Product Innovations and Financial Performance of Deposit Taking Savings and Credit Cooperative Societies in Nairobi City County, Kenya

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ABSTRACT

As a component of the global cooperative system, consumer cooperatives in Kenya play a significant role in the execution of national social and economic policies. Financial institutions have adapted to change by taking advantage of the opportunities provided by information and technology. Financial innovations that are embraced by Savings and Credit Cooperative Societies (SACCOs) include the creation of new goods and innovative methods of product delivery to consumers. Consumer cooperatives in Kenya play a crucial role in implementing national social and economic policies, particularly through Savings and Credit Cooperative Societies (SACCOs). These financial institutions have adapted to changes by leveraging information technology to create innovative products and improve delivery methods. However, SACCOs face stiff competition from commercial banks and microfinance institutions. The study sought to investigate the relationship between financial innovations and the financial performance of SACCOs, focusing on their impact before, during, and after the pandemic. Utilizing panel data methodology, the study analyzed 45 registered Deposit Taking SACCOs in Nairobi City County from 2018 to 2022, employing secondary data to draw conclusions. The findings revealed a negative correlation between product innovations and financial performance, indicated by negative coefficients in Return on Assets (ROA). To SACCO effectiveness, the study recommends several strategies. It emphasizes the need for public education on internet banking and suggests that SACCOs develop more user-friendly, multifunctional products to better meet customer needs. Investing in information and communication technology (ICT) for process automation is also vital to streamline operations. Additionally, improving marketing techniques is essential to enhance customer experience, reduce wait times, and minimize inefficiencies. SACCOs are encouraged to adopt innovative financial strategies to boost overall productivity, profitability, and market share. The regulatory body, SASRA, should implement effective regulations and monitoring systems to support these innovations. Overall, the study highlights the importance of ongoing innovation and effective management in improving the financial performance of SACCOs within a competitive landscape.

Key words: SACCOs, financial innovations, financial performance, DT-SACCOs

BACKGROUND OF THE STUDY

Innovation, as defined by Joseph Schumpeter, involves embracing new ideas or making significant changes to existing processes, markets, products, and inputs within an industry. This definition emphasizes the importance of "creation activity" and the aspect of "newness" (Boer & During, 2011). Baumol (2002) further elaborates that innovation can be classified as either incremental or disruptive and extends beyond mere creativity to include the adoption of new practices, highlighting the complexity of inventions across various sectors. The competitive edge of a business can be enhanced through innovative practices, which also generate value for its owners (Dabic, Cvijanovic & Gonzalez-Loureiro, 2011). For modern businesses, sustainable organic growth is unattainable without effective innovation management that encompasses information, reputation, knowledge, and trust. Financial innovations can take various forms within financial institutions and may also impact other economic sectors.

The factors influencing the financial sector's increasing acceptance of innovation and new technology are covered in the section that follows (Miller & Merton, 1992). The industry has historically seen significant changes as a result of a general trend toward deregulation, globalization, and the growth of the internet and e-commerce. Financial institutions may now provide low-cost, location-independent services to millions of customers thanks to innovations (Ledgerwood, Earne & Nelson, 2013). Kenya's FOSA innovative services, which SASSRA registered, are a prime illustration of how low-cost approaches utilizing modern technology may successfully broaden the financial market frontier (Wambugu, 2010). In the 1990s, Kenya's state monopolies hindered trade, but these were removed as a result of the nation's liberalization policies and initiatives to develop a competitive mobile phone market.

Productivity and innovation have a stronger correlation with financial performance, Magnoni (2013). According to (Aghion et al. 2005), economic development milestones have an impact on technology catchups. Lack of funding hinders productivity since innovation is a costly process that necessitates the maturity of the required financial institutions. Loan availability and firm production were shown to be significantly correlated in another study (Gatti & Love 2008) that assessed the effects of innovation on credit access on Bulgarian enterprises. Small businesses in nations with high levels of financial development are more likely to innovate (Sharma, 2007).

Financial innovations

Cherotich, K. M., Sang, W., Mutungú, C., & Shisia, A. (2015) define financial innovations as the development of new financial services with innovative processes, new financial products, or new ways to deliver existing financial services. As a result, financial innovations can take many different shapes. Financial innovation, according to Noyer (2007), is the process of bringing innovative products to market. It is evident from all of these definitions that in order for financial innovation to develop, new initiatives must be taken. The SACCO industry's embrace of new technology can also result in financial innovations in a number of ways, including the development of whole new financial products or new items (Noyer, 2007). Globally, financial innovation can take many different forms, such as new products like floating rate mortgages and new delivery systems like internet banking (Noyer, 2007).

Nekesa & Olweny (2018) used a case study of deposit-taking SACCOs in Kenya to assess the impact of financial innovation on their financial performance. According to the study, organizational, process, and product innovations are important categories of financial innovations that have an impact on financial institutions' present financial performance. Cherotich, Sang, Shisia, and Mutung'u studied financial innovation and how it affected Kenyan financial institutions' performance in 2015. As a result, the census covered all 43 commercial banks in Kenya. The study's conclusions show a strong and significant relationship between financial innovation and performance.

Ouma, Omagwa, and Ngaba (2018) investigated the performance of deposit-taking SACCOs. The study found that the development of new products and services affected the operational effectiveness of financial institutions. Ngumi (2014) examined the effect of financial innovations on the performance of lending institutions in a related study. money innovations like electronic money transfers, mobile banking, online banking, and automated teller machines were implemented. Success and financial innovations were found to be strongly correlated.

Several researchers split the category of items into additional subcategories (Anderloni et al, 2009), according to criteria like product types, purposes, or other characteristics, Financial innovations can also be grouped using the functional approach based on their purpose or how much they contribute to the efficient operation of the financial system (Tufano, 2003). The criteria used include lowering transaction costs, increasing the availability and development of credit, creating equity, offering insurance services, managing assets and obligations, and assisting financial institutions. Financial innovations fall into four main categories according to the third system, which is based on motivations: (i) defensive, which is a reaction to policy and regulation; (ii) aggressive, which is the creation of new products that financial institutions think can be successfully marketed and sold; (iii) responsive, which is when a financial institution creates a new instrument or service to satisfy a client's portfolio;

and (iv) protective, which is when portfolios are protected. The taxonomy of innovations used in this study focuses on financial innovations (Oke, 2007).

Financial Performance

A company's financial performance indicates how successfully it makes use of its limited resources to produce revenue (Richard et al., 2009). It is therefore simple to understand how a particular approach resulted in financial performance. According to Pandey (2010), a company's ability to generate income from its primary business is what determines its financial success. As a result, the metric used to assess a company's financial performance is the probability that it will make money with its current assets.

The profitability of the company can be assessed using return on assets (ROA), which compares SACCO's earnings to all of its assets. Commercial banks' income statements display profits both before and after taxes. Since institutions with higher equity ratios should also have better return on assets, the ratio of profits to equity (ROE) rather than total assets is another useful measure of SACCO performance (Ceylan, Emre, and Asl, 2008). The European Central Bank (2004) states that a bank's performance is determined by its capacity to provide sustainable profitability. This competency is essential for banks to maintain ongoing business and for investors to receive fair returns since it guarantees more robust solvency ratios, particularly in the context of a risky business environment. The financial performance of a financial organization must therefore be consistent across time.

