deposits can then be lent out at a higher interest rate by the commercial banks, who profit from the arrangement. This theory therefore was the main theory that informed the explanatory variable of the study which was branchless banking services.

2.2 Empirical Review

2.2.1 Automated Teller Machine and Financial Stability

To determine how cashless banking might affect the profitability of Pakistan's banking sector, Kamboh and Leghari (2016) conducted research. They showed that whereas CCT and ATMT were inversely correlated with bank profitability, POST and MOBT were positively correlated with ROE. An empirical gap emerges as the relationship of the study variables gives a negative relationship Contrary to majority of the previous studies. A contextual gap needs to be filled since the setup of the study was in Pakistan.

Ngan and Hoang (2020) looked into how Vietnam's banks performed in relation to service delivery technologies. A sample of 21 Vietnamese commercial banks from 2007 to 2019 was used in the study, and the relationship between the banks was evaluated using a regression model and a robust test. The study's conclusions indicated that mobile and internet banking significantly and favorably impacted commercial banks' performance, whereas ATM implementation did not affect those banks' financial performance. There is a need to fill a contextual gap in that the study was done from an Asian continent perspective which might have different economic conditions from the Kenyan setup. There is also a need to incorporate agency banking to assess its impact on banks' performance. The measure for ATMs was the degree of implementation which might not have much value in determining the success of

banks thus this study focused on the volume and revenue contribution of ATMs in relation to banks' financial stability.

Alabi and Olaoye (2022) focused on China and Nigeria while examining how technology adoption affects financial inclusion. For analysis, the study used pooled Ordinary Least Square and Feasible Generalized Least square estimators with secondary data. The number of depositors served as a proxy for financial inclusion, whereas the use of automated teller machines, the internet, mobile phone subscriptions, GDP per growth rate, and GDP per capita were indicators for the independent variable. The findings revealed a favorable but not statistically significant correlation between the use of ATMs, the Internet, mobile phone subscriptions, and financial inclusion. The new study only looked at the banking industry in Kenya because the previous one concentrated on two nations with a larger scope, leaving a contextual gap that needs to be filled.

2.2.2 Agency Banking and Financial Stability

Mahbub, Dipti and Diponkar's (2021) study set out to assess the impact of agency banking on the financial performance of Bangladesh's commercial banks. A sample of 19 listed commercial banks was selected, and secondary data covering the years 2016 to 2019 was used. The study's conclusions demonstrated that while the number of deposits and agents greatly enhanced the commercial banks in Bangladesh's financial performance, the volume of withdrawals and loan disbursements had the reverse effect. Contextually the study was done in Bangladesh, need to consider the same in the home country. A conceptual gap arose in that the independent variable was narrower in scope since it only focused on a single channel of branchless banking. This research did not only focus on agency banking but also incorporated other forms of branchless banking.

The impact of financial inclusion policies on the financial performance of Rwanda's commercial banks was investigated by Byukusenge and Muiruri (2021). The survey used a sample of 92 respondents with a specific focus on I&M Bank. It was established that there was a substantial correlation between the Bank of Kigali's financial success and its automated teller machine transactions. The banking sector in Rwanda may be governed by different laws and regulations than those of Kenya, hence the results would only apply to Rwanda.

Ndambuki (2016) used a descriptive research design to investigate how agency banking affected Kenyan commercial banks' profitability. According to the study's findings, the number of deposits had a large and negative impact on Kenyan commercial banks' profitability, while the number of agents had a little beneficial impact. The study also discovered a negligible negative correlation between Kenya's commercial banks' profitability and the number of withdrawals and bill payments they made. The operating environment keeps on changing and therefore there was a need to consider the current period for analysis.

2.2.3 Mobile Banking and Financial Stability

Magallón, Galeana, and Prado (2022) assessed the impact of banking innovation on profitability. The study analysed multiple articles carried out at different times in different countries with various innovations such as mobile banking, ATM correspondence, and point-of-sale usage. The study was divided into three steps; a presentation on evolution of banks and their main innovations, a presentation of primary references of the articles to establish the relationship, and an analysis of the branchless banking concept and its factors. The empirical

research and published data revealed little correlation between the profitability of the Mexican banking industry and innovation in banking. There was a need to fill a contextual gap since the study was done in Mexico and therefore the results of the study may not apply in Kenya.

