EFFECT OF INTERNAL CONTROLS ON OPERATIONAL EFFICIENCY OF SACCOS REGISTERED BY SACCO SOCIETY REGULATORY AUTHORITY IN NAIROBI COUNTY

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DECLARATION

I the undersigned declare that this research project is my original work and has not been presented in any other university for academic credit.

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

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DEDICATION

I dedicate this research to my family members that is, wife Eveline, sons Ransly and Reagan

for their love, support, patience, encouragement and understanding during my study.

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LIST OF ABBREVIATIONS

ADB African Development Bank

ANOVA Analysis of variance

CRB Credit Reference Bureau

DTS Deposit taking SACCOs

FP Financial performance

IC Internal control

NACOSTI National Commission of Science, Technology and Innovation

OE Operational efficiency

SACCOS Savings and Credit Co-operative Societies

SASRA Sacco Society Regulatory Authority

SD Standard Deviation

ABSTRACT

The study sought to determine the effects of internal controls on operational efficiency of SACCOs registered by SASRA in Nairobi County. The study is significant in that SACCOs have an important role in social and economic development in our country. These SACCOs in essence face many challenges including mismanagement, corruption and poor governance. Operational efficiency of these SACCOs is greatly affected by lack of proper internal controls. The research objective was to find the effect of internal controls on operational efficiency of the SACCOs registered by SASRA in Nairobi County. The design adopted for this study was descriptive research design. The target population was the 42 registered SACCOs. The study used primary and secondary data. Primary data was collected using interviewer administered questionnaires while secondary data were obtained from annual financial statements of SACCOs. Data obtained was analysed using SPSS version 23. Linear regression model was used to find the relationship between internal controls variables and operational efficiency variable and the strength upon which the independent variables affect the dependent variable. The conclusions from the findings indicate that employing control environment has a significant and favourable impact on operational efficiency of the selected SACCOs. It was also deduced that employing risk assessment has positive and significant relationship with operational efficiency. There is also a positive and significant relationship between control activities and operational efficiency of all the SACCOs. Lastly, the study also established a significant and positive relationship between monitoring and operational efficiency. Overall regression analysis established that internal controls have a strong positive correlation with operational efficiency. The study recommends that to obtain the gains linked with successful internal controls, the SACCOs in Nairobi County need to employ control environment. The organization should ensure they adopt sound human resource practices, a strong presence of tight controls of budgets, and the effectiveness of a well-functioning audit with suitable members of staff in the audit committee, commitment to competence and structure of organization and embrace the new practices brought about by new technology. Regardless of the fact that some SACCOs don't employ risk assessment, efforts should be taken into consideration to have presence of mechanisms in place for minimizing risks, have risk and compliance department in the SACCOS and make SACCO objectives known to everyone. To improve the operational efficiency, there is need to employ control activities in SACCOs. This should embrace practices such as conducting of reviews in regard to performance operations, authorization and approval of transactions by relevant persons.

CHAPTER ONE: INTRODUCTION

1.1 Background to the Study.

Recent incidences of organisational frauds and breakdown are preceded by failures in structures of internal control (Njiru & Bunyasi, 2016). The increase in business failures and many publications on fraud and corruption have put many organizations in toes in putting more efforts in strengthening internal controls, managers are thus pushed to ensure internal controls are functioning effectively and the same assurance is given to Board of Directors and shareholders (Kuhn and Sutton, 2010).The internal control mechanism in general affects the quality of reporting of accounting information which in long run give rise to reports which can be relied on (Jensen, 2003).

The applicable theories were agency, stakeholder and contingency theories. The theory of agency by Jensen and Meckling (1976) concerns itself in resolving challenges and problems that exist between principals and agents. Studies carried out by other scholars reveal that IC which is effective decrease expenditures of agency (Abdel-khalik, 1993). The study also employed contingency theory which argued that the business external environment, the size of the organisation, strategy, technology employed and the national culture influence the control systems in the management of any institution (Woods, 2009; Chenhall, 2003).

Good management of SACCOs through IC is important in operations to prevent avoidable costs which affect the growth of an organization. IC shortages in SACCOs are the most direct hindrance against their continued growth. Most SACCOs are not doing well to address the problems encountered (SASRA Report, 2011). Embracing internal controls in running SACCOs is important since firms may fail in management of funds or resources (Singh & Lakanatan, 2002). Many SACCOs still face serious shortcomings with regard to liquidity in

carrying their activities. Proper internal controls give an assurance of sufficient funds in funding plans designed for the business operations hence mitigating the economic down town (SASRA SACCO Supervision Report, 2011).

1.1.1 Internal Control

This is the measure of security undertaken by an organisation to control its activities (Saleemi, 1997). The IC goals relate to dependence of reporting of finances, feedback which is timely in achieving strategic goals and in complying with the set laws, principles, values and regulations (Company's Act cap 486 of Kenya). Moreover, internal control at the transaction level denote those actions undertaken in the achievement of particular objectives internally of procedures which enable in minimising variations (Saleemi et al., 1997). IC helps an organisation to operate efficiently, minimises possibility of asset loss leading to achieving reliable reports on finances (Muraleetharan, 2011). Internal control indicators are as discussed.

Control environment gives a tone to an organisation or institution by persuading people's consciousness (Whittington & Pany, 2001). Control environment can influence consciousness of staff (Aldridge & Colbert, 1994). This is determined by looking into indicators like integrity in an organization, human resource practices, a strong presence of tight controls of budgets, and the effectiveness of a well-functioning audit with suitable members of staff in the audit committee, commitment to competence and structure of organization (Aldridge & Colbert et al., 1994).

Monitoring refers to a process which is followed in a systematic manner to collect, analyse and use the data in tracking the progress of the organisation. Bowrin (2004) argued that the monitoring aspect can be attained over regular supervision among other activities. Through monitoring, an organisation gets an assurance that audit reviews and findings are established

in time (Theofanis, 2001). Monitoring of organisations activities and operations leads to effective and a functioning IC (Amudo & Inanga, 2009). Monitoring was assessed by variables such as presence of strong internal audit function, continuous self-assessment and ongoing monitoring in the organization.

Control activities include procedures, the techniques, policies and mechanisms adopted in safeguarding appropriate response by management in ensuring that the identified risks are checked. These activities include presence/absence of mechanisms for approval and authorization of transactions, verifications, reconciliation and review of duty, segregation and conduct of reviews in regard to performance operations (Rezaee, 2001; Aikins, 2011)

Risk assessment refers to the process or the methods followed in the identification of the available hazards and the risk factors which have a potential in causing harm in an organisation or an institution. The process of risk assessment can enable an institution to analyse all risks facing it (Karagiorgos, 2009). Proper risk assessment leads to balance between risks and reward (Fatemi & Fooladi, 2006). The ultimate cost of failing to carry out risk assessment is probable loss in revenues (Al Tamini & Al-Mazrooei, 2007). Risk assessment was measured by assessment of operational risk, assessment of fraud risk of customers, and credit risk presence or absence of mechanisms in the organization in question.

1.1.2 Operational Efficiency

Hendrickse (2008) stated that OE is the ability of the firm to offer products and services in the most cost-effective way as possible and also maintaining high quality. Bowen and Chen (2001) denotes OE as the calculated planning of a firm in maintaining a secure balance of cost and productivity by identifying the wasteful processes that contribute to loss of organizational resources. OE is a measures of how efficiently firm's product has been produced, stored and offered to customers. An organization that is not OE will not achieve

required returns and it will be impossible to survive difficult economic situations (Funso, 2006).

OE enables a firm to achieve required return and at the same time survive adverse economic conditions through proper utilization of available resources. DeVries and Lin (2010) states that reduced costs as a result from OE enable a firm to achieve higher profit and become successful. Most challenges facing many firms and which can lead to failure if not properly addressed may be prevented by proper financial practices (Uluyol, 2013). Firms that operate efficiently are likely to adhere to corporate governance, social responsibility and be able to comply with regulations such as tax payments.

Methods of measuring OE include Total Asset Turnover (TAT), Fixed-Asset Turnover (FAT) and Equity Turnover (ET). FAT is calculated by dividing the net sales by the average net fixed assets. The ET measures the capability of a firm to generate sales given the investments in the total equity. The TAT measures a firm's capability in generating sales based on total assets invested. OE is however measured using key performance indicators that are specific to a given industry (Gitau, 2014). In this study, OE will be measured by OE ratio that is, expenses divided by revenue which is suitable for the SACCO industry. The optimal ratio is 0.5 or 50%

1.1.3 Relationship between Internal Control and Operational Efficiency

IC is maintained using two foundations; the operating system which are proceedings of performing business and control procedures that enables corporation to perform as expected (Abbas & Iqba, 2012). This suits the contingency and agency theory. The organisational success correlates well with IC in goal attainment (Fadzil, 2005). Many institutions do not install IC as a requirement of abiding by the law but due to the fact that it assists in ensuring that all the functions of management are approved as required (Kenyon & Tilton, 2006).

Theory of Agency by Jensen and Meckling (1976) was used to show the theoretical connections. According to this theory ownership separation and control will lead to conflict of interests between agents and principles thus proper governance is important to assist the institution in balancing these interests among members (Hart, O., 1995). Internal governance mechanism consists of IC, internal audit functions and various stakeholders which might get in conflict thus affecting institutions performance (Gillan, S., 2006; Rezaee, Z., 2007).

Origa (2015) did a research by looking into manufacturing firm's FP and IC. The findings were that IC measures are meant to show, prevent and reduce fraud hence enhancing profitability which is a significant element of OE. Mugo (2009) also stated that a good IC help in minimising risks which negatively impact on profitability.