The practice of evaluating an organization's success in terms of money is known as financial performance, and it relates to the extent to which an organization's financial goals have been attained. This demonstrates how the general financial health of a company is assessed over a certain time period and may be used to compare it to the general financial health of other companies in the same industry. The effectiveness of commercial banks is determined by how successfully they manage the deposits made by the general public and the loans they borrow to achieve their goals, which include profit maximization. To do this, interest rates must be adjusted so that they can borrow money at cheaper rates and lend it out at higher rates while still remaining within acceptable limits. Different performance indicators for banks were identified by Combs et al. Along with valuation ratios and solvency ratios, such as the current ratio, profitability indicators, such as the operating income to sales ratio, are also employed.

Savings and credit Cooperative Societies

Participants in SACCOS, which are voluntary groups, frequently use their savings to get loans at fixed interest rates that they use for various reasons. The goal of SACCOS is to provide members credit while encouraging a culture of saving (Bwana & Mwakujonga, 2013). In order to achieve their common cultural, social, and economic goals, members of SACCOS voluntarily band together to form democratically run associations. In Kenya as well as throughout the world, SACCOS are an essential type of financial intermediary (Ngure, 2017). The operations of cooperative groups are guided by inherent ideals and principles. Equity, equality, self-help, democracy, self-responsibility, and solidarity are a few examples of these ideals. SACCOS have been adapting to the competitive and ever-changing financial landscape of the modern world (Kibugo, 2017). Since Kenya is a developing nation, SACCOS must adapt to the changing financial landscape by encouraging a culture of saving, which will raise living standards and end poverty.

Globally, the number of SACCOs has increased tremendously. In order to improve service delivery, provide a range of goods and services, boost membership, guarantee better structures, and have a successful financial performance, SACCOS are investing a significant portion of its resources in technology (Mutuku, 2014). Access to financing facilities is essential for SMEs to effectively expand their capacities, compete successfully, generate jobs, and reduce poverty in developing countries (Cracknel, 2012).

In the past, many households in developing countries lacked access to credit and savings organizations. The mainstream banking system was inaccessible to most of them, making it a reserve for a small number of people (Aduda & Kalunda, 2012). The goal of SACCOS's arrival was to unite these people into a group so they could pool their resources and then apply for loans to finance their various ventures and enterprises by co-guaranteeing

one another (Miriti, 2014). When these SACCOS initially appeared, they had to deal with a new problem: the need to offer effective services and a variety of products in order to satisfy the clients' ever-growing demands (Mumanyi, 2014). There is no denying the importance of inventions. Innovations usually happen when new ideas, techniques, and instruments are applied to solve a problem and change an industry in order to make it better. A business entity can increase its competitiveness and provide value for its shareholders by introducing innovations, Blach (2011). The first savings and credit cooperative society in Germany was established in 1849 by Herman Schulze and William Raiffeisen (Guinnane, 2012).

The SACCO association was established to help people overcome their financial difficulties during the Great Famine. In 1850, English mill workers started saving money and lending it to each other. In the 20th century, North America embraced it (Landreau & Ugolini, 2013). The number of SACCOS has grown over time in Thailand, a nation that was financially on par with Kenya in the 1960s. The different people who run these organizations constitute the foundation of SACCOs. Due to increased competition over the past ten years, the performance of these SACCOs has become more significant, and a number of SACCOs are currently operating globally. According to earlier research, these SACCOs are quite important (Butt, Masood & Javaria, 2020).

In 1959, Father John McNulty established the first SACCO organization in Africa in Ghana. Ng'ombe and Mikwamba (2004) state that the SACCO was established to help the people achieve more economic stability. Ghana, Nigeria, Tanzania, Kenya, and Uganda were the first nations to become members of SACCO. The Africa Confederation of Cooperative Society Savings and Credit Association (ACCOSSCA) was established in 1965 as a result of the SACCO industry's rapid expansion across the continent. In order to promote SACCO ideals, provide SACCO insurance, and inform members about SACCO issues, ACCOSSCA was established (Ng'ombe & Mikwamba, 2004).

The Kenyan Ministry of Cooperatives and MSMEs Development oversees SACCOs that operate in Kenya. According to recent studies, SACCOS have dramatically expanded in Kenya. A research by Bwana and Mwakujonga(2013) found that one in two Kenyans is either directly or indirectly dependent on SACCOS. About 45% of the nation's GDP comes from SACCOS. According to the SASSRA monitoring report (2020), the ministry is tasked with guiding the growth of the cooperative sector through the creation of policies and legislative frameworks in order to support the accomplishment of the national social-economic goals. Kenyans' quality of life would be enhanced either directly or indirectly by efficient legal processes and regulations (Amabel, 2014). Section 22 of the SACCO Societies Act No. 14 of 2008 specifies that the Sacco Societies Regulatory Authority (SASSRA) is responsible for overseeing SACCOS.

The authority is in charge of expressing the needs of SACCO members and instilling confidence and sanity in the sector. It is part of the broader reforms program of the Kenyan government. The rules established by the authority must be followed by all SACCOS in Kenya. The SASRA Society Act No. 14 of 2008 stipulates that the management must produce reports for the capital adequacy return, the statement of financial condition, the liquidity statement, and the statement of deposit return. The regulations force the current SACCOS to follow the same rules. A well performing SACCO mobilizes savings through share contributions and expands members' access to low-cost borrowing, both of which support economic expansion (Ademba, 2010). According to Ngure (2017), SACCOS is responsible for Ksh. 490 billion in savings and assets, or 35% of the national budget. According to the 2020 SASSRA supervisory report, all deposit-taking saccos (DT-SACCO) had 5.47 million members. Compared to the 4.9 million individuals reported in 2019 with 175 registered DT-SACCOs, whose total assets by the end of 2020 were 627.68 billion, this represents an increase.

Statement of the problem

Through research and development, the creation of new goods and services, and the improvement of consumer services, innovation propels technical advancement. In order to achieve their objectives, sustain success, and improve their performance in a competitive business climate, SACCOs embrace financial innovations as a strategy to outperform their rivals. As a result, rather than depending entirely on member deposits to finance their operations, SACCOs must implement fresh, creative financing solutions (Maorwe, 2011). In order to achieve competency at all operational levels, they must also use creative methods to create best practices that ensure sustainability and growth (Mutuku, 2014).

SACCOs in Kenya have been operating at a declining profit notwithstanding these advances (SASRA, 2022). For example, during the 2020–2021 fiscal year, the Saccos' deposits went from Kshs. 105 billion to Kshs 123 billion, an increase of Kshs 18 billion. At the same time, though, there was a worrying trend as profitability dropped by 33%, from 49% to 16%. Some of the declining profitability has been attributed to the average application of improvements related to their processes. As a result, there has been a discrepancy between what the Saccos offer and what clients want. Customers have been compelled to switch to commercial banks as a result of this disparity because they provide similar goods and services at higher levels of innovation while also engaging in heated rivalry.

However, despite these advancements, the business still faces fierce competition from other financial institutions, such as commercial banks and microfinance firms. Mutuku (2014). This is because studies have shown that helping the unbanked considerably lowers poverty (Manyika & Voorhies, 2016). Strategies for financial inclusion have been the focus of many international studies. For instance, Harelimana (2016) examined the level of financial inclusion in Rwanda and how it affected SACCOs' financial performance over a five-year period from 2011 to 2014. Muema (2013) looked into how financial inclusion policies affected the financial operations of Kenyan commercial banks. The percentage of Kenyan members utilizing SACCOs for financial services dropped from 13.5% in 2009 to 9.1% in 2013, according to a poll by Kiragu (2015). During the same period, the percentage of customers who used commercial banks increased from 13.5% to 29.2% (Kiragu, 2015). Even though SACCOs are crucial to the financial system and the general population, it is yet unclear whether financial innovations significantly affect the financial performance of SACCOs.

