INNOVATIVE TECHNOLOGICAL SERVICES AND FINANCIAL PERFORMANCE OF DEPOSIT TAKING SAVINGS AND CREDIT COOPERATIVES IN NAIROBI CITY COUNTY, KENYA

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APRIL, 2018
DECLARATION

I declare that, this project is my own original work and has not been presented for award of any degree in any University.

Signed: ____________________________ Date _________________

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This research project has been submitted for the course examination with my approval as the University supervisor.

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DEDICATION

This project is dedicated to my dear family for their support love and encouragement. To my family that had to bear with my busy schedule of class, job and family affairs.

May God bless you all.
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I would like to thank the Almighty God for giving me the opportunity and strength to pursue my education. It is through His abundance grace that has brought this research work this far. This work would have not been possible without my supervisor Mr. Atheru who guided me all along the process. I acknowledge his patience, support and thank him most sincerely for his tireless efforts.

I would like to family, for their support and wonderful ideas throughout this process. I further wish to thank my brothers and sisters for their invaluable advice and companion on how to tackle the life challenges, they have always been a source of inspiration from whom I get my intelligence. Lastly, I also appreciate my friends who share this journey with me and encouraged me in the adventure of academics and have been my anchor
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ABBREVIATION AND ACRONYMS

ATM - Automated Teller Machines
BOSA - Back Office Service Activity
CBK - Central Bank of Kenya
DTM - Deposit Taking Microfinance
EFT - Electronic Record Keeping
EFTPoS - Electronic Funds Transfer at Point of Sale
FOSA - Front Office Service Activity
GDP - Gross Domestic Product
KUSCCO - Kenya Union of Savings and Credit Cooperatives
MFI - Microfinance Institution
NPL - Non-Performing Loans
PC - Personal Computer
R&D - Research and Development
ROA - Return on Asset
ROE - Return on Equity
RoK - Republic of Kenya
SACCO - Savings and Credit Cooperative
SASRA - SACCO Societies Regulatory Authority
SME - Small and Medium Enterprises
SPSS - Statistical Package for Social Sciences
OPERATIONAL DEFINITION OF TERMS

Credit card
a card issued by a financial company giving the holder an option to borrow funds, usually at point of sale. Credit cards charge interest and are primarily used for short-term financing.

Debit card
a payment card that deducts money directly from a consumer's checking account to pay for a purchase. Debit cards eliminate the need to carry cash or physical checks to make purchases.

Electronic Funds transfer
is the electronic transfer of money from one bank account to another, either within a single financial institution or across multiple institutions, via computer-based systems, without the direct intervention of bank staff

Innovative technological services
the creation and popularization of new financial instruments, technologies, markets and institutions

Internet banking
an electronic payment system that enables customers of a bank or other financial institution to conduct a range of financial transactions through the financial institution's website

Mobile banking
service provided by a bank or other financial institution that allows its customers to conduct financial transactions remotely using a mobile device such as a smartphone or tablet.
ABSTRACT
Innovative technological services are crucial to sustain organizations’ financial performance and raise their competitive strengths. Savings and credit cooperative society are the main drivers of economic and social development in rural areas of developing countries. In Kenya 81% of the population, rely on the Savings and credit cooperative society to access financial services. However, the use of Savings and credit cooperative society by Kenyans as a financial service provider has been declining. The Savings and credit cooperative societies are faced with challenges of survival due to decline of members. The decline is attributed to the competition from banks, which have embraced financial innovations. The study therefore sought to investigate the effect of innovative technological services on financial performance of Savings and credit cooperative society in Nairobi City County, Kenya. The specific objectives include; evaluating the influence of use of mobile banking, internet banking, credit/debit cards and Electronic funds transfer. The study employed descriptive survey research design and had a population of 410 of management employees that are directly involved in management of the Savings and credit cooperative societies registered and regulated by Sacco Societies Regulatory Authority in Nairobi City County. The respondents were purposively selected; top level management, middle level management and lower level management. To get the sample size 30% of the target population which is termed as a good demonstration was used for analysis. The sample was selected through stratified random sampling. Therefore, the sample size was 123 respondents. The researcher used questionnaires to collect primary data from the sample population and secondary data was collected from the Savings and credit cooperative societies’ reports and other related studies. There was a pilot test for questionnaire before carrying out the data collection to determine instrument reliability. After collection, the data was edited, coded, classified, and analysed using descriptive statistics and inferential statistics using Statistical Package for Social Sciences software. The results show that a positive relationship between financial performance and innovative technological services was established. From the findings on the multiple regression analysis, the value of R square is 0.916. This indicates that 91.6% of variance in dependent variable (financial performance) is explained by variance in the independent variables (innovative technological services). This shows that 91.6% changes in the savings and credit cooperative society financial performance could be accounted for by mobile banking services, internet banking, credit cards and electronic fund transfer at 95% confidence interval. The regression equation established, taking all factors (mobile banking services, internet banking, credit cards and electronic funds transfer) constant at zero, the financial performance of deposit taking Sacco’s will be 4.456. Further, taking all other independent variables at zero, a unit increase in mobile banking services will lead to a 0.545 increase in financial performance. A unit increase in internet banking will lead to a 0.318 increase in financial performance; a unit increase in credit cards will lead to a 0.356 increase in financial performance while a unit increase in electronic funds transfer will lead to a 0.303 increase in financial performance. The study recommended that the government should create policies that enables conducive environment for diffusion of innovations whereas academic institutions should intensify and encourage more research on innovation capabilities and financial performance of savings and credit cooperatives. Also, deposit taking savings and credit cooperatives should intensify development of technology in fund transfer since they have a considerable positive influence of financial performance.
CHAPTER ONE
INTRODUCTION

1.1 Background of the study

The modern co-operative concept began in 1844 in Rochdale village, Manchester in England. It has since developed globally as a socio-economic movement with its own distinct identity, history and purpose (Tache, 2006). In 1864 the first rural credit association was set up by Raiffeisen in German to cater for the requirements of the country individuals. The rural communities were regarded nonbank capable attributable to little, seasonal flows of cash and shortages of human resources (WOCCU 2008). Since this period there has been a quick development in the helpful development overall commenced upon the hierarchical strategies for Raiffeisen. Tache (2006) uncovers that the agreeable development spread all over Europe, Northern America, Latin America and Asia from 1900 to 1930 and from there on to Ghana by a catholic Bishop.

In Malaysia, cooperatives are community-based, have democratic roots, adaptable and have participatory inclusion, which makes them appropriate for financial advancement. They advance democratic, character and social association and also help in poverty alleviation, creation of job, economic development and improvement. Cooperatives in Malaysia are confronting numerous issues, for example, lack of capital, improper governance, poor financial performance, managerial inadequacies and non-compliance with helpful social orders Act of 1993 and its related enactments (Tehrani et al., 2014).

In Tanzania, SACCOs draw participation from the local community or a similar employer (Klinkhamer, 2009). Their individuals share a topographical territory, a
community, an employer or different affiliations (CGAP, 2005). The individuals are the sole beneficiaries, sole savers and sole leaders (Mwakajumilo, 2011). The SACCO stores radiate from members` sparing stores (Shrestha 2009). SACCO individuals enrolled high increments of earnings, resources, food consumption, education expenditure, improved housing and decline of health expenditures compared with non-individuals (Sharma et al 2005). Notwithstanding, numerous co-agents and SACCOs in Tanzania confront issues of poor administration, misappropriation, absence of working capital, poor business practice and high advance misconduct rates (Maghimbi, 2010; Mwakajumulo, 2011).

In India, co-operatives are unique as they were initiated and supported by common business needs and aspirations. They are basically welfare driven rather than profit-oriented and are legal institutions supported by the government. Despite all this, these cooperatives are dogged by problems such as inadequate capital, poor member participation, absence of common brands, inadequate managerial skills, corruption and frauds. This has engendered inefficiency and lack of competitiveness of these institutions (Siddaraju, 2012).

In Africa, the farmers advanced and enrolled cooperatives towards the ends of 1950s for cash crops like pyrethrum and coffee. In Uganda, the position of SACCOs has been heightened by the launch of government “Bonna Baga ggawale” (“Prosperity for all”) program intended among other interventions to address the inadequate access to financial services. This program is designed to use a SACCO –per-sub county strategy to channel both agricultural and commercial loans at below market rates to borrowers (Mugenyi, 2010). Micro capital monitor (2009) reveals that the government of Uganda set aside the
equivalent of US Dollars 133.7 million for subsidized loans to individuals and small businesses through government-owned microfinance support Centre to SACCOs. Nevertheless, the SACCOs are bedeviled by corporate governance challenges which include; existence of volunteer board of directors, limited individual influence despite “one person one vote” decision making system and volunteer staff (Labie et al., 2008). These challenges and others are said to be handicapping the operations of SACCOs (Kakungulu et al., 2010).

In Kenya SACCOS contribute 45% of the country’s GDP and to date the sub sector has effectively mobilized over Ksh 200 billion deposits and assets totaling to Ksh210 billion (MCD &M 2010). These enormous resources should give SACCOs a basis to compete in a liberalized environment. Wanyama (2009) posits that the new economic environment that Africa experienced in the 1990s propelled Kenya to devise new policies and regulations in 1997 in order to liberalize co-operatives. SACCOs were generally controlled by the government before liberalization in 1997 (Oyoo, 2002). In the legislation the co-operative societies Act of 2004 guides the formation and management of co-operatives in Kenya. Nevertheless, the SACCOs in Kenya are confronted by myriads challenges that include poor record keeping, loan backlogs, high illiteracy level among the SACCOs members, audit arrears, managerial deficiency, inadequate capital and heavy taxation. A study by WOCCU (2008) revealed that SACCOs are facing severe liquidity problems and majorities are unable to meet the demands of their clients for loans and withdrawal of savings. Ondieki et al (2011) contend that inadequate managerial skills and knowledge have adversely affected SACCOs in Kenya.
In Kenya, formal cooperatives started taking shape when European settlers formed the Lumbwa Cooperative Society in 1908. Currently SACCOs are credited in the world over for improving peoples’ social-economic status. SACCOs are responding gradually to the dynamic and competitive financial environment and are adopting new approaches to the original model. SACCOs movement in Kenya controls over Ksh 490 billion ($5.5 billion) in form of assets and savings, an amount equivalent to 35% of the national budget.

