

**THE RELATIONSHIP BETWEEN FINANCIAL INNOVATION AND FINANCIAL  
PERFORMANCE AMONG SAVINGS AND CREDIT CO-OPERATIVES SOCIETIES  
IN NAIROBI COUNTY, KENYA**

**BY**

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## **DECLARATION**

I, the undersigned, hereby declare that this is my original work and has not been presented to any institution or university other than University of Nairobi for academic credit. I further declare that I followed all the applicable ethical guidelines in conducting the research.

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This Research Project has been submitted for Examination with my Approval as University Supervisor.

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## **DEDICATION**

I wish to dedicate this research project to my darling wife Mary Nyaboke for all the moral, support and encouragement accorded by her and entire family members who tirelessly encouraged me. Also wish to dedicate this research project to my adorable daughter Aidel Moraa Mosongo who makes me strive everyday to be the best i can be. You are my strength and the reason why I work so hard. Lastly, I wish to dedicate this project to all Kenyans striving to gain financial success through financial innovation. May God bless you all.

## **ABSTRACT**

The study's overall objective was to investigate whether there was a relationship between financial innovation and financial performance among the Sacco in Nairobi County. Financial innovation has been defined as a positive change in financial intermediation or financial system Juhakam (2003). Financial performance of Sacco's has been measured using a combination of convictional accounting measures and risk and returns measures, further analysis of financial performance has used methodologies such as financial ratio analysis, bench marking, measuring performance against budget or combination of these.

The study adopted descriptive research design for the purpose of assessing the study's general intent. The study's target population comprised of 41 Sacco registered under the commissioner for cooperatives in Nairobi County. Stratified random sampling was used to select respondents from each of the sampled Sacco. A self administered questionnaire was delivered to the respondents and collected after completion. Data was analyzed using SPSS version 16. The T- test, F-test and ANOVA was used to examine the data with the objective determining whether there is a significant relationship between financial innovation and financial performance among the Sacco in Nairobi County.

From the finding the study concludes that Sacco adopted various types' financial innovation that lead to financial performance, these include process innovation, product innovation, and institutional innovation. Institutional innovation had greatest impact on financial performance, followed by product innovation and last was process innovation. The study further concludes that there was a positive relationship between financial innovation and financial performance among Sacco in Nairobi County.

The study recommend that for Sacco to be highly competitive and relevant in the market they must employ various types of financial innovation, emphasis also should be on education and training on various groups include members, staff of the Sacco, elective members of the Sacco, committee members, and managers of the Sacco, and government to support Sacco by creating laws which protect Sacco from exploitation from the market and Sacco to form alliance with other financial institutions in order to have economy of scale.

# TABLE OF CONTENTS

Declaration.....	ii
Acknowledgement.....	iii
Dedication.....	iv
Abstract.....	v
List of Tables.....	ix
List of Figures.....	x
List of abbreviation.....	xi
CHAPTER ONE.....	1
INTRODUCTION.....	1
1.1 Background of the Study.....	1
1.1.1 Financial Innovation.....	2
1.1.2 Financial Performance.....	4
1.1.3 Relationship between Financial Innovation and Financial Performance....	7
1.1.4 Sacco's in Nairobi County.....	8
1.2 Research Problem.....	10
1.3 Objective of Study.....	11
1.4 Value of the Study.....	12
CHAPTER TWO.....	13
LITERATURE REVIEW.....	13
2.1 Introduction.....	13
2.2 Theoretical Review .....	13
2.2.1 Theory of Constrain .....	13
2.2.2 Theory of Cost Reduction.....	14

2.2.3	Theory of Changes in Perceived Market.....	15
2.2.4	Theory of Economic Environment .....	16
2.2.5	Theory of Development of New Technology.....	17
2.3	Empirical Review.....	17
2.4	Conclusion.....	20
CHAPTER THREE.....		21
RESEARCH METHODOLOGY.....		21
3.1	Introduction.....	21
3.2	Research Design.....	21
3.3	Population.....	21
3.4	Sample.....	22
3.5	Data Collection.....	22
3.5.1	Data Validity and Reliability.....	23
3.6	Data Analysis.....	23
3.6.1	Measurement of Variables.....	24
3.6.2	Analytical Model.....	24
CHAPTER FOUR.....		26
DATA ANALYSIS, RESULTS AND DISCUSSION.....		26
4.1	Introduction.....	26
4.2	General finding.....	26
4.3	Financial innovation.....	27
4.4	Interpretations of Findings.....	38
CHAPTER FIVE.....		40

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS.....40

5.1 Introduction.....40

5.2 Summary.....40

5.3 Conclusion.....41

5.4 Recommendations.....42

5.5 Limitation of the study .....43

5.6 Suggestions for further research.....44

REFERENCE.....45

Appendix1 Research Questionnaire .....50

Appendix 2: .....55



## **LIST OF TABLES**

Table 4.1: Response Rate

Table 4.2: Financial Innovation

Table 4.3: Types of Financial Innovation

Table 4.4 Institutional Innovation

Table 4.5: Institutional innovation

Table 4.6: product Innovation

Table 4.7: Process Innovation

Table 4.8: process Innovation

Table 4.9: Correlation

Table 4.10: Coefficient of Determinant

Table 4.11: Multiple Regression Analysis

Table 4.12: Analysis of Variance

## **LIST OF FIGURES**

Figure 4.1 product innovation

## **LIST OF ABBREVIATIONS**

ATM	Automated Teller Machinery
BOSA	Back Office Saving Activities
CFI(s)	Co-operative Financial Institution(s)
CIC	Co-operative Insurance Company Ltd
Co-op Bank	Co-operative Bank of Kenya
CU	Credit Union
D-T SACCO	Deposit Taking Sacco
FOSA	Front Office Saving Activities
FSD	Financial Sector Deeping- Kenya
ICA	International Cooperatives Alliance
KURUSSU	Kenya Rural Saving and Credit Cooperatives
KUSCCO	Kenya Union of Savings and Credit Co-operatives
MOCDM	Ministry of Co-operatives Development and Marketing
SACCOs	Savings and Credit Co-operatives Societies
SASRA	SACCO Society Regulation Authority- Kenya

# **CHAPTER ONE**

## **INTRODUCTION**

### **1.1 Background of the Study**

In today's global and dynamic competitive environment, financial innovation is becoming more and more relevant mainly as a result of three major trends intense international competitions fragmented and demanding markets, and diverse and rapidly changing technologies wheelwright and Clark (1992) competitive advantage is increasingly derived from knowledge and technological skills and experience in the creation of new products Tece (2003) and Tiddy (2001).

Financial institution such as Sacco must play a catalytic function to develop technological innovation driven economy. The experience of developed countries has evidently demonstrated that a shift of government's industrial policy- making towards a technological innovation driven economic strategy is absolutely critical. Allegedly successful industrial policy perform an important function in festering firm to include a culture-based spirit of innovation and addresses firms concerns in the realm of innovation pursuits (Goh,2002).

The ability to innovate is increasingly viewed as the single most important factor in developing and important factor in developing and sustaining competitive advantage Tiddy (2001). It is no longer adequate to do things better; it's about doing new and better things. Slater and Narver (1995). Much emphasis has been placed on building innovative organization and the management of the innovation process, as essential elements of organization service Brown

(1997) Bessant and Francis (1999) suggest that effective innovating must involve all areas of a Sacco with the potential to affect energy discipline and process (Mc Adam, 2000) .

Innovation can be transformational, radical or incremental depending o the effect and nature of the change. Afuah (1998) suggests that innovations do not have to be breakthrough or paradigm shifting, however, Kim and Mauborgne (1999) maintain that organizations should strive for the larger innovations.