The relationship between financial innovation and financial performance in Kenya's SACCO industry has not been properly studied. In order to maintain economic continuity during the Covid-19 pandemic, which resulted in mobility restrictions, the financial sector was compelled to employ and adapt a number of creative financial techniques. Few studies have been conducted during the pandemic to ascertain how these events impact the financial performance of SACCOs.

This study tried to establish a connection between financial innovations and the financial success of SACCOs while accounting for the innovations that have been adopted, their application, and how they have affected the financial performance of the SACCOS prior to, during, and following the pandemic. Determining the relationship between DT-SACCO financial innovation and Nairobi City County performance is critical. This study will investigate the relationship between financial innovations and SACCO financial performance in Nairobi City County.

Research Objectives

Establishing the effect of product innovations on the performance of SACCOs in Kenya was the study's main objective.

Research Questions

How does product innovation affect the financial performance of deposit taking SACCOs in Nairobi City County?

Significance of the study

A number of stakeholders will find significance in the research findings. The Kenyan government will be able to comprehend the difficulties SACCOS is having putting these innovations into practice as well as how they are advancing the industry. Previous studies will be validated or refuted, which will help academics do additional research to better understand the issues this study will identify. Additionally, the SACCO stakeholders will be able to comprehend the problems that impede innovation and the adoption of contemporary products in the industry.

Scope of the study

The study focused on financial innovations in DT-SACCOs in Nairobi City County. Secondary data was obtained from SACCO's publicly available financial filings and the SASSRA headquarters in Nairobi. The study was conducted in 45 DT-SACCOS that operate in Nairobi City County and are registered with SASSRA. The study was conducted from January 1, 2023, to September 30, 2023.

THEORETICAL REVIEW

The Diffusion of Innovation Theory

The idea of diffusion of information (DOI), which Rodgers popularized in 1962, served as the basis for this study. According to theory, institutions that want to flourish must be open to trying new things. According to this view, improvements to present operating procedures, a consistent approach to performance, the ability to test a product beforehand, and the simplicity of spotting flaws are the five main characteristics of innovations (Frame & Scott, 2001). Institutions have the ability to increase their competitive edge and reduce operational expenses, according to Hirtle (2005). Institutions would also have little trouble breaking into new markets and finding new ways to serve their clients. According to Gardachew (2010), despite the advantages of innovation, there are drawbacks as well, including the need for radical replacements because of intermittent and erratic technology developments, exposure to security concerns, management and consumer opposition, and difficult approaches to current conditions.

The theory shows how an idea, or a process gathers steam through time, grows into something significant, and permeates the entire system. The outcome is the adoption of a novel good, habit, or notion (LaMorte, 2019). The author opines that adoption means doing something in a different way from what was previously done. He concludes by mentioning that the key to adoption and acceptance is perception among people and stakeholders of the novelty, modernity, or innovation of the concept, behavior, or product.

According to Gardachew (2010), the spread of an innovation is transmitted through social system members' channels of communication. The innovation-decision process outlines the steps a person can take as they consider adopting a new innovation: after learning more about it, the person generates an opinion about it and chooses whether or not to do so. The person then starts utilizing the invention, and through practice and learning, progressively minimizes the uncertainty that is still present. After the innovation has been adopted, the person keeps checking to see if adoption still makes sense for her.

The number of innovation features was raised to seven by Moore and Benbasat (1991), building on the work of Roger (2003), Tornatsky and Klein (1982), Brancheau and Wetherbe (1990), and others. Three of the seven innovation traits directly mention Rogers: relative advantage, compatibility, and trialability. Rogers complexity is strongly tied to the fourth quality, usability. It's important to keep in mind that relative advantage and simplicity of use are both subjective qualities because everyone views them differently. Fishbein and Ajzen (1980) assert that attitudes about an object and attitudes toward a particular behavior involving that object might frequently differ. Moore and Benbasat (1991) additionally came up with three other features. In contrast to Moore and Benbasat (1991), who found that image was a standalone predictor of adoption, Rogers (1983) included it as an intrinsic element of relative advantage. Image is the self-confidence that accepting a novel idea will advance one's social standing.

Five main adopter categories guide the theory, and these include laggards, early adopters, innovators, early majority, and innovators. Research has shown that early late adopters of an innovation are people with diverse characteristics as compared to those who adopt the ideas early in time (LaMorte, 2019). The awareness about the need to innovate, individual decision innovation adoption or rejection decision, innovation testing method at the initial stages and the continuous use of the innovated product are the key stages involved in the adoption. (Rogers 1995) identified five innovation attributes which determine the adoption of innovations that have been extensively applied by several researchers to illustrate the adoption and diffusion of ICT innovations. With the knowledge that participation in such initiatives typically necessitates the introduction of new technologies and

new ways of thinking and acting, Through the lens of the diffusion of innovations theory, it is feasible to ascertain the effects of new financial innovations on the performance of deposit-taking SACCOs in Nairobi City County.

Examining Rogers' (2003) diffusion of innovation theory using the Dubin framework (Lundblad and Jennifer, 2003) reveals certain flaws in the theory. Although teams or departments inside corporations can also serve as social systems, organizations are frequently thought of as social systems. However, the issues and team members within a larger organizational environment are not discussed in terms of how these limitations impact the adoption of innovation. Organizational borders are not taken into consideration when innovation diffuses between organizations, such as between schools in a school district or hospitals and clinics within a health care delivery system (Lundblad and Jennifer, 2003). The only system state specified by the theory for the dissemination of innovation in companies is the type of innovation-decision-making process in place, which is classified as optional, collective, authority, and contingent. According to Lundblad and Jennifer (2003), Rogers' theory does not specify whether an organization's system states must be in their typical operational mode for the theory to be applicable. It also does not specify if the theory applies to all sorts of organizations or just some of them.

With regards to innovation in SACCOs, this theory cannot be overlooked. Beaver (2002) finds innovation as a critical issue in the development of any economy, and it is so relevant in enhancing the competitiveness of firms. SACCO societies should aim at adapting and using the innovations in place as opposed to the traditional methods of operation. The idea of embracing a new innovation is crucial to SACCOs. The following are the main criteria that determine an innovation's level of adoption: its compatibility, relative advantage, triability, observability and complexity. The promotion of financial innovation depends heavily on the spread of “collective acceptance” where financial products are deemed to have value not because of their benefit but because of the collective acceptability as a value representative (Nightngale & spears, 2010). On top of that, it guarantees corporate social benefits due to the advances developed by Frame and White (2004). Diffusion is advantageous for financial inventions, and the spread and diffusion of liquidity are determined by the number of institutions that embrace an idea. In Merton (1995a)

Disruptive Innovation Theory

This theory as propagated by Christensen (1997) states that the leaders in a market are displaced by new entrants when the new entrants introduce a disruptive innovation the market leaders are not able or willing to respond to. This theory predicts that the market leaders are displaced from the industry and the new entrants take over the industry. According to the Oslo Manual of the OECD, (2005), disruptive innovation is an innovation that has a significant influence on an industry and the business operations of companies within that industry. The banking industry in Kenya felt the significant effects of disruptive innovation from the telecommunications firms that offers mobile money transfer.