1.1.4 Savings and Credit Cooperative Societies (SACCOs) in Nairobi County

Mwangi and Wambua (2016) stated that SACCOs have similar objectives of pooling resources which are savings and offering credit to its members which are invested in income generating activities. Establishments of Kenyan SACCOs is done under the Act of cooperative societies (Cap.490). In Nairobi County, as at 31st December 2018, there were 42 DT SACCOs some of which have branches across the country (SASRA SACCO Report, 2018). In 2008, the movement of cooperatives had a national saving of over 31 per cent mobilizing about Kenyan Shillings of 200 billion in domestic savings. Most of the population (63%) derive their welfare from the movement of cooperatives (MOCDM, 2008). The Act of SACCO societies was passed in the year 2008 to help with supervision and regulations thus SASRA was established. The functions of this authority is to carry out supervision and regulation (Republic of Kenya Wanyama, 2009). This Act shows a clear reformation by the Kenyan government in the protection of interest of the members in respective SACCOs.

DT-SACCOs in Kenya continued to grow, in 2016 393.49 billion was reported as the asset base and a total of 3.6 million members 500,000 reportedly being inactive. Loans and assets grew by 15.3% standing at 288.92 billion. In regards to financial soundness 168 DT-SACCOs were able to maintain the sh.10 million core capital standard while the rest 7 failed (SASRA SACCO Supervision Report 2016). To enhance regulations, SACCOs were mandated to have IC (SACCO Society Act 2008).

Due to changing environments and continued competition from other financial institutions for customers, SACCOs have continued to improve the operational efficiencies, new technologies have been adopted in the areas of loan processing, communication, human resource management, cost management and digitally supported products have been developed (SASRA SACCO Supervision Report, 2016). The new developments have enabled SACCOs deliver best services, focus on improving performance and operations and adhering to regulations.

1.2 Research Problem

Internal control should in essence enhances financial reporting and compliance with laws and regulations however, this has never been the case since despite studies establishing that IC provide firm's confidence in performing certain tasks hence preventing errors and losses by monitoring, recent technological changes and competition for market share has led to difficulties in predicting the effects of variables such as monitoring and control activities on OE hence the need for more recent studies to close these gaps bearing in mind changes in technology, outdated research and time factors impact on organization's performance (Dent & Powell, 2007). The current competitive environment is dynamic and uncontrollable in nature and therefore, organizations are required to frequently adopt and change to enhance performance (George & Jones, 2008).

Despite documented benefits of IC, it is still unclear if indeed it significantly affects OE of SACCOs in Kenya since available studies have not considered time and changes in technology but instead largely dwelt on past performance in other sectors of the economy for instance, Muio (2012) studied on the effect of IC on performance of private hospitals in Nairobi. Furthermore, failures in IC has probed more queries such as does monitoring activities really affect OE? As at 2016, 69 out of 175 DT-SACCOs were able to maintain the 8% institutional capital ratio (SASRA Report, 2016) and the remaining risked suspension for non-compliance, if this is the case, does IC variables safeguard SACCOs' assets if compliance is not adhered to? Do SACCOs carry out risk assessment regularly with regards to OE? Do SACCOs have reliable control activities under IC? In Kenya SACCOs have experienced challenges in terms of capacity of internal management and control of organisational operations. Poor controls in SACCOs has brought a massive loss of investments through the misuse of assets leading to big losses (PROCASUR Africa Report, 2012). Recently in Kenya, member's funds were misused as per Daily Nation report.

From the global perspective, several empirical researches exist. In Palestine for instance Boyyoud and Sayyad (2015) did a study which covered internal controls and risk management in banks. Islam, (2014) used the model which was CAMEL in proxying the independent variable which was banks' FP. Another study was conducted by Ayagre (2014) on the internal control effectiveness in Ghanaian banks where monitoring and environment control were interrogated as indicators of IC. Further in Nigeria Ejoh and Ejom (2014) looked at the association of FP and internal activities in the tertiary institutions in Nigeria.

Locally studies conducted is with regards to Kenyan SACCOs in terms of poverty reduction, pooling of resources for investment and the socio-economic development and growth to the less privileged. Nevertheless, few researches have been conducted to look into IC and variables such as OE in SACCOs. For example, studies conducted in SACCOs include

Ondieki et al., (2011) who studied influence of external financing on FP of SACCOs in Kisii but did not look into the variables like OE which forms integral part in this study. Another study conducted in Meru County by Nkuru (2015) was set to establish those factors which impact the development of SACCOs in the sector of agriculture. The research did not establish the effect of technology on the performance of the respective SACCOs studied and finally Maingi (2014) established the factors that influence SACCO's financial performance in Kenya, but those variables employed which included earnings and liquidity were totally different from what this study will adopt. There has been no substantial research indicating the effect of IC on OE of SACCOs. Therefore, this research sought to establish the effects of internal control on operational efficiency of SACCOs regulated by SASRA. This study aimed to fill this gap by answering the question "what is the effect of internal controls on operational efficiency of SACCOs registered by SASRA in Nairobi County?"

1.3 Objectives of the Study

To determine the effects of internal controls, that is the effect of control environment, risk assessment, control activities and monitoring on operational efficiency of SACCOs registered by SASRA in Nairobi County.

1.4 Value of the Study

Findings will help SACCOs implement policies and solve challenges associated with internal controls hence contributing to better service delivery to customers which leads to increase in performance. To academicians and researchers, the study will be important as it acts as source of data in regard to internal controls of SACCOs and also as reference material to future academicians in having literature which is reliable in grounding future research.

CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

This part reviewed literature on the researches related to this topic. Also, the section discussed the theoretical framework where theories guiding the study were provided for. In addition, empirical literature looked into the past studies, which have been conducted on the same concept, the conceptual framework was also drawn.

2.2 Theoretical Framework

The current research is endeavoured to discuss only theories with regard to internal control on operational efficiency of SACCOs regulated by SASRA. The theories used for the sake of this study included the agency, stakeholder and contingency theories.

2.2.1 Agency Theory

The proposers are Meckling and Jensen (1976). This theory concerns itself with solving challenges and problems that exist in agents of the principals of an organisation and the principals themselves. This theory first addresses the problem of when desires of the principal and its agents are in conflict hence difficulty in verifying duties of agent and secondly the problem occur if both principal and the agents differ in matters of risk in the organisation. In this case, the difference in risk tolerances, principals and agents tend to be inclined in taking different actions with regard to risks Deumes and Knechel (2008). This theory assert that intervention mechanisms like internal auditing and financial reporting aid in the maintenance of cost effective contracts among the owners of the organisation and the managers in question (Adams, 1994; Davidson, Goodwin-Stewart and Kent, 2015).

Jensen and Meckling (1976) further explains that the incompleteness of information flow on the associations, interests or work performances of agents could be a moral hazard hence adverse in terms of performance of an organisation. These two aspects can affect the agent output in two thematic ways; first by lacking essential knowledge on the matters to be conducted and exactly not doing accordingly to what an agent in question is chosen to do. Therefore, this theory assumes that agents and principals rationally use techniques of contracts in optimizing wealth (Jensen & Meckling, 1976). Therefore, this theory is relevant as the concept of IC is one of approaches and mechanisms employed by organisations to reduce problems associated with agency by reducing their costs that will affect the overall organisational performance (Payne, 2003; AbdelKhalik, 1993).

2.2.2 Stakeholders Theory

Freeman (1984) is the proponent of the above. This theory reveals the three thematic dimensions which include normative, instrumental and descriptive dimensions. Instrumental dimensions are revealed when the model used as management tool and this emerge when the managers in question are in recognition of the interests of the respective stakeholders to bestow them intrinsic importance (Donaldson & Preston 1995).

In the case of SACCOs, multiple stakeholders assume obligations where their demands cannot be completely met. Freeman (1984) argues that those SACCOs in question which are able to build good relations are able to attain greater returns through smooth operations. For instance, those SACCOs which are seen to be socially responsible have an ability in recruiting a qualified team of employees to offer excellent services (Turban, 2000). The management of stakeholders of SACCOs is a part and parcel of organisational strategy that constitute variable to influence organisational performance (Berman et al., 1999).

According to Donaldson et al., (1995) all groups in question participate in a business environment to attain profits. Stakeholder theory emphasise on the making of managerial decisions as well as catering the interest of the stakeholders. Therefore, SACCOs in question appreciate the managers on their role in making decisions which are with full recognition of the interests of the respective stakeholders hence smoother and efficient operations.

2.2.3 Contingency Theory

This was proposed by Fiedler in (1964), it is approached from the organisation behaviour perspective where explanations are levelled to explain how contingent components for example culture and technology affect the designs and functions of the organisation. The effectiveness of the organisation in question depends on the fit between the respective environment in operation, the type of technology employed, how big or small the organisation is, the respective characteristics or features of the structure of the organisation, and the information systems used. This theory gives a description of the associations between context of the business and the effectiveness of structure on the performance of the organisation particularly by relying on financial reporting (Cadez & Guilding, 2008). This theory point that design and the use of the controls are contingent and upon the setting of the organisation where the respective controls are in operation (Fisher, 1998). This theory argues that the organisation coordination and control of internal activities are imposed by technical tasks which encourages the organisation to develop strategies. The theory is relevant in this study since OE as a variable relies on IC in determining the effect of IC on OE of SACCOs.

2.3 Determinants of SACCOs Operational Efficiency

In this study, the researcher adopted policies and regulations by the government, technology and investment policies in place as the determinants of OE.

2.3.1 Investment Policies in Place

Member deposits are used to offer loans to SACCO members who require financing, at times, excess deposits maybe available for investments. For better returns, SACCO's management need to invest excess cash in investments that offer good returns to members in terms of interest and dividends earned at end of SACCO financial year so that members can be happy and appreciate how well their SACCO is operated which leads to member retention. These ventures include money markets and call fixing in commercial banks. However, management have to be extremely cautious to avoid plunging into costly or loss making investments, it's important also to note that a diverse portfolio leads to greater returns (Wagereka, 2013).

It is important to note that SACCOs at times may lack cash due to high loan demand by its members, low deposits and short loan maturities. During such times, a good investment policy enables management counter this early enough instead of waiting for a crisis like borrowing externally which is costly. A good investment policy should be flexible depending on Sacco strategy (Wagereka, 2013).

