

MOBILE DEPOSITS AND THE FINANCIAL HEALTH OF MICROFINANCE BANKS IN KENYA

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ABSTRACT

Microfinance banks (MFBs) in Kenya are facing many challenges; their business environment is greatly affected by innovations in information technology. To remain competitive, it is necessary for the MFBs to embrace new technology to enhance their ways of doing business, and mobile banking is one of these innovations. This project's main objective was finding the effects of mobile banking technology on the financial health of microfinance banks in Kenya. The specific objective included studying volumes of deposits transacted using mobile devices and the financial health of microfinance banks in Kenya; hypothesis tests were carried out on the independent variable. Cognitive theory of development and conventional theory of financial deepening were discussed for this study. The study made use of data from audited financial statements and Central Bank of Kenya (CBK) bank supervision reports, financial health information and other secondary sources in addition to primary data gathered through

questionnaires and observations. A census of all the 14 MFBs in Kenya was conducted; the target population of the study was 168 employees from three departments of Accounts, Credit, and ICT; the sample size comprised 126 employees, 9 employees from each of the three departments. The study results provide crucial insights into how mobile banking affects the financial health of Kenya's microfinance banks (MFB). The results found that mobile deposits had a regression coefficient of 0.095; This showed that, when all other factors were held constant, a unit increase in mobile deposits resulted in a 0.095 rise in the financial health of Kenyan microfinance banks. The study concluded that there is a statistically significant relationship between mobile deposits and financial health at the 5% level of significance. The study recommends that the management of MFBs should place an emphasis on mobile deposits since they have an effect on MFBs' financial health.

Keywords: Mobile Deposits, Financial Health, and Microfinance Banks.

INTRODUCTION

Background of the study

There has been a global rise in mobile phone use in the last ten years. In 2020 the pandemic made people discover new ways to do everyday tasks, including banking, which accelerated the spread of mobile banking as a popular method, with over a billion registered accounts and close to two billion US dollars in daily transactions. 2019 was a momentous year for the mobile money sector (GSMA, 2019). The majority of mobile money flows were for the first time made up of digital transactions such as paying bills, school fees, and online and offline merchants. By 2021, the mobile money industry had achieved a significant milestone by transacting more than one trillion dollars annually (GSMA, 2021). As more and more low-income consumers get their hands on digital products, attaining the economies of scale that are essential to modern-day businesses is now a reality.

The mobile money industry is more multinational than it has ever been. With the majority of active (30-day) mobile money accounts located there, Sub-Saharan Africa was the epicenter of the mobile money phenomenon in 2012. According to the new map of mobile money usage in 2021, South Asia accounted for 20 per cent of all active accounts, exceeding East Asia and the Pacific's (19 per cent) share. Sub-Saharan Africa contributed slightly more than half of all accounts, while only slightly higher than in 2012 (8.3%), Europe and Central Asia, the Middle East and North Africa, and Latin America and the Caribbean collectively accounted for 8.4% of all active accounts. (GSMA, 2022).

In Ethiopia only about 5.2% of the adults have a mobile money account or use mobile money, Ethiopia's first mobile money service M-BIRR became live in October 2015 (GDN, 2019). The official launch of Safaricom Ltd.'s Ethiopian network in Addis Ababa and ten other cities took place in October 2022. With the emergence of financial technology and unconventional players such as fintech's, The MFBs are facing myriads of challenges, CBK supervision report, (2018). In Kenya M-Pesa has quickly developed into a hub for provision of other financial services by outside vendors; these services include lending that resemble digital microfinance. The incorporation of digital lenders association of Kenya in 2019 with more than eleven members to set the ethical and professional standards of their industry, the coming into effect of the CBK act of 2021 giving the bank authority to issue digital lenders licenses in erstwhile unregulated market with the initial registration of 10 digital lenders in 2022 has intensified the competition in loans lending businesses further complicating the matters for MFB'S lending models. (CBK supervision report, 2021; Wondirad, (2020,)), CBK Statistics on mobile money payments shows that users transacted a high of Kshs 622.14 billion in December 2021. As at 2022, three fintech companies Wakanda network ltd, Umba technology ltd and Branch international ltd had acquired majority stake in choice MFB ltd, Daraja MFB ltd and Century MFB's respectively.