The theory is important in this study considering that there have been many innovations that have been brought up by other financial services players. These include the emergence of digital lenders, innovative savings products by telecommunications firms. SACCOs must innovate to keep up the pace and avoid being thrown out by the emerging players in the sector.

Transaction Cost Innovation Theory

According to this theory, the primary driving force behind financial innovations is the reduction of financial or transaction costs; these innovations are the responses to technological advancement that has caused transaction costs to go down. The need for reduction in transaction costs can trigger financial innovations that result in the improvement of financial services. The theory was developed by Williamson (1979, 1986) and views financial innovation with a view of optimization and creation of efficiency in service delivery by minimizing exchange costs It demonstrates that the intention of innovations is to cut on operating costs. The theory goes ahead to postulate that the main aim of innovation is to cut operating costs to the bare minimum (Hickins, 1983). It is every business objective to minimize costs and maximize profits or returns (Hickins, 1983)

When financial innovations must utilize other platforms to successfully carry out their mandate, transaction costs will result. When conducting banking operations, branchless centers that operate as agents for the principal bank must be established. This entails transaction fees. The theory explains when the business should design newer operations to be inside firm borders and how institutions may be able to profit from resource sharing among businesses operating inside firm borders. By enabling companies to increase market share by utilizing innovations that will provide them a competitive advantage in the marketplace, it is a theoretical framework that highlights the value of expenses. A corporation should diversify from the perspective of transaction costs when it increases its market share and manages its extra operations more efficiently than the current market or its competing companies (Aguilera & Jackson, 2010).

Numerous academicians have voiced numerous criticisms of the TCE strategy. TCE assumptions were deemed to be unduly substantial by Moran and Goshal (1996), who also claimed that the theory's applicability might be restricted by employing faulty data. Another argument against opportunity is that it portrays an unnecessarily dismal view of human stimuli. Moran and Goshal (1996) went on to say that the strategy used to avoid expediency by close watching and power exercise of control causes a drop in employee performance and, as a result, has the opposite effect from that desired. Numerous academicians have voiced numerous criticisms of the TCE strategy. TCE assumptions were deemed to be unduly substantial by Moran and Goshal (1996), who also claimed that the theory's applicability might be restricted by employing faulty data. Another argument against opportunity is that it portrays an unnecessarily dismal view of human stimuli. Moran and Goshal (1996) went on to say that the strategy used to avoid expediency by close watching and power exercise of control causes a drop in employee performance and, as a result, has the opposite effect from that desired. Numerous academicians have voiced numerous criticisms of the TCE strategy. TCE assumptions were deemed to be unduly substantial by Moran and Goshal (1996), who also claimed that the theory's applicability might be restricted by employing faulty data. Another argument against opportunity is that it portrays an unnecessarily dismal view of human stimuli. Moran and Goshal (1996) went on to say that the strategy used to avoid expediency by close watching and power exercise of control causes a drop in employee performance and, as a result, has the opposite effect from that desired. Numerous academicians have voiced numerous criticisms of the TCE strategy. TCE assumptions were deemed to be unduly substantial by Moran and Goshal (1996), who also claimed that the theory's applicability might be restricted by employing faulty data. Another argument against opportunity is that it portrays an unnecessarily dismal view of human stimuli. Moran and Goshal (1996) went on to say that the strategy used to avoid expediency by close watching and power exercise of control causes a drop in employee performance and, as a result, has the opposite effect from that desired. Numerous academicians have voiced numerous criticisms of the TCE strategy. TCE assumptions were deemed to be unduly substantial by Moran and Goshal (1996), who also claimed that the theory's applicability might be restricted by employing faulty data. Another argument against opportunity is that it portrays an unnecessarily dismal view of human stimuli. Moran and Goshal (1996) went on to say that the strategy used to avoid expediency by close watching and power exercise of control causes a drop in employee performance and, as a result, has the opposite effect from that desired. Numerous academicians have voiced numerous criticisms of the TCE strategy. TCE assumptions were deemed to be unduly substantial by Moran and Goshal (1996), who also claimed that the theory's applicability might be restricted by employing faulty data. Another argument against opportunity is that it portrays an unnecessarily dismal view of human stimuli. Moran and Goshal (1996) went on to say that the strategy used to avoid expediency by close watching and power exercise of control causes a drop in employee performance and, as a result, has the opposite effect from that desired. Numerous academicians have voiced numerous criticisms of the TCE strategy. TCE assumptions were deemed to be unduly substantial by Moran and Goshal (1996), who also claimed that the theory's applicability might be restricted by employing faulty data. Another argument against opportunity is that it portrays an unnecessarily dismal view of human stimuli. Moran and Goshal (1996) went on to say that the strategy used to avoid expediency by close watching and power exercise of control causes a drop in employee performance and, as a result, has the opposite effect from that desired. Numerous academicians have voiced numerous criticisms of the TCE strategy. TCE assumptions were deemed to be unduly substantial by Moran and Goshal (1996), who also claimed that the theory's applicability might be restricted by employing faulty data. Another argument against opportunity is that it portrays an unnecessarily dismal view of human stimuli. Moran and Goshal (1996) went on to say that the strategy used to avoid expediency by close watching and power exercise of control causes a drop in employee performance and, as a result, has the opposite effect from that desired.

Here, the transaction costs innovation theory is relevant. By making it easier to organize, coordinate, and use information effectively, internet-connected information technology (IT) adoption, for instance, can considerably reduce a firm's transaction costs. Mobile, Internet-connected IT may further minimize transaction costs because it enables off-site access to the company's internal database and other important information sources. As a result, the decline in operating expenses brought on by agency banking, internet banking, and mobile banking may have an impact on SACCO's rise in profitability. The theory analyzes financial innovation considering slight modifications to the economic system.

Utilizing mobile and internet connections may save transaction costs since it offers an option to off-site access to the organization's internal database and other information sources. The shortcoming of this hypothesis, according to 2003, is that it only considers an individual's cost-cutting while holding the other variables constant.

This study cannot overlook the Transaction costs innovation theory as it marries well with the objectives which are all geared towards financial performance because of financial innovations. A notable example is the application of information technology to significantly reduce a company's transaction costs, which results in increased productivity and information-based management. This theory was therefore very crucial to the study because it enabled the researcher to explain the impact of financial innovations on the Saccos' financial performance because of transaction cost-cutting initiatives.

EMPIRICAL REVIEW

Innovation in products and financial performance

Financial innovations are intended to serve the role of reallocating risk by coming up with several products and services that are less risky, reducing taxes, reducing agency costs, increasing liquidity by attracting more deposits, or circumventing regulatory constraints. The causal link between financial innovation and economic growth in Zimbabwe was established by Bara & Mudzingiri (2016) using financial time series data for the years 1980–2013. They found that the correlation between financial innovation and economic growth depends on the metric employed to gauge financial innovation. There is a direct causal relationship between economic growth and financial innovation, supporting a long-term, growth-driven financial innovation. There is also bi-directional causality, which comes after the conditioned netting-off of financial development.

Research and development spending data for the financial intermediation business are used by Beck, Chen, Lin, and Song (2016) as a proxy for financial innovation. On data at the bank, industry, and nation level for 32 countries, OLS and GMM estimators are utilized. They come to the conclusion that there is a strong and positive correlation between a country's potential for global expansion and its level of financial innovation and GDP growth. They discover data supporting both the pros and downsides of financial innovation because of their research.