Mumanyi (2014) attests that the accomplishment of the agreeable development in Ghana has been broadly recreated all through the African mainland. The most punctual co-agent was set up by white pioneers in 1908 at Kipkelion in Kenya. It was enlisted under the organizations' mandate and was adapted towards apportioning dairy and horticultural help for white pilgrims (Kobia, 2011). From that point, forward administrative changes have been established to help streamline the SACCOs activities for most extreme returns for individuals. In any case, SACCOs development in Kenya has confronted various difficulties that should be tended to keeping in mind the end goal to empower it to enhance: soundness and solidness, viability and effectiveness, corporate administration, item decent variety and rivalry and in addition mix to formal budgetary framework (KUSCC, 2010). These challenges are inherent in the financial world in relation to the co-operative movement.

Financial innovation, broadly viewed as a vital constituent of competitiveness, entrenched in the organizational models, processes, products and services within a financial institution (RoK, 2013). Financial innovations refer to creation of new products, establishment of new institutions, adopting modern technology and other facets that
depict originality in the financial markets (Schumpeter, 2008). Strategic decision making, system readjustment, institutional arrangement, bringing new management, moving to new markets are some of the actions that depict financial innovation. Financial innovation boosts faster distribution of information and its faster incorporating into financial market prices (Mosongo, 2013).

Financial innovations also refer to creation of new products like telephone banking, establishment of new services like internet banking, newfangled production process like electronic record keeping (EFT) or new organizational systems (Frame & White, 2014). As financial intermediaries, SACCOs channels savings into loans, providing saving opportunities for the poor especially in the rural areas. They are a major player in the financial sector managing to mobilize above Kshs.200 billion, which is approximately 31% of the total savings in the country (CBK, 2015). Over 81% of Kenyans rely on SACCOs to access financial services, making SACCOs a critical player in the financial sector in Kenya. SACCOs have grown at a speedy rate compared to other similar co-operatives. The introduction of the Savings and Credit Cooperative Societies Act of 2008 places the responsibility of licensing, regulation and management of deposit taking under SASRA (Mwanahawa, 2012).

1.1.1 Innovative technological services

Innovative technological is a means of getting and making public new devices of financial services and technologies, organizations and markets. It includes organizational, product and method innovation. Policymakers in developing countries have long considered the value of offering financial services to the unfortunate and near poor. The
global ‘microcredit’ program that has appeared in the last decade contrasts with earlier credit programs in being more demand-driven, charging bigger interest rates, regulating costs, and emphasizing savings mobilization as a requirement for viable credit provision (Mwangi, 2013).

According to Mosongo, Gichana, Ithai and Nguta (2013) financial innovations lowers the transaction cost of transferring funds from lower yielding money balances to higher yielding alternatives. Therefore, with financial innovation market participants attempt to minimize risk and to maximize returns. Changes in international financial environment and increasing integration of domestic environment lead to financial innovation. Currently SACCO’s are providing a very stiff competition to the commercial banks, given that they have introduced currents financial innovations in service delivery. These SACCO’s just like the commercial banks have adopted innovation products such as debit cards, credit cards, ATM cards, M-pesa and others, which facilitate the use of electronic means of payment and sometimes substitute for the use of physical cash. These have made them very competitive with investors turning away from banks and opt to invest in these SACCO’s.

1.1.2 Financial Performance of Deposit Taking SACCOs

Financial performance is a measure of how well a firm can utilize assets at their disposal to generate revenue (Kihumba, 2008). It is also used as a measure of a firm's overall financial strength over a given period, and the same is used to compare similar firms in the same industry or to compare industries or sectors in aggregation. There are many different ways used to measure financial performance, but all measures should be taken
in aggregation. Common items used to measure financial performance are operating income, revenue from operations and cash flow from operations (Jayawardhera & Foley, 2000). The major ratios used to measure profitability include Return on Asset (ROA), Return on Equity (ROE) and Net Interest Margin (NIM) (Murthy, 2015).

Financial innovations are used by financial institutions as formidable strategic tool to outshine competition and are an essential means for the institutions to maintain their effectiveness and improve their performance in the market (Batiz & Woldesenbet, 2006). In the current dynamic and competitive business environment, a firm must continuously develop products in order to satisfy the constantly changing needs and desires of customers and maximize its set objectives in terms of sales volume, market share and profitability (Grundiche, 2004).

Product innovation offers a potential protection to a firm from market threats and competitors (Becheikh, Landry & Amara, 2006). Susman, Warren, Ding & Stites, (2006) proved that product innovation had positive and significant link with financial performance. All financial innovation strategies are implemented using a few basic techniques such as increasing or reducing risk, pooling risk, swapping income streams, splitting income streams and connecting long-term obligation into short-term ones (Onduko, 2013). Innovation strategy is determinant of Sacco financial performance and provides additional insight into the indirect contribution of the individual dimensions of innovation strategies to Sacco performance.
1.1.3 Deposit Taking SACCOs in Nairobi City County

Savings and Credit Cooperative Societies (SACCOs), also known as credit unions are cooperative financial institutions that are owned and controlled by their members and operated for the purposes of promoting thrift, providing credit at low interest rates and providing other financial services to members (KUSCCO, 2012). Bailey (2001), defines SACCOs as cooperatives which provide its members with convenient and secure way of saving money and obtaining credit at affordable interest rates. They are able to advance loans at interest rates lower than those charged by other financial providers (Branch, 2005). The core objective of SACCOs is to ensure member empowerment through mobilization of savings and disbursement of credit (Ofei, 2001).

In Kenya, the Sacco sub sector can be described as two-tiered given the range of financial services to members and regulatory regime. The traditional Savings and Credit Cooperative Societies (SACCOs), described in law as Non-Deposit Taking SACCOs (NDTS) provide a limited range of savings and credit products, are registered and supervised under the Cooperative Services Act, CAP 490. The Deposit Taking SACCOs (DTS) besides the basic savings and credit products, also provide basic ‘banking’ services (demand deposits, payments services and channels such as quasi banking services commonly known as ATMs), FOSA and are licensed and supervised under the Sacco Societies Act of, 2008. DTSs are licensed, regulated and supervised by SASRA, while NDTSs are supervised by the commissioner of co-operatives.

By December 2017 there were over 198 SACCOs registered with SASRA to operate as Deposit Taking SACCOs in Kenya with 101 of them being in Nairobi City County. Out
of the 101 only 96 were active (SASRA, 2017). This study therefore seeks to establish the influence that innovative technological services have on financial performance of deposit taking SACCOs in Nairobi City County, Kenya.

**1.2 Statement of the Problem**

Onduko (2013) indicated that SACCOs and other MFIs in the financial sector in Kenya risk closure and redundancy if they are not able to embrace innovative technology to counter the ever-rising competition from the commercial banks. The Savings and credit cooperative societies are faced with challenges of survival due to decline of members despite their geographical spread compared to other financial providers in the country (Kiragu, 2015). This trend in loss of customers is attributed to the competition from banks, which have embraced financial innovations thus being able to offer better services like easy access transaction accounts and consumer loans through mobile and internet platforms (Sacco Societies Regulatory Authority, 2014). This scenario has sparked off stiff competition for customers between Savings and credit cooperative society and these other Financial Institutions.

Deposits taking SACCO’s in Kenya have always straggled to keep pace with this ever-changing technology with some of the SACCOs collapsing and others operating under losses. Long lines due to increased membership, transaction error, and insecurity and network failures are the common challenges in the financial markets (Smith, 2013). This has highly lowered customer’s perception on the quality of service offered, reducing credibility in the banks and microfinance (Joseph et al., 2003).
Majority of Savings and credit cooperative societies’ growth in Kenya is decimal. Many of them still do not have Front Office Services Activity. How to strategize for financial innovation basing on the available resources to attain growth has become a great challenge (Sacco Societies Regulatory Authority, 2015). There is clear inadequacy of financial innovation among Savings and credit cooperative societies in Kenya.

Failure by previous researcher to keep updating with the current innovations in the deposit taking SACCO’s, the problems of ineffectiveness and poor financial performances in the SACCO’s are experienced. Thus this research sort to investigate the role of current financial innovations and how they affect the financial performance of SACCO’s registered with SASRA. This study looks to address this gap through looking at innovative technological services and the financial performance of Deposit Taking Savings and credit cooperative societies in Nairobi City County, Kenya.

1.3 Objective of the Study

1.3.1 General Objective

The general objective of this study was to determine the innovative technological services on financial performance of Deposit Taking SACCOs in Nairobi City County, Kenya.

1.3.2 Specific Objectives

This study was guided by the following specific research objectives

i. To evaluate the influence of mobile banking services on financial performance of Deposit Taking SACCOs in Nairobi City County.
ii. To determine the effects of internet banking on financial performance of Deposit Taking SACCOs in Nairobi City County.

iii. To examine the influence of credit cards on financial performance of Deposit Taking SACCOs in Nairobi City County.

iv. To investigate the effect of Electronic Funds transfer on financial performance of Deposit Taking SACCOs in Nairobi City County, Kenya

1.4 Research Questions

i. What is the influence of mobile banking on the financial performance of Deposit Taking SACCOs in Nairobi City County?

ii. What are effects of internet banking on the financial performance of Deposit Taking SACCOs in Nairobi City County?

iii. How does the use of credit cards influence the financial performance of Deposit Taking SACCOs in Nairobi City County?

iv. Does the Electronic funds transfer facility influence the financial performance of Deposit Taking SACCOs in Nairobi City County, Kenya?

1.5 Significance of the Study

To the regulators, this research work will provide useful information regarding innovations and its effects on the financial inclusion and deepening and hence provide a clear framework on supervision and regulation of SACCOs. It will also benefit the policy makers in creation of a conducive environment to encourage innovations at different levels in the SACCO sector. This is because; this study will encourage the various stakeholders to conduct training through seminars to educate SACCO trustees on the innovation importance and how to go about it.
Sacco’s managers will benefit from this study to improve on their market share as they
will gain knowledge on effects of financial innovation on growth, what specific financial
innovations will be of value and hence allocate more funds on them. SACCO Managers
will be able to know that they can use financial innovation to seek an alternative source
of funds instead of only relying on the contribution of their members. This will enable
them to provide members with financial services at lowered interest rates tailored to their
specific needs.

Theoretically, the study will be helpful to researchers and academicians who seek to
develop theories on financial innovations which will help them understand the
relationships that exist between financial innovations and growth of SACCOs. It will help
them build up their research work since this study provides a keen look at the financial
innovations that influence the growth of SACCOs. Academicians will use this study at
source of their study materials especially those that are specializing in SACCO and
Cooperative banking studies.