Mobile Banking

To survive in a rapidly changing environment, MFBs facing challenges to their financial health have innovated in the way they provide banking services. One of these innovations is mobile banking, which is a service that banks and other financial institutions offer that enables their customers to access banking services and facilities using a mobile device like a smartphone or tablet (Eunice & John, 2022). MFB's efficiency in turning its assets into profits, measured by return on assets (ROA), is critical in their financial health; hence, mobile banking has come at the right time. In contrast to the associated online banking, it makes use of financial institution-provided software known as an app or Unstructured Supplementary Service Data (USSD) code. While there have been many, often conflicting names and definitions used to describe the provision of financial services over mobile phone networks, Mabwai (2016) defines mobile money as the combination of financial services with mobile phones.

According to Ansari (2019), mobile banking has expanded its offerings in MFBs. It is typically accessible around the clock, albeit certain financial institutions impose limitations on the accounts that can be accessed and the amount that may be transacted. Transactions through mobile banking depend on the features of the mobile banking app that is offered and generally

include checking account balances and lists of recent payments, remote cheque and cash deposits, peer-to-peer payments, and fund transfers between a customer's or another's accounts. Mobile banking is dependent on the internet or an airtime connection to the mobile device. Additionally, some apps provide the downloading of statement copies, loan applications, processing, and issuance, as well as overdrafts (Mugane, 2020). Volume and values of money transacted, cost of technology and loan revenues is now some of mobile banking metrics of financial health. Orina (2020) claims that advancements in mobile banking have improved consumer access to financial services, allowing them to obtain funds through agency banking from the closest agent of a telecommunications network operator.

Microfinance Banks in Kenya

According to Mutua (2017), microfinance is the provision of savings accounts, loans, and other crucial financial services to the underprivileged. As per CGAP (2020), microfinance has a long history, but it gained significance a few decades ago due to the expansion of unregulated non-governmental organizations (NGOs) that offered microcredit. Since then, it has undergone significant change, and many MFB's now accept deposits and payments. MFB's might be big or small, banks or non-banks, regulated or uncontrolled. They can be informal or take on many legal forms, such as NGOs, member-based enterprises, or incorporated companies. Countries differ greatly in the relative significance of these various forms in reaching low-income communities. The MFB's in Kenya however comprise of MFI'S that are regulated by the CBK. Following the Microfinance Act's implementation on May 2, 2008, numerous pre-existing microfinance institutions requested licences to allow them to take deposits from members and the public (Njue, 2020). By registering and supervising microfinance institutions, the Microfinance Act aims to control their establishment, operations, and business practices in Kenya (CBK). Microfinance

As per the CBK bank supervision report of December 31, 2020, there were 14 MFBs in Kenya. These were divided into three groups: the large group, which included Faulu Kenya MFB Ltd, Kenya Women Finance Trust MFB Ltd, and Rafiki MFB Ltd; the medium group, which included Small and Micro Enterprise Programme (SMEP), Maisha MFB Limited, Caritas MFB limited, Sumac MFB ltd, and U&I MFB limited; and the small group, which included Key MFB Limited, Century MFB limited, Daraja MFB ltd, Choice MFB, Muungano MFB, and Uwezo MFB limited. (CBK supervision report, 2020). The research was conducted on all microfinance banks in Kenya over a five-year period, with the goal of evaluating the trend and movement in MFB's financial health. This study focused on Micro finance banks because of their attractiveness to the poor in the public and the fact that they are facing challenges of profitability (CBK reports 2018-2022).