Sumaylo, Babon, Bayaras, Pedrigal, Teodosio, and Susada, (2022) evaluated the impact of digital finance inclusion among Philippine banks. Data from the period 2017 – 2019 was collected and analysed using correlation analysis and Z score for both universal banks and commercial banks. For both Philippine commercial and universal banks, it was shown that higher levels of digital financial inclusion were linked to higher levels of banking stability. Further research is necessary to determine the effect of digital financial services on bank stability, as the study's conclusions were inconclusive.

2.2.4 Online Banking and Financial Stability

Mihaela, Bădîrcea, and Manta (2022) examined how digitization affected the financial performance of the banking industries in Central and Eastern European nations that were dealing with COVID-19 issues. The study, which focused on the ten Central and Eastern European countries (CEECs), included twelve years from 2010 to 2021. Financial success was the dependent variable, as determined by ROA, ROE, and NPL; the independent variables' indicators were internet banking, banking security, and technology, including credit cards, debit cards, and ATMs. The outcome of the regression analysis showed that the banking industry's financial performance was positively impacted by both the rise in online banking usage and the security of bank servers. The influence of agency banking and mobile banking—two more facets of digitalization—must be ascertained because, unlike in Kenya, this study was carried out in Central and Eastern Europe. It concentrated on the effects of COVID-19, online banking, and ATMs. Since this study was conducted in affluent nations, analogous research in developing nations is required to determine how digitalization and branchless banking services affect financial stability. Also, the study analysed the banking industry as a single unit which is wider in scope.

Ghose and Maji (2022) looked into the relationship between Indian banks' profitability and their use of the Internet for banking. A sample of 67 commercial banks that operated in India between 2011 and 2020 was used in the study. The research primarily looked at the connection between the amount of money that commercial banks make from their assets and returns on equity when it comes to Internet banking. The three-stage least square approach and Generalized Methods of Moment (GMM) were used to analyze the data and quantify performance. The results of the study showed that commercial banks' total profitability grew with the volume and value of their online banking.

2.3 Conceptual Framework

Figure 1 shows the study’s conceptual framework.