2.3.2 Government Policies and Regulations

Policies and regulations can have both negative and positive impacts on SACCOs. Legal and regulatory framework necessitates that SACCOs must be licensed and in addition install working internal controls for their daily operations, state capital structure and how liquidity is managed (SASRA Supervisory Report, 2010). Strict and adverse regulations can limit the number of new entrants into the industry and those in operations may continue retaining and expanding their market share.

Government compliance requirements such as minimum share capital, deposits base, and installation of internal control systems which are costly can have major impacts on performance and operations of SACCOs (Wairimu, 2014). Since new technologies are

discovered continuously, SACCOs might install systems as per the requirement of the regulator but the same may become unusable after a short while hence need of upgrades which is quite costly.

2.3.3 Technology

OE of SACCOs can be improved and costs cut through the automation of internal controls which include and not limited to human resource, financial reporting, loan tracking, service delivery and procurement, this is to say that technology has impacts on SACCO performance (Wairimu, 2014).

New technological advancements come with new challenges such as hiring of personnel to operate, back up requirement to minimize loss if hacked, regular updates and maintenance and this eats on SACCO finances hence an impact on performance even though in the long run the cost of operating is reduced through efficiency (Wairimu, 2014).

2.4 Empirical Review

This entailed studies carried out by various authors and researchers both locally and internationally. Empirical review involves direct looking into published work of various authors (Zikmund, 2010). In the words of Miller and Yang (2008), it is through the utilization of others' scholarly work that a researcher can be able to place his work into historical and intellectual perspective enabling the researcher to state why his research is of importance.

2.4.1 International Studies

Jones (2008) studied on IC, accountability and corporate governance in Britain. The variables used were monitoring, control environment and activities and risk assessment. Referential framework was employed to investigate IC use in the medieval organisations 12th century royal exchequer. The findings revealed that the current IC also exist in medieval England. In

the medieval England elements available included stewardship and personal accountability. The study was simply evaluating accountability, corporate governance and IC and did not relate to any key outcome like this research which did.

In Nigeria, Olatunji (2009) researched the effect of system of IC of Wema Bank Plc. Data was collected from Wema Bank Plc. which covered fifty branches. Questionnaires were issued to officers in charge. All the results obtained was analysed through descriptive and inferential statistical models which included the use of chi square, use of graphical presentation, and tabulation. The results revealed that ineffective internal controls caused fraud in banks in Nigeria. It is thus the responsibility of management of every institution to install standard and functioning internal controls to minimise losses and ensure efficiency in operations. The study dealt with one bank in Nigeria as opposed to the whole banking industry, in our case, the research was on all DT SACCOs in Nairobi.

Njanike, (2011) examined internal controls on corporate governance by specifically examining the financial institution from the third world economies. Specifically, the study was done in the Republic of Zimbabwe. The study mainly aimed at bringing out those elements of good corporate governance. The study results showed that failing to adopt internal controls significantly resulted to bad performance of corporate governance. This study related IC and corporate governance, the researcher here used IC and OE.

In Turky, Oral and Yolalan (1990) did a study on functional competence of commercial banks. 20 branches were selected to determine the OE, questionnaires were used and data was analysed by DEA model was found that service-efficient banks were the most profitable therefore from this findings, since the variables used were different, this study evaluated the effect of IC on OE of SACCOs.

In Uganda, Amudo and Inanga (2009) undertook to evaluate systems of IC of ADB Group from regional member countries. This covered public entities projects financed by ADB. Information was gathered, coded and was analysed for the 14 projects undertaken. It was found that some controls were lacking which meant that the control structures were ineffective and operations were affected.

2.4.2 Local Studies

Nyakundi (2014) examined the effect of IC and small and medium enterprise FP in Kisumu, Kenya. Objectives covered were to look into the association of internal controls and ROI. Both stratified and simple techniques of sampling were employed to obtain the sample size from the target population. The design which was employed was cross-sectional. From the findings, it was found that internal controls were linked with FP. The study was interested in FP, even though FP is a significant element of OE, the focus of the study was on small and medium enterprise as opposed to this study which examined the SACCO industry.

Odhiambo (2014) determined the influence IC have on sugarcane grower firms' FP in Kenya. Descriptive survey which was correlation in nature was adopted while questionnaire was adopted to gather the primary sources. Annual reports, published statements were used to collect secondary data. The respondents were finance managers and the heads of internal functions as the key informants. The research employed a SPSS Version 19.0 for data analysis. Results confirmed that systems of IC had a significant connection with the performance of out-grower sugarcane firms. The population used was small as the study only focused on out grower sugarcane firms.

Njeru (2015) explored cash management and DT Sacco's FP in Mount Kenya. Targeted population was 33 DT SACCOs in the region. A simple random sampling was adopted where 92 participants were used to answer the questionnaire. The research design employed was

descriptive in nature to give information with regard to the influence of managing liquidity in deposit taking SACCO's FP. A survey questionnaire was employed to collect information while the secondary sources of information was gathered by the audited and published financial statement of SACCOs regulated by (SASRA). Both inferential and descriptive techniques were employed. It was deduced that there was need to introduce cash management controls in the SACCOs in question. It was also recommended that SASRA as the regulator should strengthen the role and increase awareness levels to fill the gaps.

A study conducted by Olumbe (2012) on association between IC and commercial banks' corporate governance. Variables employed were equity structure, the board of directors and supervisors. Descriptive research design was used and Questionnaires used were structured. Linear regression was adopted to do the analysis. Results indicated that the studied commercial banks incorporated various parameters to determine internal controls and corporate governance. Majority of participants were positive that their banks instituted proper corporate governance. The conceptual framework focused on relating IC and corporate governance rather than OE and variables used were totally different.

Wairimu (2014) wanted to determine corporate governance effect on registered transport Sacco's FP in Nairobi. The objective was to do an assessment on the effect of size of board, meetings frequency and independence, disclosure of financial information and diversity of the board. Data collected was by use of questionnaires. SPSS was employed for data analysis. Findings were that majority of SACCOs in the transport industry in Nairobi has a diversified board members and a connection exists between performance and corporate governance.

2.5 Conceptual Framework

This shows a connection between the variables. Figure 2.1 reveals the independent (IC) and dependent variable (OE).

Control environment
- Competence
- Ethical values

Risk assessment
- Risk identification
- Risk management

Control activities
- Information processing
- Performance reviews

Monitoring mechanisms
- Evaluations
- Routine audits

Control Variables
- Investment Policies in place
- Policies and regulations by the government
- Technology

Operational Efficiency
- Measured by OE Ratio, that is; Revenue/Expenses

Independent Variables   **Dependent Variable**

Figure 2.1: Conceptual Framework; Author, 2019

2.6 Summary of Literature Review

From the review of literature, several scholars and academicians have shown connection between IC and other variables. However, little has been done to show the connection of IC and OE on SACCOs. There is little attention in establishing whether systems of IC of SACCOs influence OE. This research is endeavoured to solve this.

CHAPTER THREE: RESEARCH METHODOLOGY

3.1 Introduction

The chapter explored techniques and approaches that was applied in gathering the information, methods of analysing data and the presentation of the research findings. These approaches included the study design, the population to be used for the study, data collection methods and finally the techniques of data analysis.

3.2 Research Design

This research used descriptive research design. This is used to describe a phenomena or a population in respect to the importance of the studied variables emphasising the associations between the variables in question. This design is useful and very important as it is easy to understand.

3.3 Target Population

42 DT SACCOs in Nairobi was the target population. The study obtained the list of all registered DT SACCOs from SASRA. Census approach was employed to study all the 42 registered SACCOs. Census is chosen because the population is relatively small and data accessible (Furrer et al., 2002; Guo & Sheffield 2006 & Saunder et al., 2003).

3.4 Data Collection

Quantitative techniques were used. A survey was employed to gather primary information on IC and secondary data was from published financials, SACCO websites and newsletters. Questionnaires were distributed to audit managers and equivalents since they are in charge of internal controls. A minimum of one respondent per SACCO was used. The period of review was five years from 2014-2018.

3.5 Validity and Reliability

In the words of Joppe (2002) reliability refers to degree which outcomes are predictable over time and accurate in the population targeted. Joppe (2002) continues to assert that validity determines if the instrument used measure what was intended.The integrity and the consistency of the collected information will be checked to ensure accuracy, uniformity and completeness. The internal consistency is operationalized to show the degree of interconnections of the items adopted in the measuring of constructs (Cozby, 2001). The Cronbach's alpha $0.6 \leq \alpha < 0.7$ shows acceptable internal consistency and in this research, the alpha coefficient for the sample will be above 0.70.

3.6 Data Analysis

Quantitative techniques were employed in analysing the collected information. The information collected was entered into computer aid software SPSS Version 23.0. The quantitative data was by descriptive and inferential statistical analysis. Regression was used to determine the effect of IC on OE.

3.6.1 Analytical Model

The study sought to find whether IC affects operational efficiency (OE) of SACCOS. The controls to be evaluated were control environment (CE), risk assessment (RA), control activities (CoA) and monitoring (M).

Hence; Y= f (CE, RA, CoA, M).

$$Y = f (CE, RA, CoA, M)$$………………………………………………………..... (i)

$$Y = \beta0 + \beta1X1 + \beta2X2 + \beta3X3 + \beta4X4 + \varepsilon$$………………………….. (ii)

Where Y is operational efficiency measured by OE ratio; β0 – Regression equation Constant;

X1 - Control environment measured qualified members in audit function;

X2 - Risk assessment measured by risks identified;

X3 - Control activities measured by reconciliations done;

X4 – Monitoring measured by amount spent in audits.

β_1, β_2, β_3, β_4, coefficients of IC, investment policies in place, policies and regulations by the government and technology; Є- Term error

3.6.2 Operationalization of Study Variables

Variables in this research are as under table 3.1 which also shows the measurement of each and the indicators. The variables are the ones to be used to design the questionnaires used in establishing the connections of IC and OE of the SACCOs registered by SASRA in Nairobi.