### **1.1.1 Financial Innovation**

Innovation is normally defined as the introduction of a new product such as mobile banking, using ATM, operating FOSA and many more to a market or the production of an existing one in a new manner Merton (1995). According to Drucker (1985), innovation is specific tool of entrepreneurs the means by which they exploit change as an opportunity for different business or different service.

As Kirton (1976) has shown creativity is not always about having original ideas sometime it involves generating something from nothing more frequently it result from elaborating on the present from putting old things together in a new way or from taking something away to create something simpler or better. Cortese (2001) reported that the incredible period of experimentation and creativity of the past five years has changed the business environment irrevocably.

Financial innovation can be defined as a positive change in financial intermediation or financial system Juhakam (2003). Financial innovation can also be referred as a process of creating and

marketing of new types of securities. It is the life blood of efficient and responsive capital market (Russo, 1991).

According to Akhatar (1984), financial innovations lower the transaction cost of transferring funds from lower yielding money balances to higher yielding alternatives. Therefore, with financial innovation markets participants attempt to minimize risk and to maximize returns. Changes in the International Financial Environment and the increasing integration of domestic leads to financial innovation. Financial innovation is fighter promoted when the financial authorities recognize the obsolescence of the existing statutory frame. Allan and Gale (1994),Lawrence and Scott (2001) contend that there are three types of financial innovations include:

**Institutional innovations.** These are innovation in financial system as whole Such as changes in the structure of the financial sector, relate to changes in business structures, to the establishment of new types of financial intermediaries, or to changes in the legal and supervisory framework. Important examples include the use of the group mechanism to retail financial services, formalizing informal finance systems, reducing the access barriers for women, or setting up a completely new service structure.

**Process innovations.** This is the process of introducing new business processes leading to increased efficiency or market expansion. Examples include office automation and use of computers with accounting and client data management software. Process innovation is associated with downsizing, restructuring, automation more use of technology, delayering, flattening the hierarchy, reorganizing and total quality management while related to some of these terms. Hammer and Champy view process innovation as different from them in critical

ways process innovation embraces quality function deployment and business process innovation Cumming (1998) process innovation is important in both the supply of the core product as well as in the support part of any offer. Both components of an offer require quality standards, to be met and maintained.

**Product innovations.** This refers to innovations of new or modified financial services such as the introduction of new deposit accounts, credit card, debit card, insurance, leasing, hire purchase, and other financial products. Product innovations are introduced to respond better to changes in market demand or to improve the efficiency of work and deregulate the essential part of it, (Suzuki, 1986).

### **1.1.2 Financial Performance**

The performance of SACCOs depends on their operational efficiency. We could not expect good performance where there is no capacity to operate and manage their activities. On the top of this there is no standardized performance measurement tools to evaluate the status of Sacco in the world. However, even the absence of this standard and systematized recording; we can evaluate their performance of Sacco using the available data and information Traditionally, financial performance of Sacco's has been measured using a combination of convictional accounting measures and risk and returns measures, further analysis of financial performance has used methodologies such as financial ratio analysis, bench marking, measuring performance against budget or combination of these. In spite of difficulties in obtaining such information we will use certain indicators, such as profitability ratio, asset management ratio, debt ratio, liquidity ratio, and market value ratio in measuring financial performance of Sacco's in Nairobi.

**Financial leverage ratios (debt ratios)** measure the ability of a Sacco to meet its financial obligations when they fall due. Financial leverage ratios (debt ratios) indicate the ability of a Sacco to repay principal amount of its debts, pay interest on its borrowings, and to meet its other financial obligations. They also give insights into the mix of equity and debt a Sacco is using.

Financial leverage ratios usually compare the debts of a Sacco to its assets. The common examples of financial leverage ratios include debt ratio, interest coverage ratio, capitalization ratio, debt-to-equity ratio, and fixed assets to net worth ratio.

**Liquidity ratios** are the ratios that measure the ability of a company to meet its short term debt obligations. These ratios measure the ability of a Sacco to pay off its short-term liabilities when they fall due. The liquidity ratios are a result of dividing cash and other liquid assets by the short term borrowings and current liabilities. They show the number of times the short term debt obligations are covered by the cash and liquid assets. If the value is greater than 1, it means the short term obligations are fully covered.

Generally, the higher the liquidity ratios are, the higher the margin of safety that the Sacco possesses to meet its current liabilities. Liquidity ratios greater than 1 indicate that the Sacco is in good financial health and it is less likely to fall into financial difficulties. Most common examples of liquidity ratios include current ratio, acid test ratio (also known as quick ratio), cash ratio and working capital ratio.



**Profitability ratios** measure a Sacco's ability to generate earnings relative to sales, assets and equity. These ratios assess the ability of a Sacco to generate earnings, profits and cash flows relative to relative to some metric, often the amount of money invested. They highlight how effectively the profitability of a Sacco is being managed. Common examples of profitability ratios include return on sales, return on investment, return on equity, return on capital employed (ROCE), cash return on capital invested (CROCI), gross profit margin and net profit margin. All of these ratios indicate how well a company is performing at generating profits or revenues relative to a certain metric.

**Asset management (turnover) ratios** compare the assets of a Sacco to its sales revenue. Asset management ratios indicate how successfully a Sacco is utilizing its assets to generate revenues. Analysis of asset management ratios tells how efficiently and effectively a Sacco is using its assets in the generation of revenues. They indicate the ability of a Sacco to translate its assets into the sales. Asset management ratios are also known as asset turnover ratios and asset efficiency ratios.

Asset management ratios are computed for different assets. Common examples of asset turnover ratios include fixed asset turnover, inventory turnover, accounts payable turnover ratio, accounts receivable turnover ratio, and cash conversion cycle. These ratios provide important insights into different financial areas of the Sacco and its highlights its strengths and weaknesses.

**Market value ratios** evaluate the economic status of your Sacco in the wider marketplace. Market value ratios include the earnings per share, price earnings ratio, the price/cash ratio,

dividend yield, book value per share, market value per share, and the market/book ratio. Market value ratios give management an idea of what the firm's investors think of the firm's performance and future prospects.

### **1.1.3 Relationship between Financial Innovations and 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 (Dharan,2002).

Much of the research attention to innovation focuses on the new idea ,but at least as important is the adoption and spread of an innovation its diffusion across an industry indeed, faster diffusion means a higher social return on the underlying investments in the innovation. Walston et al (2001). 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.

The financial performance of Sacco and other financial institution is usually measured using a combination of financial ratios, analysis, benchmarking, measuring performance against budget or a mix of these methodologies Barley (2000). The common assumption, which underpins much of the financial performance research and discussion, is that increasing financial performance will lead to improved functions and activities of organization. It can be argued that there are the

principal factor to improve financial performance for financial institution, the institution size, its asset management and the operational efficiency (Bijker, 2007).

In broad sense, financial innovation affects the nature and compositing of monetary aggregates through new financial involvements or changes in old instruments as well as the term and conditions of debt or credit arrangement. However financial innovation comes with risks, the risks include systematic risk. Markets almost always produce a variety of new products hoping to earn higher profits and they may not consider the risks involved.

Innovations of new product many begin with only a few participants it quickly spread across the Sacco and therefore there is a need for the regulators to prepare for system wide consequences resulting from new innovative products thus means that for Sacco to meet their objectives they have to innovate regularly otherwise they would have to close down due to stiff competition.