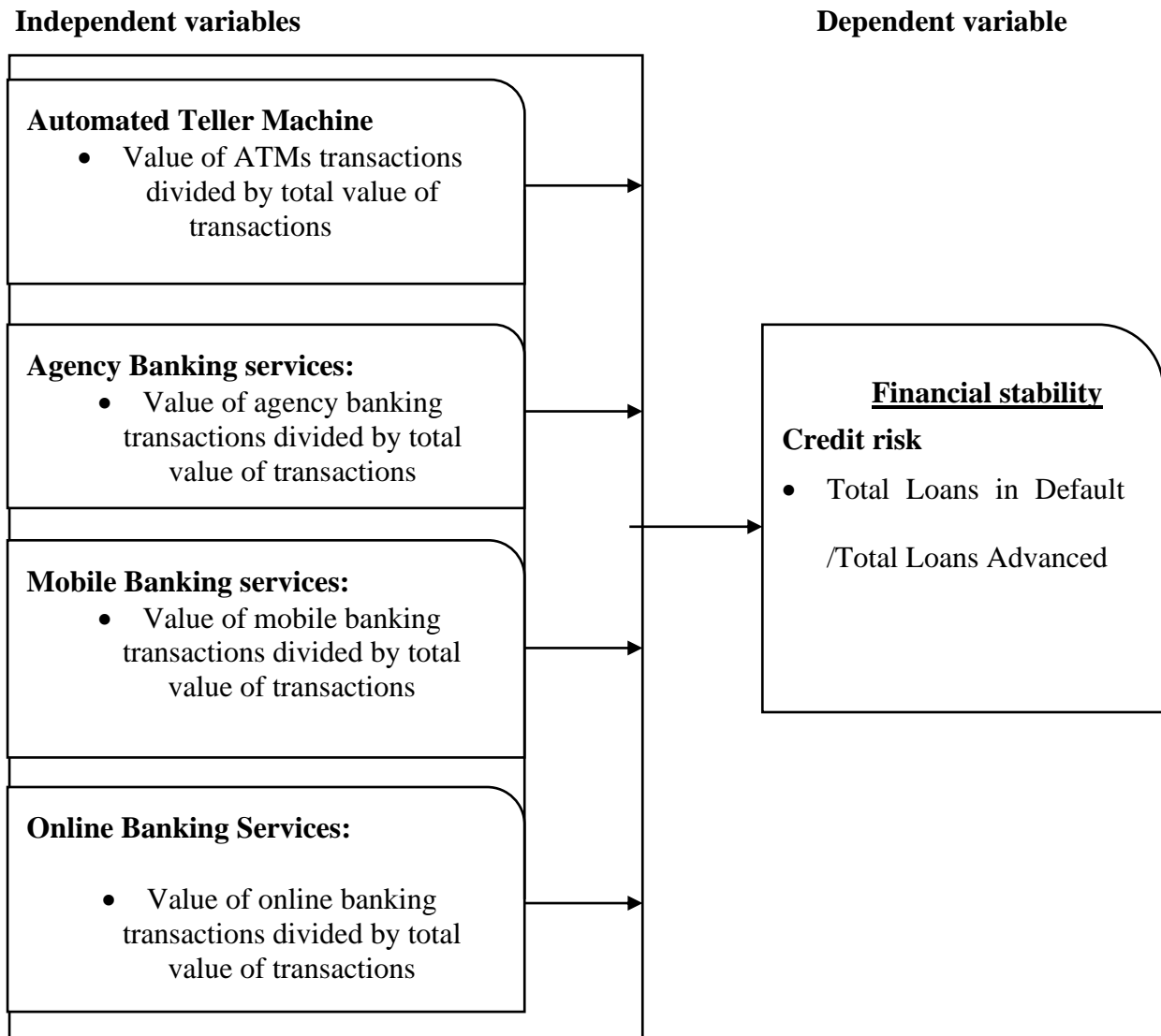


Figure 1: Conceptual Framework

3. Methodology

A methodical investigation technique used to investigate and clarify the causal relationships between variables or phenomena is known as an explanatory study design. The 38 commercial banks listed by the Central Bank of Kenya as of December 2022 (Appendix III) were the study's target audience. The study employed a census technique where all the units of the target population were considered for analysis since the population was small. The secondary data was used in the research. Using a data collecting sheet that was taken from earlier studies, secondary data was gathered. Data collection sheet had data for the independent and dependent variables covering the period from 2016 to 2022.

Data was analyzed using descriptive and inferential statistics. Descriptive statistics include the mean and standard deviation, whereas inferential statistics include multiple regression analysis. A p-value for an independent variable less than 5% at a 5% threshold of significance means that there is insufficient data to reject the null hypothesis (Oso & Onen, 2009). Multiple regression analysis is the most suited analysis method for investigations involving several independent variables (Muchiri & Muturi, 2016). The study used STATA 15 software for analysis.

4. Results and Discussion

4.1 Descriptive Analysis

The results presented in Table 1 show the summary of the data collected for the study variables. The data is summarized through the mean, standard deviations, and the minimum and maximum values.

Table 1: Descriptive Statistics

Variable	Obs	Mean	Std. Dev.	Min	Max
Value of ATM Transactions (billions)	266	988.36	337.943	511.105	1867.5
Value of Agency banking Transactions (billions)	266	32.753	8.827	19.321	48.137
Value of Mobile Transactions (billions)	266	216.16	225.666	.058	790.8
Value of Internet Banking Transactions (billions)	266	198.178	188.522	1.842	753.974
Total Value of Transactions	266	1435.445	749.769	561.143	3431.595
Total Loans in Default	266	732.9	261.6	282.4	1183.4
Total loans advance	266	6.1104	1.1829	4.0332	8.8142
Total Assets	266	12.0134	26.856	7.4866	17.3416

Table 1 results show that the mean of the value of ATM transactions was 988.36 billion Kenya shillings. The minimum value of ATM transactions was 511.105 and the maximum value was 1867.5 billion Kenya shillings. The value of agency banking transactions ranged between 19.321 billion Kenya shillings and 48.137 billion Kenya shillings averaging at 32.753 billion Kenya shillings. The value of mobile banking transactions averaged 216.16 billion Kenya shillings and ranged between 58 million Kenya shillings and 790.8 billion Kenya shillings. Internet banking averaged 198.178 the minimum value was 1.842 and maximum value was 753.974 billion Kenya shillings. The total value of transactions was ranging between 561.143 billion Kenya shillings and 3431.595 billion Kenya shillings.