Statement of the problem

Lack of scale success and administration costs, especially transaction expenses, have been identified as the primary cause of high MFB interest rates, particularly in rural and detached markets. Although MFBs may be flourishing in commercial terms, few from Africa are in profitable business; it's suggested that their failure to make a profit is partly due to their lack of scale. (CGAP, 2020)

Mobile banking offers a chance to increase customer satisfaction by offering better services and products while lowering operating costs. The two main factors pushing banks to adopt mobile banking are the desire to cut administrative costs and competition (Kinyanzui et al., 2018). With the MFBs in average net losses for the five years under study, CBK Reports (2018-2022), this opportunity is vital in any efforts aimed at turning around their earnings and avoiding capital losses. MFB's retained earnings only increase when the demand for credit in various economic sectors increases its earning assets, while the ability to lend is made possible by customers' deposits rather than borrowings. This is gained if they reach a wider scale, which mobile banking offers. Investments in technology build loyalty and the ability to reach more people in mobile banking, which increases the customer base (Waiganjo, 2018).

Mobile money markets are far from saturated, and demand for mobile financial services among financially excluded and frequently marginalized communities are anticipated to stay high, given that most LMICs have quickly rising populations. Despite the rise in mobile money usage, hundreds of millions of people in low- and middle-income nations continue to face barriers at every step of the process, including having a phone. Approximately one billion registered account holders do not use their accounts regularly, which is a significant chance for the sector to further promote financial inclusion and economic engagement. (GSMA, 2022). The increase in customer base mostly leads to demand for credit advances from MFBs, hence increasing its income-generating investments in total assets that have been declining for the four years in the period under study (CBK, 2019-2022).

Objectives of the Study

- (i) To determine the effect of mobile deposits on the financial health of microfinance banks.

Research hypothesis

H₀₁: There is no significant effect of mobile deposits on the financial health of microfinance banks in Kenya.

Introduction

The key ideas that underpin the importance of MFBs' financial health were discussed in this chapter. It specifically addressed the theories of framework, critical review, empirical review, and summary.

Theoretical Review

The section here highlights in brief the various theoretical and/or modeling theories considered by the researcher. These are philosophies upon which the researcher builds the concept and defends it with regard to the effect of mobile banking on microfinance banks' financial health. The theories considered include the, the Cognitive Theory of Development, and the Conventional Theory of Financial Deepening.

Cognitive theory of development

According to psychologist Jean Piaget (1936-1950), a person's thought processes develop from an early stage in life. His theory looks at how thought processes affect the way people perceive and interact with the world. The theory proposes four major cognitive developmental stages in a staircase model, where each stage is correlated with an age period. This theory applies to explaining the growth of mobile banking in Kenya, where the systems grew from a non-understood concept to revolutionary levels through adoption by many institutions and can further explain future developments in the mobile banking sector (Ambrose & Boniface, 2015). The theory presupposes that development is a broken process with distinct stages that are distinguished by qualitative differences in behavior. The primary flaw in this theory is its disorganized structure, based on the dynamic interaction of individuals, their behavior, and the environment. This has been criticized for the very nature of developmental stages since they may be inaccurate or just plain wrong. It's applicable in relation to the variable of mobile deposits in MFBs.

Conventional Theory of Financial Deepening

This theory was proposed by Shaw (1973) and highlights the importance of credit access to the growth of SMEs. The theory is based on the view that financial deepening is a necessary precondition for economic growth. It rests on the premise that financial deepening enhances credit access, which offers the necessary financing to firms in the economy and hence economic growth. This theory contends that a well-functioning financial sector promotes overall economic efficiency, creates and expands liquidity, mobilises savings, enhances capital accumulation, transfers resources from traditional (non-growth) sectors to the more modern growth-inducing sectors, and promotes a competent entrepreneurial response in these modern sectors of the economy (Shaw, 1973; Mohan, 2006).

Because the financial sector acts as a crisis mitigation mechanism through loans, insurance, and saved savings, McKinnon (1973) asserts that access to financial services increases productivity and social protection. The GSMA Report (2022) is of the opinion that there is still an important opportunity for the mobile industry to deepen financial inclusion and economic participation. This theory is important in supporting the dependent variable of financial health. It's, however, argued that a faster pace of financial deepening means a greater risk of crisis and macroeconomic instability, other things being equal (Sahay et al. 2015).

Empirical Literature Review

The financial technology revolution has a huge influence on the banking sector, with mobile banking emerging as a crucial driver of financial inclusion among microfinance banks. This analysis looks at available studies on the effect of mobile banking on the financial health of microfinance banks in Kenya. The review is based on the study's goals.