#### **1.1.4 Sacco's in Nairobi County**

The Sacco societies have distinguished themselves as convenient vehicles for savings mobilization and credit extension to members for both personal and enterprise development. The prudential regulation is aimed at improving financial condition and soundness of these Sacco Societies, thereby protecting member deposits. This will enhance public confidence and increase the level of savings and credit to members and SMEs, a key goal of Vision 2030 blueprint. A strong and well governed Sacco subsector will also be better prepared to compete with the other players in the financial sector providing wider choices for savers and borrowers. (Sacco's Review,2012).

The report by SASRA evaluates the performance of the Sacco subsector based on the financial data and information extracted from audited financial statements and reports for the period 2006 to 2010. It is a legal requirement that the audited accounts of a Sacco society be registered with the Commissioner for Cooperatives Development before presentation to members at the annual general meeting. However, not all active Sacco societies comply with this requirement.(SASRA Report ,2012).

The total assets for the Sacco subsector stood at Ksh.216 billion in December 2010, a growth of 11% from the Ksh.194 billion recorded in 2009. The growth in assets was funded mainly by member deposits and share capital at Ksh.164 billion comparing favorably with loans and advances which accounted for 73% (or Ksh.158 billion) of the total assets. This reinforces the fact that Sacco's' core business is to lend to their members. The balance of the funded is retained earnings and loans commercial banks, KUSCCO and other institutions.

Sacco societies in Nairobi County which were estimated at 1369 in 2010 accounted for over 50% of the total assets and deposits in the entire subsector. This is mainly because they are salary based Sacco thus providing a stable source of deposits and market to lend. The same trend is replicated of the deposits and assets. (Co-operative star times,2010).

These Sacco further comprise both deposit and non-deposit taking. In the current legal framework a Deposit Taking Sacco (D.T Sacco) is that Sacco operating a front office savings activity (FOSA). A FOSA activity is a quasi-banking activity undertaken by licensed Sacco. Sacco comprises over 50% of all cooperatives in Kenya and as financial institutions they play a

critical role of financial intermediation in Kenya's financial landscape focusing mostly on personal development. (Sacco's Review, 2012)

## **1.2 Research Problem**

Due to complex and dynamic environment Sacco operated from contributed to collapse some of them and deteriorating performance for those survived this is due to numerous challenges and this challenges are unique and specific to the sector in general its micro economic and macro economic factors like deficiency in contemporary skills, stiff competition from their competitors, Economic liberalization and regulation of business.

These challenges posed a threat to survival of the Sacco sector and called for better ways of managing and running of the Sacco and this was through innovation. The following are some of the innovation which has boosted the Sacco sector these includes institutional innovation, product innovation and process innovation.

Peter and Raphael (1995) in their study on Australia banks found no evidence that the propensity to ore first into new initiative has significant impact on finance performance. This view is contrary with sinha and Chandra (1992) who are of the opinion that early adopters of financial innovation have improved financial performance. They performed a survey on the use of automated teller machines in early adoption and found positive relationship to the Sacco performance

Gichura (2011) did research on the determinants of financial performance of microfinance institution in Kenya and found that there was a positive relationship between the determinants and performance. He recommended that a further research to be done MFTs especially the ones that are currently not regulated.

Kihumba (2008) and Opio (2011) did research on the relationship between financial performance and corporate government evidence from saving and credit cooperation and found there was positive relationship between financial performance and corporate government in Sacco. He recommended that research should be done on other Sacco outside Nairobi to find out whether the same findings could hold.

Although extensive studies have been done mostly in developed countries on financial innovation and financial performance. Literature and data on Kenya's long-term financial innovation and financial performance programs is limited with very little evidence of any studies evaluating the relationship between financial innovation and financial performance. Therefore there is knowledge gap in empirical literature review need to be filled by this research. This study therefore aims at determine the relationship between financial innovation and financial performance among Sacco in Nairobi county? and also to determine what factors initiating financial innovation among Sacco's in Nairobi?

### **1.3 Objective of the Study.**

- 1) To determine factors initiating financial innovation among Sacco's in Nairobi.
- 2) To determine the relationship between financial innovation and financial performance of Sacco's in Nairobi

#### **1.4 Value of the Study**

The study is expected to generate new knowledge which enables cooperatives to be innovative and remain competitive in the global market furthermore it is noted that there is limited research undertaken by cooperatives, government or training institution leading to limited reliable data on cooperatives hence there is need to utilize the research findings from this research for their growth and progress.

This study will give insight in the government and policy makers to understand the nature and uniqueness of the cooperatives there is a need to introduce tax regime that is fair and just to cooperatives societies. According to international cooperative Alliance (ICA) 2012 statistics indicate that 1 out 5 Kenyans is a member of a cooperative societies. 20million Kenyan directly or indirectly derive their lives from the cooperatives movement. Co-operative in Kenya is responsible for 45% of the gross domestic product GDP and 31% of National saving and deposits. Cooperative societies employ more than 250,000 people.

The study will contribute to the existing body of knowledge of financial innovation in Nairobi Kenya it also stimulate prospective researchers to replicate the study in other sectors of the economy.

## **CHAPTER TWO**

### **LITERATURE REVIEW**

#### **2.1 Introduction**

This chapter summarizes the literature that is already in existence regarding financial innovations and financial performance and their relationship. It presents an overview of previous work on related topics that provides the necessary background for the purpose of this research.

#### **2.2 Theoretical Review**

Today we need theories discussing about innovation more than any other time before due to globalization, migration, technological and knowledge revolutions, and climate change issues that affect every organization and business. Therefore these theories would try to explain the measures or steps taken to overcome these issues in the economy. These theories include theory of constraints, theory of Cost Reduction, theory of Changes in Perceived Market, theory of Economic Environment, and theory of Development of New Technology.

##### **2.2.1 Theory of Constraints**

Silber (1975) presented the theory of constraints which is one of the most influenced theories of financial innovation. A constraint is anything that prevents the system from achieving more of its goal. Drucker (1998) stated that most innovating results from a concise purposeful research for innovation opportunity which is only found in only a few situations. White and frame (2002) stated that profit seeking enterprises and individuals are constantly seeking new and improved



products processed and organizational structure that will reduce their costs of production better customer demands and yield greater profits.

The underlying assumption of theory of constraints is that organizations can be measured and controlled by variations on three measures: throughput, operational expense, and inventory. The relevance of the theory of constraints to Sacco has been well recognized by the government and donors, and various initiatives have been launched to address these weaknesses and assist with capacity building among Sacco. Including coming up with favorable policy framework for Sacco , introducing regulating body for Sacco (SASRA) among others.

### **2.2.2 Theory of Cost Reduction**

Miller and Merton (1986) Cost reduction is however, a dynamic exercise, an all-out effort to reduce cost from whatever level they are. Nothing is assumed as "standard", nor anything. is accepted as "ideal". Every element of cost is scrutinized, every operation is screened and every procedure is analyzed to identify the ways and means of reducing costs. Further, cost reduction is not a 'one-time' exercise. It is an attitude of mind, a habit, a philosophy.

The approach for reduced cost must originate from the conviction of the need for it. Genuine cost reduction is essentially a function of cost consciousness on the part of persons involved and a cost reduction plan imposed upon without proper understanding among the employee will die a natural death without yielding any permanent contribution. Described equity swamps as a efficiency delivery method for multination's investors.

Mc Connel and Schwartz (1992) showed that Merrill lynch's Lyons (liquid yield option note) allow investors to buy low risk securities together with call options while avoiding the high commission costs of maintaining their options positions. Juhakam (2003) describe the theory of cost reduction as a driver for financial innovation. There are many examples of this such as reduction from improvement in payments, processing or reduction resulting from new ways to deliver financial services electronically to customers however regulatory restriction and requirements are also a cost and some innovations are aimed at avoiding or reducing that cost.