Variable	Measurement	Indicators	Citation
Control environment	Ethical values presence, commitment to competence, human resource policies	Number of staff in audit, function, qualified members in audit committee	Hermanso & Beasley, (2005), Hayes et al., (2005)
Risk assessment	Measured by fraud, customer, credit & operational risk assessments.	Risk identification, evaluation and the response.	Rausand (2013) COSO (1985)
Control activities	Frequency of reconciliations done, number of people required to undertake verification of a given transaction, performance reviews	Number of reconciliation and number of review of segregation of duties	AICPA (2005). Gupta, P.P. & Thomson J. C. (2001)
Monitoring	Continuous self-assessment, ongoing monitoring and strong internal audit function.	Amount spent in internal audit, number of qualified personnel in the internal audit function	Faudziah et al., (2005)
Operational Efficiency	OE Ratio; Revenue/Expenses	Rate of cost recovery,	Gitau (2014)

Table 3.1: Operationalization of variables

3.6.3 Significance Test

F-test was conducted to find significant levels. The 95% test was used to observe the confidence level of the variables where a 'p' value of 0.05 and below was significant and 'p' values above 0.05 showed insignificance. ANOVA was conducted to test model appropriateness.

3.6.4 Diagnostics Test

Diagnostics test as per regression analysis were carried out. Linearity test was carried out to ascertain the linear relationship of variables using Pearson's correlation coefficient. Normality test was also carried out to ascertain if the research variables have a normal distribution. Multicollinearity test was conducted to determine the association between the predictor variables.

CHAPTER FOUR: RESEARCH FINDINGS AND DISCUSSION

4.1 Introduction

This part gives the presentation, analysis and interpretation of all the data collected from respondents during the research period. Outcomes of the analyzed data provide information that forms the foundation for discussion, conclusion, and interpretation of the findings and recommendations of the study.

4.2. Return Rate

The study sought to get the response from 38 respondents from the questionnaires administered. The researcher managed to collect 32 questionnaires.

Table 4.1: Return Rate

Category	Frequency	Percent
Returned questionnaires	32	84
Non- Returned questionnaires	6	16
Total	38	100

Source: (Survey data, 2019)

The study had a high return rate of 84% indicating that only 16% of the respondents did not participate. As per Mugenda and Mugenda (2009), a rate of 50% is satisfactory, 60% is good and above 70% is excellent for analysis and reporting. This return rate was adequate to draw conclusions from the study and was therefore representative.

4.2.1 Reliability Test

In the words of Joppe (2002) reliability refers to degree which outcomes are predictable over time and accurate in the population targeted. Joppe (2002) continues to assert that validity determines if the instrument used measure what was intended. To ensure reliability in the research tool, 4 questionnaires were issued which was 10% of the respondents selected at random with the potential characteristics of the respondents that were excluded from final research. Table 4.2 shows the results.

Table 4.2: Reliability Test

Variable	N	Cronbach Alpha
Operational Efficiency	9	0. 974
Control environment	8	0. 793
Risk assessment	5	0. 876
Control activities	5	0. 841
Monitoring mechanisms	4	0.759

Source: (Survey data, 2019)

The research study employed Cronbach's test in determining how reliable the questions were. According to Garson (2012), the computed coefficient Alpha Value of > 0.7 is considered acceptable in the test. The outcomes in table 4.2 shows that all the variables attained the acceptable and recommended level of above 0.7. OE had the highest reliability at 0.974 amongst the variables of the study while monitoring had the lowest reliability at 0.759.

4.3 SACCOs Profile

4.3.1: The Duration that the SACCO has been in Operation

The researcher requested respondents to state the duration in which the SACCOs has been in existence so as to determine implementation of working IC.

Table 4.3 Period that the SACCOs had been in existence

Duration (Years)	Frequency	Percentage
1 - 5	2	6
6 -10	1	3
11 -15	1	3
16 Years and Above	28	88
Total	32	100

Findings indicates that 88% of SACCOs had been in existence for 16 years and above, a tie 3% for between 6-10 years and 11 -15 years, while 6% had been in existence for 1 - 5 years. This shows that most of the SACCOs had been in existence long enough to have IC implemented and working.

4.3.2 Number of Branches

Table 4.4 Number of branches

Duration	Frequency	Percentage
1 - 5 branches	21	66
6 -10 branches	8	25
11 -15 branches	2	6
16 - 20 branches	1	2
Total	32	100

The researcher sought to get from respondents the number of branches each SACCO had. Findings of the study reveals that SACCOs with branches of 1 – 5 were majority with 66%, followed with 6 -10 branches at 25%. SACCOs with 11 -15 branches were only 2 constituting 6% and those with over 16 branches stood at 2%.

4.3.3 Number of Members

The researcher wanted to determine number of members specific SACCO has.

Table 4.5 Number of members

Duration	Frequency	%
1 – 5,000 members	5	16
5.001 – 10,000 members	5	16
10,0001 – 20,000 members	5	16
Above 20,000 members	17	52
Total	32	100

Respondents indicated that 16% had 1 – 5,000 members, 16% had 5.001 – 10,000 members, 16% had 10, 0001 – 20,000 members, and 52% had above 20,000 members. Results obtained require that IC should be put in place for SACCOs to operate efficiently.

4.4: Descriptive Analysis

The section gives descriptive analysis for variables used by the researcher in the study.

4.4.1 Control Environment

The study sought response from the respondents the extent the SACCOs employed control environment. They were to indicate to what extent the statements reflect on the control environment on the Likert scale and the outcome of the response was used to compute the

mean and standard deviation for each statement as per the response. The outcome is presented below.

Table 4.6 Control environment

	N	mean	SD
Strong budgetary controls	32	4.28	0. 634
Hiring of right staff working with effective audit functions	32	3.78	0.608
Proper functioning of audit committee	32	3.87	0. 793
Application of integrity by management	32	4.12	0.707
Presence of reliable financial system	32	3.81	0.693
Feedback provision to low level staff on how internal control is functioning	32	3.72	0.683
Independent discharge of duties by Board of Directors	32	3.97	0.647
Presence of human resource policies	32	3.84	0.723
Overall statistic		3.92	0.686

Descriptive analysis results showed that there are strong budgetary controls with mean and SD being 4.28 and 0. 634, practice of hiring of right staff working with effective audit functions with mean and SD being 3.78 and 0.608, proper functioning of audit committee with mean and SD as 3.87 and 0. 793, application of integrity by management with mean and SD as 4.12 and 0.707, the presence of reliable financial system with mean and SD being 3.81 and 0.693, feedback provision to low level staff on how internal control is functioning with mean and SD as 3.72 and 0.683, and that there is independent discharge of duties by board of

directors with mean and SD being 3.97 and 0.647, while presence of human resource policies had a mean of 3.84 and SD of 0.723, the overall mean and SD for this section stood at 3.92 and 0.686 indicating that SACCOs employing control environment has a significant influence on IC. This is supported by study done by Whittington and Pany (2001) who stated that control environment gives a tone to an organisation or institution by persuading people's consciousness.

4.4.2. Risk Assessment

This involved the extent to which SACCOs employ risk assessment.

Table 4.7 Risk assessment

	N	Mean	SD
Risk identification regularly done	32	4.53	.567
Making Sacco objectives known to everyone	32	3.78	.608
Presence of operational manuals in place for minimizing risks	32	3.78	.793
Presence of risk and compliance department in the SACCO	32	3.81	.693
Risk analysis is done as per laid down operational manuals	32	3.50	.762
Overall statistic		3.88	0.685

The response from respondents on the statement are; risk identification are regularly done giving a mean and SD of 4.53 and 0.567, making SACCO objectives known to everyone with mean and SD of 3.78 and 0.608, presence of operational manuals in place for minimizing risks had a mean of 3.78 and SD of 0.793, the presence of risk and compliance

department in the SACCO had a mean of 3.81 and SD of 0.893 and that risk analysis is done as per laid down operational manuals with mean of 3.50 and SD of 0.792. The overall statistics for this section was of 3.89 mean and SD of 0.685. This shows employing risk assessment has influence on IC. This is supported by study done by Karagiorgos (2009) who concluded that the process of risk assessment can enable an institution to analyse all risks facing it.

4.4.3 SACCOs Employing Control Activities

The outcomes are indicated in table 4.8 below:

Table 4.8 Sacco employing control activities

	N	Mean	SD
Conduct of reviews in regard to performance operations	32	3.94	. 669
Authorization and approval of transactions	32	3.72	.683
Review of segregation of duties	32	3.91	. 641
Physical controls	32	3.66	.745
Account reconciliations and reviews	32	4.07	.504
Overall statistic		3.84	0.644

The response on the statement by respondents are as follows; conduct of reviews in regard to performance operations gave mean as 3.94 and SD of 0.669, authorization and approval of

transactions with mean being 3.72 and SD of 0 .683, review of segregation of duties gave

mean of 3.91 and standard SD of 0.641, there are physical controls with a mean of 3.66 and

SD of 0.745 and account reconciliations and reviews gave mean of 4.07 and SD of 0. 504.

The overall statistics of this section was a mean of 3.84 and a SD of 0.644 showing that

SACCOs employing of control activities have an important influence on IC.

4.4.4 Monitoring Activities

Respondents provided feedback on extent of employment of monitoring activities. Outcomes

are presented in table 4.9 below:

Table 4.9 Monitoring activities

	N	Mean	SD
Conduct of periodic reviews on internal controls implementation	32	4.00	.672
Reviews of reports and resolving of non-compliant issues	32	3.72	. 683
Process checks which are independent to do evaluations on ongoing basis in regard to controls activities	32	4.00	. 762
Continuous self-assessment on ongoing monitoring	32	3.56	.716
Overall statistic		3.76	0.720

The response on the statement are; conduct of review in regard to performance operation

gave mean being 4.00 and SD of 0.672, reviews of reports and resolving of non-compliant

issues with mean of 3.72 and SD of 0.683, process checks which are independent to do

evaluations on ongoing basis in regard to controls activities with mean of 4.00 and SD of

0.762 and continuous self-assessment on ongoing monitoring gave mean as 3.56 and SD of 0.716. The overall statistics of this section was mean of 3.76 and SD of 0.720. This means monitoring activities has a significant influence on IC. This is supported by study done by Theofanis (2001) who stated that through monitoring, an organisation gets an assurance that audit reviews and findings are established.