Microfinance banks' financial health and mobile deposits

The financial health of commercial banks' relationship to M-banking has been the subject of numerous studies and research projects in various regions; these studies are used in this context to relate to MFBs.

A study by Mabwai (2016) found that M-banking increases the customers' outreach and the amount of mobile transactions tremendously, which improves their financial health; however, his reliance on secondary data only affected the quality of the information that he processed. According to a study by Ymenu (2018), bank size and the financial performance of commercial banks are positively correlated because large commercial banks benefit from economies of scope and scale; however, his study concentrated on the National Bank of Ethiopia only and hence may not be suitable for MFBs. According to a Njue (2020) study, loan repayments influenced Kenyan microfinance banks' liquidity and financial performance. However, the study did not clarify whether the financing of loans will be from deposits, borrowings, or equity. Using mobile banking to deposit and withdraw cash, transfer funds, apply for a loan and check balances is easy and beneficial to MFB's financial health, (Eunice and John 2022); however, the study's combination of variables impacted the thorough analysis and quality of the results. Considerable research has been carried out on the relationship between mobile deposits and the financial health of commercial banks in Kenya; however, a clear picture has not yet emerged.

Though a lot of study has been done on mobile banking and MFBs, the relationship between mobile banking and MFB financial health has not been well-defined. Results have been limited and inconsistent due to the use of cross-sectional methods, a lack of conceptual basis, different growth measurements, and several units of analysis. The impact of mobile banking on the financial stability of MFBs in Kenya cannot be adequately explained by the research that is currently available.

Conceptual Framework

The dependent variable in the conceptual framework is the effect of mobile banking on the financial health of microfinance banks in Kenya, while the independent variables are comprised of M-deposits.

The conceptualization of these variables is depicted as below:

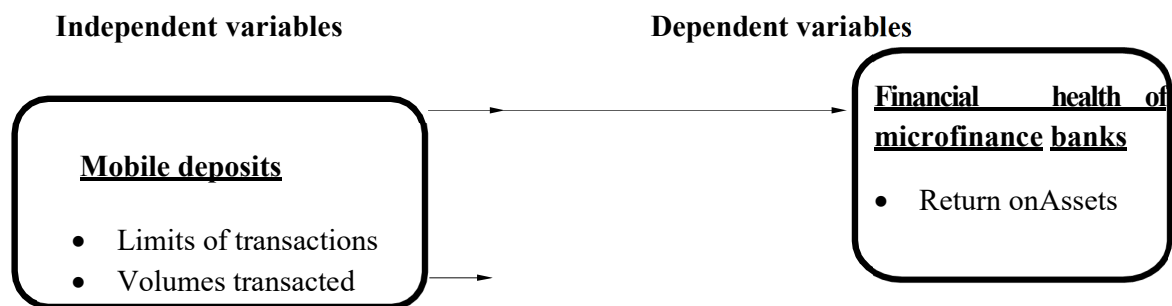


Figure 2.1: Conceptual Framework
Source: Researcher, 2025

Introduction

The procedures used to complete the study, including data collection, measurement, and analysis, are covered in this chapter. The goal of the research methodology is to outline the procedures used to determine the study's conclusion.

Research design

According to Kerlinger (1986), research design is the plan and structure of investigations to be conceived to obtain answers to research questions. A descriptive research design was adopted to determine and establish the current status of the population under study. In order to gather information and create a summary, analyse, present, and interpret the data obtained with the primary goal of clarification, descriptive research designs are employed in both exploratory and preliminary investigations. Waiganjo (2018). The researcher believes that this design used both quantitative and qualitative aspects that ensured that the results are legitimate and reliable, free of any prejudice.

Data was collected using questionnaires, group discussions, and interviews after random sampling; it was also appropriate to quantify data from surveys on MFBs to analyse the correlations between variables, test hypotheses, and state the observations.