1.6 Scope of the Study
The study was limited to innovative technological services and financial performance of
Deposit Taking SACCOs in Nairobi City County. Only the four variables were focused
on: mobile banking services, internet banking services, credit and debit cards use and
electronic funds transfer services and how they influence the financial performance of
SACCOs. The study was conducted on the performance of the SACCOs for the last five
years (2013-2017). The study was done among 41 Deposit Taking Saccos in Nairobi City
County.
1.7 Limitation of the Study

The respondents approached were reluctant in giving information data expecting that the data looked for would be utilized to scare them or print a negative picture about them or their endeavors. Some could even turn down the demand to fill questionnaire. The investigation had presentation letter from the University and guaranteed them that the data they gave could be dealt with privately and it was utilized only for scholastic purposes. The researcher urged the respondents to take part without keeping down the data they might have since the examination instruments won't bear their names.

1.8 Organization of the Study

This research project comprised of five chapters. Chapter one involved background of the study, statement of the problem, purpose of the study, objectives of the study, research questions, and significance of the study, limitation of the study, assumptions of the study and organization of the study.

Chapter two reviews literature which include theoretical review, empirical review, research gaps and the conceptual framework. Chapter three deals with research methodology which explains the research design, target population, sampling design, rationale for sample selection, data collection instruments, questionnaires, validity of the research instrument, reliability, data analysis and ethical considerations while chapter four had presentation of findings and discussions. Chapter five covered the summary of findings, conclusions and recommendations.
CHAPTER TWO
LITERATURE REVIEW

2.1 Introduction

This chapter provides the literature review of the study. This chapter mainly focuses on
the innovative technological services and financial performance of Deposit Taking
SACCOs in which the relationship captures the global perspective to regional and then to
domestic level.

2.2 Theoretical Framework

This study was guided by the theory of task-technology fit, Rogers’ innovation diffusion
theory and limitation induced financial innovation theory

2.2.1 The theory of Rogers Innovation Diffusion

Rogers (1995) outlining the diffusion of innovation theory explains how financial
innovations (new) are accepted. This theory outlines five features that affect acceptance
of an innovation to include; complexity, compatibility, testability, observability and
relative advantage. Complexity refers to the innovation’s comprehension hardness and its
use (Greenhalgh, 2014).

Therefore, any financial innovation that is compatible and presents relative advantage
will be seen as a competitive advantage by SACCOs in Kenya. If the SACCOs
implement and put them into practice, many customers/clients are bound to become
members thus increasing customer base to these SACCOs, which eventually translate
into growth (Otieno, 2011). This theory indicates that SACCOs needs to come up with
technological innovations for them to gain competitive advantage. This also assist in lean operations, peak performance, effectiveness and efficiency in service delivery.

2.2.2 Task-Technology Fit Theory

As stated by Goodhue & Thompson (1995), the task-technology fit (TTF) addresses the appropriateness of the job at hand and the technology in question. The task-technology fit models have four major constructs, Technology Characteristics, Task Characteristics, which jointly affect the third one Task-Technology Fit, which later influences the outcome variable, either Performance or Usage. TTF models hypothesize that IT will be utilized if, and only if, the IT functionality are appropriate to the user tasks. Rational, knowledgeable users will choose those tools and methods that will help them complete the task with the maximum net benefit. IT that does not offer satisfactory benefits will not be used (Mosoti & Masheka, 2010). Information systems are modeled to assist users carry out tasks more efficiently and competently. SACCOs spend millions of dollars on information systems to add value to performance that eventually would translate into growth (Wyman, 2012).

IT is an important factor to SACCOs’ operations in achieving growth. Customers rationally would prefer being served quickly and sufficiently. Therefore, SACCOs that embrace technology in their daily operations aiming at attaining efficiency usually attract and impress their customers who intern become point of referrals leading to the growth of their customer base hence growth. Sufficient efficiency on tasks performed. Consequently, for efficiency of operations the IT technology must align with the errands that the specific technology is meant to support (Muthui, 2013). Technological
innovations therefore are found to be the best placed in handing firm services. Technological service innovations enhance Sacco efficiency and therefore profitability.

2.2.3 Agency Theory

Agency theory was first suggested by Stephen and Mitnick (1973). Agency theory is developed as framework for analyzing conflicting interests between key stakeholders, in addition to the development of mechanisms for resolving conflicts according to Abdullah and Valentine (2009). Besides prevalent contribution within discipline of corporate governance, agency theory application is extensive: agency theory may be applied in every situation in which one party (the principal) delegates work to another (the agent), who performs that work. Agency theory attempts to describe the relationship in terms of behavioural characteristics and provides mathematic instrument for evaluating situations between parties who lack mutual trust. The incentive for agency theory development is the relationship between ownership and control function within larger corporations.

First, the theory conceptually reduces the corporation to two participants of managers and the owners. Second, agency theory suggests that employees or managers in SACCO’s can be self-interested. Shareholders expect the agents to act and make the decisions in the principal’s interest. On the contrary, the agent may not necessarily make decisions in the best interests of the principals (Padilla, 2002). In agency theory, the agent may succumb to self-interest, opportunistic behaviour and falling short of the agreement between the interest of the principal and the agent’s pursuits. Indeed, agency theory can be employed to explore the relationship between the ownership and management structure. However, where there is a separation, the agency model can be applied to align the goals of the
management with that of the owners. The model of an employee portrayed in the agency theory is more of a self-interested, individualistic and are bounded rationality where rewards and punishments seem to take priority (Jensen & Meckling, 1976). This theory prescribes that employees must constitute a good governance structure since they are held accountable in their tasks and responsibilities. This theory will help the researcher identify and describe the parties involved in SACCO’s. The agency costs that a SACCOS incurs also affect financial performance of SACCO’s.

This theory has however been criticized. Stewardship theory rejects the agency theory assumptions and presupposes context in which managers perceive that satisfying shareholders goals is also in their personal interest. Separation of ownership and corporate control does not automatically lead to the conflict of goals and interests between owners and managers (Donaldson & Davis, 1991).

The theory is instrumental in assessing the effect of the motivation and motives of the credit officers who are instrumental in ensuring that risk management practices work and who are apprised and remunerated on the strength of their effectiveness on these tasks. The study will assess if the credit officers and committees always act on the best interest of the owners of SACCO or if there are cases of unethical practices in loaning and other agency cost challenges in the loaning by SACCOS.
2.3 Empirical review

This section reviews the findings of empirical studies done on the influence of innovative technological services on financial performance of Deposit Taking SACCOs.

2.3.1 Mobile Banking and Financial Performance

Lee, Lee and Kim (2007) in their investigation on mobile banking and budgetary execution of commercial banks in China built up that portable managing an account offers a large number of individuals a potential arrangement in developing markets that approach a mobile phone, yet excluded from the financial mainstream. It can make essential budgetary administrations more open by limiting time and separation to the closest retail bank offices (CGAP, 2006) and in addition decreasing the bank's own overheads and exchange related costs. Mobile banking introduces an opportunity for financial organizations to stretch out managing account administrations to new clients accordingly expanding their market.

Simpson (2002) recommends that e-banking is driven to a great extent by the possibilities of working costs minimization and working incomes boost. An examination of online banking in created and developing markets uncover that in created markets bring down expenses and higher incomes are more perceptible. While Sullivan (2000) finds no deliberate proof of an advantage of internet banking in US click and mortar banks, Furst, Lang, and Nolle. (2002) find that governmentally contracted US banks had higher ROE by utilizing the click and-mortar plan of action. Furst et al (2002) additionally look at the determinants of internet banking adoption and watch that more beneficial banks receive internet banking after 1998 yet they are not the primary movers. Jayawardhena and Foley
(2000) demonstrate that internet banking brings about cost and productivity picks up for banks yet not very many banks are utilizing it and just somewhat more than a large portion of a million clients are online in U.K.

A few investigations have been led on the impacts of mobile banking and the execution of commercial banks. Tchouassi (2012) looked to see if cell phones truly work to stretch out banking services administrations to the unbanked utilizing experimental Lessons from Selected Sub-Saharan Africa Countries. This investigation looked to talk about how cell phones could be utilized to stretch out banking services to the unbanked, poor and powerless populace. The examination noticed that helpless and low-wage families in Sub-Saharan Africa (SSA) nations frequently needed access to ledgers and confronted high expenses for leading fundamental money related exchanges. The cell phone exhibited an extraordinary open door for the arrangement of money related administrations to the unbanked. Notwithstanding mechanical and monetary development, arrangement and administrative advancement was expected to make these administrations a reality.

Ching et al. (2011) contemplated the components influencing Malaysian portable mobile banking adoption from the purpose of an experimental examination. This examination went for broadening the Technology Acceptance Model (TAM) to research portable mobile banking acknowledgment in Malaysia. All the more particularly, the goal of this investigation was to inspect the connections between builds of apparent value, saw convenience, social standards, saw dangers, saw inventiveness, and saw relative focal points towards conduct goal in embracing versatile managing an account. The discoveries
of this investigation uncovered that apparent helpfulness, saw convenience, relative focal points, saw dangers and individual creativity were the variables influencing the conduct expectation of versatile clients to receive portable mobile service in Malaysia. In the meantime, the social standards were the main factor observed to be irrelevant in this investigation.

### 2.3.2 Internet Banking and Financial Performance

E-banking as is commonly referred is the use of internet and networks of telecommunications networks to provide a broad array of better services and products to the clients of the banking sector. Hence internet as a medium of offering banking is a significant delivery avenue for a better reach to the continuously growing clientele hence being in a position to create and sustain good incomes to the SACCOs (Wyman, 2012). Online banking therefore does enable SACCOs’ clientele conduct routine banking activities conveniently (Devlin, 2015). Therefore financial institutions should embrace information systems to meet the clients’ expectations since they are well cognizant of technological happenings (Devlin, 2015).

A few empirical studies exist in the literature, which have inspected the relative execution of banks offering Internet managing account administrations. Egland et al. (1998) was the main critical investigation, which evaluated the quantity of US banks offering Internet saving money and dissected the structure and execution attributes of these banks. It found no confirmation of significant contrasts in the execution of the gathering of banks offering Internet managing an account exercises contrasted with those that don't offer such administrations as far as benefit, productivity or credit quality. In
any case, value-based Internet banks contrasted from different banks principally by measure. As opposed to the consequences of Egland et al. (1998), Furst et al. (2000) found that banks in every single size class offering Internet keeping money were by and large more beneficial and had a tendency to depend less vigorously on conventional saving money exercises in contrast with non-Internet banks.

A special case to the unrivaled execution of Internet banks was the anew (new businesses) Internet banks, which were less beneficial and less proficient than non-Internet de novos. The creators reasoned that Internet managing an account was too little a factor to have influenced banks' gainfulness. Sullivan (2000) found that snap and mortar banks in the tenth Federal Reserve District brought about to some degree higher working costs however balance these costs with to some degree higher charge salary. All things considered, this examination found no precise confirmation that banks were either helped or hurt by offering the Internet conveyance channel. Like the aftereffects of Furst et al., this examination additionally found that once more snap and mortar banks performed fundamentally more significantly than anew physical banks.

