

Effect of Mobile Banking on the Financial Performance of Saccos in Nakuru County, Kenya

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Abstract

The main objective of this study was to determine the effect of mobile banking on the financial performance of SACCOs in Nakuru County, Kenya. Descriptive research design was adopted. The target population were deposit-taking SACCOs in Nakuru County. Census sampling was used to select 60 SACCOs. Questionnaires were distributed for data collection purposes of which 54 were duly filled and returned. Descriptive statistics and linear regression were used to analyse the data. The results were presented using tables and figures. The findings showed that mobile banking increased SACCO financial performance ($r = 0.487$). The model summary shows that with an adjusted R-square value of 0.613 ($R^2 = 0.613$), this indicates that the IVs can be used in explaining 61.3% of the existing variability in the performance of SACCOs in Nakuru County, while other factors not addressed in the study contributed to 38.7% of SACCOs' performance in Nakuru County. SACCOs should provide mobile banking security through the establishment of written standards, minimize time for setting mobile banking services in rural areas and mandatory registration of SACCO members to mobile banking.

Keywords: Agency banking, Financial innovation, ATM banking, Mobile banking

I. INTRODUCTION

1.1 Background

To improve their overall performance over rivals both domestically and abroad, businesses often adopt fresh ideas, methods, or processes into their daily operations. This is known as innovation. Innovation is crucial to a company's sustainability since it improves corporate processes by integrating fresh knowledge, ideas, and designs into current ones (Qamruzzaman & Wein, 2019). Key categories of innovations include product innovations, marketing innovations, location innovations, as well as R&D innovations, with the intention of generating new products and services. In addition to helping businesses succeed, creativity keeps rivals at bay and this goes a long way in helping businesses advance their marketing opportunities (Krivoshaya, 2020).

Bouncken, Kraus & Roig-Tierno (2021) assert that while the globalization of financial system continues to be the primary driver of financial innovation, there are other factors as well, such as deregulation and rapidly advancing technology. Because it is ingrained in the company's organizational structures, operational processes, goods, and services, financial innovation is considered one of the leading components in enhancing the performance of SACCOs. According to Druhov, Druhova, and Pakhnenko (2019), a number of significant financial industry changes have expanded the size and complexity of modern-day financial institutions. To put this into perspective, big data, cybersecurity, and mobile banking technologies are the most common financial advances today with regard to their intrinsic developments (Ortiz-Villajos & Sotoca, 2018). Such financial innovation is important for SACCOs not just because it provides them a significant competitive edge over other financial institutions, but it also helps them penetrate remote or hard-to-reach markets and at the same time improves their overall performance (Wendt, 2019).

In Kenya, microfinance organizations and SACCOs in particular play an important role in economic growth. They are the first to provide financial services in both rural areas as well as urban low-income areas. According to Odera & Egezza (2021), there was an increase in financial services provided to SACCO members over the last decade. In the period 2017-2021, SACCOs surpassed banks in the provision of competitive interest rates and the net savings of SACCO members rose to KShs17.5 billion. According to the latest Economic Survey, SACCO deposits increased to Sh540.5 billion during the review period, while loans totalled KShs523 billion (Asumani Oima & Ondiwa, 2022).

SACCOs have geographically spread in all parts of the nation, but the biggest challenge they face is the rapid loss of their members. Commercial banks are gaining a competitive advantage over SACCOs by adopting highly-requested financial innovations, which provide tailored services to customers, including low-interest consumer loan, low-cost transaction accounts, mobile banking, and internet banking (Bornfas & Githira, 2022). Numerous researchers have conducted studies on the relationship between financial innovations and SACCO performance (Mikae & Mogwambo, 2021; Jillo, Rintari & Moguche, 2023; Chepkorir, Kemboi & Bett, 2022). The studies focus on financial institutions in other counties except Nakuru County. Furthermore, these studies do not provide enough data when it comes to reviewing the extent to which financial innovations affect performance of SACCOs with respect to mobile banking. Therefore, study investigated the extent to which the mobile banking innovations affect SACCO performance in Nakuru County.

1.2 Specific Objective

The specific objective was:

- i. To determine the effect of mobile banking on the financial performance of SACCOs in Nakuru County, Kenya

1.3 Research Questions

To what extent does mobile banking affect the financial performance of SACCOs in Nakuru County, Kenya?