The mean for the total value of transactions was 1435.445 billion Kenya shillings. Total loans advanced averaged 6.1104 trillion Kenya shillings and the range was between 4.0332 trillion Kenya shillings and 8.8142 trillion Kenya shillings. Loans on default had a mean of 732.9 billion Kenya shillings and the range was between 82.4 billion Kenya shillings and 1183.4

billion Kenya shillings. The total assets ranged between 7.4 trillion shillings and 17.34 trillion Kenya shillings averaging at 12.01 trillion Kenya shillings.

4.2 Regression Analysis

To assess the study hypotheses, multiple linear regression analysis was done. The findings are presented in Table 2.

Table 2: Multiple Linear Regression

Financial Stability	Coef.	St.Err.	t-value	p-value	[95% Conf	Interval]	Sig
Automated Teller Machines	.172	.035	4.94	0.00	.103	.24	***
Agency Banking services	.216	.102	2.11	.036	.014	.417	**
Mobile Banking services	.362	.08	4.51	0.00	.204	.52	***
Online Banking services	.558	.058	9.69	0.00	.445	.672	***
Constant	-.111	.033	-3.40	.001	-.175	-.047	***
Mean dependent var		0.122	SD dependent var			0.043	
R-squared		0.816	Number of obs			266	
F-test		288.723	Prob > F			0.000	
Akaike crit. (AIC)		-1362.615	Bayesian crit. (BIC)			-1344.698	

*** $p < .01$, ** $p < .05$, * $p < .1$

The R square was found to be 0.816 implying that ATM services, agency banking services, mobile banking services, and online banking services explain 81.6% of variations in financial stability. The F statistics was 288.723 and P value was 0.000 indicating that the whole model was statistically significant.

The results showed that the coefficient for automated teller machine services was 0.172 which was statistically significant at a 1% confidence level ($p=0.000$). This meant that automated teller machine services have a positive and statistically significant relationship with financial stability of banks. This implied that financial stability is increased by 0.172 units when there is an increase in the use of automated teller machine services by one unit. This agreed with Bochaberi and Omagwa's (2021) whose findings showed that ATMs have an impact on Kenyan commercial banks' performance because they offer financial services at reasonable, convenient prices, which encourages client use and boosts bank profits and revenue. This however did not agree with Ngan and Hoang (2020) who found that ATM implementation did not affect those banks' financial performance.

The results also showed that the coefficient for agency banking services as 0.216 and was statistically significant at 5% confidence level ($p=0.036$). This meant that agency banking services have a positive and also statistically significant relationship with financial stability.

Therefore, financial stability of banks is increased by 0.216 units when agency banking services are increased by one unit. This was in line with Mohamud and Warui (2021) who found that when agency banking, was increased, financial performance also increased. The findings were also in line with Wanalo, Mande, and Aketch (2020) whose findings demonstrated that the selected Kenyan commercial banks' financial performance is enhanced by the usage of agency banking.

The findings also showed that the coefficient for mobile banking services as 0.362 and was statistically significant at 1% confidence level ($p=0000$). This implied that the relationship between mobile banking services and financial stability was positive and statistically significant. Therefore, an increase in mobile banking services by one unit increases financial stability by 0.362 units. This concurred with Ngan and Hoang (2020) who found that mobile banking significantly and favorably impacted commercial banks' performance.

Finally, the coefficient for online banking services was found to be 0.558 and was statistically significant at 1% confidence level. This meant that the relationship between online banking services and financial stability was positive and statistically significant. Therefore, when online banking services are increased by one-unit, financial stability increases by 0.558 units. This agreed with Mihaela, Bădîrcea, and Manta (2022) whose findings showed that the banking industry's financial performance was positively impacted by the rise in online banking usage. This also concurred with Ghose and Maji (2022) whose findings showed that commercial banks' total profitability grew with the volume and value of their online banking.

5. Conclusion

The findings of the first objective revealed a positive and significant relationship between ATM services and financial stability. To this, the study concludes that automated teller machine services have a positive and significant effect on financial stability. Therefore, an increased use of ATM for transactions will result in improved financial stability of banks. The more customers use ATMs for money transactions, the more the commercial banks become financially stable.