4.4.5 Operational Efficiency

Respondents gave their views on the extent of the following statement on operation efficiency. The results are as below:

Table 4.10 Operational Efficiency

	N	Mean	SD
The Sacco takes into account the repayment history of the applicant when advancing a loan	32	3.98	.860
The Sacco contacts CRB before loan is advanced	32	3.95	.930
Previous history of a borrower's debt repayments helps the Sacco to decide on loaning	32	4.03	1.071
Mechanisms for member retention and recruitment are in place	32	3.93	.920
Rate of cost recovery is high in my Sacco	32	3.91	1.012
My Sacco monitors borrowers to ensure that funds are utilized for the intended reason	32	3.73	1.296
Sound investment policies in place enhances smooth	32	4.25	1.092

operations

Government policies and regulations affects operations of SACCOs	32	4.26	0.711
Technology has an impact on operations in my SACCO	32	4.06	1.067
Overall statistic		4.13	0.928

The response on the statement are; the Sacco takes into account the repayment history of the applicant when advancing a loan gave mean to be 3.98 and SD of 0.860, the SACCO contacts CRB before loan is advanced gave mean as 3.95 and SD of 0.930, mechanisms for member retention and recruitment are in place with mean of 3.93 and SD of 0.920, previous history of a borrower's debt repayments helps the SACCO to decide on loaning gave a mean of 4.03 and SD of 1.07, SACCO monitors borrowers to ensure that funds are utilized for the intended reason with mean of 3.73 and SD of 1.296, the sound investment policies in place enhances smooth operations with mean of 4.25 and SD of 1.092, government policies and regulations affects operations of SACCOs gave mean as 4.26 and SD of 0.711 while technology has an impact on operations in the SACCOs with mean of 4.06 and SD of 1.067. The overall statistics of this section was a mean of 4.13 and SD of 0.928.

Appropriate measures of OE are the ones which enable the organisation direct its actions in the achievement of the stated objectives and goals (Dixon, 1990). Accordingly, investment policies in place, policies and regulations and technology play a critical role on OE. Policies and regulations can have both negative and positive impacts on OE of SACCOs. A good investment policy should be flexible depending on SACCO's strategy (Wagereka, 2013). Legal and regulatory framework necessitates that SACCOs must be licensed and in addition install working internal controls, state capital structure and how liquidity is managed

(SASRA Supervisory Report, 2010). OE of SACCOs can be improved and costs cut through the automation of internal controls. This is to say that technology has impacts on SACCO OE (Wairimu, 2014).

4.4.6 Operational Efficiency Ratios for 32 SACCOs

It was observed that the revenue and expenses for SACCOs generally had an upward trend for the five years (Appendix VI). The OE ratio varied among the SACCOs for instance in 2014, Saccos such as Afya, Commocco, Stima, Harambee, Ukristo Na Ufanisi, Shoppers Maisha Bora and Chuna spent over 80% of the revenue generated to cater for expenses with Ukristo na Ufanisi spending 100% with nothing left for distribution to the members. However, this generally improved over the years (Apendix VI). It was noted also that Saccos like Magereza, Mwalimu, Nation, Shirika and Waumini maintained their OE ratio at less than 40% through the years (Appendix VI). It was generally found that the SACCOs ended up spending slightly above 50% of revenue generated to meet their day to day operations and still remained with income to distribute to its members. This indicated a positive OE ratio of the SACCOs and no cause of alarm by management and the regulator (SASRA).

4.5 Diagnostic Tests

Regression analysis was employed to develop the model. However, before analysis was carried out, diagnostic tests were conducted to investigate on the basic assumptions of multiple linear regressions.

4.5.1 Linearity Test

Regarding linearity assumption, the linear association of the independent variables on the dependent variables was by using Pearson's correlation coefficient between the OE and each of the variables explained. The results for above are shown below.

Table 4.11 Linearity Test

		Operational efficiency
Control Environment	Pearson Correlation	.781
	Sig. (2-tailed)	.000
	N	32
Risk Assessment	Pearson Correlation	.748
	Sig. (2-tailed	.000
	N	32
Control Activities	Pearson Correlation	.645
	Sig. (2-tailed	.000
	N	32
Monitoring	Pearson Correlation	0.882
	Sig. (2-tailed	.000
	N	32

 Correlation is significant at the 0.01 level (2-tailed).

Source: (Survey data, 2019)

Results presented in table 4.11 shows a significant positive linear relationship between, risk assessment and OE with r= O.748, control environment and OE with r= O.781 control activities and OE with r= 0.645 and monitoring and OE with r= 0.882 and $P < 0.05$ significance level.

4.5.2 Normality Test

For normality test, statistics assessing measures of distribution which are kurtosis and skewness were done and presented in Table 4.11. The rule of thumb on normality

distribution test is that a variable is rationally near to normal if its measures of skewness and kurtosis have values ranging -2.0 and + 2.0, (Cooper & Schindler, 2008). Normality of the variables is shown below.

Table 4.12 Normality test

	N	Skewness		Kurtosis	
	Statistic	Statistic	Std. Error	Statistic	Std. Error
Operational Efficiency	32	-.548	.414	-.298	.809
Control environment	32	-1. 108	.414	.728	.809
Risk assessment	32	-.638	.414	-.190	.809
Control activities	32	-.884	.414	.530	.809
Monitoring	32	-.955	.414	.207	.809
Valid N (listwise)	32				

The outcomes in table 4.12 demonstrates normally distribution with measures of skewness and kurtosis ranging from -2.0 and + 2.0. This indicates that the variables under study which are Control environment with skewness of -1.108 and Kurtosis of 0.728, risk assessment with skewness of -0.638 and kurtosis of -0.190, control activities with skewness of -0.884 and kurtosis of 0.530, monitoring with skewness of -0.995 and kurtosis of 0.207 and OE with skewness of 0.548 and kurtosis of 0.767 are normally distributed.

4.5.3 Test for Multicollinearity

To detect the multicollinearity, the variance inflation factors and tolerance coefficient test for the independent variables are computed.

Table 4.13 multicollinearity test

Collinearity Statistics		
	Tolerance	variance inflation factors (VIF)
Control environment	.327	2.531
Risk assessment	.408	2.792
Control activities	.382	1.682
Monitoring	.335	2.983

All the projected VIF values are comparatively small (less than 10) and the 1/VIF values are more than 0.1. (Control environment =0.327, risk assessment =0.408, control activities =0.382 and monitoring =0.335). This shows absenteeism of multicollinearity between the independent variables. Thus, the outcomes infer that multicollinearity problem was insignificant amongst the independent variables and therefore multicollinearity level is tolerated in the model.

4.6: Correlation Analysis

Pearson correlation was used to determine coefficients that can be employed to quantity the positive or negative relationship amongst the variables. The Pearson coefficient should range from +1 to -1. Any value that contains a zero signifies that there is no association between the two variables. A strong Pearson coefficient should be greater than or equal to 0.5. The correlation results were as below.

Table 4.14   **Correlations Matrix**

		OPERATIONAL EFFICIENCY (OE)	CONTROL ENVIRONMENT (CE)	RISK ASSESSMENT (RA)	CONTROL ACTIVITIES (CA)	MONITORING (MA)
OE	Pearson Correlation	1	.815**	.757**	.642**	.824**
	Sig. (2-tailed)		.000	.000	.000	.000
	N	32	32	32	32	32
CE	Pearson Correlation	.815**	1	.669**	.652**	.814**
	Sig. (2-tailed)	.000		.000	.000	.000
	N	32	32	32	32	32
RA	Pearson Correlation	.757**	.669**	1	.686**	.740**
	Sig. (2-tailed)	.000	.000		.000	.000
	N	32	32	32	32	32
CA	Pearson Correlation	.642**	.652**	.686**	1	.765**
	Sig. (2-tailed)	.000	.000	.000		.000
	N	32	32	32	32	32
MA	Pearson Correlation	.824**	.814**	.740**	.765**	1
	Sig. (2-tailed)	.000	.000	.000	.000	
	N	32	32	32	32	32

**. Correlation is significant at the 0.01 level (2-tailed).

The results above show correlation coefficients of the study variables. From the analysis, it is evident that the relationship between the variable was positive. All of them were significant at 95% level. The correlation analysis shows that control environment had a correlation coefficient of   0.824 with a p-value of less than 0.05, risk assessment with 0.14 with a p-value less than 0.05, control activities with 0.740 with a p-value less than 0.05 and monitoring with 0.765 with p values less than 0.05 respectively.   The analysis depicts existence of strong relationship between IC and OE.

4.7 Regression Analysis

This was employed to construct mathematical relationship between IC and OE. The results are presented below.

Model Summary

This shows summarized results of the regression as displayed in the model. The results are shown below.

Table 4.15 Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.881[a]	.776	.742	.05522

To describe the percentage of variation change in the dependent variable (OE) as explained by IC variables, the study used coefficient of determination to expound whether it's a good predictor. From the outcomes of the analysis, the findings show that IC contributed to 74.2 % of the variation in OE as explained by adjusted R^2 of 0.742 which indicated the model is a good estimator.

Analysis of Variance

ANOVA was conducted to find the impact of the relationship between independent variables and dependent variable of the SACCOs, see below.

Table 4.16 ANOVA

Model	Sum of Squares	Df	Mean Square	F	Sig.
1 Regression	0.285	4	.071	23.344	.000[b]
Residual	.082	27	.003		
Total	0.367	31			

a. Dependent Variable: OE

b. Predictors: (Constant), IC variables

The outcomes of the findings in table above showed significance level was $.000^b$ indicating

that the model is a significant predictor of the association of IC and OE.

4.8 Test for Direct Relationship

This shows significance level on the variables and coefficients. See below.