II. LITERATURE REVIEW

i. Constraint-Induced Financial Innovation Theory

This theory, which was coined by Silber in 1983, proposes that a number of financial institutions come up with financial innovations with the main objective of maximising their profits. However, during the process of trying to streamline their operations, the financial institutions experience various restrictions associated with organisational management and policy drawback. Not only do these restrictions negatively affect the competence of the firms, they also hamper their growth. Since the stability of management as well as the efficacy of the financial institution could be hampered in the long run, it is advisable to use financial innovations to lessen the restrictions. Ndwiga & Maina (2018) highlights that financial institutions like SACCOs can induce financial innovation in markets that are marred with excessive constraints that thwart the efforts of management to boost the firms' financial performance.

Silber(1983) indicated that the internal and external environment of a firm has constraints; therefore, financial innovations play a key role in providing effective mechanisms in the market that work towards boosting performance. From the microeconomic perspective. Zyuulu (2018) emphasized that innovation in adversity is important within a rapidly changing landscape of financial markets, and this goes a long way in generating income. The theory suggests that a number of challenges exist within and outside the organization and one of the most effective ways to have a level playing field with other players in the industry is innovations to improve financial performance. With reference to SACCO performance, Awrey (2010) explains the principle of cost reduction to enhance financial innovation. The author recommends that financial organisations need new forms of payments as well as delivering services electronically to clients. Since regulatory constraints and specifications also come with some expenses, SACCOS can use financial innovations such as mobile banking to eliminate or reduce such expenses.

This theory provides the rationale behind the need for SACCOs to put in place financial innovations to determine innovations with the aim of achieving profit maximization. As the SACCOs implement specific financial innovations in their operations and processes, the theory also emphasises that they can experience some constraints. This study will identify these constraints and determine the extent to which they have driven SACCOs to continuously innovate. In addition, the study will use the theory to establish whether the SACCOs that implemented various financial innovations such as mobile banking to improve their performance and boosted their grow

ii. Transaction Innovation Theory

Coined in 1983 by Hicks and Niehans, this theory states that various firms focus on implementing financial innovations with the key intention of reducing costs and increasing the economic benefits associated with their operations. As explained by Chondough (2021), the motivation behind financial innovation is to ensure that transactions are efficient in such a way that firms can get the most of their financial services as they strive to serve customers. For a firm to reduce the cost of various transactions, advancing their technology becomes the most dominant response. This is because technology facilitates the promptness and efficiency of providing services to customers while at the same time helping a

firm to cut costs related to various services. Therefore, reducing transaction cost goes a long way not only in encouraging financial innovation, but also in improving financial services (Chedrawi, Harb & Saleh, 2019).

As explained by Kiplangat & Tibbs (2018) financial innovation can be evaluated from the standpoint of the need to implement microscopic changes in the economic structure. For instance, thanks to technological innovations, the rapid growth in the use of internet banking is of noteworthy significance in the financial sector . Many financial institutions especially commercial banks have adopted internet banking because it offers a far-reaching, cost-effective and expedient financial network that plays a key role in expediting financial transactions to customers promptly and remotely around the clock.

Just like other financial organizations, SACCOs experience a number of challenges associated with rapidly increasing transaction costs that impend the sustainability of their operations (Barman et al., 2021). To cut down existing transaction costs, the microfinance institutions have focused on implementing key financial innovations. Therefore, the theory will be instrumental in explaining the impact of various financial innovations on SACCO performance so long as they cut transaction costs. The transaction innovation theory guides SACCOs in implementing mobile banking with the key intention of reducing costs and increasing the economic benefits associated with their operations.

b. Conceptual Framework

A Conceptual framework is a hypothesized model identifying the model under study and the relationship between the dependent and independent variables. The dependent variable in this study is project success while the independent Variables is the influence of resource planning,