Target Population

This study included four personnel from the credit, ICT, and accounts departments of each of 14 Kenyan MFBs registered by CBK that have implemented mobile banking, for a total of 168 participants. Polit and Hungler (1999) defined a population as a collection of items, individuals, or components that share a trait or satisfy a set of requirements.

The were singled out due to their knowledge of microfinance banks and mobile lending. A research population is made up of real or fictitious people or objects having similar characteristics.

Table: 3.1 Target Population

Microfinance Bank	Population Size
Faulu Kenya MFB Limited	12
Kenya Women Finance Trust MFB Limited	12
Rafiki MFB Limited	12
Small and Micro Enterprise Programme (SMEP)	12
Maisha MFB Limited	12
Caritas MFB Limited	12
Sumac MFB Ltd	12
U&I MFB limited	12
LOLC MFB Limited	12
Century MFB limited	12
Daraja MFB Ltd	12
Choice MFB Ltd	12
Muongano MFB	12
Salaam MFB limited	12
Total	168

Source: (Researcher, 2025)

Sampling method and Sample size

Sample size

Using Taro Yamane (1967) formula the sample size was computed as follows

$$n = N / (1 + Ne^2)$$

n= sample

N=Size of the target population

e= error margin (0.05)

$$n=168 / (1+168(0.05^2))=118$$

Using a target of 168 and an error margin of 0.05 a sample size of 126 participants is achieved.

Sampling method

This illustrates the manner in which specific sample members are picked from the population. A census was conducted among the 14 MFBs, which means that all targeted elements were examined. Because the target population is small, a simple random sampling probability approach was employed to pick the 126 participants from all the MFB employees in accounts, credit and ICT departments. This method produces a representative and objective sample, which makes it useful.

Table 3.3 Sample size.

Microfinance Bank

	Population Size
Faulu Kenya MFB Limited	9
Kenya Women Finance Trust MFB Limited	9
Rafiki MFB Limited	9
Small and Micro Enterprise Programme (SMEP)	9
Maisha MFB Limited	9
Caritas MFB Limited	9
Sumac MFB Ltd	9
U&I MFB limited	9
LOLC MFB Limited	9
Century MFB limited	9
Daraja MFB Ltd	9
Choice MFB Ltd	9
Muongano MFB	9
Salaam MFB Limited	9
	126

Source: (Researcher, 2025)

Data Collection Technique

Data from a variety of sources, including public reports and regulatory agencies, were used in the study, both new and old. Ajayi (2017) defines data collection as the process of acquiring information to answer a research topic. For this study, primary data is raw data, and secondary data is information derived from publications, books, newspapers, audited financial accounts, the Internet, and magazines. Secondary data is a useful quantitative tool for evaluating current or past private or public documents, reports, government papers, and opinions, as Cooper and Schindler (2003) explain.

Data Analysis and Presentation

Data from initial and consequent sources were analysed both quantitatively and qualitatively using the Statistical Package for Social Sciences software and Microsoft Excel. Descriptive statistics of percentages, frequencies, means, and other central patterns were also used in the analysis; inferential statistics of multiple linear regression and correlation were also used in the study. whereas tables and other figures were used to display the information. Financial health was the dependent variable, with mobile banking as the independent variable. This regression model was created in the nineteenth century by Francis Galton, who postulated the idea that if a random variable is extreme in one sample, it is likely to be closer to its mean in the subsequent sampling. As a result, a multiple regression model is a function that illustrates the association between one or more independent variables and a dependent variable. In order to develop the expected ROA for the five years under study, the following model was used to project the financial health of MFBs while the independent variable was 0.

$$Y = \beta_0 + \beta_1 M_1 + \varepsilon$$

Where Y = Financial health of microfinance banks (ROA)

M_1 = Total deposits through mobile banking

ε = Error term

β_0 = Constant

β_1 = Coefficient of M_1

Introduction

Response rates, descriptive analysis, inferential statistics, and the results of diagnostic testing were all mentioned in this chapter. Autocorrelation and multicollinearity tests were among the diagnostic procedures that were carried out. By documenting the results in line with the hypotheses and evaluation goals, this chapter extracted meaning from the inferential statistics. The findings were linked to relevant research literature and evaluated in the context of the specific objectives.