Table 4.17 Regression analysis results

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
1 (Constant)	-1.162	.184		-6.312	.000
CE	.284	.078	.378	2.373	.025
RA	.126	.061	.293	2.056	.050
CA	-.037	.064	-.084	-.570	.574
MA	.154	.082	.363	1.875	.072

The outcomes of the multiple regression analysis showed direct relationships between the

variables IC and OE as summarized in Table 4.17.

Regression equation obtained from this output is:

Operation efficiency = -1.162+ 0.284 X_1 + 0.126 X_2 -0.037X_3+ 0.154X_4

. Where:

Y = Dependent Variable, (OE)

X_1= Control environment

X_2= Risk assessment

$X_{3=}$ Control activities

X_4= Monitoring

The outcomes of the study indicated that there was positive and significant relationship between control environment and OE at p value $0.000 < 0.05$ and risk assessment was found to have positive and statistically significant relationship on level of OE at P value 0.025 <0.05. Control activities had negative but insignificant effect on OE in SACCOs at p value 0.574 which is greater than 0.05 and monitoring had a positive and significant effect on OE in SACCOs at p value 0.072 <0.05

From the regression model above, the coefficient of control environment was 0.284. This shows that by holding other factors constant, single rise in control environment would result in 28.4% rise on OE value in a direct relationship between control environment and OE of SACCOs. The coefficient of risk assessment was 0.126 showing that by holding other factors constant, a single rise in risk assessment would result in 12.6 % change in OE on SACCO's value. The coefficient of monitoring was 0.154 which show that a single rise in monitoring would result in 15.4% change on OE value in a direct relationship between monitoring and OE of SACCOs.

CHAPTER FIVE: SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This part gives summarized finding, conclusions from the findings and the recommendations. The findings are based on the research objective.

5.2 Summary of Findings

The research aimed to determine the effect of IC on OE of SACCOs registered by SASRA in Nairobi County. The Summary of Findings are:

5.2.1 Control Environment and Operation Efficiency.

The aggregate mean of 3.92 implies that majority of the respondents were in agreement that employing control environment in IC has an influence on OE. A significant correlation existed between the above and OE r = 0.824. Pearson's product moment coefficient of correlation was high suggesting that a strong relationship existed.

5.2.2 Risk Assessment and Operation Efficiency in SACCOs

In determining the relationship between risk assessment and OE in SACCOs, results indicated that many respondents were in agreement that risk assessment has an influence on effectiveness of OE in SACCOs with the overall mean on risk assessment of 3.88. The correlation analysis yielded correlation of r = 0.814 indicating that a strong and positive relationship existed.

5.2.3 Control Activities and Operation Efficiency in SACCOs

In addition, in determining the relationship of control activities and OE in SACCOs, an average mean of 3.84 was obtained indicating that many of the respondents agreed that

control activities influence OE in SACCOs. The results of analysis yielded a correlation of r = 0.740 though the regression coefficient was a negative (-0.037).

5.2.4 Monitoring Activities and Operation Efficiency in SACCOs.

Lastly, on whether a relationship existed between monitoring activities and OE in SACCOs, the correlation was r = 0.765 and the aggregate mean of 3.76 implied that the respondents agreed that monitoring activities have a strong and positive influence on OE in SACCOs with an overall mean as 3.76 suggesting a strong and positive relationship.

5.3 Conclusion

Centered on the research findings, this study arrived with conclusions. The study was to assess how employing control environment enhances OE in SACCOs. The conclusions from the findings indicate that employing control environment has a favorable and significant impact on OE of SACCOs.

The study sought to determine how employing risk assessment influence OE in SACCOs. The conclusions from the findings indicate that employing risk assessment has positive and significant influence on OE of SACCOs.

The study was also to examine how employing control activities influence OE in SACCOs. The conclusions from the findings indicate that employing control activities has a negative and insignificant influence on OE in SACCOs.

Lastly, the study was to establish how employing monitoring activities influences OE in SACCOs. Conclusions from the findings indicate that employing monitoring activities has positive and significant influence on OE in SACCOs.

5.4 Recommendations

Basing on the objective and findings, the researcher made recommendations. To obtain the gains linked with successful IC, the SACCOs in Nairobi County need to employ control environment. The organization should ensure they adopt sound human resource practices, a strong presence of tight controls of budgets, and the effectiveness of a well-functioning audit with suitable members of staff in the audit committee, commitment to competence and structure of organization and embrace the new practices brought about by new technology.

Regardless of the fact that some SACCOs don't employ risk assessment, efforts should be taken into consideration to have presence of mechanisms in place for minimizing risks, have risk and compliance department in the SACCOS and make SACCO objectives known to everyone.

5.5 Limitations of the Study

Due to time factors and resource limitation, the research was centered on 42 SACCOs only while there are more than 174 DT SACCOs in Kenya, thus these outcomes would not be employed for representations of all SACCOs. It is thus imperative for further research to be done using all SACCOS then comparison on outcomes and conclusions to be made.

Further, the researcher faced many delays specifically when authorities such NACOSTI delayed in processing research permit and also the target population delayed in responding to the issued questionnaires. The researcher however mitigated this through persistent follow-up.

5.6 Suggestions for Further Research

The researcher suggests that further research be conducted on SACCOs in other counties for comparison of results and generalization. A comparable study may also be carried out in

other organizations other than SACCOs to establish whether the findings are similar as those generalized in this study.

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APPENDICES

Appendix 1: Introduction letter

Appendix 1I: Research questionnaire

The survey questionnaire is generated to gather information with regard to internal control and SACCO's operational efficiency registered by SASRA. The information gathered is meant for academic purpose only. Kindly give truthful answers by ticking appropriately in the boxes.

SECTION A: SACCOs Profile

1. How many years has the Sacco been in operation?

 1 - 5 [2] 6 -10 [1] 10 -15 [1] 15 and above [28]

2. How many branches does your Sacco have-----------------?

1 - 5 branches [21]   6 – 10 branches [8] 11 – 15 branches [2] 16 - 20 branches [1]

3. How many members does your Sacco have……………..?

1 – 5000 Members   [5]

5001 – 10000 Members   [5]

10001 – 20000 Members   [4]

Above 20000 Members   [18]

SECTION B: Effect of internal controls on operational efficiency of SACCOs

Use a Likert scale of 1-5 where 1- Not at all; 2- Minimal Extent; 3- Moderate extent; 4- Great extent; 5- Very great extent to answer questions 4-8

4. To what extent does your Sacco employ control environment?

Control Environment	1	2	3	4	5

Strong budgetary controls					
Hiring of right staff working with effective audit functions					
Proper functioning of audit committee					
Application of integrity by management					
Presence of reliable financial system					
Feedback provision to low level staff on how internal control is functioning					
Independent discharge of duties by Board of Directors					
Presence of human resource policies					

5. To what extent does your Sacco employ risk assessment?

Risk assessment	1	2	3	4	5
Risk identification regularly done					
Making Sacco objectives known to everyone					
Presence of operational manuals in place for minimizing risks					
Presence of risk and compliance department in the SACCO					
Risk analysis is done as per laid down operational manuals					

6. To what extent does your Sacco employ the listed control activities?

Control Activities	1	2	3	4	5
Conduct of reviews in regard to performance operations					
Authorization and approval of transactions					
Review of segregation of duties					
Physical controls					
Account reconciliations and reviews					

7. To what extent does your Sacco employ the listed monitoring activities?

Monitoring	1	2	3	4	5
Conduct of periodic reviews on internal controls implementation					
Reviews of reports and resolving of non-compliant issues					
Process checks which are independent to do evaluations on ongoing basis in regard to controls activities					
Continuous self-assessment on ongoing monitoring					

8. To what extent does your Sacco employ operational efficiency?

Operational Efficiency	1	2	3	4	5
The Sacco takes into account the repayment history of the applicant when advancing a loan					

The Sacco contacts CRB before loan is advanced					
Previous history of a borrower's debt repayments helps the Sacco to decide on loaning					
Mechanisms for member retention and recruitment are in place					
Rate of cost recovery is high in my Sacco					
My Sacco monitors borrowers to ensure that funds are utilized for the intended reason					
Sound investment policies in place enhances smooth operations					
Government policies and regulations affects operations of SACCOs					
Technology has an impact on operations					

Thank you for taking your time to respond

Appendix III - List of SACCOs

DT SACCOs AS AT DECEMBER 2018.

SNO	NAME OF SACCO	ADDRESS
1	AFYA SACCO SOCIETY LTD	P.O.BOX 11607 – 00400, NAIROBI.
2	AIRPORTS SACCO SOCIETY LTD	P.O. BOX 19001 – 00501, NAIROBI
3	ARDHI SACCO SOCIETY LTD	P.O. BOX 28782 – 00200, NAIROBI.
4	ASILI SACCO SOCIETY LTD	P.O.BOX 49064 – 00100, NAIROBI.
5	CHAI SACCO SOCIETY LTD	P.O.BOX 278 – 00200, NAIROBI.
6	CHUNA SACCO SOCIETY LTD	P.O.BOX 30197 – 00100, NAIROBI.
7	COMOCO SACCO SOCIETY LTD	P.O. BOX 30135 – 00100, NAIROBI
8	ELIMU SACCO SOCIETY LTD	P.O BOX 10073 – 00100, NAIROBI.
9	FUNDILIMA SACCO SOCIETY LTD	P.O.BOX 62000 – 00200, NAIROBI.
10	HARAMBEE SACCO SOCIETY LTD	P.O.BOX 47815 – 00100, NAIROBI.
11	HAZINA SACCO SOCIETY LTD	P.O.BOX 59877 – 00200, NAIROBI.
12	JAMII SACCO SOCIETY LTD	P.O.BOX 57929 – 00200, NAIROBI.
13	KENPIPE SACCO SOCIETY LTD	P.O.BOX 314 – 00507, NAIROBI.
14	KENVERSITY SACCO SOCIETY LTD	P.O.BOX 10263 – 00100, NAIROBI.
15	KENYA BANKERS SACCO SOCIETY LTD	P.O.BOX 73236 – 00200, NAIROBI.
16	KENYA POLICE SACCO SOCIETY LTD	P.O.BOX 51042 – 00200, NAIROBI.
17	KINGDOM SACCO SOCIETY LTD	P.O.BOX 8017 – 00300, NAIROBI.
18	MAGEREZA SACCO SOCIETY LTD	P.O.BOX 53131 – 00200, NAIROBI.
19	MAISHA BORA SACCO SOCIETY LTD	P.O.BOX 72713 – 00200, NAIROBI.
20	METROPOLITAN NATIONAL SACCO LTD	P.O.BOX 5684 – 00100, NAIROBI.
21	MWALIMU NATIONAL SACCO LTD	P.O.BOX 62641 – 00200, NAIROBI.
22	MWITO SACCO SOCIETY LTD	P.O.BOX 56763 – 00200, NAIROBI.