INDEPENDENT VARIABLE

DEPENDENT VARIABLE

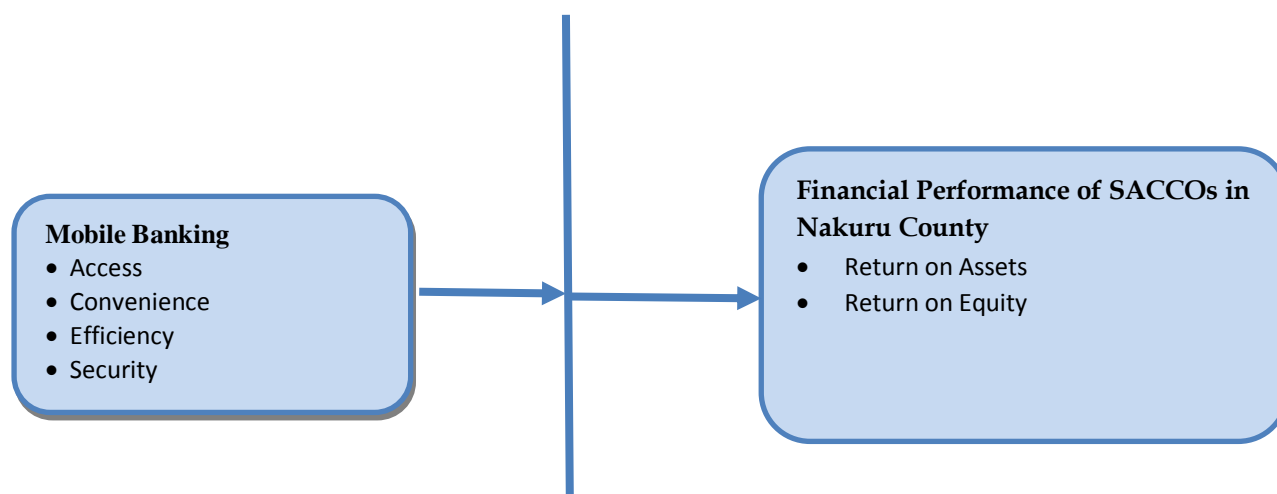


Fig 1: Conceptual Framework

c. Empirical review

As stated by Laukkanen (2017) SACCOS are among the main providers of mobile banking services in the financial industry. A study by Mugo Muathe & Waithaka (2019) sought to analyse the extent to which debit card services influenced the performance of SACCOs in Kenya. Since many deposit-taking SACCOs did not own ATM machines in the country, many of them partnered with various commercial banks to allow their customers make transactions using the bank-owned ATM machines. This was known as Saccolink debit card services. The study focused on assessing services, such as account statements, balance enquiries, bill payments, cash deposits, and cash withdrawals. As such, the researchers used simple random sampling technique to select 110 deposit-taking SACCOs to take part in data collection using questionnaires. The study revealed that Saccolink debit card services positively influenced the SACCO performance.

Okiro and Ndungu (2013) conducted a study which was aimed at investigating the extent to which mobile banking and internet banking influenced the performance of financial institutions in Nairobi, Kenya. A total of 30 financial institutions (17 commercial banks, 11 SACCOs and 2 microfinance institutions) were targeted. Stratified sampling method was used to select managers, junior employees, and customers to take part in the data collection process. Majority of the respondents indicated that mobile banking improved performance because it increased the volume of transactions including deposits, withdrawals and POS purchases. However, the financial institutions faced challenges regarding streamlining mobile banking technology with their core banking systems. However, both mobile banking and internet banking improved the efficiency productivity, and convenience of serving customers, which translated to improved performance.

Research by Kimata (2018) focused on Nairobi County SACCOs in which the researcher sampled 44 SACCOs with the intention of investigation the extent to which financial innovation influenced their performance. SASRA's published financial reports from 2008-2012 were used to collect secondary data to. According to the findings, SACCOs heavily relied on mobile banking to improve their financial performance. These include M-Pesa and Airtel money as well as Yu cash and Orange Money. However, the SACCOs were yet to link these money transfer service with their back office operations that are aligned with financial transfers. In addition, the researcher revealed that technology has a positive significant relationship with financial performance among SACCOs in Nairobi County

III. RESEARCH METHODOLOGY

3.1 Research Design

Research design is the blueprint that outlines the plan that a researcher used to collect, measure, and analyse data in order to generate the most appropriate answers to the research problem (Bloomfield & Fisher, 2019). In addition, it refers to the approach that researcher use to piece together a number of elements that a study focuses on so that they can be understood logically. Descriptive research design was adopted since it involves the collection of data from a sample population with the purpose of understanding the status of the population status with respect to one or more variables. This approach facilitated the collection of detailed information to examine the extent to which each response was related to the effect of financial innovations and SACCOs performance in Nakuru County.