Descriptive Statistics results

The section presented descriptive statistics of variables used in the study, including mobile deposits, mobile loans, digital technology costs, and financial health. The descriptive statistics presented the summarised characteristics of the variables used. Hakim (2012) observed that descriptive statistics helps in understanding the distribution of data compared to the normal distribution. Means, median, standard deviations, maximums, minimums, skewness, and kurtosis were determined to establish the nature of data gathered for the study.

The mean was preferred since it is a robust statistic that is more representative, uses all values and can closely be associated with standard deviations and variance. Standard deviations are stable to compare other measures of dispersion, as suggested by Bell *et al.* (2018).

Mobile deposits and financial health of microfinance banks in Kenya.

The first objective was to determine the effect of mobile deposits on the financial health of microfinance banks in Kenya, and the resulting findings are shown in Tables 4.2 and 4.3.

Table 4.1 Mobile deposits descriptive statistics results.

Year	2018	2019	2020	2021	2022
Mean Statistic	2.15	2.38	2.43	2.69	2.85
Std. Deviation Statistic	1.625	1.850	1.869	1.974	1.974

Source: (Researcher 2025)

The data series allows for descriptive statistical analysis of the performance of 14 Kenyan MFBs from 2018 to 2022 by including key financial characteristics...

A range scale of 1 to 5, where (1) is less than 250 million and (5) is over 1 billion, was used.

The data shows the amounts of mobile deposits across MFBs vary significantly, ranging from a mean of 2.15 in 2018 to a mean of 2.85 in 2022, an indication that the majority of the microfinance banks got mobile deposits of between 250 million and 500 million; however, there were mobile deposits of above a billion in each of the years from some MFBs, indicated by the 5-maximum statistic.

Table 4.2: Agreement level regarding the degree to which mobile deposits impact microfinance banks' financial health.

1 SD 2 D 3 N 4 A 5 SA

Statements on Mobile deposits effects MFB health	N Statistic	Minimum Statistic	Maximum Statistic	Mean Statistic	Std. Deviation Statistic	Skewness Statistic	Kurtosis Statistic	Chi square	D F	Sig
Limit on amounts transacted reduces total deposits	40	2	5	4.50	.877	-1.920	3.048	42.000 ^a	3	.000
Cost of mobile transactions improves MFB incomes	39	3	5	4.49	.601	-.714	-.393	14.923 ^b	2	.001
People with low-income deposit more using mobile phones	40	2	5	3.57	.781	-.772	.037	28.600 ^a	3	.000

Cost of mobile transactions reduces volumes transacted	40	1	5	3.68	1.118	-1.738	2.043	54.200 ^a	3	000
Mobile charges affect MFB's financial health	41	2	5	4.22	.791	-.739	.018			

Source : (Researcher, 2025)

The table above shows that most respondents were in agreement that a limit on amounts transacted reduces total deposits, while the cost of mobile transactions improves MFB incomes, with a mean of **4.50** and **4.49**, respectively.

banking elicited mixed responses with a mean of 3.97. The assertion that mobile banking improves access to financial services at a mean of 3.42 indicated that it is widely accepted as a financial inclusion tool. However, the respondents with a significant mean of 2.55 disagreed that transacting with mobile banking is expensive, indicating that customers are aware of the operational cost difficulties that microfinance banks confront.

All five assertions produced statistically significant chi-square values ($p < 0.05$), indicating that the observed response patterns are unlikely to be random but reflect realistic perceptions that mobile banking is more secure and efficient than physical banking ($\chi^2 = 46.436$, $p = 0.000$) and is more convenient than traditional banking ($\chi^2 = 45.744$, $p = 0.000$), this is an indication of high user consensus.

Return on Assets results

This served as the foundation for the research's dependent variable; the analysis and outcomes of the return on assets computations are shown in table 4.5 below.

Table 4.3: Return on Assets results .