### **2.2.3 Theory of Changes in Perceived Market**

Allen (1994) described the theory of changes in perceived markets arise when existing markets fail to provide needed products these innovations include exchange traded funds observed and zero coupon bond seen by Horvits and Paul (1996). Aaker (1996), noted that when markets turn hostile, it is no surprise that managers eye tempted to extend their brands vertically that is to take their brands into seemingly attractive markets above or below their current position. These vertical extensions are sometimes a strategic imperative but they can be dangerous.

The theory attempt to understate how a consumer's perception of a product or service influences their behavior. Those who study consumer perception try to understand why consumers make the decisions they do, and how to influence these decisions. Usually, consumer perception theory is used by marketers when designing a campaign for a product or brand. However, some people study consumer perception in order to understand psychology in a much more general sense.

Changes are already being seen, with Sacco beginning to improve their services. For instance, they have introduced friendly and fast credit services in their FOSAs where members can access loans in 24 hours. In addition members are not always required to have guarantors. In spite of stiff competition these institutions have managed to sustain a large chunk of their membership. A recent study conducted by Financial Sector Deepening (FSD) through Steadman Research Services indicated that Sacco is reaching a significant number of Kenyans.

#### **2.2.4 Theory of Economic Environment**

The Theory of Economic Environment advocated by Tufano (1989), Financial innovations occurs because agents in the market pre-searching for new ways to make higher profits. A channel in the economic environment will stimulate a search for innovation that are likely to be profitable .starting In the 1960s individual and financial institution operating in financial markets where confronted with drastic changes in environment inflation and interest rates climbed sharply.

Williamson and Mahar (1995) stated that financial innovations are mainly the result of four interrelated factors high, variable and unpredictable inflation, interest rates and exchange rates, increases in government deficits and their effects on interest rates and financial markets floating exchange rates. Many financial innovations offer protection against changes in the financial environment especially changes in exchanged and interest rates.

### **2.2.5 Theory of Development of New Technology**

Patrick and Christian (1988) they argue that development of new technology can stimulate financial innovation by lowering the cost of providing new financial services and instrument by using computers and telecommunication. The rapid development of technology in the financial sector, the introduction of new communication and transmission system also speeds up information flow. The basic underlying physical technologies of financial are those of telecommunication and data processing, which permit the gathering of information. Its transmission and its analysis increasing these technologies allow financial markets participants to measure and manage their risk exposure more efficiently and effectively.

### **2.3 Empirical Review**

The significance of finance innovation is widely recognized .Many leading scholars including Miller (1986) and Merton (1992) have highlighter the importance of new products and services in the financial arena. Empirically, Tufano (1989) showed that all of public offerings in 1987, 18% (on dollars weighted basis) consisted of securities that had not been in existence 1974. These innovation are not just critical for firm in the financial services industry but also affects other companies for instance enabling them to raise capital in larger amounts and at a lower cost than they could otherwise.

Financial innovation is often blamed for what is performed as an increase in systematic risk the Asian and Lain American crises being the latest cases in point yet financial innovations is he form of different types of derivations products or financial engineering technologies generally

provided low cost and higher efficient methods of mitigating rather than exacerbating methods of mitigating rather than exacerbating risk by completing emerging capital markets..

Coope and Ian (2005) argued that the financial future markets for example, did not create contract with new risk sharing functions but simply lowered transactions costs. Innovation has been motivated largely by the changed technological capability for conducting transactions whose economic functions are no fundamentally new. Such innovation creates transaction efficient vehicles for traded in other ways; through the new instruments produce more liquidity and lower prices.

Lerner (2002) did an analysis focusing on the question on which, instillation is associated with financial innovations, seeking to last a number of hypotheses suggested by the innovation literalizes. He sounds that contrary to representation in the earlier literature, financial innovation has been characterized by a disproportionate role of smaller firms. More specifically doubling in form size associated with less than a doubling in innovation generated. Moreover firms that are less profitable in their respective sectors are disproportionately innovative. Silber (1975,1983) suggested that more marginal forms will contributes the bulk of financial innovations in addition, older, less leveraged firms located in regions with more financial innovations appears to be more innovations.

He examined the extent to which the depressed profitability among financial innovators. He found that there firms in the years after the innovations experience a significant increase in profitability. This finding is consistent in the suggestion in the work of silber that investment in innovation is a rational response to an unfavorable competitive position; he also analyzed the sources of financial innovations between 1990 and 2002. He found evidence that suggests that

small firms are more innovative than their larger ones, less profitable firms innovate more, but firms that innovate enjoy enhanced profitability in subsequent year.

He constructed a linear programme model to estimate the opportunity costs (shadow prices) of deposits, adventures and capital ( net worth) for large banks from 1952 – 1972. The formed that the rising shadow prizes of these items as they approached regulatory constraints (such as regulation ) were associated with some of the major innovations of the 1960s. Dececco.(1987) stated that the regulations in Italy were erected at protecting the emergence of finance market through reduction of risk by regulation specifying common standard to guarantee minimum levels of trust worthiness and regulation reduce undesirable excessive competition.

Mudibo (2005) a paper on cooperative governance in cooperative the East African experience found out that structures, continuity, balance in the composition of the board and accountability as factors affecting performance of the result of higher satisfaction with service leading towards stimulations of financial performance.

Kibera and Mburu (2004) The study examines evolving structure of the rural financial service and the extent to which the current financial institution have to improve across rural financial services for producers and traders in the rural areas in Kenya.

Chege (2006) the study found that effects of non-remittance of members deduction by the employer to the societies ,a case of Nairobi province while looking at it relationship with the Sacco performance that 64.3% of the Sacco studied experience the problem of non-remittance and this has negative impact on Sacco performance, some of the effects experience include, the

Sacco are unable to give loans, they are unable to pay dividends, they cannot pay salaries, members are likely to withdraw and liquidity position is likely to deteriorate among others.

Tokei (2009) The study found that with liberation in the developing countries such as Kenya are wanting situation that demanded urgent but sound decision and many Sacco's adopted corporate governance concepts as a strategy. However, many strategies are yet to reap the maximum returns because of slow and apathetic approach some ill equipped to drive the entire industry to success.

Gamba and Komoi (2005) evolution, growth and decline of the cooperative sector in Kenya, a paper prepared for centre found out that performance was affected by poor and inefficient management systems, loss of government protection, political interference and inadequate legal reforms.

## **2.4 Conclusion**

There is limited study that has been carried out in Sacco's sectors in Kenya on relationship between financial innovation and financial performance. The study which has been done in Sacco shows that there is positive relationship between the variables considered in the study. Based on above evaluation, there is a gap in empirical literature review that motivates the researcher to conduct the research on establishing the relationship between the financial innovation and financial performance among Sacco in Nairobi, therefore this study seek to establish the relationship between the financial innovation and financial performance among Sacco's in Nairobi Kenya.

## **CHAPTER THREE**

### **RESEARCH METHODOLOGY**

#### **3.1 Introduction**

This chapter presents the research design and methodology that was used to conduct the research. It presents the research design, the population, samples size and Sampling procedure, data collection and data analysis.

#### **3.2 Research Design**

Research design refers to the way the study is designed. The purpose of descriptive research design described the state of affairs as it is at present. According to Mugenda and Mugenda (2003) a descriptive research is the process of collecting data and analyzed in order to describe the specific phenomenon in its current trends, current events and linkages between different factors at the current time. Therefore descriptive research match with the purpose of this study as its intention was to determine the relationship between Financial Innovation and Financial Performances among Sacco in Nairobi and also to determine the Factors Initiating Financial Innovation.