The target population were all managers of deposit-taking SACCOS in Nakuru County..According to SASRA, there are 60 SACCOS in the county .

3.2 Sampling size and Sampling technique

The sample size were 60 managers in SACCO .Census was used and all the 60 deposit-taking SACCOS were included in the data collection. This is because the sample was too small.

3.3 Data analysis and presentation.

Data analysis is indispensable in packaging the collected information for easy interpretation and communication. Upon receipt of all the questionnaires, the researcher carried out data analysis. To ensure data integrity, the researcher first cleaned up the collected data to remove inconsistencies, gaps and data entry errors. The responses were coded with the intention of ensuring that all data entry errors were removed. The next step involved carefully entering the data into the SPSS software version 27 and ensuring high levels of accuracy, comprehensiveness, and consistency. The following regression model will be tested.

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \varepsilon$$

Where Y= Performance of SACCOs.

β_0 = Constant Term

$\beta_1, \beta_2, \beta_3$ = Beta coefficients

X1 = Mobile banking

X2 = Agency banking

X3 = ATM banking

ϵ = Error Term

IV. RESEARCH FINDINGS AND DISCUSSION

4.1 Response Rate

The study selected 60 respondents from various SACCO in Nakuru County to take part in the study. Among the 60 questionnaires that were distributed to for data collection purposes, 54 were duly filled and returned, which represents 90% response rate. As explained by Mugenda & Mugenda (2003), a study that yields more than 50% response rate is guaranteed to produce justifiable results.

a. Descriptive Analysis

This subsection presents the descriptive statistics regarding the three objective that guided this study. A 5-point Likert scale was used, where 1=Strongly Disagree; 2=Disagree; 3=Neither Agree nor Disagree; 4=Agree; 5=Strongly Agree

4.2.Mobile Banking and Performance of SACCOs

The study examined the effect of mobile banking on the performance of SACCOs in Nakuru County by providing statements that described the current situation. Table 1 summarises the findings

Table 1: Resource Planning and Project Performance

Statement	n	1 (%)	2 (%)	3 (%)	4 (%)	5 (%)	Mean	Std. Dev
Mobile banking has enabled the SACCO to provide 24/7 accessibility to financial services	54	(4.0)	(10.67)	(20.0)	(32.0)	(33.33)	3.88	0.622
Mobile banking provides secure transactions to customers	54	(5.33)	(14.67)	(8.0)	(25.33)	(46.67)	3.93	0.840
Customers prefer using mobile banking to access their accounts, pay bills and transfer money	54	(0)	(13.33)	(26.67)	(26.67)	(37.33)	3.88	0.466
Mobile banking has enabled the SACCO to reach customers in remote rural areas	54	(8.0)	(12.0)	(8.0)	(41.33)	(38)	1.83	0.971
Mobile banking has improved the profitability of the SACCO since it was implemented	76	(24)	(67)	(0)	(7)	(3)	4.03	0.864

Mobile banking has improved the efficiency of providing services to customers in the SACCO

Average

From the study findings 65% of the respondents agreed that Mobile banking has enabled the SACCO to provide 24/7 accessibility to financial services (M=3.80, SD=0.622). The study findings resonates to finding by Tsuma et al.(2015) that the introduction of the SACCO Link Mobile Banking service have given rise to efficient and effective accessibility to finances by members across the country on a 24/7 basis

Also, 72 % of the respondents agreed that Mobile banking provides secure transactions to customers (M=3.93, SD=0.840).In addition 63% of the respondents agreed that customers prefer using mobile banking to access their accounts, pay bills and transfer money (M=3.88, SD=0.446).