	N Statistic	Minimum Statistic	Maximum Statistic	Sum Statistic	Mean Statistic	Std. Deviation	Skew-ness	Curt-osis
Return on assets	65	3	4	215	3.31	0.465	0.853	-1.314

Source: (Researcher 2025)

A range scale of 1 to 5, where (1) Less than negative two, (2) between negative two and negative one, (3) between negative one and zero, (4) between zero and positive one, and (5) more than positive one, was used. The dataset of the 14 Kenyan MFBs, from 2018 to 2022, shows that the return on assets of MFBs had a mean of 3.31, an indication that the majority of the microfinance banks' ROA was between negative one and zero when descriptive statistics was analyzed.

Inferential statistics

The researcher conducted inferential statistics comprising the Pearson correlation, regression coefficients, ANOVA, and the model summary, which were analysed using SPSS version 20.0.

Correlation analysis

In order to explain the strength of the relationship between the research variables, the assessment used Pearson's correlation matrix. The outcomes are shown below in Table 4.7.

Table 4.4 Correlations

		Financial Health	Mobile deposits
Pearson Correlation	Financial Health	1.000	0.187
	Mobile deposits	0.187	1.000
Sig. (1-tailed)	Financial Health	.	0.060
	Mobile deposits	0.060	.
N	Financial Health	70	70
	Mobile deposits	70	70

Source: (Research data,2025)

Mobile deposits have a substantial positive connection ($r = 0.187$, $p < 0.1$ with financial health, indicating that greater use of mobile deposits enhances the financial well-being of microfinance banks. The relationship between mobile deposits and the financial health of microfinance banks is positive and statistically significant, with a coefficient of $r = 0.187$ and a p-value of 0.060. This implies a reasonably significant association in which increasing mobile deposit activity correlates with better financial outcomes for microfinance banks. This might be attributed to greater liquidity, client retention, and transaction frequency, all of which improve an institution's operational performance and financial resilience. The strength and relevance of this association suggest that mobile deposits play an important role in the sustainability and expansion of MFBs.

Overall, the findings from the Pearson correlation study underline the dual nature of digital transformation: although mobile-based services like deposits offer large financial benefits, the related expenses must be carefully regulated to protect long-term institutional health.

Table 4.5: Correlation analysis results

Variables	Financial Health	Sig. (1-tailed)
Mobile Deposits	0.187**	0.060

Source: (Researcher,2025)

Regression Analysis

The assessment was based on the premise of a link between mobile banking and financial health of MFBs. The results based on the regression model were used to test the hypotheses.

ANOVA (Analysis of Variance)

The Analysis of Variance output in the regression model is crucial in establishing if the model as a whole predicts the dependent variable—microfinance banks' financial health. In this situation, the F-statistic is 13.846, with a p-value of 0.002, significantly lower than the

threshold of 0.05. This demonstrates unequivocally the statistical significance of the regression model. In actuality, this indicates that a significant portion of the variation in the financial health of microfinance banks may be explained by the three independent variables: mobile deposits, mobile loans, and digital technology costs. The R^2 value of 0.194 suggests that digital banking characteristics account for 19.4% of financial health variance. As a consequence, the ANOVA findings corroborate the model's overall predictive capabilities, indicating that at least one or more predictors have a statistically significant impact on the outcome variable.

Table 4.6: ANOVA table

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	2.689	3	.896	5.303	.002 ^b
	Residual	11.157	66	.169		
	Total	13.846	69			
a. Dependent Variable: Financial health.						
Predictors: (Constant), Mobile deposits						

Source: (Researcher, 2025)

The results shown in Table 4.9 disclose that the sum of squares for regression is 13.846, indicating the variation in financial health of MFBs that can be explained by the predictors in the model. This infers that a significant portion of the overall variance in financial health is due to factors, which include mobile deposits, mobile loans and digital technological costs. Furthermore, the significance level (p-value) associated with the F-Statistic is $0.002 < 0.05$, this demonstrates that the overall regression model is statistically significant and the independent variables have a meaningful impact on the financial health of MFBs.

Regression Results

Financial health (ROA) was regressed against Mobile Deposits, Mobile Loans, and Digital Technology Costs. The objectives of the analysis were to determine their effects on MFBs' financial health.