23	NACICO SACCO SOCIETY LTD	P.O.BOX 34525 – 00100, NAIROBI.
24	NAFAKA SACCO SOCIETY LTD	P.O.BOX 30586 – 00100, NAIROBI.
25	NATION SACCO SOCIETY LTD	P.O.BOX 22022 – 00400, NAIROBI.
26	NSSF SACCO SOCIETY LTD	P.O.BOX 43338 – 00100, NAROBI.
27	NYATI SACCO SOCIETY LTD	P.O. BOX 7601 – 00200, NAIROBI.
28	SAFARICOM SACCO SOCIETY LTD	P.O.BOX 66827 – 00800, NAIROBI.
29	SHERIA SACCO SOCIETY LTD	P.O.BOX 34390 – 00100, NAIROBI.
30	SHIRIKA SACCO SOCIETY LTD	P.O BOX 43429 – 00100, NAIROBI.
31	SHOPPERS SACCO SOCIETY LTD	P.O. BOX 16 – 00507, NAIROBI.
32	STIMA SACCO SOCIETY LTD	P.O.BOX 75629 – 00200, NAIROBI.
33	TAQWA SACCO SOCIETY LTD	P.O. BOX 10180 – 00100, NAIROBI.
34	TEMBO SACCO SOCIETY LTD	P.O.BOX 91 – 00618, RUARAKA NBI.
35	UFANISI SACCO SOCIETY LTD	P.O. BOX 2973 – 00200, NAIROBI.
36	UKRISTO NA UFANISI WA ANGLICANA SACCO	P.O BOX 872 – 00605, NAIROBI.
37	UKULIMA SACO SOCIETY LTD	P.O.BOX 44071 – 00100, NAIROBI.
38	UNAITAS SACCO SOCIETY LTD	P.O.BOX 38721– 00100, NAIROBI.
39	UNITED NATIONS SACCO SOCIETY LTD	P.O.BOX 30552 – 00100, NAIROBI
40	WANA – ANGA SACCO SOCIETY LTD	P.O.BOX 34680 – 00100, NAIROBI.
41	WANANDEGE SACCO SOCIETY LTD	P.O.BOX 19074 – 00501, NAIROBI.
42	WAUMINI SACCO SOCIETY LTD	P.O.BOX 66121 – 00800, NAIROBI.

Appendix IV –Revenue for DT SACCOs in Nairobi County from year 2014-2018.

NO	NAME OF SACCO	2014	2015	2016	2017	2018
1	AFYA SACCO SOCIETY LTD	1,547,453,091	1,543,969,849	2,161,478,416	2,149,118,025	2,235,890,486
2	AIRPORTS SACCO SOCIETY LTD	68,438,683	71,044,112	79,403,458	85,965,185	101,699,201
3	ARDHI SACCO SOCIETY LTD	154,053,377	149,805,934	171,581,800	197,909,076	207,372,768
4	ASILI SACCO SOCIETY LTD	196,795,718	251,247,776	244,157,369	238,093,380	239,454,259
5	CHAI SACCO SOCIETY LTD	264,422,830	334,709,123	401,421,017	445,707,535	508,582,736
6	CHUNA SACCO SOCIETY LTD	214,715,812	226,013,887	223,402,872	180,213,514	160,839,346
7	COMOCO SACCO SOCIETY LTD	106,632,364	111,308,004	104,478,362	101,990,296	98,112,463
8	ELIMU SACCO SOCIETY LTD	137,523,480	155,020,013	159,582,008	162,985,758	162,985,759
9	FUNDILIMA SACCO SOCIETY	83,489,065	88,094,361	112,786,671	114,381,075	131,924,377
10	HARAMBEE SACCO SOCIETY	1,971,411,574	2,065,006,537	2,346,461,983	3,696,538,120	2,659,329,432
11	HAZINA SACCO SOCIETY LTD	504,132,392	605,776,399	700,287,626	781,902,095	905,303,847
12	JAMII SACCO SOCIETY LTD	339,894,210	393,128,791	417,890,470	486,621,072	532,654,923
13	KENPIPE SACCO SOCIETY LTD	215,075,926	254,683,162	294,450,199	294,722,207	351,610,089
14	KENVERSITY SACCO SOCIETY	195,255,809	230,583,939	288,081,724	321,295,520	382,291,246
15	KENYA BANKERS SACCO	531,545,485	653,378,438	771,469,459	782,283,975	749,774,179
16	KENYA POLICE SACCO	2,024,825,000	2,589,126,000	3,125,566,000	3,855,895,000	4,575,684,000
17	KINGDOM SACCO SOCIETY LTD	93,861,180	124,219,827	153,642,710	185,310,443	237,571,149
18	MAGEREZA SACCO SOCIETY LTD	415,623,374	472,820,413	553,585,727	596,611,730	687,966,387

19	**MAISHA BORA SACCO SOCIETY**	198,931,516	233,035,014	279,174,509	329,771,269	384,920,168
20	**METROPOLITAN NATIONAL**	946,830,578	1,227,499,577	192,026,0018	2,655,941,523	2,118,196,951
21	**MWALIMU NATIONAL SACCO**	3,503,797,068	4,228,000,000	4,972,207,000	5,076,073,000	5,824,234,000
22	**MWITO SACCO SOCIETY LTD**	101,553,954	124,141,885	153,250,496	181,444,611	226,660,425
23	**NACICO SACCO SOCIETY LTD**	378,393,137	446,731,782	535,042,378	602,982,057	654,160,752
24	**NAFAKA SACCO SOCIETY LTD**	65,251,529	64,702,479	73,557,231	77,692,783	88,452,572
25	**NATION SACCO SOCIETY LTD**	126,772,210	156,834,196	177,643,258	201,520,561	225,095,365
26	**NSSF SACCO SOCIETY LTD**	187,136,393	197,339,638	222,760,048	259,038,917	284,953,002
27	**NYATI SACCO SOCIETY LTD**	245,780,335	299,461,593	360,781,727	427,311,419	506,238,014
28	**SAFARICOM SACCO SOCIETY**	224,695,521	335,123,794	448,652,271	585,120,432	621,840,744
29	**SHERIA SACCO SOCIETY LTD**	411,623,721	530,633,700	575,491,342	591,108,991	661,053,836
30	**SHIRIKA SACCO SOCIETY LTD**	166,573,793	202,768,795	231,172,406	263,973,439	326,031,247
31	**SHOPPERS SACCO SOCIETY LTD**	278,977,619	305,417,429	363,431,656	317,962,183	170,890,991
32	**STIMA SACCO SOCIETY LTD**	2,211,423,560	2,662,913,000	3,404,203,000	3,608,518,000	3,941,248,000
33	**TAQWA SACCO SOCIETY LTD**		8,156,450	14,357,500	21,710,138	25,964,089
34	**TEMBO SACCO SOCIETY LTD**	157,471,988	1,101,296,039	1,532,649,348	1,572,772,099	1,952,799,537
35	**UFANISI SACCO SOCIETY LTD**	16,565,553	20,512,853	28,567,704	32,441,568	38,409,610
36	**UKRISTO NA UFANISI WA**	137,723,496	149,797,218	179,397,671	201,072,768	214,917,158
37	**UKULIMA SACO SOCIETY LTD**	960,912,181	1,092,061,489	1,128,472,576	1,245,586,811	1,433,408,049
38	**UNAITAS SACCO SOCIETY**					

	LTD	1,109,930,571	1,455,370,763	1,688,758,553	1,617,895,426	1,844,639,731
39	UNITED NATIONS SACCO LTD	1,231,177,970	1,412,184,156	1,300,313,857	1,298,597,970	1,382,591,515
40	WANA – ANGA SACCO LTD	141,010,489	162,138,316	181,466,308	161,583,649	174,796,911
41	WANANDEGE SACCO LTD	118,707,336	201,643,940	157,609,128	168,627,865	197,222,485
42	WAUMINI SACCO SOCIETY LTD	290,606,960	323,231,873	386,674,432	458,679,951	546,371,940
	TOTAL	22,276,996,848	27,260,932,544	30,897,388,288	35,074,229,313	38,774,143,739

Appendix V – Expenses for DT SACCOs in Nairobi County from year 2014-2018.