Ovia (2001) reasoned that managing an account in Nigeria has progressively relied upon the arrangement of Information Technology and that the IT spending plan for keeping money is by a wide margin bigger than that of some other industry in Nigeria. He fought that On-line framework has encouraged Internet keeping money in Nigeria as evidenced in some of them propelling sites. He discovered also that banks currently offer clients the adaptability of working a record in any branch independent of which branch the record is domiciled.
2.3.3 Credit cards and Financial Performance

Naim (1995) states that credit card is an agreement whereby the card guarantor be resolved to credit a specific measure of cash for somebody who is the cardholder keeping in mind the end goal to meet her or his own buys from shops that are related with the backer of the card with an agreement to acknowledge the satisfaction of cardholder's buys and that is the last settlement after each predetermined period. As per (Al-Zubaidi, 2002) charge card was characterized as a card that gives the holder the privilege to manage numerous shops that are steady with the backer of the card to acknowledge the allowing of the credit for the cardholder to pay off her or his buys, who will reimburse the estimation of buys to the bank through 25 days from the date of the purchase.

The customer pays no enthusiasm to the bank for this administration if the installment was finished amid the period yet in the event that he or she bears an interest of 1.5% on the rest of the adjust without an installment, the vender procures a commission of between 3-5% from the merchant of the aggregate estimation of the invoice. Notwithstanding indications of development, the economy is as yet rising up out of the most noticeably awful retreat in the ongoing memory, a wonder that hit the charge card guarantors hard. With shoppers spending less administrative weights compelling expenses and financing costs. Visa guarantors have encounter a material effect on wage combined with increments in wrongdoings and charge-offs, card backers have needed to climate almost remarkable turbulence. A typical test looked by the worldwide charge card industry is compacting whittling down and decreasing wallet share, especially as customers show an expanding inclination for charge over Visa. To adapt to this, the Visa
backers are actualizing forceful against steady loss, professional maintenance methodologies (Phil, 2011).

Wilfred Michoma, the KCB Group head of credit cards said that the section of SACCOs, Equity, I&M and Cooperative banks into the handling of installments business has helped increment the quantity of POS machines especially in zones which did not initially have these machines. He said that in the course of the most recent two years most POS terminals have swung to utilizing versatile lines for correspondence rather than the land line innovation utilized beforehand and thusly the postpones that used to encounter when a line is down have been tended to. Habil Olaka, the CEO of Kenya Bankers Association said the expansion can be ascribed to the acknowledgment of the utilization of plastic cash as a method of installment, instead of the long-lasting perspective of it as a grown-up toy. This has been helped extraordinarily by the take-up of innovation by the extensive retail general store chains and retailers (Business Daily posted November 21, 2012).

The utilization of the credit cards in the general public has influenced conventional shoppers, as well as vulnerable groups, for example, students, senior residents, and handicapped natives. College students have experienced childhood in the period of credit, getting to be autonomous shoppers prior throughout everyday life, and continually presented to new items and administrations accessible through charge cards. Alongside innovation and the development of the web, they turn into an engaging statistic amass for Mastercard organizations and money related foundations for an assortment of reasons. Solicitation on school grounds has caused worry among school authorities, consumer advocacy groups and administrators (Robb& Sharpe, 2009).
For many international explorers and meeting participants, life would be unquestionably troublesome without the capacity to pay by plastic card for merchandise and enterprises devoured. Most carriers, railroad systems, auto employ firms, inns and eateries currently acknowledge installment by plastic cards as do numerous retailers and other trader outlets and by doing as such they lessen the requirement for shoppers to convey trade out the nearby cash or voyager's checks. The real worldwide card relationship of Visa, Euro pay/MasterCard, American Express, Diners club and JCB all look to have their installment cards acknowledged in the vastest conceivable scope of trader outlets. In require Visa and MasterCard, the biggest two noteworthy card affiliations, each have more than 12 million acknowledgment areas all through the world, who take installment by the credit (Steve, 1995).

2.3.4 Electronic Fund Transfer and Financial Performance

Oluwatolani, Joshua & Philip (2011) explained that electronic networks that enhance funds transfer support large piles of data incorporating other technical challenges like switching EFT messages and terminal requirements. Gonzalez (2008) also observed that the e-baking has undergone real speedy developments altering traditional banking practices. Discussing the matter, Mosongo (2013) observed that thanks to the computerization of banking practices, the financial sector has become intense since the initial ATM was used - USA in 1968 that was a mere cash vending machine (Jabnoun & Al-Tamimi, 2013).
2.4 Summary of Literature Review and Research Gaps

This chapter has surveyed and summarized the existing theoretical issues and empirical literature on innovative technological services and their impact on the financial performance of SACCOs. Technology has become part and parcel of the financial services sector. SACCOs have really changed the way they do business in terms of the kind of products and services that they offer to their customers. SACCOs have utilized technology in the daily provision of services to the customers.

The available literature shows that there exists a strong relationship between technological innovation and financial performance of financial institutions such as banks and SACCOs. As noted by Ayres (2008) technology affects the wealth of companies. There is however need to investigate the specific effects of these technological innovations with a specific reference on SACCOs. This is due to the research gap that exists as there are few studies that have been done to investigate the impact of technology on financial performance of SACCOs despite their strategic positioning to adopt technological innovations such as electronic banking. The researcher intends to bridge these glaring research gaps. This study is an effort to plug this gap and to provoke more critical thinking and research in the area of integration of ICT in business.
<table>
<thead>
<tr>
<th>Author</th>
<th>TOPIC</th>
<th>Findings</th>
<th>Knowledge Gap (Compared to the Study you are Doing)</th>
<th>Study findings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Murui (2007)</td>
<td>Challenges facing use of credit and debit cards in the financial sector in Kenya</td>
<td>Limited marketing, and information among clients and poor pricing</td>
<td>The study did not focus on the influence of the use of debit and credit cards on the performance of SACCOs in Kenya but only the challenges on the use</td>
<td>The study revealed that credit cards influence financial performance of SACCOs</td>
</tr>
<tr>
<td>Donner and Tellez (2001)</td>
<td>Mobile banking and economic development in South Africa</td>
<td>Mobile banking has made transactions faster, cheaper and convenient to clients hence spurring development</td>
<td>This study only looked at the blanket development but not specifically the SACCO sector which the current study intends.</td>
<td>The study revealed that mobile banking influence financial performance of SACCOs</td>
</tr>
<tr>
<td>Mwega (2011)</td>
<td>M-banking and customer satisfaction among mid-sized SACCOs in Kenya</td>
<td>M-banking improves customer satisfaction due to improved access to banking services and products</td>
<td>The study focussed on customer satisfaction and the current one focuses on financial performance of SACCOs</td>
<td>The study revealed that there is a significant relationship Mobile banking and financial performance of SACCOs</td>
</tr>
<tr>
<td>Devlin (2015)</td>
<td>Internet banking and performance of banks in USA</td>
<td>Internet banking has improved profits and competition among banks in the USA</td>
<td>The study focussed on banks and in the USA while the current study is pegged on the financial performance of SACCOs in Kenya</td>
<td>The study revealed that there is a significant relationship Internet banking and financial performance of SACCOs</td>
</tr>
<tr>
<td>Wilson et al (2003)</td>
<td>E-banking and profitability of banks in Turkey</td>
<td>Electronic banking has improved profitability of</td>
<td>The study focussed on banks in Turkey while the current study targets</td>
<td>The study revealed that there is a</td>
</tr>
</tbody>
</table>
2.5 Conceptual framework

The conceptual framework demonstrates the relationships that exist between the dependent and independent variables under investigation. The dependent variable is financial performance of Deposit Taking SACCOs in Nairobi City County, Kenya whose main indicator is Profit margin, Return on Assets, Return on Investments and Net interest margin. The independent variables that will be investigated to establish their level of influence on the dependent variable are: mobile banking services, internet banking services, credit and debit card use and Electronic funds transfer service how they influence financial performance of SACCOs.
Figure 2.1 Conceptual Framework

Source: Author (2018)
CHAPTER THREE
RESEARCH METHODOLOGY

3.1 Introduction
This chapter discusses the methodology under the following headings: Research Design; Target Population; Sample size and sampling procedures; data collection instruments; validity of the instruments; reliability of the instruments; data collection procedures; data analysis techniques and ethical considerations.

3.2 Research Design
This research adopted descriptive survey to make assertions on how innovative technological services influences financial performance of SACCOs in Nairobi City County, Kenya. Descriptive survey research outlines can be utilized as a part of preliminary and exploratory investigations to enable analysts to assemble data and condense, exhibit and decipher information with the end goal of elucidation (Orodho, 2003).

3.3 Target Population
The target population comprised all management employees among the 41 Deposit Taking SACCOs registered and regulated by SASRA to operate in Nairobi City County who total up to 410 employees. Mugenda and Mugenda (2003) clarify that the target populace ought to have some discernible qualities, to which the specialist plans to create the aftereffects of the examination.
Table 3.1: Target Population

<table>
<thead>
<tr>
<th>Cadres of Staff</th>
<th>Population</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Top level management</td>
<td>57</td>
<td>13.90</td>
</tr>
<tr>
<td>Middle management</td>
<td>151</td>
<td>36.83</td>
</tr>
<tr>
<td>Low management</td>
<td>202</td>
<td>49.27</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>410</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

*Source: SASRA, 2018*

3.4 Sample Size and Sampling Technique

The sampling design depicts the examining methods and the example estimate for the examination. The sampling frame portrays the rundown of all populace units from which the example is chosen (Kothari, 2010). Stratified random sampling strategy was utilized as a part of a circumstance where the populace being examined is heterogeneous and in this manner can be subdivided into gatherings or strata to get a representative sample. As stated by Mugenda & Mugenda (2012) any sample size that is between 10% and 30% is a good demonstration of the target population and as a result 30% will be used for analysis. From the target population of 410 employees, the researcher will select 123 employees. These employees majorly involved those that have been involved in the management of the SACCOs. The selection was as follows:

Table 3.2 Sample Size

<table>
<thead>
<tr>
<th>Cadres of Staff</th>
<th>Population</th>
<th>Sample size</th>
</tr>
</thead>
<tbody>
<tr>
<td>Top level management</td>
<td>57</td>
<td>17</td>
</tr>
<tr>
<td>Middle management</td>
<td>151</td>
<td>45</td>
</tr>
<tr>
<td>Low management</td>
<td>202</td>
<td>61</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>410</strong></td>
<td><strong>123</strong></td>
</tr>
</tbody>
</table>

*Source: Author 2018*
3.5 Data Collection Instrument

Questionnaire was used to gather information. The instrument was produced to contain the items that are aligned towards achievement of objectives of the study. The questionnaire comprised of both closed and some open ended inquiries. Closed inquiries comprised of a settled arrangement of inquiries to be replied by the respondents in a predetermined grouping and with pre-assigned reaction choices. Open ended inquiries won't prohibitive to the respondents. The questionnaire was divided into four segments. Segment one request the respondents to fill in background data about themselves and the organizations, while the remaining three areas comprise of factors which the researcher expect to look into on

3.6 Validity and Reliability of Research instruments

3.6.1 Validity

This is the extent to which a measure, indicator or method of data collection possesses the quality of being sound or true as far as can be judged in the social sciences generally, the relationship between indicators and measures and the underlying concepts they are taken to measure is often contested (Kothari, 2010). The researcher sought for the assistance of University Supervisors to review the process used to develop the test as well as the test itself, and then make a judgment about how well items represent the intended content area. Pre-testing of the research instruments was done using two subjects randomly drawn from the population before the data collection to determine the validity.