The findings of the second objective also showed a positive and significant relationship between agency banking and financial stability. The study hence concludes that agency banking services have a positive effect on financial stability of commercial banks. Increased use of agency banking services will result in increased financial stability of commercial banks. Commercial banks can hence increase their financial stability by increasing the use of agency banking in transacting.

The results also confirmed a positive and significant effect of mobile banking services on financial stability. The study hence made conclusions that mobile banking services have a positive effect on financial stability of commercial banks. Therefore, increased use of mobile banking services will result in increased financial stability of commercial banks. Banks can therefore increase the use of mobile banking transactions to improve their financial stability.

Finally, the study established that online banking services have a positive significant relationship with financial stability. The study hence concluded that online banking services have a positive effect on financial stability of commercial banks. Therefore, increased use of online banking services in transactions would result in increased financial stability of

commercial banks. Banks would therefore increase financial stability by increasing the amount transacted through online platforms.

6. Recommendations

The study recommends that commercial banks should implement measures that will lead to increased use of branchless services such as ATM banking, agency banking, mobile banking, and online banking to improve their financial stability. Commercial banks can do this by providing awareness programmes to their customers on the need to make use of branchless banking services. Commercial banks are also encouraged to reduce costs associated with branchless banking services to encourage customers to make use of these services.

Regarding policy, the study recommends that policymakers on matters of banking should make policies that aim at increasing the use of branchless banking services. They should formulate policies that will make it easier for commercial banks to offer branchless banking services to their customers. Policymakers should aim at making policies that will enable commercial banks to expand the customer base for branchless banking such as policies related to internet access and mobile phone use that will allow all customers to have access to branchless banking options.

References

- Agboola, M. G., Awobajo, K. A., Oluwatobi, S. O., Akinbode, M. O., Fagbohun, M. O., Esse, U. C., ... & Betek, C. M. (2019, September). Effect of digitalization on the performance of commercial banks in Nigeria. In *IOP conference series: Earth and environmental science* (Vol. 331, No. 1, p. 012014). IOP Publishing.
- Alabi, A. W., & Olaoye, F. O. (2022). The Effect of Technology Adoption on Financial Inclusion: A Cross-country Panel Analysis between China and Nigeria. *European Journal of Business and Management Research*, 7(2). <https://doi.org/10.24018/ejbmr.2022.7.2.1314>
- Bank of England. (2022, December). *The Financial Stability Report 2*. www.bankofengland.co.uk/financial-stability-report/2022/december-2022.
- Bert, S., & Dick, V. W. (2003). The Theory of Financial Intermediation: An Essay on what it does (not) explain. In *Journal of the European Money and Finance Forum* (Vol. 3, No. 1, pp. 11-31).
- Bochaberi, S., & Omagwa, J. (2021). *Automated Teller Machines on financial performance of selected commercial banks*. 3(1).
- Byukusenge, E., & Muiruri, P. M. (2021). Financial Inclusion Strategies and Performance of Commercial Banks in Rwanda; A Case of I&M Bank in Rwanda. *Journal of Finance and Accounting*, 5(4), 23–34. <https://doi.org/10.53819/81018102t5029>
- Central Bank of Kenya. (2016). *Bank Supervision Annual Report*.
- Central Bank of Kenya. (2021). *Bank Supervision Annual Report 2021*.
- Chipeta, C., & Muthinja, M. M. (2018). Financial innovations and bank performance in Kenya: Evidence from branchless banking models. *South African Journal of Economic and Management Sciences*, 21(1), 1-11.