NO	NAME OF SACCO	2014	2015	2016	2017	2018
1	AFYA SACCO SOCIETY LTD	1,454,124,008	992,113,129	988,808,093	948,198,794	982,082,760
2	AIRPORTS SACCO SOCIETY LTD	23,278,422	25,043,061	38,043,709	74,409,965	61,213,518
3	ARDHI SACCO SOCIETY LTD	93,784,437	79,736,768	84,600,342	99,213,477	120,600,190
4	ASILI SACCO SOCIETY LTD	127,337,732	126,106,247	91,536,477	94,079,666	117,877,811
5	CHAI SACCO SOCIETY LTD	158,227,058	155,767,402	205,215,772	220,353,564	270,898,992
6	CHUNA SACCO SOCIETY LTD	192,013,931	194,878,403	222,175,955	73,141,969	89,837,946
7	COMOCO SACCO SOCIETY LTD	102,261,987	79,991,360	100,882,421	81,480,542	81,281,169
8	ELIMU SACCO SOCIETY LTD	109,050,054	110,684,892	126,242,172	122,301,534	122,301,534
9	FUNDILIMA SACCO SOCIETY	23,886,587	24,968,804	29,926,540	46,806,810	56,086,196
10	HARAMBEE SACCO SOCIETY	641,762,928	889,226,691	2,149,212,271	2,298,795,997	2,576,846,747
11	HAZINA SACCO SOCIETY LTD	80,362,818	103,228,470	94,645,298	129,438,798	186,694,897
12	JAMII SACCO SOCIETY LTD	115,870,202	109,235,560	121,794,122	134,080,174	157,308,028
13	KENPIPE SACCO SOCIETY LTD	47,078,586	180,559,527	229,754,203	236,708,524	284,156,445
14	KENVERSITY SACCO SOCIETY	150,108,264	185,236,953	218,180,239	251,889,545	344,454,647
15	KENYA BANKERS SACCO	207,042,068	271,710,537	369,918,651	372,199,315	410,079,908
16	KENYA POLICE SACCO	1,751,547,000	2,125,524,000	2,142,260,000	2,315,502,000	2,814,143,000
17	KINGDOM SACCO SOCIETY LTD	44,038,114	52,147,809	59,403,145	66,840,502	67,907,972
18	MAGEREZA SACCO SOCIETY LTD	97,395,870	127,463,958	142,187,220	147,106,774	159,520,977
19	MAISHA BORA SACCO SOCIETY	171,486,241	39,882,515	38,769,459	44,158,328	88,677,413
20	METROPOLITAN NATIONAL	730,334,192	945,397,143	1,295,537,697	1,510,357,712	1,911,782,697
21	MWALIMU NATIONAL SACCO	1,188,633,796	1,231,896,000	1,623,008,000	1,489,996,000	1,746,145,000
22	MWITO SACCO SOCIETY LTD	79,861,409	103,922,821	119,421,863	130,426,979	173,886,622
23	NACICO SACCO SOCIETY LTD	173,143,823	215,139,430	247,312,776	283,445,611	308,624,513
24	NAFAKA SACCO SOCIETY LTD	47,600,135	55,530,498	61,082,095	65,932,574	74,428,838
25	NATION SACCO SOCIETY LTD	36,687,473	49,261,941	60,362,787	64,788,061	82,383,084
26	NSSF SACCO SOCIETY LTD	147,654,045	162,839,062	185,950,636	91,803,335	102,767,238
27	NYATI SACCO SOCIETY LTD	72,392,488	225,424,921	243,333,495	317,896,213	356,013,418
28	SAFARICOM SACCO SOCIETY	51,822,709	93,170,011	105,987,090	495,067,876	311,149,648
29	SHERIA SACCO SOCIETY LTD	146,416,129	138,532,182	202,409,036	259,755,350	265,774,146
30	SHIRIKA SACCO SOCIETY LTD	29,471,503		50,081,327	57,972,069	

			45,364,824			70,667,739
31	**SHOPPERS SACCO SOCIETY LTD**	224,644,840	166,640,706	205,442,377	243,629,668	138,158,081
32	**STIMA SACCO SOCIETY LTD**	1,812,475,000	2,374,072,000	2,856,840,000	2,958,015,000	3,214,691,000
33	**TAQWA SACCO SOCIETY LTD**		4,221,568	6,284,791	12,155,816	16,203,087
34	**TEMBO SACCO SOCIETY LTD**	87,382,323	194,697,339	232,228,824	272,456,799	358,524,241
35	**UFANISI SACCO SOCIETY LTD**	11,838,811	12,482,112	14,086,859	16,542,615	16,953,598
36	**UKRISTO NA UFANISI WA**	71,458,752	93,361,082	114,843,828	131,697,200	213,880,010
37	**UKULIMA SACO SOCIETY LTD**	411,284,445	454,255,209	470,023,622	521,322,467	457,512,859
38	**UNAITAS SACCO SOCIETY LTD**	851,467,598	619,571,876	958,147,596	1,265,519,505	1,476,706,742
39	**UNITED NATIONS SACCO LTD**	845,174,416	1,065,191,524	1,073,987,538	1,117,767,680	1,159,046,313
40	**WANA – ANGA SACCO LTD**	69,456,741	94,394,572	103,433,803	126,335,920	151,534,142
41	**WANANDEGE SACCO LTD**	131,592,140	118,707,336	113,042,587	110,698,872	109,192,539
42	**WAUMINI SACCO SOCIETY LTD**	91,760,294	94,594,594	141,230,434	166,747,035	216,647,889
	TOTAL	12,903,209,369	14,432,174,837	17,937,635,150	16,016,357,634	21,924,643,594

Appendix VI- Operational Efficiency ratios Year 2014-Year 2018

NO	NAME OF SACCO	REVENUE AND EXPENDITURE FOR EACH SACCO FROM YEAR 2014-YEAR 2018 (KSH)										Operational Efficiency Ratios (%)				
		2014-REV	EXP	2015-REV	EXP	2016-REV	EXP	2017-REV	EXP	2018-REV	EXP	2014	2015	2016	2017	2018
1	AFYA	1547453091	1454124008	1543969849	992113129	2161478416	988808093	2149118025	948198794	2235890486	982082760	94%	64%	46%	44%	44%
2	ASILI	196795718	127337732	251247776	126106247	244157369	91536477	238093380	94079666	239454259	117877811	65%	50%	37%	40%	49%
3	CHAI	264422830	158227058	334709123	155767402	401421017	205215772	445707535	220353564	508582736	270898992	60%	47%	51%	49%	53%
4	CHUNA	214715812	192013931	226013887	194878403	223402872	222175955	180213514	73141969	160839346	89837946	89%	86%	99%	41%	56%
5	COMOCO	106632364	102261987	111308004	79991360	104478362	101990296	101990296	81480542	98112463	81281169	96%	72%	97%	80%	83%
6	ELIMU	137523480	109050054	155020013	110684892	159582008	126242172	162985758	122301534	162985759	122301534	79%	71%	79%	75%	75%
7	HARAMBEE	1971411574	641762928	2065006537	889226691	2346461983	2149212271	2296538120	2298795997	2659329432	2576846747	33%	43%	92%	62%	97%
8	JAMII	339894210	115870202	393128791	109235560	417890470	121794122	486621072	134080174	532654923	157308028	34%	28%	29%	28%	30%
9	KENPIPE	215075926	47078586	254683162	180559527	294450199	229754203	294722207	236708524	351610089	284156445	22%	71%	78%	80%	81%
10	KENYA BANKERS	531545485	207042068	653378438	271710537	771469459	369918651	782283975	372199315	749774179	410079908	39%	42%	48%	48%	55%
11	KENYA POLICE	2024825000	1751547000	2589126000	2125524000	3125566000	2142260000	3855895000	2315502000	4575684000	2814143000	87%	82%	69%	60%	62%
12	MAGEREZA	4156233374	97395870	4728204133	127463958	5535855727	142187220	5966117304	147106774	6879663874	159520977	23%	27%	26%	25%	23%
13	MAISHA BORA	198931516	171486241	233035014	39882515	279174509	38769459	329771269	44158328	384920168	88677413	86%	17%	14%	13%	23%
14	METROPOLITAN	946830578	730334192	1227499577	945397143	1920260018	1295537697	2655941523	1510357712	2118196951	1911782697	77%	77%	67%	57%	90%
15	MWALIMU NATIONAL	3503797068	1188633796	4228000000	1231896000	4972207000	1623008000	5076073000	1489996000	5824234000	1746145000	34%	29%	33%	29%	30%
16	MWITO	101553954	79861409	124141885	103922821	153250496	119421863	181444611	130426979	226660425	173886622	79%	84%	78%	72%	77%
17	NACICO	378393137	173143823	446731782	215139430	535042378	247312776	602982057	283445611	654160752	308624513	46%	48%	46%	47%	47%
18	NAFAKA	65251529	47600135	64702479	55530498	73557231	61082095	77692783	65932574	88452572	74428838	73%	86%	83%	85%	84%
19	NATION	126772210	36687473	156834196	49261941	177643258	60362787	201520561	64788061	225095365	82383084	29%	31%	34%	32%	37%
20	NSSF	187136393	147654045	197339638	162839062	222760048	185950636	259038917	91803335	284953002	102767238	79%	83%	83%	35%	36%
21	NYATI	245780335	72392488	299461593	225424921	360781727	243333495	427311419	317896213	506238014	356013418	29%	75%	67%	74%	70%
22	SAFARICOM	224695521	51822709	335123794	93170011	448652271	105987090	585120432	495067876	621840744	311149648	23%	28%	24%	85%	50%
23	SHERIA	411623721	146416129	530633700	138532182	575491342	202409036	591108991	259755350	661053836	265774146	36%	26%	35%	44%	40%
24	SHIRIKA	166573793	29471503	202768795	45364824	231172406	50081327	263973439	57972069	326031247	70667739	18%	22%	22%	22%	22%
25	SHOPPERS	278977619	224644840	305417429	166640706	363431656	205442377	317962183	243629668	170890991	138158081	81%	55%	57%	77%	81%
26	STIMA	2211423560	1812475000	2662913000	2374072000	3404203000	2856818000	3608515000	2958048000	3941248000	3214691000	82%	89%	84%	82%	82%
27	TAQWA			8156450	4221568	14357500	6284791	21710138	12155816	25964089	16203087	0%	52%	44%	56%	62%
28	UFANISI	16565553	11838811	20512853	12482112	28567704	14086859	32441568	16542615	38409610	16953598	71%	61%	49%	51%	44%
29	UKRISTO NA UFANISI	137723496	71458752	149797218	93361082	179397671	114843828	201072768	131697200	214917158	213880010	52%	62%	64%	65%	100%
30	UKULIMA	960912181	411284445	1092061489	454255209	1128472576	470023622	1245586811	521322467	1433408049	457512859	43%	42%	42%	42%	32%
31	WANA – ANGA	141010489	69456741	162138316	94394572	181466308	103433803	161583649	126335920	174796911	151534142	49%	58%	57%	78%	87%
32	WAUMINI	290606960	91760294	323231873	94594594	386674432	141230434	458679951	166747035	546371940	216647889	32%	29%	37%	36%	40%