3.6.2 Reliability

To set up the reliability and validity of the examination instrument the investigation looked for feelings of specialists in the field of concentrate particularly study’s supervisor
and lecturers in the school of business administration and management science. This encouraged the vital correction and alteration of the research instrument subsequently upgrading validity. Cronbach's Alpha was connected to gauge the co-productive of inward consistency and along these lines reliability of the instrument. General scales' reliability of the current circumstance and the attractive circumstance was tried by Cronbach's alpha, which ought to be over the acceptance level of 0.70 (Hair et al., 1998). Alpha over the estimation of 0.7 was viewed as adequate (George and Mallery, 2003).

3.7 Data Analysis and Presentation

The primary information gathered was sorted for ease of analysing. The information was then be edited, coded and characterized with the guide of the Statistical Package of Social Sciences (SPSS) version 21. Descriptive statistics method was utilized to depict or condense the information in a way that empowered an analyst to genuinely portray a dissemination of estimations or qualities utilizing a couple of lists or measurements. Data was presented using frequency tables and percentages.

Data was also be analyzed using a multiple linear regression model which was aimed at establishing influence of the independent variables on the dependent variable. A regression model will be used to test the influence of innovative technological services and financial performance of Deposit Taking SACCOs in Nairobi City County, Kenya. The general form of multiple Regression: \[ Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \epsilon \]

Where; \( Y \) = Financial Performance of Deposit Taking SACCOs

\( X_1 \) = Mobile banking

\( X_2 \) = Internet banking
X₃ = Credit and debit cards
X₄ = electronic funds transfer
β₀ = Constant Term;
β₁, β₂, β₃, β₄ = Beta coefficients; ɛ = Error Term.

3.8. Ethical considerations

The researcher guaranteed that the data gathered was taken care of and treated with most extreme privacy. The research questionnaire has the choice of showing or not demonstrating the character of the respondent. The researcher clarified the goal of completing the examination before starting the procedure of information gathering and in this manner the cooperation in the investigation was through deliberate and educated assent. Every one of the respondents was treated with extraordinary regard and cordiality. The researcher advised the respondents that no remuneration gathered from taking an interest in the examination and further that the aftereffects of the investigation was shared upon completion of the study.
CHAPTER FOUR
DATA ANALYSIS AND INTERPRETATION

4.1 Introduction

This chapter presents the findings and interpretations of the results based on the objective of the study which include influence of mobile banking services, internet banking, credit cards and electronic Funds transfer on financial performance of Deposit Taking SACCOs in Nairobi City County, Kenya.

4.2 Response rate

The sample size of this study was 123 respondents out of which 100 filled and returned their questionnaires, which represents a response rate of 81.3%. This correlates with Mugenda and Mugenda (2003) recommendation that a response rate of 50% is adequate for analysis and reporting; a rate of 60% is good and a response rate of 70% and over is excellent. This indicates that the response rate from this study was excellent.

Table 4.1 Response Rate

<table>
<thead>
<tr>
<th>Response Rate</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Response</td>
<td>100</td>
<td>81.3</td>
</tr>
<tr>
<td>Non Response</td>
<td>23</td>
<td>18.7</td>
</tr>
<tr>
<td>Total</td>
<td>123</td>
<td>100</td>
</tr>
</tbody>
</table>

*Source: SACCOs data (2018)*
4.3 Demographic Information

The demographic information presented is on gender, level of education, department of operation and duration the respondents had been working in the industry and their organization.

4.3.1 Gender of the respondents

The study sought to find out the gender distribution of the respondents at the SACCOs management.

It was revealed that 65% of the respondents were male while 35% were female as indicated on figure 4.1. This indicates that majority of the respondents were masculine gender and the least was the feminine gender however either gender was represented.

4.3.2 Level of Education

The respondents were asked to indicate their highest level of education. The findings were as shown in Table 4.2.
Table 4.2 Level of Education

<table>
<thead>
<tr>
<th>Academic level</th>
<th>f</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Master level</td>
<td>27</td>
<td>27</td>
</tr>
<tr>
<td>Bachelor degree</td>
<td>56</td>
<td>56</td>
</tr>
<tr>
<td>Diploma level</td>
<td>17</td>
<td>17</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>100</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

*Source: SACCOs data (2018)*

Respondent’s level of education was considered important in this study in respect to responding to the research instruments as well innovative technological services and their effects on financial performance of deposit taking SACCOs. The research study findings shows, (56%) of the respondents had attained graduate degree qualification, (27%) had attained master degree and (17%) had attained diploma level.

4.3.3 Departments of the respondents

The study sought to establish the departments to which the respondents belonged to. The findings were presented in Figure 4.2.
From the findings, 36% of the respondents belonged to e-banking department, 28% to consumer credit unit, 22% to business banking and 14% to personal banking. This indicated that majority of the respondents were in the e-bank department however all departments were represented.

4.3.4 Period in the SACCOs sector

The study sought to establish the period of time the respondents had been in the SACCOs sector. The results were tabulated in Figure 4.3.
The result in Figure 4.2 revealed that 44% of the respondents indicated that they had been working with SACCOs for 1-5 years, 27% between 6 and 10 years, 16% less than 1 year and 13% more than 10 years. This shows that majority of the respondents had been working with SACCOs sector for between 1 and 5 years.

4.4 Descriptive Statistics

4.4.1 Mobile Banking Services and financial performance

The objective one was to evaluate the influence of mobile banking services on financial performance of Deposit Taking SACCOs in Nairobi City County. The respondents were to rate the parameters of mobile banking services on a scale of 1 to 5 where 1, not at all, 2 low extent, 3 moderate extent, 4 to great extent and 5 to a very great extent. The means and standard deviations were developed.
Table 4.3 Influence of mobile banking services on financial performance of Deposit Taking SACCOs

<table>
<thead>
<tr>
<th>Parameters</th>
<th>Mean</th>
<th>SDEV</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mobile banking network is sufficient</td>
<td>3.43</td>
<td>0.585</td>
</tr>
<tr>
<td>The SACCO has partnered with all mobile subscribers to deliver banking services</td>
<td>3.36</td>
<td>0.752</td>
</tr>
<tr>
<td>Most products can be accessed on the mobile platform by consumers</td>
<td>3.15</td>
<td>0.715</td>
</tr>
<tr>
<td>Mobile banking platform for the SACCO is dependable and trusted</td>
<td>3.85</td>
<td>0.546</td>
</tr>
<tr>
<td>Mobile banking reduces the cost of transactions</td>
<td>2.74</td>
<td>0.549</td>
</tr>
<tr>
<td>Mobile banking has increased the rate and number of transactions</td>
<td>2.72</td>
<td>0.789</td>
</tr>
</tbody>
</table>

Source: SACCOs data (2018)

From finding in table 4.3 the respondents agreed that; mobile banking network is sufficient, the SACCO has partnered with all mobile subscribers to deliver banking services, most products can be accessed on the mobile platform by consumers and mobile banking platform for the SACCO is dependable and trusted with mean of 3.43, 3.36, 3.15 and 3.85 respectively. Mobile banking introduces an opportunity for financial organizations to stretch out managing account administrations to new clients accordingly expanding their market. However, mobile banking reduces the cost of transactions and mobile banking has increased the rate and number of transactions was low as represented by mean of 2.74 and 2.72 respectively. The study findings correlates with Lee, Lee and Kim (2007) in their investigation on mobile banking and budgetary execution of commercial banks in China built up that portable managing an account offers a large
number of individuals a potential arrangement in developing markets that approach a mobile phone, yet excluded from the financial mainstream. Ching et al. (2011) contemplated the components influencing Malaysian portable mobile banking adoption from the purpose of an experimental examination.

4.4.2 Internet Banking and financial performance

The objective two was to determine the effects of internet banking on financial performance of Deposit Taking SACCOs in Nairobi City County. The respondents were to rate the parameters of internet banking services on a scale of 1 to 5 where 1, not at all, 2 low extent, 3 moderate extent, 4 to great extent and 5 to a very great extent. The means and standard deviations were developed.

Table 4.4 Effects of internet banking on financial performance of Deposit Taking SACCOs in Nairobi City County

<table>
<thead>
<tr>
<th>Statement</th>
<th>Mean</th>
<th>SDEV</th>
</tr>
</thead>
<tbody>
<tr>
<td>Internet banking has increased geographical coverage of the SACCO</td>
<td>4.26</td>
<td>0.664</td>
</tr>
<tr>
<td>Internet banking has improved customer liquidity</td>
<td>3.97</td>
<td>0.528</td>
</tr>
<tr>
<td>Internet banking is cost effective for clients and the SACCO</td>
<td>3.96</td>
<td>0.558</td>
</tr>
<tr>
<td>It has enhanced penetration of banking services to unbanked markets</td>
<td>3.94</td>
<td>0.515</td>
</tr>
<tr>
<td>Enhances access of full range of banking products to informal settings</td>
<td>3.78</td>
<td>0.634</td>
</tr>
<tr>
<td>It is the backbone of electronic money banking</td>
<td>3.98</td>
<td>0.588</td>
</tr>
</tbody>
</table>

Source: SACCOs data (2018)
Table 4.4 present responses on internet banking; from the results majority of the respondents agreed that internet banking has increased geographical coverage of the SACCO (mean = 4.26), internet banking has improved customer liquidity (mean = 3.97), Internet banking is cost effective for clients and the SACCO (mean = 3.96), it has enhanced penetration of banking services to unbanked markets (mean = 3.94), enhances access of full range of banking products to informal settings (mean = 3.78) and it is the backbone of electronic money banking (mean = 3.98). The findings collaborates with Egland et al. (1998) noted that no confirmation of significant contrasts in the execution of the gathering of banks offering Internet managing an account exercises contrasted with those that don't offer such administrations as far as benefit, productivity or credit quality. Internet managing an account was too little a factor to have influenced banks' gainfulness. Hence internet as a medium of offering banking is a significant delivery avenue for a better reach to the continuously growing clientele hence being in a position to create and sustain good incomes to the SACCOs (Wyman, 2012). It found no confirmation of significant contrasts in the execution of the gathering of banks offering Internet managing an account exercises contrasted with those that don't offer such administrations as far as benefit, productivity or credit quality. In any case, value-based Internet banks contrasted from different banks principally by measure.