#### **3.3 Population**

The study population consisted of all 1371 Saccos registered under cooperative societies Act in Nairobi. The list of the Sacco was obtained from the ministry of cooperatives development and marketing.



### **3.4 Sample**

Stratified random sampling was used to study the population of 1371 Sacco in Nairobi county and a method of sampling was used to divide this population into smaller groups known as strata. In stratified random sampling, the strata are formed based on members' shared attributes or characteristics. A random sample from each stratum was taken in a number proportional to the stratum's size when compared to the population. These subsets of the strata are then pooled to form a random sample of 41 Sacco. This often improves the representativeness of the sample by reducing sampling error. Mugenda and Mugenda (2003).Indicated that a sample size of 30 and above of the population is sufficient sample size for the study. The researcher collected data from a selected sample of 41 Sacco based in Nairobi County.

### **3.5 Data Collections**

Primary data was collected using the close-ended questionnaires that were appropriate as they provide a standard set of questions for all respondents, as they provide a standard set of questions for all respondents as the information set is quantitative in nature. The targeted respondents were employees of the Sacco, members of the Sacco and other officers of co-operative societies. Drop and Pick later method was used. Secondary source of data was used in collecting data which include;- Sacco monthly report, Sacco's journal, Audited financial statements of Sacco's, Sacco's star times, Sacco's manuals and other relevant books containing information on annual earnings of the Sacco in Kenya.

### **3.5.1 Data Validity and Reliability**

The researcher carried out a pilot study of pretest the validity and reliability of data collected using the questionnaire. According to Berg and Gall (1989) validity of test items represents the content the test was designed to measure content validity was employed by this study to measure the degree to which data which was collated using a particular instrument represents a specific domain or content of a particular concept. Mugenda and Mugenda (1999) content that the procedure in assessing the content validity of a measure is to use a professional or expert in a particular field.

According to shanghverzy (2003) reliability refers to the consistence of measurement and is frequently assessing using the test retest reliability method. Reliability is increased by including many similar items on a measure, by testing a diverse sample of individuals and by using uniform testing procedures (ibid).

The researcher selected a pilot of 5 individual from the target population of the staff and members of Sacco's in Nairobi to test the reliability of the research instrument. The pilot data included the actual study. The pilot study allowed for pretest of the researcher instrument. The aim was to correct inconsistencies arising from instruments which ensured that they measure what was intended

### **3.6 Data Analysis**

The data was analyzed by the use of descriptive statistical to summarize and relate variables which was attained from the administration of questionnaires. The data was classified, tabulated and summarized using descriptive measures, percentages, and frequency distribution tables while

tables and graphs was used for presentation of findings. However, before final analysis was performed data was cleaned to eliminate discrepancies and thereafter classified on the basis of similarity and tabulated. The tables catered for factors initiating financial innovation. The likert scale was used to analyze the means score and standard deviation which helps in determining the relationship between financial innovation and financial performance among Sacco in Nairobi.

### **3.6.1 Measurement of Variables**

Financial performance was measured using operational efficiency which included benchmarking, comparing performance against budgeted and financial analysis ratios, Financial innovation was measured and quantified in term of its variables which were Institutional, Product and Process Innovation; Institutional innovation was measured using mobile banking technology, restructuring, investment banking service and insurance services, Product Innovation was measured by new deposit accounts, credit card, debit card, and other financial product such as business clubs concepts, personal unsecured loans, money transfer services and product tailored to favor certain group. Process Innovation was measured through office automation, use of computer, electronic money transfer, internet banks transaction, ATM transactions and client's data management software.

### **3.6.2 Analytical Model**

The study applied multiple regression models to examine the relationship between financial performance and financial innovation among Sacco, and it was aided by the Statistical packages for Social Sciences (SPSS). Multiple regression attempts to determine whether a group of variables together predict a given dependent variable. In this study financial performance was

regressed against three independent variables. These were Institutional, Process, and Product Innovation.

The regression equation used in this study is

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \epsilon_{ij}$$

Where,

Y = Represent the dependent variable that measure financial performance.

$\beta_1$ ,  $\beta_2$ , and  $\beta_3$  were the coefficient function of the independent variable.

$X_1$  Represent the independent variable that measured Institutional Innovation.

$X_2$ , Represent the independent variable that measured Product Innovation

$X_3$ , Represent the independent variable that measured Process Innovation

$\epsilon_{ij}$  was the error term.

The F-test was used to analysis the joint significance of all the coefficient and ANOVA was used to analysis the significance of all variables.

## **CHAPTER FOUR**

### **DATA ANALYSIS, RESULTS AND DISCUSSION**

#### **4.1 Introduction**

This chapter presents analysis and findings of the study as set out in the research methodology. The results are presented to investigate the relationship between financial innovation and financial performance among Sacco's in Nairobi County. The primary data was gathered exclusively from questionnaire as the research instrument and the questionnaire was designed in line with the objectives of the study to enhance quality of data obtained. likert type questions were included whereby respondents indicated the extent to which the variable were practiced in a five point likert scale. Secondary data was obtained from the Ministry of Co-operative marketing and development, SASRA offices and from the Commissioners for cooperative.

#### **4.2 General Findings**

##### **4.2.1 Position of the Respondents**

The respondents were requested to state their position in the organization. From the findings it was found out that some of the respondents were loans officers, marketing officers, and members of the society.

##### **4.2.2 Response Rate**

The study targeted 41 respondents in collecting data with regard to financial innovations and its effects on financial performance of Sacco's in Nairobi County

**Table 4.1 Response rate**

Rate	Frequency	Percentage
Responded	30	70
Not responded	11	30
Total	41	100

Source: Research Findings

Findings from the study revealed that 30 out of 41 target respondents filled in and returned the questionnaire comprising 70% of the targeted respondents. This commendable response rate was made a reality after the researcher made personal calls and visits to remind the respondent to fill in and return the questionnaires. In addition, secondary data was obtained from the Sacco's annual reports and from the ministry of cooperative and development.

### **4.3 Financial Innovation**

#### **4.3.1 To what extent do you agree that financial products available to investors and depositors have impact on productivity?**

The study sought to investigate the extent to which financial products are made available to investors and depositors and their impact on productivity.

#### **Table 4.2 Extent to which financial products available to investors and depositors have impact on productivity?**

Extent	Frequency	Percent
Very great extent	13	44
Great extent	9	30
Moderate extent	4	14
Little extent	3	10
Not at all	1	2
Total	30	100

Source: Research Findings

Finding from the study revealed that 44% of the respondents indicated that financial products were to very great extent available to investors and depositors had the impact on productivity, 30% of the respondents indicated financial products were to great extent available had the impact on productivity, 14% of the respondents indicated that financial products were to moderate extent available had the impact on productivity and 10% of the respondents indicated that financial products were to little extent available had the impact on productivity to investors and depositors in the Sacco.