Azimova & Mollaahmetoglu (2017) looked at how financial innovation and services affected savings and domestic savings building using data from 20 countries for the years 2005 to 2014. They concluded that the level of financial innovation and the accessibility of credit were significant determinants of gross sales and gross domestic savings. To have a competitive edge against their competitors, thriving institutions always use service or product innovation to make their products and services unique and different from those of their competitors, and therefore have an advantage (Martin et al. (2017). Innovation of products is therefore regarded as the most critical factor in innovation. Product innovations play a very effective role in organizational performance. Numerous studies have been conducted to establish the relationship between financial innovation and the effectiveness of financial institutions.

Rajapathira and hui (2018) established that product innovation is positively significant on organizational performance on internal process, customer, financial and growth. Product innovation has been shown to positively impact the Czech Republic's Medium and Small Enterprise (SMEs) financial performance, Tabas, Beranová & Martinovičová, (2012). Production power Industry average was selected with the aim of reducing the effects of economic cycles. Tabas, Beranová & Martinovičová, (2012) observed different effects of innovations on the three categories of companies. In trade and service companies' positive effects were found to

be limited due to the available simplicity of imitations by existing competitors. Other positive effects of product innovation were found among production companies, and this can protect production and product innovation better compared to service and trade companies. This is because product innovation is mainly correlated to the extension of services portfolio offered.

Kemunto and Kibati (2016) claim that bank assurance has facilitated the sale of a wide range of financial services, including life insurance, investments, health care, and educational policies. Additionally, efforts to provide integrated financial services have allowed banks to access a sizable consumer base. Furthermore, it has made it possible for the bank to access a big customer base and for clients to complete numerous transactions in one location. Data indicates that SACCOs have not adopted this innovation.

There is introduction of relatively simple and standard products which offers value addition, Omwenga, D. K. (2012). To increase productivity and performance, many commercial banks have embraced financial innovation, which includes the creation of novel banking products, a significant branch network expansion, and banking system automation that allows customers to conduct transactions online, on their phones, and in banking halls, Githakwa (2011). The study found that product range in financial institutions can only be achieved if financial institutions adopt financial innovation strategies, Ngugi and Karina (2013). The product innovation strategies include product repositioning, product replacement and conformance toward products that yield high profits to the financial institutions. Ngure, F. K., Maina, K. E., & Kariuki, S. N. (2017) sought to assess product innovation's implications on SACCOS in Nairobi, Kenya. According to the article's conclusion, a wide range of product innovation raises profitability levels, which is good for savers.

Product innovation is effective in increasing management’s access to credit that can be used to maintain the SACCOs soundness and enhancing safety, Karanja, J., & Munene, H. (2015). Therefore, SACCOs should hire competent and qualified staff who are able to identify the risks associated with the limited types of products. Karanja, J., & Munene, H. (2015), found out that staff in credit management should possess the basic experience in credit handling, skills in qualitative analysis, marketing skills and experience in product innovation that will see SACCOs performance in the market is enhanced and raise their ability to advance credit to customers which then fosters the credit performance and sustainability of SACCOs.

By using alternative financial service providers, customer satisfaction has grown, Mwai, A. M. (2021). This was in line with Kefela's (2011) discovery that mobile banking increased commercial banks' capacity to retain clients in rural sub-Saharan Africa to 80%. In contrast, Mwangi (2013) argued that the absence of suitable telecommunications networks limits the spread of financial innovation in rural Kenya. Financial liberalization was urged by Wakdok, S. S. (2018) to increase the possibility that commercial banks will adopt financial innovation. Three categories were used to categorize mobile phone banking: investment in mobile banking, subscriber count, and transaction count.

Financial institutions allegedly used a range of electronic distribution techniques to meet customer demands, according to Gichungu, Z. N., & Oloko, M. A. (2015). They discovered that carrying out this research was essential to achieving their objective of excellence in the banking industry when they looked at the adoption of IT in Kenyan banks with a focus on services offered through internet and mobile banking. The study also proved the worth of SMS banking and ATM technology's domination. Customers visit bank websites to find out more about the products, utilize internet banking to check balances, find after-sale services, and make purchases, demonstrating how online banking is gaining ground and playing a growing role in the activities related to financial transactions.

Mobile banking has increased the variety of services that a commercial bank can offer diversified the bank’s income generation, Mohamud, A. A., & Mungai, J. (2019). This was in a study on interest rate pass-through in Kenya. This was consistent with similar studies by Etim, A. S. (2014) and Ngure, F. K., Maina, K. E., & Kariuki, S. N. (2017) conducted in Uganda and Tunisia respectively who established that mobile banking a s a product innovation assisted in raising profitability and revenues.

This is however inconsistent with Omondi (2015) who established that there was underperformance in commercial banks after their adoption of mobile banking. This evidence comes from a study that examined how

mobile banking platforms affected the performance of Kenyan banks listed between 2010 and 2014. Omondi used a sample of 11 banks out of 17 readily available secondary data from websites was analyzed and made use of ratios in measuring financial performance to get a comparative analysis. The contribution of product innovation in the introduction of various products enables SACCOs to be in a strategic position to benefit from the adopted innovations and translate to a better financial performance.

M-banking is a technological advancement in the banking sector that links mobile phones and other portable devices to a banking system and enables consumers to access a range of financial services via a mobile interface using e-SMS (Venkatesh & Davis, 2016). The new method alters the interbank competition regulation by enabling clients to access financial assistance at any time, place, or circumstance. As a result of their increased focus on offering professional and specialized services, banks are now less concerned with coverage and outlet quantity (Ibrahim, Joseph, & Ibex, 2016). Systems based on technology are spreading and advancing quickly, especially those with internet connections, which makes it easier for businesses to experience changes in the way their customers interact with them (Parasuraman &Zink an, 2012).

Mobile phone usage has significantly increased in both developed and developing nations. Mobile banking, also known as M-Banking, offers the possibility of expanding financial services to those who do not already utilize them by using technology. Mobile communication is a perfect example of how traditional resources can be improved. One of the first commercial mobile applications was m-banking (Barnes & Corbett, 2013).

Muriungi, C. K. (2014) asserts that technological advancements help the banking industry grow because they enable banks to contact more clients and create new channels for service delivery. For instance, compared to banks, banking agency locations are simpler to run halls. Commercial banks do not suffer any upfront fees because the agency outlets may be located next to other businesses. These studies offer crucial information about financial innovation, which can take many forms, including the usage of ATMs, agency banking, mobile banking, and electronic funds transfers. The focus of the study, however, is exclusively on agency banking. The study investigated the effects of EFTs, mobile banking, and internet banking on the financial performance of Kenyan commercial banks. Tiwari, Buse, and Herstatt's (2006) study found that mobile banking broadens the bank's clientele. They have performed a study to find out if mobile banking affected the institutions' financial and operational health.

The financial sector's innovations and financial performance were the subject of research conducted by Mwangi in 2013. The main objective of the study was to find out how the banking sector was impacted by developments. The research design used for the study was descriptive. The intended audience was commercial banks in Nairobi. The study discovered that innovations had a big impact on how well financial institutions performed in Kenya. The poll also revealed that utilizing mobile banking has a more significant effect on performance than using internet banking. This study is important because it highlights how important innovations are to the efficiency of financial institutions. The study did not consider EFTs, which are the study's main topic as per the CBK (2014).