4.4.3 Credit cards and financial performance

The objective three was to examine the influence of credit cards on financial performance of Deposit Taking SACCOs in Nairobi City County. The respondents were to rate the parameters of Credit cards services on a scale of 1 to 5 where 1, not at all, 2 low extent, 3
moderate extent, 4 to great extent and 5 to a very great extent. The means and standard deviations were developed

**Table 4.5 Influence of credit cards on financial performance of Deposit Taking SACCOs**

<table>
<thead>
<tr>
<th>Statement</th>
<th>Mean</th>
<th>SDEV</th>
</tr>
</thead>
<tbody>
<tr>
<td>Most customers have credit cards</td>
<td>3.19</td>
<td>0.809</td>
</tr>
<tr>
<td>The SACCO promotes use of cards to transact</td>
<td>3.32</td>
<td>0.817</td>
</tr>
<tr>
<td>The ATM network is sufficient</td>
<td>3.54</td>
<td>0.559</td>
</tr>
<tr>
<td>The ATMs are strategically located close to customers</td>
<td>3.63</td>
<td>0.884</td>
</tr>
<tr>
<td>The ATM machines are of modern technology</td>
<td>3.98</td>
<td>0.847</td>
</tr>
<tr>
<td>ATM machines are dependable and trusted</td>
<td>2.58</td>
<td>0.795</td>
</tr>
<tr>
<td>ATM machines reduce the cost of transactions</td>
<td>3.03</td>
<td>0.963</td>
</tr>
<tr>
<td>ATMs have increased the rate and number of transactions</td>
<td>2.45</td>
<td>0.857</td>
</tr>
</tbody>
</table>

*Source: SACCOs data (2018)*

Table 4.5 shows the study findings on influence of credit cards financial performance of Deposit Taking SACCOs, majority agreed that ATM machines are of modern technology (mean = 3.98), the ATMs are strategically located close to customers (mean = 3.63), the ATM network is sufficient (mean = 3.54), the SACCO promotes use of cards to transact (mean = 3.32), most customers have credit cards (mean = 3.19). However, few respondents agreed that ATM machines are dependable and trusted (mean = 2.58), ATM machines reduce the cost of transactions (mean = 3.03). Moreover, very few respondents agreed that ATMs have increased the rate and number of transactions (mean = 2.45). The findings agreed with Wilfred Michoma (2012) findings revealed that the section of SACCOs, Equity, I&M and Cooperative banks into the handling of installments business has helped increment the quantity of POS machines especially in zones which did not initially have
these machines. The utilization of the credit cards in the general public has influenced conventional shoppers, as well as vulnerable groups, for example, students, senior residents, and handicapped natives. Alongside innovation and the development of the web, they turn into an engaging statistic amass for Mastercard organizations and money related foundations for an assortment of reasons. According to Robb and Sharpe (2009) alongside innovation and the development of the web, they turn into an engaging statistic amass for Mastercard organizations and money related foundations for an assortment of reasons. Solicitation on school grounds has caused worry among school authorities, consumer advocacy groups and administrators.

4.4.4 Funds transfer and financial performance

The objective four was to determine the effect of Electronic Funds transfer on financial performance of Deposit Taking SACCOs in Nairobi City County, Kenya. The respondents were to rate the parameters of Credit cards services on a scale of 1 to 5 where 1, not at all, 2 low extent, 3 moderate extent, 4 to great extent and 5 to a very great extent. The means and standard deviations were developed.
Table 4.6 Effect of Electronic Funds transfer on financial performance of Deposit Taking SACCOs

<table>
<thead>
<tr>
<th>Statement</th>
<th>Mean</th>
<th>SDEV</th>
</tr>
</thead>
<tbody>
<tr>
<td>Most customers use the EFT platform to receive money</td>
<td>3.55</td>
<td>0.857</td>
</tr>
<tr>
<td>The SACCO promotes use of EFT to transact</td>
<td>3.44</td>
<td>0.689</td>
</tr>
<tr>
<td>The EFT network is sufficient</td>
<td>3.56</td>
<td>0.724</td>
</tr>
<tr>
<td>The EFT services by most agencies like money gram, western union etc. are available</td>
<td>3.53</td>
<td>0.788</td>
</tr>
<tr>
<td>The EFT machines are of modern technology</td>
<td>3.21</td>
<td>0.578</td>
</tr>
<tr>
<td>EFT services are safe and fast in money transfer</td>
<td>3.25</td>
<td>0.782</td>
</tr>
<tr>
<td>EFT services reduce the cost of transactions</td>
<td>3.12</td>
<td>0.751</td>
</tr>
<tr>
<td>EFT services have increased the rate and number of transactions</td>
<td>3.58</td>
<td>0.886</td>
</tr>
</tbody>
</table>

*Source: SACCOs data (2018)*

From table 4.6, it was realized that electronic funds transfer influence financial performance of deposit taking SACCOs. The findings revealed that respondents agreed that EFT services have increased the rate and number of transactions (mean = 3.58), The EFT network is sufficient (mean = 3.56), Most customers use the EFT platform to receive money (mean = 3.55), The SACCO promotes use of EFT to transact (mean = 3.44). However, only few respondents agreed that EFT services are safe and fast in money transfer (mean = 3.25), The EFT machines are of modern technology (mean = 3.21) and EFT services reduce the cost of transactions (mean = 3.12). Electronic networks enhance funds transfer support of large piles of data. The results concur with Mosongo (2013)
observed that thanks to the computerization of banking practices, the financial sector has become intense since the initial ATM was used - USA in 1968 that was a mere cash vending machine.

4.5 Regression Analysis

The researcher conducted multiple regression analysis to examine the influence of innovative technological services on financial performance of Deposit Taking SACCOs in Nairobi City. The findings are indicated in subsequent sections;

**Table 4.7 Model Summary**

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0.933</td>
<td>0.916</td>
<td>0.720</td>
<td>0.396</td>
</tr>
</tbody>
</table>

*Source: SACCOs data (2018)*

The table above indicates the model summary. From the findings, R was 0.933, adjusted R square was 0.720 and R squared was 0.916. An R square of 0.916 implies that 91.6% of changes on financial performance of Deposit Taking SACCOs are explained by the independent variables of the study. There are however other factors that influence financial performance of Deposit Taking SACCOs are not included in the model which account for 8.4%. An R of 0.933 on the other hand signifies strong positive correlation between the variables of the study.
Table 4.8 ANOVA

<table>
<thead>
<tr>
<th>Model</th>
<th>SS</th>
<th>df</th>
<th>MS</th>
<th>F</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>468.12</td>
<td>5</td>
<td>475.4</td>
<td>5785.16</td>
<td>0.0006</td>
</tr>
<tr>
<td>Residual</td>
<td>256.55</td>
<td>331</td>
<td>0.952</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>724.67</strong></td>
<td><strong>336</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Source: SACCOs data (2018)*

From the ANOVA table above, the value of F calculated is 578.16 while F critical is 475.4. Since the value of F calculated is greater than F critical, the overall regression model was significant and therefore a reliable indicator of the study findings. In terms of p values, the study indicated 0.000 which is less than 0.05 and therefore statistically significant. Magali (2015), Mugo (2012), Omondi (2013), Njeri (2012) Kanzi (2011) found positive results in the relationship between innovativeness financially and growth of SACCOs in Kenya.
### Table 4.9 Regression Coefficients

<table>
<thead>
<tr>
<th>Variables</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>(Constant)</td>
<td>4.456</td>
<td>0.317</td>
<td>6.924</td>
<td>.0006</td>
</tr>
<tr>
<td>Mobile Banking Services</td>
<td>0.545</td>
<td>0.0163</td>
<td>0.155</td>
<td>1.850</td>
</tr>
<tr>
<td>Internet Banking</td>
<td>0.318</td>
<td>0.0281</td>
<td>0.0326</td>
<td>3.535</td>
</tr>
<tr>
<td>Credit cards</td>
<td>0.356</td>
<td>0.0415</td>
<td>0.2323</td>
<td>2.624</td>
</tr>
<tr>
<td>Electronic Funds transfer</td>
<td>0.303</td>
<td>0.0204</td>
<td>0.0487</td>
<td>3.156</td>
</tr>
</tbody>
</table>

*Source: SACCOs data (2018)*

In addition, the researcher conducted a multiple regression analysis so as to determine the relationship between financial performance of Deposit Taking SACCOs and the four variables. As per the SPSS generated table, the equation \( Y = \beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \beta_4X_4 + \varepsilon \) becomes:

\[
Y = 4.456 + 0.545X_1 + 0.318X_2 + 0.356X_3 + 0.303\beta_4X_4
\]

Where \( Y \) = financial performance of Deposit Taking SACCOs

\( X_1 = \) Mobile Banking Services

\( X_2 = \) Internet Banking

\( X_3 = \) Credit cards

\( X_4 = \) Electronic Funds transfer
According to the regression equation established, taking all factors (mobile banking services, internet banking, credit cards and electronic funds transfer) constant at zero, the financial performance of Deposit Taking SACCOs will be 4.456. Further, taking all other independent variables at zero, a unit increase in mobile banking services will lead to a 0.545 increase in financial performance. A unit increase in internet banking will lead to a 0.318 increase in financial performance; a unit increase in credit cards will lead to a 0.356 increase in financial performance while a unit increase in electronic funds transfer will lead to a 0.303 increase in financial performance. This infers that mobile banking services contributed more to the financial performance of the Deposit Taking SACCOs.

At 5% level of significance and 95% level of confidence, mobile banking services had a 0.0005 level of significance; internet banking had a 0.0018 level of significance, credit cards showed a 0.0036 level of significant, while electronic fund transfer showed a 0.0020 level of significance. Hence, knowledge mobile banking services are the most significant factor in contributing to the financial performance of Deposit Taking SACCOs. The findings agreed with Wyman (2012) noted that Mobile banking is a complementary avenue through which banking services can be offered. This therefore is seen by SACCOs as a better means to serve its wide and ever-growing customer base with quality service, fast, efficient and convenient manner. It is also believed to create good revenue to SACCOs thus leading to profitability and growth.
CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter provides a summary of the major findings of the actual study; it then draws conclusions and finally, it makes some recommendations and suggestions on areas of further study.