#### **4.3.2 To what extent do types of financial innovation affected financial performance of Sacco?**

In this section, the study aimed at establishing the extent to which types of financial innovation had affected financial performance. From the finding the study revealed that most respondents agreed that institutional innovation played a key role in the Sacco leading to high performance by a mean of 4.187, followed by product innovation with a mean of 3.145 and the last was process innovation with a mean of 2.27 as shown in the table 4.1.1

**Table 4.3**Extent to which types of financial innovation affected financial performance of Sacco.

Types of innovation	Very great extent	Great extent	Moderate affected	Little extent	Not at all	Mean	S.D
Institutional innovation	43.8	27.1	6.3	12.5	10.4	4.187	1.393
Process innovation	29.2	43.8	8.3	8.3	10.4	2.27	1.267
Product innovation	35.4	33.3	16.7	10.4	4.2	3.145	1.148

Source: Research Findings

#### **4.3.3 To what extent do you agree with the statement that greater efficiency and diversity in Sacco's financial institutions is as result of financial innovation?**

The study sought to establish the extent into which greater efficiency and diversity is as result of financial innovation in Sacco. Results presented in table 4.12 revealed that majority of the respondents agreed that greater efficiency and diversity is as result of financial innovation cited to a very great extent as shown by 44% , followed by great extent of 30% agreed that greater efficiency and diversity is as result of financial innovation ,moderate extent of 14% agreed that greater efficiency and diversity is as result of financial innovation ,little extent of 10% agreed that greater efficiency and diversity is as result of financial innovation and not at all of 2% agreed that greater efficiency and diversity is as result of financial innovation.

#### **Table 4.4 To what extent do you agree with the statement that greater efficiency and diversity in Sacco's financial institutions is as result of financial innovation?**



Extent	Frequency	Percent
Very great	13	44
Great extent	9	30
Moderate extent	4	14
Little extent	3	10
Not at all	1	2
Total	30	100

Source: Research Findings

#### **4.3.4 In which of the following institutional innovation do your Sacco considers as a key success in service delivery?**

The study further inquired on the various institutional innovations considered as key success factors in service delivery. Results presented in table 4.13 indicated that most respondent agreed that mobile banking services was rated above the others with a mean of 2.708 showing that respondent used mobile banking services to a larger extent compared to others, followed closely by insurance services with a mean of 2.475. Investment banking services with a mean of by 2.5 and restructuring with a mean of 2.20

#### **Table 4. 5 In which of the following institutional innovation do your Sacco considers as a key success in service delivery?**

statements	Very great extent	Great extent	Moderate	Low extent	No extent	Mean	SD
Restructuring of the institution	29.2	56.3	4.2	4.2	6.3	2.20	1.4
Mobile banking services	22.9	39.6	25	12.5	0	2.708	0.81
Insurance services	20.8	35.4	33.3	6.2	4.22	2.475	1.02
Investment banking services	2.1	14.2	32.1	30.8	20.8	2.5	.77

Source: Research Findings

#### **4.3.5 In which of the following product innovation strategies does your Sacco considers as a key success in customer satisfaction?**

The study sought to establish the extent into which various products adopted by the Sacco increased customer satisfaction. Findings from the study revealed that majority of the respondents agreed that the Sacco's used various products such as new deposit accounts which was leading with a mean of 4.13 followed by personal unsecured loan respondents agreed that customer satisfaction was increased by a mean 3.619, money transfer services respondents agreed that customer satisfaction was increased by a mean of 3.138, debit card respondents agreed that customer satisfaction was increased by a mean of 2.958, credit card respondents agreed that customer satisfaction was increased by a mean of 2.695 and product tailored to suits customers respondents agreed that customer satisfaction was increased by a mean 2.506.

**Table 4.6 In which of the following product innovation strategies does your Sacco considers as a key success in customer satisfaction?**

Success factors	No idea	Not at all	Fairly strong	Strong	Very strong	Mean	SD
New deposit accounts	1.9	11.2	18.3	18.8	41.5	4.13	1.29
Credit card	8.3	13.8	25.2	12.9	29.3	2.695	1.83
Debit card	10.4	41.7	10.4	16.7	20.8	2.958	1.367
Personal unsecured loan	9.5	9.0	27.9	11.7	31.7	3.619	1.775
Money transfer services	4.5	12.1	18.8	21.1	35.0	3.138	1.65
Product tailored to suits the customer's needs	2.1	14.6	14.6	39.6	29.2	2.506	1.09

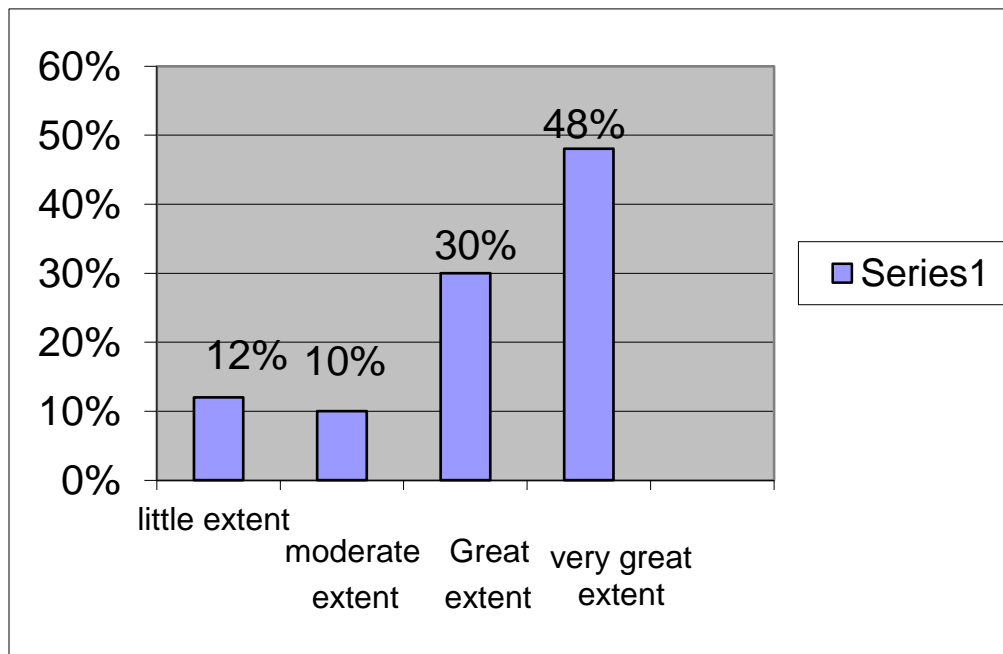
Source: Research Findings

#### **4.3.6 To what extent do you agree that product innovation strategies play a key role in achieving high market rate?**

In this section, the study aimed at establishing the extent to which product innovation adopted by that Sacco determined the market share. From the finding the study revealed that most respondents cited that market rate was determined by product innovation adopted by the Sacco to very great extent by a mean of 48%. Followed by great extent respondents agreed that market rate was determined by product innovation by a percentage of 30%, respondents agreed that

market rate was determined by product innovation to a moderate extent by a percentage of 10%, respondents agreed that market rate was determined by product innovation to little extent by a percentage of 12%

**Figure 4.1 To what extent do you agree that product innovation strategies play a key role in achieving high market rate?**



Source: Research Findings

#### **4.3.7 To what extent do you agree that process innovation is key factor in realization of high turnover in the Sacco?**

The study sought to establish the extent into which process innovation is key factor in realization of high turnover in the Sacco.