Using Kyushu City in Kenya as a case study, Muhandachi, G. (2020) investigated mobile money transfers and the growth of SMEs in Kenya. According to the survey, the SME market is significantly impacted by mobile money. The study was successful in achieving its objectives and gaining comprehensive insight into SME use of mobile money services. According to the conceptual framework, financial accessibility and mobile money transactional rates influence how SMEs develop. Huang (2008) investigated how mobile phones affected the performance of SME's in Auckland, New Zealand. The major type of data was gathered via a questionnaire. According to the study's results, most SMEs utilised mobile technology to carry out their commercial endeavors. Additionally, The study's results showed that SMEs were able to boost their yearly income thanks to more networking chances when they used mobile devices.

Various alternatives to mobile phone banking used in previous research; the most common ones include the quantity of mobile banking transactions, the number of customers added to mobile banking platforms, and the investment made by commercial banks (Akram & Allam, 2010; Al-Jabir, 2012) on mobile banking platforms. These three actions were put into practice today, and going forward, the most suitable measure will be implemented. The same strategy was used by Mathuva (2015).

Research Gaps

Previous studies on the effect of financial innovations have produced contradictory and unclear findings; the majority of these studies were carried out in other countries with different legal and regulatory frameworks. Moreover, local markets are unable to embrace global viewpoints without first doing empirical research.

The empirical study of relevant literature has shown that there aren't many studies that specifically look at the connection between SACCO financial innovations and the financial performance of SACCOs in Nairobi City County. According to Mwangi (2013), several research showed a correlation between financial innovations and the overall performance of financial institutions. The study therefore projected an idealized picture of how SACCOs with financial innovations would likely function and become more profitable. On the other hand, research by Nader (2011) and Scholnick (2006) revealed a negative correlation between financial innovations and SACCO performance.

It's intriguing to observe that several studies produced disparate findings. It is therefore necessary to conduct research to determine which research findings—about the effects of financial innovations and the operation of SACCOs in Nairobi County—are compatible with the situation in Nairobi. For instance, it could be noted that financial innovations negatively affect the financial performance of SACCOs, Nader (2006). However, are these results conclusive? The study's premise was formulated negatively and claims that EFT, online banking, and mobile banking have no discernible effect on the financial performance of SACCOs in Nairobi County.

Moreover, the review of the literature showed that very few financial developments have been considered. The volume of research and studies carried out in Kenya has not been very impressive. This is the reasoning for the inquiry. Finding out how financial advances impacted SACCO performance was the aim of this research. This study also examined the effects of financial innovations on the financial performance of DT-SACCOs.

Conceptual Framework

The evolution of interactions between study variables can be thought of as a conceptual framework (Kombo & Tromp, 2009). The main independent factors that are believed to affect Kenyan SACCO performance are innovation in product, process and Institutional. The financial success of SACCOs serves as the study's dependent variable. The figure below shows how the dependent and independent variables relate. The various types of innovation (independent variable) relate with financial performance (dependent Variable).

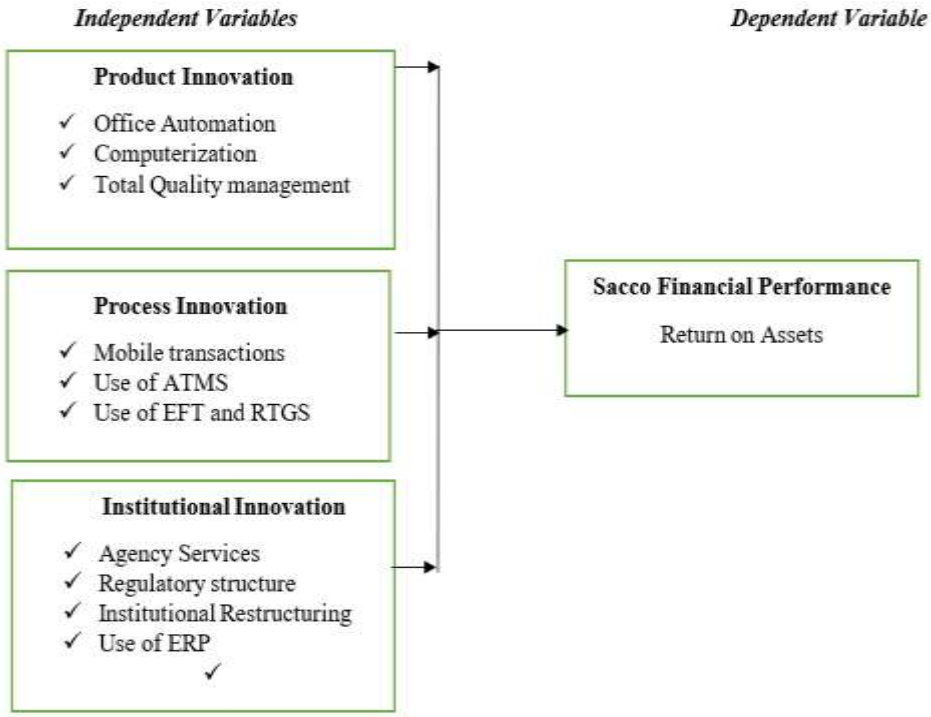

Figure 0.1Conceptual Framework

METHODOLOGY

Research Design

According to Creswell (2017), a research design is a strategy for conducting a study while limiting the variables that could affect the validity of the study's conclusions. Stated differently, a study design specifies the means, locations, and timing of data collection and analysis. In this study, a descriptive research design will be employed. According to Nachmias & Nachmias (2004), research design is thought of as the process that will be followed to carry out the study. Studies that seek to establish a link between independent and dependent variables are appropriate for descriptive correlational research designs. It was developed to explain the innovative financial practices used by SACCOs and to demonstrate how these practices affect Kenya's financial development. Additionally, this approach aids in gathering and evaluating study unit data at a certain point in time to assess the strength of relationships between variables (Saunders et al., 2007; Mulwa 2013).

Using a descriptive study design, the features of a particular group are carefully and methodically described. It shows how certain factors influence other others that prove causation. A descriptive study is structured with the express purpose of discovering the relationships between various variables. The objective of this study, which is to ascertain the relationship between financial innovation and the financial performance of DT-SACCOs in Nairobi, is descriptive in nature.

The impact of financial innovation on financial performance measures was forecast using panel data methods. Panel data, which blend cross-sectional and time-series data, have a number of advantages over these types of data but also present a number of issues. One of the main drawbacks of using panel data is how challenging it is to compile values from different units for the same variable and time. The benefits of panel data analysis, according to Cerna (2008), include "it reduces the multi-co-linearity phenomenon of the variables, increases the number of the freedom levels and, implicitly, the power of tests, therefore the trust level in the obtained outcomes, permits the construction and testing of certain behavioral templates more complex than the templates based on the analysis of the time serials or cross section structures, and permits a better analysis of the dynamics of the structural adjustments".

Panel data models can be divided into two primary categories: dynamic models, which contain previous values of the variables, and static models, which do not include past values of the variables. Several linear models, including pooled OLS, fixed-effects, and random-effects models will be used in the study's static panel data model (Tatoglu, 2013).

Target Population

According to Ngechu (2004), population refers to a collection of services, people, homes, events, elements, or items under investigation. The population of the study included all forty-five (45) DT-SACCOs that were officially registered in Nairobi City County under the cooperative societies act (see appendix I), as shown on the SASSRA list of deposit-taking SACCOs with registered offices in Nairobi. The population was manageable, and the respondents were within systems that they could be accessed and hence a census was be conducted.