Moreover 72 % of the respondents agreed that Mobile banking has enabled the SACCO to reach customers in remote rural areas (M=3.99, SD=0.601).The findings resonate by finding by Njenga, Kiragu, and Opiyo(2015) that concluded that through mobile banking is SACCOs have increased geographic coverage and access to previously unbanked populations, mobile banking improves the Sacco loan portfolio

On whether mobile banking has improved the profitability of the SACCO since it was implemented 72 % of the respondents agreed with the statement (M=3.75, SD=0.693).Further 77% of the respondents agreed that mobile banking has improved the efficiency of providing services to customers in the SACCO (M=3.80, SD=0.799). Overall, the respondents agreed that mobile banking affected the performance of SACCOs in Nakuru County (M=3.86, SD=0.670).As per Kariuki(2019) there is a link between Sacco financial performance and the adoption of mobile banking technology and the digitalization of Sacco operations.

According to the findings, effortless account access to pay bills and transfer funds is one of the leading role of mobile banking as a financial innovation in SACCOs. This is compounded by the finding that mobile banking has enabled the SACCO to reach customers in remote rural areas. Mobile banking is more convenient because it provides account holder with more freedom and efficiency to access their money irrespective of their locations. Customers can log in using their unique credentials, usually a combination of username and password, and sometimes biometric methods like fingerprint or facial recognition, to view their account balances, transaction history, and other account details (Subekti, Hafiar & Setianti, 2021).

4.3 Inferential Statistical Findings

This section documents and discusses the inferential statistical findings analyzed from the data collected in respect of the influence of mobile banking on the Performance of SACCOs

4.3.1 Influence of Mobile Banking and Performance of SACCOs

The purpose was to examine the influence Mobile Banking on Performance of SACCOs. The results are shown in Table2

Table 2: Pearson’s Correlation between Mobile Banking and Performance of SACCOs

Variable	Performance of SACCOs	
Mobile Banking	Pearson Correlation	.817*
	Sig. (2-tailed)	0.000
	N	54

** . Correlation is significant at the 0.05 level (2-tailed).

Table 2 shows that there was a strongly positive correlation between mobile banking and SACCOs' performance and the relationship is statistically significant ($r=0.817$, $p<0.000$)

4.4 Regression Analysis Findings

Regression analysis was conducted in order to determine the extent to which the financial innovations influenced the performance of SACCOs in Nakuru County.

Table 1: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.792 ^a	.627	.613	0.101662

a. Predictors: (Constant) Mobile Banking, Agency Banking, ATM Banking

The model summary shows that with an adjusted R-square value of 0.613 ($R^2 = 0.613$), this indicates that the IVs can be used in explaining 61.3% of the existing variability in the performance of SACCOs in Nakuru County, while other factors not addressed in the study contributed to 38.7% of SACCOs' performance in Nakuru County.

V. CONCLUSION

The study concluded that mobile banking in SACCOs' improves the financial performance in terms of productivity, efficiency and convenience. The SACCOs in Nakuru County, Kenya have prioritized the use of mobile banking because many of their customers have mobile phones, which make it possible to roll-out different kinds of financial products and services. Mobile banking offers SACCOs in Nakuru County an ideal opportunity to reach a large proportion of customers who not only own a mobile phone, but are also unbanked. Most of the unbanked population in Kenya live in remote rural areas and experience restricted accessibility to various SACCO branches in the County. Access to millions of individuals through mobile banking allows SACCOs in Nakuru County to broaden their reach to those who are unbanked. This is why there was a strongly positive correlation between mobile banking and performance of SACCOs in Nakuru County. Specifically, the growing usage of smartphones has raised more appetite for mobile banking services, pushing the majority more SACCOs to provide this innovative service alongside with other ranges of products.

VI. RECOMMEDATIONS

This study recommends that SACCOs in Nakuru County should provide mobile banking security through the establishment of written standards. SACCOs in Kenya ought to minimize the time it takes to set up and implement mobile banking services in rural areas in order to increase convenience. It should be made a mandatory for all SACCO members to be registered for mobile banking. Mobile money transfer services should be managed on a regular basis in order to eliminate delays while enhancing customer experience through speedier customer service and reduced fees.

This study focused on SACCOs in Nakuru Countries thus there is need to carry research on financial institution like banks and MFIs and other counties so as to generalization. A study should also be done to explore how various demographic factors (age, gender, income level) influence the perception and adoption of financial innovation practices within SACCOs. This could help tailor innovation strategies to specific member groups.

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