**Table 4.7 To what extent do you agree that process innovation is key factor in realization of high turnover in the Sacco?**

Statements	Very great extent	Great extent	Moderate extent	Low extent	No extent	Mean	SD
Office automation	63%	10%	7%	10%	6%	1.123	1.106
Electronic money transfer	32%	34%	14%	12%	8%	3.122	.654
Internet banking transaction	73%	10%	10%	4%	3%	1.109	.6064
Clients data management software	67%	20%	10%	4%	3%	1.023	.773
ATM deposit and withdrawals	41%	40%	5%	4%	3%	3.212	.773
Use of computer	21%	20%	25%	24%	3%	3.812	.7735

Source: Research Findings

The results presented in table 4.10 revealed that majority of the respondents agreed that use of computer contributed to a larger proportion of the turnover of the Sacco as shown by a mean of 3.812, followed closely by ATM deposit and withdrawals contributed proportion of turnover shown by a mean of 3.212, Electronic money transfer respondents agreed that it contributed to a larger proportion of the turnover as shown by a mean of 3.122, Office automation also contributed to realization of turnover shown by a mean of 1.123, Internet banking transaction respondents agreed that it contributed to realization of turnover shown by a mean of 1.109, Clients data management software respondents agreed that it contributed to realization of turnover shown by a mean of 1.023

#### **4.3.8 To what extent do you agree that for the past three years the Sacco has relatively reduced its transactions cost through implementations of process innovation?**

The study sought to establish the extent into which Sacco employed process innovation as result reducing its transaction cost. From the finding the study revealed that majority of the Sacco employed process innovation as shown by a very great extent 40%, to a great extent 30%, moderate extent 18%, to little extent 2%. As shown in the table

**Table 4.8 To what extent do you agree that for the past three years the Sacco has relatively reduced its transactions cost through implementations of process innovation?**

Extent	Frequency	Percent
Very great extent	11	40
Great extent	9	30
Moderate extent	6	18
Little extent	3	10
Not at all	1	2
Total	30	100

Source: Research Findings

### **Multi Regression**

**Table 4.9 Correlations and the Coefficient Determination**

Model	R	R- square	Adjusted R- square	Std error of estimate
Product innovation	0.430	0.185	0.151	0.8825
Process innovation	0.326	0.106	0.069	0.8825
Institutional innovation	0.475	0.226	0.194	0.8201

Source: Research Findings

The table above presents the correlation( R) and the co-efficient of determination between financial performance as the dependent variable and the independent variable (institutional, process and products) from the findings, the study found that there was a positive relationship between the dependent variable and the independent variables (institutional, process and product) of all the three independent variables. Institutional innovational had the highest relationship with financial performance with a correlation of 0.475 followed by product with 0.430 while process had the weakest relationship with performance of Sacco's 0.326.

#### 4.3.9 Coefficient of Determination (R<sup>2</sup>)

**Table 4.10 Coefficient of Determination**

Model	R	R-Square	Adjusted R-square	Std error of the estimate
1	0.681	0.463	0.361	0.752

Source: Research Findings

Coefficient a determination explain the extent to which changes in the dependent variables can be explained by the changes in the independent variables or the percentages of variation in the dependent variable (financial performance) that is explained by all the three independent variables are institutional, process and product innovation.

The correlation and the coefficient of determination of the dependent variables when all independent variables are combined can be measured and tested as in the table below. From the

findings 46.3% of financial performance is attributed to the combination of the three independent variables investigated in this survey

A further 53.7% of financial performance is attributed to others factors not investigated in this survey

### Multiple Regression Analysis

**Table 4.11 Multiple Regression Analysis**

model		unstandardized coefficients		standardized coefficients	T	Sig
		$\beta$	Std Error	Beta		
1	Constant	0.853	1.068	0	0.799	0.433
	Product	0.169	0.193	0.08	-0.358	0.724
	Process	0.128	0.25	-0.242	-0.891	0.383
	institutional	0.205	0.16	0.346	1.284	0.213

Source: Research Findings

The model statistic show that when the independent variables (institutional, process and product innovations and dependent variables interact the model has a correlation coefficient (R) of 0.681 and co-efficient of determination (R-square) of 0.463 signifying a positive relationship between two variables.



**Table 4.12 Analysis of Variance (ANOVA)**

	Sum of square	df	Mean square	F	Sig
Regression	3.861	3	0.644	1.460	
Residual	25.133	25	0.441		0.209a
Total	28.995	28			

Source: Research Findings

A: predictors (Constant) institutions, product and process.

#### **4.4 Interpretations of Findings**

Based on our findings, financial innovation was viewed from three main types of financial innovation these are institutional innovation, product innovation, and process innovation. Institutional innovation scored a mean of 4.187 indicating that most respondents to a great extent agreed that institutions innovation played a key role in realization of good performance in their Sacco, product innovation with a mean of 3.145 and process innovation with a mean of 2.27 indicating that the respondents agreed to a moderate extent that financial innovation initiated financial performance.

It is noteworthy that our eleven financial innovation questions reveal a similar explanation that financial innovation was critical to all saccos under the study ,even though these questions were quite a bit simpler and addressed to respondents who might have been expected more sophisticated, given lifetime exposure to financial Saccos was long.

On institutional innovation in table 4.5 above, the findings show that; there is a significant improvement on service delivery through innovation of various types of institutional innovations. On the table 4.6 the findings show that product innovation significantly improved customer satisfactory to very great extent and on the table 4.7 the findings show that process innovation significantly improved the realization of high turnover in the Sacco to very great extent.

The analysis of variance (ANOVA) shows that F – value is (1.460 at 0.209) significance level ( $P > 0.05$ ) suggesting that the relationship between the two (independent and dependent variables) could be out of chance and nothing else.

The researcher conducted a multiple regression analysis so as to determine the relationship between the Sacco's performance and the three attribute investigated in this study.

Thus the regress in model was

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

$$Y = 0.853 + 0.205x_1 + 0.169X_2 + 0.128X_3 + 0$$

Whereby

Y = Financial Performance

X1 = Institutional Innovation

X2 = Product Innovation

X3 = Process Innovation

$e_i$  = Error Term

According to this model, it can be seen that taking all other independent variables value at zero, the financial performance of the Sacco as a result of these independent variables will be 0.853. A unit increases in institutional innovation will lead to 0.205 increases in financial performance. A unit increases in product innovation will lead to a 0.169 increases in financial performance while a unit increases in process innovation will lead to a 0.128 increases in financial performance. This therefore implies that all the three variables have a positive relationship to financial performance of Sacco's in Nairobi County.

## **CHAPTER FIVE**

### **SUMMARY, CONCLUSIONS AND RECOMMENDATIONS**

#### **5.1 Introduction**

This chapter concludes this research study. It presents the findings, recommendations and conclusions. The responses were based on the objectives of the study. The researcher had intended to obtain responses on the relationship between financial innovation and financial performance among Sacco's in Nairobi County.

#### **5.2 Summary**

From the study, of the 41 surveyed Sacco's and most of these Sacco's largely dependent on innovation in order to survive in the market. The study also found that existing of financial innovation it was major boost factor in this sector because it increased financial performance of the Sacco's

The study established that financial innovation affect the financial performance of Sacco's to a great extent. In addition the study revealed that institutional innovation strategies adopted by the Sacco's affect the performance of Sacco's to a great extent on the various factors. Institutional innovation by Sacco's revealed that mobile banking, restructuring, insurance services and investment banking played a key role in realization of financial performance of the Sacco among others.

Products innovation contributed also to great extent to financial performance of Sacco. The study revealed that new deposit accounts, credit card, debit card, personal unsecured loan, money

transfer services and product tailored to favor certain group also help in realizing high market share in the sector.

The study further established that process innovation adopted by the sales affected the financial performance of the Sacco to a great extent the study established that most Sacco's created value through office automation, use of computer, electronic money transfer, internet banks transaction ,ATM transactions and clients data management software created strong products employed to enhance customers satisfaction. Process innovation strategies revealed that new products innovation process and conformance to regulation was used as a process innovation strategies hence contributing to financial performance of Sacco.