Sampling and sampling procedure

The study did not conduct sampling since the target population was manageable and the respondents were within systems that they can be accessed and hence a census will be conducted. This is consistent with Kothari (2010) who states that this is a whole count of all items in the entire population. It is presumed that in a census, all the respondents are covered and there are no chances, and a high level of accuracy is obtained especially when the population is small as is evident in this study. Although cost factors make it impossible to conduct a census for big populations, Israel (1996) claims that a census is excellent for small populations of 200 or less.

A census removes sampling errors and provides complete information on every member of the population. Some expenses, like those associated with creating the questionnaire and the sampling frame, are set, so they remain the same whether the sample size is 50 or 200.

The study's modest population size of 45 units and the aforementioned factors will be considered as the report analyses the entire population. This consideration in the analysis enabled the study to statistically detect the effects as well as have desirable variation in the subjects of analysis and thus have a worthwhile study.

Research Instrument

The SACCO's public financial statements that were posted on their websites or information gathered from the SACCO offices in Nairobi City County served as the research's secondary sources of data. Due to its role as the supervisor of SACCOs in Kenya, SASSRA holds a database of information about SACCOs. As a result, these data were trustworthy and real, and they were used for analysis. This study aimed to evaluate how financial innovations affected the DT-SACCOs in Nairobi City County in terms of their financial performance. By the end of each year of analysis, the study counted the number of new innovations in process, product, and institutional areas. The individual SACCOs' full financial statements were also examined with the goal of extracting the necessary data. The value of earnings before interest and taxes divided by the total assets at the end of the fiscal year is the ratio of return on assets (ROA). The study adopted a five-year period from 2018 to 2022.

Data collection procedure

To be eligible to apply for a research permission from the National Council for Science, Technology, and Innovations (NACOSTI), the researcher needed a letter of authorization for data collection from the graduate school at KCAU. Secondary data was acquired from SASSRA's annual banking reports, and in cases where information was lacking, the corresponding SACCOs' annual statements were used as the data source. In the study, secondary data were employed. The primary source for secondary data is the annual supervisory reports by SASSRA. The use of data collecting was consistent with earlier research like those by Githira and Nasieku (2015), Ndili and Muturi (2015), and Tarus and Omandi (2013), which used a similar methodology to combine secondary data for their study.

Data processing and analysis

The collected data was cleaned, put into a computer, and then examined. Mean, standard deviation, minimum, maximum, kurtosis, and skewness were some examples of descriptive statistics. Regression analysis and Pearson correlation were used in inferential statistics. Tables and graphs were used to present the study's findings. The study used an LR and F test to choose between a pooled OLS, fixed effects, and random effects model. A LR test reveals whether the model contains individual or temporal effects. To decide between fixed-effects and random-effects models, the study used the Hausman.

RESULTS AND DICUSSIONS

Kenya’s Deposit taking Savings and Credit Cooperatives Performance

Performance of Kenya’s Deposit taking Savings and Credit Cooperatives Performance grew progressively between the years 2018 and 2022(SASSRA,2022). According to SACCO Supervision Annual Report, 2022, the DT-SACCOs made a solid growth. When comparing the end of 2021 to the end of 2022, the total assets of DT SACCOs increased by 9.8%, from KSh 807.1 billion to KSh 886.2 billion. By the end of 2022, capital reserves, loans and advances, and deposits were KSh 617.0 billion, KSh 677.8 billion, and KSh 174.7 billion, respectively, an increase of 9.2, 11.3, and 276.6%, respectively. Loan, investment, and other operating income all increased from KSh 93.5 billion, KSh 8.1 billion, and KSh 6.7 billion in 2021 to KSh 102.2 billion, KSh 9.6 billion, and KSh 7.5 billion as of the end of 2022, respectively, by 9.3, 18.5 percent, and 11.9%. On the other hand, as of the end of 2022, interest costs on deposits and other liabilities decreased to KSh 24.2 billion and KSh 74.5 billion, respectively (SACCO Supervision annual Report, 2022).

According to the descriptive statistics in, ROA ranged between 22.94% at its highest point in 2022 to 0% at its lowest, with a mean of 12.71% over the years. The range shows that Return on Assets has risen over the period of study. The standard deviation of 3.6 shows variability in ROA, indicating a wide range in DT SACCOs

performance across the years under study. This finding suggests that DT SACCOs performance was inconsistent over the study period and had a low Return on Assets. The low performance from DT SACCOs is shown by a ROA mean value of 12.71%. It is significant to remember that ROA assesses how effectively assets are being used by financial organizations to produce income and hence the higher the value the more effective the use of assets is.

The study also conducted a normality test to determine whether the sampled data has a normal distribution or not. Normality test is a prerequisite for statistical tests and may be conducted using analytical or graphical methods. Further, normal distribution of data is an important assumption for correctly performing regression analysis. This implies that regression analysis is only possible with normally distributed data. Non-normally distributed data can result in erroneous findings. This may represent statistically significant findings as non-significant or non-significant findings as statistically significant, leading to erroneous conclusion of the subject study. Therefore, the study applied the graphical method to assess the normality of the data and the findings presented in Figure 2 below.

The findings show that the sampled data is normally distributed around the mean of 12.01 per cent. This implies that ROA was normally distributed over the sampled period and hence may be used for further analysis, without misreporting.

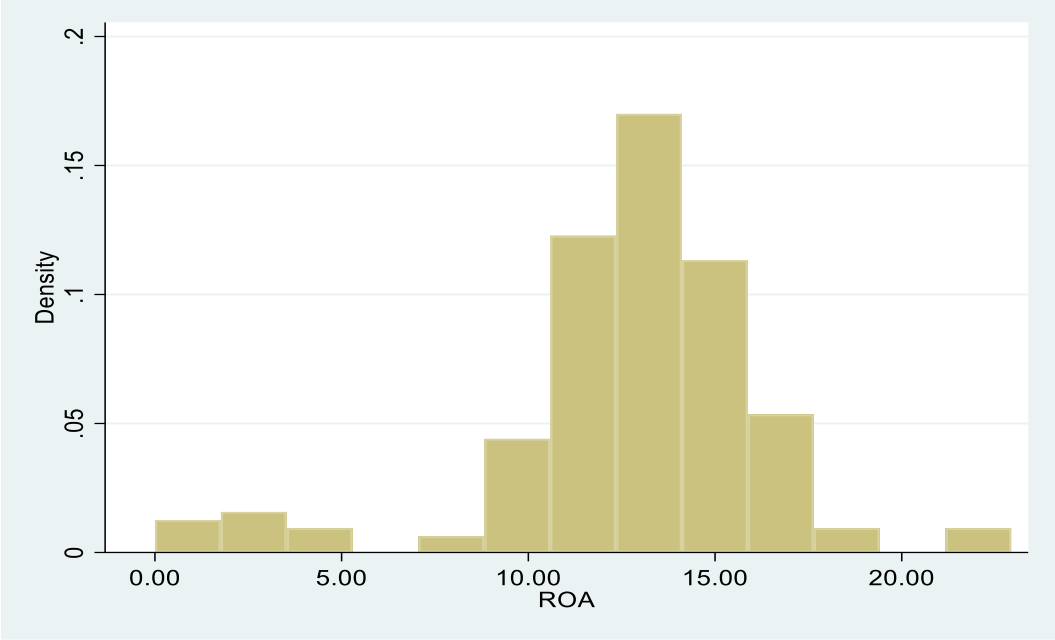

Figure 0.2 Normality test results

Source: Researcher (2023)

To examine the Return of Assets trend for the DT-SACCOs, graphs were employed for exploratory data analysis. The information shows how the ROA changed in several ways between 2018 and 2022. There were few noticeable changes in ROA amongst SACCOs during the period, according to the growth plots. This conclusion states that the passing of time has no fixed effects. This is due to the lack of time-related fixed effects in the data among DT-SACCOs. The observations for ROA of DTS did not significantly differ from one another, according to additional observation. Even if it appeared that ROA had drastically altered in some circumstances, such as for Kenya Police, Telepost, United Nations SACCO, Kenpipe, Shoppers, Hazina, Sheria, National and Ukulima SACCOs, this effect has no bearing on the model of panel data analysis that was used.