- Ghose, B., & Maji, S. G. (2022). Internet banking intensity and bank profitability: Evidence from the emerging Indian economy. *Managerial Finance*, 48(11), 1607–1626. <https://doi.org/10.1108/MF-09-2021-0434>
- Jairus, M. N. (2018). Customer relationship management strategies and retention among commercial banks in Nakuru Town Kenya. <https://ir-library.ku.ac.ke/bitstream/handle/123456789/19104/Customer%20Relationship%20Management.pdf?sequence=1>
- Kamboh, K., & Leghari, M. (2016). *Impact of cashless banking on profitability of Pakistan banking industry*. 10(2), 82-93.
- Kavila, T. & James Kilika. (2023). *E-Banking Strategy and Performance of Commercial Banks in Kenya*. 3(1), 47-60.
- Kimonge, D., Kilika, J., & Maingi, J. (2017). The Effect of Branchless Banking Strategy on the Financial Performance of Commercial Banks in Kenya. *International Journal of Financial Research*, 8(4), 167. <https://doi.org/10.5430/ijfr.v8n4p167>
- Magallón, G., Galeana, E., & Prado, C. (2022). Banking innovations and their effect on profitability. *Mercados y Negocios*, 47, 23–58. <https://doi.org/10.32870/myn.vi47.7680>
- Mahbub, A., Dipti, B., & Diponkar, B. (2021). *The Impact of Agent Banking on Financial Performance of Commercial Banks in Bangladesh*. 11, 13–20. <https://doi.org/10.9790/5933-1103051320>
- Mayowa, A. (2020). *Theory of Financial Intermediation*. <https://doi.org/10.13140/RG.2.2.14727.83365>
- Mihaela, N., Doran, Bădîrcea, R. M., & Manta, A. G. (2022). Digitization and Financial Performance of Banking Sectors Facing COVID-19 Challenges in Central and Eastern European Countries. *Electronics*, 11(21), 3483. <https://doi.org/10.3390/electronics11213483>
- Mohamud, H. H., & Warui, F. (2021). Innovative Banking Practices and Financial Performance of Commercial Banks in Kenya. *International Journal of Current Aspects in Finance, Banking and Accounting*, 3(1), 41–53. <https://doi.org/10.35942/ijcfa.v3i1.180>
- Ndambuki, D. (2016). *The Effect of Agency Banking on Profitability of Commercial Banks in Kenya* [University of Nairobi]. <http://hdl.handle.net/11295/98266>
- Nduta, R. W., & Wanjira, J. (2019). E-banking strategy and performance of commercial banks in Kenya. *International Journal of Current Aspects*, 3(5), 147-165
- Ngan, T., & Hoang, T. (2020). The impact of service delivery technology on bank performance: Evidence in Vietnam. *Journal of Science and Technology Issue on Information and Communications Technology*, 38–42. <https://doi.org/10.31130/jst-ud2020-132E>
- Nguyen, T. (2022). The Impact of Banking Sector Development on Economic Growth: The Case of Vietnam's Transitional Economy. *Journal of Risk and Financial Management*, 15(8), 358. <https://doi.org/10.3390/jrfm15080358>
- Núñez, G., & Oneto, A. (2019). Corporate governance in Brazil, Chile, Colombia, Mexico and Peru. *CAF Development Bank Of Latin America*.

- Obamuyi, M., (2018). Determinants of banks' profitability in a developing economy: evidence from Nigeria. *Journal of organizations and markets in emerging economies*, 4(2), 97-111.
- Reynoso, L. F. L., & del Río, C. V. B. (2023). Asset specialization as a long-term strategy for banks in Mexico. *Revista Mexicana de Economía y Finanzas (REMEF): nueva época*, 18(2), 3.
- Sumaylo, A. M., Babon, C. M., Bayaras, M., Pedrigal, E. M., Pening, A. K., Teodosio, M. J., & Susada, J. (2022). Digital Finance on Stability among Philippine Banks. *Recoletos Multidisciplinary Research Journal*, 10(2), 63–73. <https://doi.org/10.32871/rmrj2210.02.07>
- Suresh, B. (2018). *Role of financial system in economic development of a country*. 5(8), 100–107.
- Tran, D. V., Hassan, M. K., Alam, A. W., & Dau, N. (2022). Banks' financial soundness during the COVID-19 pandemic. *Journal of Economics and Finance*, 46(4), 713–735. <https://doi.org/10.1007/s12197-022-09591-x>
- Wanalo, E., Mande, W., & Aketch. (2020). Effect of Technological Financial Innovations on Financial Performance of Commercial Banks in Kenya. *The International Journal of Business & Management*, 8(4). <https://doi.org/10.24940/theijbm/2020/v8/i4/BM2004-007>
- Winga, E., & Ndede, F. (2021). *Adoption of financial innovations by tier one commercial banks and financial deepening in Kenya*. 8(2), 566–576.