### **5.3 Conclusion**

From the findings the study concludes that Sacco need to adopt various types' financial innovation effectively to prevent it from failing in its obligation and meeting its objective minimizing loan defaulters, cash loss and ensure the Sacco performs better increasing the returns on assets and helps the Sacco in attaining maximum financial returns that lead to financial performance

From the finding the study concludes that Sacco adopted various types financial innovation that lead to financial performance, these include process innovation, product innovation, and institutional innovation. Institutional innovation had the greatest impact on financial performance, followed by product innovation and last was process innovation.

The study further concludes that there was a positive relationship between financial innovation and financial performance among Sacco in Nairobi County. Depicting the relationship between financial innovation and financial performance as shown by the model below

$$Y = 0.853 + 0.205X_1 + 0.169X_2 + 0.128X_3 + 0$$

#### **5.4 Recommendations for policy**

Given the findings from this study there are a number of policy recommendations that can be adopted by the Sacco's management in adopting financial innovation to increase financial performance. A policy recommendation is simply written policy advice prepared for some group that has the authority to make decision. The Sacco policy recommendations are the key indicators through which Sacco's policy decision will be made in most level of Sacco's.

Sacco has suffered credit losses through relaxed lending standards, unguaranteed credits, and the borrower's perception. The study recommends that Sacco's should make fairly accurate personality morale profile assessment of prospective and current borrowers and guarantors this will minimize credit losses by securing the borrowers guarantee.

The study recommends that, it is important to have an informed Membership; an uninformed membership the ICA says is the greatest threat to any. The ICA stresses that cooperatives and SACCOs in return, should provide education and training for their members, elected representatives, managers and employees so they can contribute effectively to the development of their cooperatives. The education of SACCO members is an absolute must for maintaining democracy, member control and transparency within the SACCO.

The study also recommends that Sacco need to employ combination of various types of financial innovation such as product, process and institutional innovational in order to form a strategic alliance with other MFIs and Banks for managing cases beyond their capacity. SACCOs will also deposit their own funds with their Financial Institution partner (MFI, Popular Bank or Commercial Bank) in return for easy access to a line of credit.

The government should support SACCOs to offer a wider variety of products and services to their members other than just simple deposits and credit to encourage higher savings rates. Implementing new products can give new life to SACCOs and renewed interest from the public and their members and the government should make better legislation which protects member's savings and prudential supervision of the industry. The study establishes that there existed a positive relationship between financial innovation and financial performances among Sacco in Nairobi County.

### **5.5 Limitation of the Study**

A limitation for the purposes of the study was regarded as a factor that was present and contributed to the researcher getting either inadequate information or responses or if otherwise the responses given would have been totally different from what the researcher expected.

The main limitation of this study was inability to include more organization in this sector but we only sampled selected Sacco, the study would have covered more institution across all sectors so as to provide a more abroad based analysis.

However, resource constraints place this limitation other constraints are some respondents refused to fill in the questionnaires, further some respondents decided to withhold information

which they considered sensitive and classified. This reduced the probability of reaching a more conclusive study. However, the conclusion was made with this response rate.

Most of the respondents were busy throughout and had to continuously be reminded and even persuaded to provide the required information in addition due to official duties times was also a major concern.

### **5.6 Suggestions for Further Research**

The present study should be replicated to include rural Sacco in other regions of the country to find out whether the same results will be obtained. The sample size should also be increased to get a more representative sample and make better conclusions.

The study should also be replicated to include Kenyans working in the informal sector and find out if there is a relationship between financial innovation and financial performance.

A broader research could be carried out to measure the impact of financial innovation on an individual's total performance in the institution

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## APPENDICES

### Appendix 1: Research Questionnaire

#### Part A: General Information

- 1) What is name of your Sacco?
- 2) What Position held by the respondent?
- 3) What is your gender?      Male [ ]      Female [ ]

#### Part B: Financial Innovation

- 4) To what extent do you agree that financial products available to investors and depositors have impact on productivity?.In a scale from 1 to 5 (1-not at all, 2-small extent, 3-moderate extent; 4-great extent; 5-very great extent

Very great                      ( )

Great extent                      ( )

Moderate extent                      ( )

Little extent                      ( )

Not at all                      ( )

- 5) To what extent do types of financial innovation affected financial performance of Sacco? In a scale from 1 to 5 (1-not at all, 2-small extent, 3-moderate extent; 4-great extent; 5-very great extent

Innovation	1	2	3	4	5
Institutional					
Product					
Process					

- 6) To what extent do you agree with the statement that greater efficiency and diversity in Sacco's financial institutions is as result of financial innovation? (Please tick where applicable)

Very great ( )

Great extent ( )

Moderate extent ( )

Little extent ( )

Not at all ( )

- 7) In which of the following institutional innovation do your Sacco considers as a key success in service delivery? Please tick on the area considered to 5 very strong, 4 strong, 3 fairly strong, 2 not all , 1 no idea

statements	1	2	3	4	5
Mobile banking technology					
Restructuring of the institutions					
Insurance services					
Investment banking service					
Others not specified					

- 8) In which of the following product innovation strategies does your Sacco considers as a key success in customer satisfaction? Please tick on the area considered to 5 very strong, 4 strong, 3 fairly strong, 2 not all , 1 no idea

statements	1	2	3	4	5
New deposit account					
Credit card					
Debit card					
Personal unsecured loan					
Money transfer services					
Product tailored to favor certain group.					

- 9) To what extent do you agree that product innovation strategies play a key role in achieving high market share? In a scale from 1 to 5 (1-not at all, 2-small extent, 3-moderate extent;4-great extent ;5-very great extent:

Very great ( )

Great extent ( )

Moderate extent ( )

Little extent ( )

Not at all ( )

- 10) To what extent do you agree that process innovation is key factor in realization of high turnover in the Sacco? In a scale from 1 to 5 (1-not at all, 2-small extent, 3-moderate extent; 4-great extent; 5-very great extent



statements	1	2	3	4	5
Office automation					
Electronic money transfer					
Internet banking transaction					
Clients data management software					
ATM deposits and withdrawal					
Use of computer					
Others(specify)					

11) To what extent do you agree that for the past three years the Sacco has relatively reduced its transactions cost through implementations of process innovation? In a scale from 1 to 5 (1-not at all, 2-small extent, 3-moderate extent;4-great extent ;5-very great extent

Very great ( )      little extent ( )  
Great extent ( )      Not at all ( )  
Moderate extent ( )

## Appendix 2

List of A Sample of Registered Sacco's in Nairobi County.

Numbers	Name of the Saccos
1	Afya Sacco
2	Balozi Sacco
3	Bomas Sacco
4	Chai Saccos
5	ChakSaccos
6	ChunaSaccos
7	ComocoSaccos
8	ElimuSaccos
9	Harambee Sac
10	HazinaSaccos
11	JamiiSaccos
12	KemriSaccos
13	KenversitySacc
14	KenatcoSaccos
15	KencomSaccos
16	Kenyan bankers Sacco
17	Kenya institute ofadmin Sacco
18	Kenyapolice Sacco
19	Kenya pharmaceuticalSacco

20	Longhorn Sacco
21	Magerezastaff Sacco
22	Mwalimu Sacco
23	Nacico Sacco
24	Nyati Sacco
25	Safaricom Sacco
26	Stima Sacco
27	Teleposta Sacco
28	Ufundi Sacco
29	Waumini Sacco
30	Mhuburi Sacco
31	Tembo Sacco
32	Ubani Sacco
33	Mawasiliano Sacco
34	Industrial development Sacco
35	Minet Sacco
36	Peugetours Sacco
37	Housing magadi Sacco
38	Makataba Sacco
39	Kenpipe Sacco
40	Bank kuu Sacco
41	Kentours Sacco