5.2 Summary of the study findings

The test results to examine the effects innovative technological services on financial performance of deposit taking SACCOs in Nairobi City County, Kenya was examined using both regression and correlation analysis. The model coefficient for correlation and regression were all positive and contributed significantly to financial performance of deposit taking SACCOs (mobile banking services, internet banking, credit cards and electronic fund transfer) adopted by deposit taking SACCOs and matched the specific requirements of SACCOs and consequently contributed positively towards financial performance.

A positive relationship between financial performance and innovative technological services was established. From the findings on the multiple regression analysis, the value of R square is 0. 916. This indicates that 91.6% of variance in dependent variable (financial performance) is explained by variance in the independent variables (innovative technological services). This shows that 91.6% changes in the SACCOs financial performance could be accounted for by mobile banking services, internet banking, credit cards and electronic fund transfer at 95% confidence interval. The
correlation coefficient (R) of 0.933 showed that there is a strong positive relationship between innovative technological services and financial performance.

Mobile banking service has a positive effect on increasing financial performance of deposit taking SACCOs. At 5% level of significance and 95% level of confidence, mobile banking services had a 0.0005 level of significance. Mobile banking is driven to a great extent by the possibilities of working costs minimization and working incomes boost.

Internet banking correlate positively with financial performance of deposit taking SACCOs. At 5% level of significance and 95% level of confidence, internet banking services had a 0.0018 level of significance. Internet banking enhances internet managing and administrations of the banks activities.

Credit cards positively correlate with financial performance of deposit taking SACCOs. It has 0.0036 level of significant. Innovation and the development of the credit cards, they turn into an engaging statistic amass for MasterCard organizations and money related foundations for an assortment of reasons. Similarly, electronic fund transfer positively influence financial performance of deposit taking SACCOs with 0.0020 level of significance. Electronic networks that enhance funds transfer support large piles of data incorporating.

5.3 Conclusion

Based on the findings of the study, it can be concluded that innovations influence financial performance of deposit taking SACCOs in Nairobi City County, Kenya. The adoption of innovations by deposit taking SACCOs has a high potential of improving
financial performance. SACCOs in Nairobi City, Kenya have continued to perform well even when other sectors of the economy show lagged performance. This can be explained by the use of innovations which have enabled SACCOs to start making income away from interest, trade and asset financing. Through mobile banking, internet banking, credit cards and electronic fund transfer, SACCOs have made more commission income from transactions.

The findings of the study revealed a benefit relationship between innovative technological services and financial performance of deposit taking SACCOs in Nairobi City County. The correlation of coefficient (R) of 0.933 the between innovation technological services and financial performance supports these findings. Additional, the relationship between innovation technological services and financial performance of deposit taking SACCOs is statistically significant as the p value of regression is 0.006, which is less than 0.05. The Findings infers that deposit taking SACCOs in the Nairobi City County have developed innovation technological services with the intent of gaining profit hence enhance financial performance.

5.4 Recommendation

The following recommendations were made based on study findings:

SACCOs should relate their monetary policy instruments to their financial reports. This should indicate the appropriate effect of each financial innovation.

Deposit taking SACCOs should intensify development of technology especially in innovation process, internet banking and electronic fund transfer since they have a considerable positive influence of financial performance.
Since innovative is a major factor affecting the performance of SACCOs, the government should create policies that enables conducive environment for diffusion of innovations whereas academic institutions should intensify and encourage more research on innovation capabilities and financial performance for SACCOs.

Deposit taking SACCOs should continue to invest in new and emerging financial innovative technology to continue realizing the benefits that accrue from new financial innovations e.g. improved customer satisfaction and reduced operational costs.

5.5 Recommendations for further study

From the research findings, introduction of innovative technological services do not account for 100% change in financial performance. It is therefore important that further studies be conducted on other emerging factors affecting financial performance of SACCOs. Also, a study should be conducted on the effects of innovative technological services on financial performance of deposit taking SACCOs in different counties.
REFERENCES


APPENDICES

APPENDIX 1: COVER LETTER

John Kamau
Kenyatta University
P.O. Box
NAIROBI.

RE: Request to fill in the Questionnaire

Dear Respondent,

I am a graduate student at Kenyatta University, carrying out research on the effect of innovative technological services on financial performance of Deposit Taking SACCOs in Nairobi City County being the case study. This is in partial fulfilment of the requirement of the Master of Business Administration degree program at the Kenya University.

You have been randomly selected among many to participate in this study. It is estimated that it will take less than twenty (20) minutes of your time to complete the questionnaire. Please respond as honestly and objectively as possible. Your participation is very essential for the accomplishment of this study and it will be highly appreciated. I guarantee that the information that you will provide will be treated with the utmost confidentiality and will be used only for academic purposes.

This is an academic research and confidentiality is strictly emphasized, your name will not appear anywhere in the report. Kindly spare some time to complete the questionnaire attached.

Thanks
Yours
faithfully,

John Kamau
APPENDIX II: RESEARCH QUESTIONNAIRE

Section A: GENERAL INFORMATION

1) Gender:

Male [ ]
Female [ ]

2) What is your highest level of education?

Diploma [ ]
Bachelor degree [ ]
Master’s degree [ ]
PhD level [ ]

3) In which of the following departments do you work?

a) e-banking unit [ ]
b) Consumer credit unit [ ]
c) Business banking [ ]
d) Personal banking [ ]
f) Others (Please state) .................................................................

3) For how long has this SACCO been in operation in Kenya? (Tick as appropriate)

a) Less than 1 year [ ]
b) 1 to 5 years [ ]
c) 6 to 10 years [ ]
d) 11 years and above [ ]

SECTION B: MOBILE BANKING AND SACCO PERFORMANCE

10. On a scale of 1-5 (1, not at all, 2 low extent, 3 moderate extent, 4 to great extent and 5 to a very great extent) rate the following indicators of mobile banking coverage according to your SACCO and how it has influenced performance.
Mobile banking network is sufficient

The SACCO has partnered with all mobile subscribers to deliver banking services

Most products can be accessed on the mobile platform by consumers

Mobile banking platform for the SACCO is dependable and trusted

Mobile banking reduces the cost of transactions

Mobile banking has increased the rate and number of transactions

11. What are the challenges of mobile banking in your SACCO?

12. What are some of the areas to improve on in mobile banking in your SACCO?

SECTION C: INTERNET BANKING AND SACCO PERFORMANCE

7. On a scale of 1-5 (1, not at all, 2 low extent, 3 moderate extent, 4 to great extent and 5 to a very great extent) rate the following indicators of internet banking according to your SACCO and how it has influenced performance.

<table>
<thead>
<tr>
<th>Internet Banking</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Internet banking has increased geographical coverage of the SACCO</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Internet banking has improved customer liquidity</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Internet banking is cost effective for clients and the SACCO
It has enhanced penetration of banking services to unbanked markets
Enhances access of full range of banking products to informal settings
It is the backbone of electronic money banking

8. What are the challenges of internet banking among SACCOs in Kenya?

9. What are some of the areas of improvement on internet banking in your SACCO?

SECTION D: CREDIT CARDS AND SACCO PERFORMANCE

4. On a scale of 1-5 (1, not at all, 2 low extent, 3 moderate extent, 4 to great extent and 5 to a very great extent) rate the following indicators of use of credit cards according to your SACCO and how it has influenced performance.

<table>
<thead>
<tr>
<th>ATM Network</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Most customers have credit cards</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The SACCO promotes use of cards to transact</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The ATM network is sufficient</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The ATMs are strategically located close to customers</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The ATM machines are of modern technology</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
ATM machines are dependable and trusted

ATM machines reduce the cost of transactions

ATMs have increased the rate and number of transactions

5. What are the challenges associated with credit card use among SACCOs in Kenya?

6. What measures should your SACCO put in place to ensure credit cards service customers well and contribute to SACCO performance?

SECTION E: ELECTRONIC FUNDS TRANSFER AND SACCO PERFORMANCE

13. On a scale of 1-5 (1, not at all, 2 low extent, 3 moderate extent, 4 to great extent and 5 to a very great extent) rate the following indicators of use of EFT according to your SACCO and how it has influenced performance.

<table>
<thead>
<tr>
<th>ATM Network</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Most customers use the EFT platform to receive money</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The SACCO promotes use of EFT to transact</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The EFT network is sufficient</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The EFT services by most agencies like money gram, western</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
union etc are available

The EFT machines are of modern technology

EFT services are safe and fast in money transfer

EFT services reduce the cost of transactions

EFT services have increased the rate and number of transactions

SECTION F: PERFORMANCE OF SACCOS

14. Organisation performance can be measured along various indicators; to what extent has your Organisation achieved improvement along these terms;

Key: (5) Very large extent (4) large extent (3) moderate extent (2) less extent (1) not at all

<table>
<thead>
<tr>
<th>Performance Indicators</th>
<th>5</th>
<th>4</th>
<th>3</th>
<th>2</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Improvement of internal processes for increased efficiency</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The employee turnover has reduced due to satisfaction</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Customer loyalty has increased due to e-banking</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Brand recognition in the market has improved</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Improvement of services due to introduction of E banking</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Growth of bank due to branch network</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Increased transactions due to mobile banking</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

15. Over the Period 2011-2015, what has been your Sacco’s performance? Kindly
fill in figures as per below outline.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Net Income</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Revenues</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Expenses</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total assets</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total shareholders’ Equity</td>
<td></td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

Thank you for your co-operation.
APPENDIX III: SASRA LICENSED DEPOSIT TAKING SACCOS SOCIETIES IN NAIROBI CITY COUNTY FOR PERIOD ENDING 31ST DECEMBER 2017