Product Innovation and performance of DT SACCOs in Nairobi City County

The null hypothesis is supported by the P-value of 0.035, which is less than 0.05 for product innovations hence the null hypotheses Ho1: There is no significant link between product innovation and Nairobi City County's

deposit taking SACCOs financial performance is rejected. This indicates that there is a statistically significant correlation between product developments and DT SACCO performance.

The findings are in line with Njeri (2013) and Keah (2014). As a method of competitive advantage to provide high-end value for their consumers in the country, SACCOs frequently use mobile phones and internet services to promote their various deposit products and services, which is correlated to SACCO size and market share. According to Njeri (2013) and Keah (2014), SACCOs are taking advantage of ICT. Many DTS use text messages and emails sent from mobile devices to inform their customers about deposit choices. Additionally, these DTS have made all their deposit products and services, together with the benefits and interest rates related to them, public on their websites. By utilizing these channels, DTS have recruited new customers, increased sales and improved performance. Over time, the cost of accessing the internet has considerably declined, making it a more effective means of service distribution.

The study result supported the findings of Kingori and Gekara (2015) and Mbugua and Omagwa (2017), who found a substantial and positive correlation between commercial banks' market presence and agency banking. The findings corroborated the innovations diffusion theory, as technology adoption has a cascading influence on financial deepening.

Product Innovation and Financial Performance

The study's specific objective was to determine how product innovation affected DT-SACCOs' financial performance in Nairobi City County. The study has shown that product innovations have a detrimental impact on DT-SACCO performance in Nairobi City County. This is according to the random effects regression model's negative coefficient. A single increase in the number of product innovations causes a decline in SACCO's financial performance while all other factors remain constant.

The findings are in line with Njeri (2013) and Keah (2014). As a method of competitive advantage to provide high-end value for their consumers in the country, SACCOs frequently use mobile phones and internet services to promote their various deposit products and services, which is correlated to SACCO size and market share. According to Njeri (2013) and Keah (2014), SACCOs are taking advantage of ICT. Many DTS use text messages and emails sent from mobile devices to inform their customers about deposit choices. Additionally, these DTS have made all their deposit products and services, together with the benefits and interest rates related to them, public on their websites. By utilizing these channels, DTS have recruited new customers, increased sales and improved performance. Over time, the cost of accessing the internet has considerably declined, making it a more effective means of service distribution.

CONCLUSION

The study aimed to determine how product innovations affected SACCOs' financial performance in Nairobi City County. The results of the random effects regression model show that product innovation had a negative impact on the financial performance of SACCOs in Nairobi City County. The results refuted the idea that product improvements in Nairobi City County improved SACCOs' financial performance.

The fundamental objective of the research was to demonstrate a connection between innovation and the performance of DT-SACCOs in Nairobi City County and was accomplished based on the study's findings. Most DT-SACCOs in Nairobi City County, according to the survey, have improved efficiency, reduced operating costs, and created new products that are integrated into their operations to increase profitability.

RECOMMENDATIONS

General Recommendation

The results from the study indicated that process innovations had a positive impact on the financial performance of DT-SACCOs in Nairobi City County. The study therefore recommends that it is essential to develop financial processes and products that can be accessed through mobile banking to increase the profitability of DT-SACCOs.

Using numerous marketing platforms, the public should be taught how to use internet banking, which will ultimately promote quicker and easier access to commercial banking services. Agency banks should be more generally accepted by the public in order to increase the number of people who bank and, consequently, the degree of financial banking among the populace.

The concept of an agency is the most recent branchless banking innovation, and it strives to increase the accessibility of commercial banking services so they can increase their profitability. The rural unbanked population must have access to small loans that will empower them because agency banking has made it possible for them to receive services.

According to the study's findings, DT-SACCOs in Nairobi City County's financial performance was affected negatively by product innovations. From the above summary and conclusion, the study recommends that the SACCOs should embrace more innovative strategies and come up with more user-friendly products, refine the existing products and come up with products that are able to serve more functions or needs thereby serving the customers more efficiently and effectively. This will help SACCOs to increase membership and increase their branch network.

Policy Recommendation

The paper highly recommends that Kenyan SACCOs adopt financial innovation strategies to boost overall productivity, profitability, and market share while also maximizing firm-specific advantages. SACCO management should embrace research and development to anticipate new and imaginative ideas to enhance their performance. The regulator and advisory body (SASRA) must create effective regulation and monitoring systems to make sure that various DTS implement financial innovation techniques that are tailored to their firm characteristics to increase their efficiency and performance. The study's scholarly conclusions link company traits, DTS performance, and financial innovations in Nairobi City County.

Limitations of the study

The study had some constraints. Secondary information was gathered from the SASSRA annual reports, SACCO websites, and financial statements. The study was additionally constrained by the level of accuracy of the secondary source data. The data could still be subject to these flaws even though it was verifiable because it originated from the SACCO Societies Regulatory Authority (SASSRA) publications. The study also faced challenges in terms of financing the research and the available time frame to fully conclude the entire data collection to make the best conclusions.

The study's scope was restricted to determining how deposit-taking SACCOs in Nairobi City County fared financially and in terms of innovation in finance. Because of this, the SACCOs that operate outside the county could not be included in the study. The research was restricted to the five-year period from 2018 to 2022. SACCOS that were not registered as DTS in any of the years were excluded from the study since the gaps might have impacted the findings.

Some of the SACCOs did not meet the five-year requirement to be eligible for the research; these SACCOs included Comoco, Magereza, Acumen, Airports, Kencream, Kimisitu, Ushuru, Wana Anga, and Nation SACCOs. Perhaps the findings of the study would have been different if these SACCOs had participated. A study with a broader time frame would have included eras with different economic significance, such boom and bust cycles. This may have given the problem a wider dimension by giving it a longer temporal focus.

Suggestions for future research

This study focused on the relationship between financial innovation and financial performance of SACCOs. The growth in the SACCO sector has an impact on the overall growth of the economy at large. Therefore, further research could explore the other aspects that may include risk management, strategic leadership, and credit management.

The study evaluated how financial innovations affected DT-SACCOs' financial performance in Nairobi City County. The study found that while product innovations have a detrimental impact on the performance of DT-SACCOs, process and institutional improvements have beneficial effects. To determine the obstacles preventing Nairobi County's DT-SACCOs from adopting financial innovations, a study might be conducted. This will assist policymakers in establishing measures that will encourage financial institutions to implement financial innovations.

The report also recommends that a follow-up study be conducted to examine how financial innovations affect DT-SACCOs financial performance using non-financial metrics like increased efficiency, marketing and customer satisfaction.

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