Table 4.7 Regression coefficients

Model		Unstandardized Coefficients		Standardized coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	3.830	0.200		19.117	0.000		
	Mobile deposits	0.095	0.038	0.377	2.479	0.016	0.527	1.899

a. Dependent Variable: Financial Health

Source: (Researcher, 2025)

$$Y = 3.830 + 0.095M_1$$

Where Y = Financial health of microfinance Banks (ROA)

M_1 = Mobile deposits in 5 years

ε = Error term

β_0 = Constant

β_1 = Coefficient of M1

This shows that holding the values of mobile deposits at a constant zero, the value of financial health would be 3.830, $p = 0.000$

Mobile deposits ($\beta = 0.095$, $t = 2.479$, $p = 0.016$): This coefficient suggests that, while keeping other variables constant, the financial health rises by 0.095 units for every unit increase in mobile deposits. These findings conclude that the return on assets is positively and statistically significantly impacted by mobile deposits.

Model Summary

The outcomes for the correlation coefficient (R) and the adjusted coefficient of determination (R^2) are exhibited in Table 4.12

Table 4.8: Regression results

Model Summary								
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics			
					R Square Change	F Change	df1	df2
1	0.441 ^a	0.194	0.158	0.411	0.194	5.303	3	66
a. Predictors: (Constant), Mobile deposits								
b. Dependent Variable: Financial Health.								

Source : (Researcher, 2025)

The model summary revealed R value of 0.441 and a R^2 (coefficient of determination) of 0.194, indicating that approximately 19.4 % of the variance in the financial health of microfinance banks can be explained by three independent variables: mobile deposits, mobile loans, and digital technology costs. The adjusted R^2 of 0.158 accounts for the number of variables and sample size, indicating that the model has significant explanatory power even with statistical controls. This degree of explained variation is significant in the context of social science research, where several factors impact financial results. It implies that digital financial services, as indicated by the three predictors, have a considerable impact on the financial health and sustainability of Kenyan microfinance banks. However, this model cannot explain 80.6 % of the variation, suggesting that additional relevant factors such as regulation, competitiveness, consumer trust, and economic circumstances must be investigated further.

Hypothesis testing

The study results provide crucial insights into how mobile banking, particularly mobile deposits, affects the financial health of Kenya's microfinance banks (MFB). The distribution of mobile deposits is normal with a mean of 2.54 and a standard deviation of 1.788, demonstrating a statistically significant relationship between mobile deposits and MFB financial health. The regression findings indicated a positive and statistically significant beta

coefficient for Mobile deposits ($\beta = 0.095$, $p = 0.016$.) This conclusion leads us to reject the null hypothesis (**H₀₁**) that mobile deposits have no substantial influence on financial health.

This study demonstrates that mobile deposits not only improved client convenience, but also played a quantifiable role in maintaining institutional income linking to Hypotheses:

With a mean of 4.50 for the statement "Limit on amounts transacted reduces total deposits", it demonstrated a statistically significant relationship between mobile transaction costs and MFBs' financial health. This conclusion leads us to reject the null hypothesis (**H₀₁**) **That mobile deposits have no substantial influence on financial health.** Similarly, the statement "Cost of mobile transactions improves MFB incomes" had a mean of 4.49, highlighting the financial gain that MFBs get from digital transaction fees.

This study demonstrates that mobile deposits not only improve client convenience, but also play a quantifiable role in maintaining institutional income linking to Hypotheses:

Recommendations of the Study

The study recommends that the management of the microfinance banks should put an emphasis on the mobile deposits, mobile loans since it was found to have an influence on the financial health of microfinance banks in Kenya. MFBs need to invest in digital technology spending now because this initial expense allows them to develop long-term digital financial operations in a changing digital financial landscape. The success route for digital transformation depends on technology alignment with financial capacity and operational solutions with maximum results and partnership creation to distribute implementation workloads. MFBs adopting a strategic business approach to digitisation can successfully handle initial financial obstacles, which allow them to develop stronger financial sustainability.

Suggestions for further Research

Further studies may explore a wider scope of MFBs business regionally and also involve fintech companies such as the mobile money lending apps.

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