<table>
<thead>
<tr>
<th>NO</th>
<th>NAME OF SOCIETY</th>
<th>POSTAL ADDRESS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>AFYA SACCO SOCIETY LTD</td>
<td>P.O. BOX 11607 – 00400, NAIROBI.</td>
</tr>
<tr>
<td>2</td>
<td>AIPORTS SACCO SOCIETY LTD</td>
<td>P.O BOX 19001-00501 NAIROBI.</td>
</tr>
<tr>
<td>3</td>
<td>ARDHI SACCO SOCIETY LTD</td>
<td>P.O. BOX 28782-00200, NAIROBI.</td>
</tr>
<tr>
<td>4</td>
<td>ASILI SACCO SOCIETY LTD</td>
<td>P.O. BOX 49064 – 00100, NAIROBI.</td>
</tr>
<tr>
<td>5</td>
<td>CHAI SACCO SOCIETY LTD</td>
<td>P.O. BOX 278-00200, NAIROBI.</td>
</tr>
<tr>
<td>6</td>
<td>CHUNA SACCO SOCIETY LTD</td>
<td>P.O. BOX 30197 – 00100, NAIROBI.</td>
</tr>
<tr>
<td>7</td>
<td>ELIMU SACCO SOCIETY LTD</td>
<td>P.O BOX 10073-00100, NAIROBI.</td>
</tr>
<tr>
<td>8</td>
<td>FUNDILIMA SACCO SOCIETY LTD</td>
<td>P.O. BOX 62000 – 00200, NAIROBI.</td>
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<tr>
<td>9</td>
<td>HARAMBEE SACCO SOCIETY LTD</td>
<td>P.O. BOX 47815 – 00100, NAIROBI.</td>
</tr>
<tr>
<td>10</td>
<td>HAZINA SACCO SOCIETY LTD</td>
<td>P.O. BOX 59877 – 00200, NAIROBI.</td>
</tr>
<tr>
<td>11</td>
<td>JAMII SACCO SOCIETY LTD</td>
<td>P.O. BOX 57929 – 00200, NAIROBI.</td>
</tr>
<tr>
<td>12</td>
<td>KENPIPE SACCO SOCIETY LTD</td>
<td>P.O. BOX 314 – 00507, NAIROBI.</td>
</tr>
<tr>
<td>13</td>
<td>KENVERSITY SACCO SOCIETY LTD</td>
<td>P.O. BOX 10263 – 00100, NAIROBI.</td>
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<tr>
<td>14</td>
<td>KENYA BANKERS SACCO SOCIETY LTD</td>
<td>P.O. BOX 73236 – 00200, NAIROBI.</td>
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<tr>
<td>15</td>
<td>KENYA POLICE SACCO SOCIETY LTD</td>
<td>P.O. BOX 51042 – 00200, NAIROBI.</td>
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<tr>
<td>16</td>
<td>KINGDOM SACCO SOCIETY LTD</td>
<td>P.O. BOX 8017 – 00300, NAIROBI.</td>
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<tr>
<td>17</td>
<td>MAGEREZA SACCO SOCIETY LTD</td>
<td>P.O. BOX 53131 – 00200, NAIROBI.</td>
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<tr>
<td>18</td>
<td>MAISHA BORA SACCO SOCIETY LTD</td>
<td>P.O. BOX 72713 – 00200, NAIROBI.</td>
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<tr>
<td>19</td>
<td>METROPOLITAN NATIONAL SACCO SOCIETY LTD</td>
<td>P.O. BOX 5684 – 00100, NAIROBI.</td>
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<tr>
<td>20</td>
<td>MWALIMU NATIONAL SACCO SOCIETY LTD</td>
<td>P.O. BOX 62641 – 00200, NAIROBI.</td>
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<tr>
<td>21</td>
<td>MWITO SACCO SOCIETY LTD</td>
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<tr>
<td>22</td>
<td>NACICO SACCO SOCIETY LTD</td>
<td>P.O. BOX 34525 – 00100, NAIROBI.</td>
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<tr>
<td>23</td>
<td>NAFAKA SACCO SOCIETY LTD</td>
<td>P.O. BOX 30586 – 00100, NAIROBI.</td>
</tr>
<tr>
<td>24</td>
<td>NASSEFU SACCO SOCIETY LTD</td>
<td>P.O. BOX 43338 – 00100, NAIROBI.</td>
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</tbody>
</table>

65
<table>
<thead>
<tr>
<th></th>
<th>25</th>
<th>NATIONAL SACCO SOCIETY LTD</th>
<th>P.O. BOX 22022 – 00400, NAIROBI.</th>
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<tbody>
<tr>
<td></td>
<td>26</td>
<td>NYATI SACCO SOCIETY LTD</td>
<td>P.O. BOX 7601 – 00200, NAIROBI.</td>
</tr>
<tr>
<td></td>
<td>27</td>
<td>SAFARICOM SACCO SOCIETY LTD</td>
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<td>28</td>
<td>SHERIA SACCO SOCIETY LTD</td>
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<td>29</td>
<td>SHIRIKA SACCO SOCIETY LTD</td>
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<td>30</td>
<td>SHOPPERS SACCO SOCIETY LTD</td>
<td>P.O. BOX 16 – 00507, NAIROBI.</td>
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<td></td>
<td>31</td>
<td>STIMA SACCO SOCIETY LTD</td>
<td>P.O. BOX 75629 – 00100, NAIROBI.</td>
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<tr>
<td></td>
<td>32</td>
<td>TAQWA SACCO SOCIETY LTD</td>
<td>P.O. BOX 10180–00200, NAIROBI.</td>
</tr>
<tr>
<td></td>
<td>33</td>
<td>TEMBO SACCO SOCIETY LTD</td>
<td>P.O. BOX 91 – 00618, RUARAKA NAIROBI.</td>
</tr>
<tr>
<td></td>
<td>34</td>
<td>UFANISI SACCO SOCIETY LTD</td>
<td>P.O BOX 2973-00200, NAIROBI.</td>
</tr>
<tr>
<td></td>
<td>35</td>
<td>UKRISTO NA UFANISI WA ANGALICANA SACCO</td>
<td>P.O BOX 872-00605, NAIROBI.</td>
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<tr>
<td></td>
<td>36</td>
<td>UKULIMA SACCO SOCIETY LTD</td>
<td>P.O. BOX 44071 – 00100, NAIROBI.</td>
</tr>
<tr>
<td></td>
<td>37</td>
<td>UAINITAS SACCO SOCIETY LTD</td>
<td>P.O. BOX 38721– 00100, NAIROBI.</td>
</tr>
<tr>
<td></td>
<td>38</td>
<td>UNITED NATIONS SACCO SOCIETY LTD</td>
<td>P.O.BOX 2210 – 00621, VILLAGE MARKET</td>
</tr>
<tr>
<td></td>
<td>39</td>
<td>WANAANGA SACCO SOCIETY LTD</td>
<td>P.O. BOX 34680 – 00100, NAIROBI.</td>
</tr>
<tr>
<td></td>
<td>40</td>
<td>WANANDEGE SACCO SOCIETY LTD</td>
<td>P.O. BOX 19074 -00501, NAIROBI.</td>
</tr>
<tr>
<td></td>
<td>41</td>
<td>WAUMINI SACCO SOCIETY LTD</td>
<td>P.O. BOX 66121 – 00800, NAIROBI.</td>
</tr>
</tbody>
</table>
APPENDIX IV: APPROVAL OF RESEARCH PROPOSAL

KENYATTA UNIVERSITY
GRADUATE SCHOOL

E-mail: dean-graduate@ku.ac.ke
Website: www.ku.ac.ke

Internal Memo

FROM: Dean, Graduate School
TO: John Kamau
    C/o Accounting and Finance Dept.

DATE: 19th September, 2018

REF: D53/OL/CTY/27063/2015

SUBJECT: APPROVAL OF RESEARCH PROPOSAL

We acknowledge receipt of your revised Research Proposal as per our recommendations raised by the Graduate School Board of 22nd August, 2018 entitled “Innovative Technological Services on Financial Performance of Deposit taking Savings and Credit Cooperative Organizations in Nairobi City County, Kenya”.

You may now proceed with your Data Collection, Subject to Clearance with Director General, National Commission for Science, Technology and Innovation.

As you embark on your data collection, please note that you will be required to submit to Graduate School completed Supervision Tracking Forms per semester. The form has been developed to replace the Progress Report Forms. The Supervision Tracking Forms are available at the University’s Website under Graduate School webpage downloads.

Thank you.

ANNBELL MWANIKI
FOR: DEAN, GRADUATE SCHOOL

C.c. Chairman, Department of Accounting and Finance

Supervisors:

1. Mr. Gelard Atheru
   C/o Department of Accounting and Finance
   Kenyatta University
APPENDIX V: KENYATTA UNIVERSITY RESEARCH AUTHORIZATION LETTER

KENYATTA UNIVERSITY
GRADUATE SCHOOL

E-mail: dean-graduate@ku.ac.ke
Website: www.ku.ac.ke

P.O. Box 43844, 00100
NAIROBI, KENYA
Tel. 8710901 Ext. 57530

Our Ref: D53/OL/CTY/27063/2015

DATE: 19th September, 2018

Director General,
National Commission for Science, Technology and Innovation
P.O. Box 30623-00100
NAIROBI

Dear Sir/Madam,


I write to introduce John Kamau who is a Postgraduate Student of this University. The student is registered for MBA degree programme in the Department of Accounting and Finance.

John intends to conduct research for a MBA Project Proposal entitled, “Innovative Technological Services on Financial Performance of Deposit taking Savings and Credit Cooperative Organizations in Nairobi City County, Kenya”.

Any assistance given will be highly appreciated.

Yours faithfully,

[Signature]

PROF. PAUL OKEMO
DEAN, GRADUATE SCHOOL

AM/Ian
APPENDIX VI: RESEARCH AUTHORIZATION LETTER (NACOSTI)

NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY AND INNOVATION

Telephone:+254-20-2213471,
2241349;3310571;2219420
Fax:+254-20-318245,318249
Email: dg@nacosti.go.ke
Website: www.nacosti.go.ke
When replying please quote

Ref. No. NACOSTI/P/18/22152/25962          Date: 3rd November, 2018

John Kariuki Kamau
Kenyatta University
P.O. Box 43844 - 00100
NAIROBI

RE: RESEARCH AUTHORIZATION

Following your application for authority to carry out research on “Innovative technological services on financial performance of deposit taking Savings and Credit Cooperative Organizations in Nairobi City County, Kenya” I am pleased to inform you that you have been authorized to undertake research in Nairobi County for the period ending 30th October, 2019.

You are advised to report to the County Commissioner and the County Director of Education, Nairobi County before embarking on the research project.

Kindly note that, as an applicant who has been licensed under the Science, Technology and Innovation Act, 2013 to conduct research in Kenya, you shall deposit a copy of the final research report to the Commission within one year of completion. The soft copy of the same should be submitted through the Online Research Information System.

BONIFACE WANYAMA
FOR: DIRECTOR-GENERAL/CEO

Copy to:

The County Commissioner
Nairobi County.

The County Director of Education
Nairobi County.
APPENDIX VII: RESEARCH PERMIT FROM NACOSTI

INNOVATIVE TECHNOLOGICAL SERVICES ON FINANCIAL PERFORMANCE OF DEPOSIT TAKING SAVINGS AND CREDIT COOPERATIVE ORGANIZATIONS IN NAIROBI CITY COUNTY, KENYA

for the period ending: 30th October, 2019

Applicant’s Signature

Director General
National Commission for Science, Technology & Innovation