# THE EFFECT OF CREDIT DEFAULT ON THE GROWTH IN TURNOVER OF SAVINGS AND CREDIT CO-OPERATIVES SOCIETIES REGULATED BY SACCOs SOCIETIES REGULATORY AUTHORITY IN KENYA.

**BY**

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# DECLARATION

I, the undersigned, declare that this is my original work and has not been submitted to any other university or institution other than University of Nairobi 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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# LIST OF ABBREVIATIONS

| | |
|---|---|
| ACCOSCA | African Confederation of Cooperative Savings and Credit Association |
| ANOVA | Analysis of Variance |
| BOSA | Back Office Service Activity |
| FOSA | Front Office Service Activity |
| IMF | International Monetary Fund |
| KUSCCO | Kenya Union of Savings and Credit Co-operatives |
| MIED | Ministry of Industrialization and Enterprise Development |
| SACCO's | Savings and Credit Co-operatives Societies |
| SASRA | Sacco Societies Regulatory Authority |
| SPSS | Statistical Package for Social Sciences |

# ABSTRACT

SACCOs in Kenya have been endeavoring with an objective to maximize their returns and growth through mobilization of members' funds and granting credit to members' development however the problem of credit default has made it difficult for SACCOs to grow their wealth, achieve this objective and contribute favorably to national domestic savings. Basically credit default occurs when borrowers do not repay the principal and interest within the agreed time and in the expected amount leading to loss of income in terms pending interest payments which could have been converted into new Credits. This affects the liquidity of the SACCOs and eventually its cash flows thus reducing the expected turnover. This study used descriptive research design to solicit information on the effect of credit default ion the growth in turnover of SACCOs. The study targeted 135 SACCOs in Kenya which are regulated by SASRA; the sampling method chosen was purposive sampling to form to select 35 SACCOs based in Nairobi. The study used secondary data collected from financial statements and other relevant articles to obtain information on turnover, credit defaults, members' deposits, total assets and total Credits of SACCOs. A linear regression model of turnover versus credit default and member deposits was applied to determine their relationships. The data was reviewed and analyzed using SPSS Version 20 and used descriptive statistics. Correlation coefficient revealed that credit default and turnover had a moderate negative influence on the growth in turnover, while member deposits had an average positive influence on turnover at 95% confidence level. It was therefore concluded that credit default affected annual turnover of SACCOs. The tests showed that the overall regression model is a good fit for the data as the independent variables can statistically predict the dependent variable. For policy implications the study will insight SACCOs to curb credit default for envisioned sustainability and growth. It agitates that SACCOs must continuously review their credit policies and procedures to capture the character and creditability of Credit applicants for recovery of all credits disbursed.

# CHAPTER ONE

# INTRODUCTION

## 1.1 Background of the Study

According to African Confederation of Cooperative Savings and Credit Association (ACCOSCA, 2011), SACCOs are classified as vehicles for economic growth as they a vital role in its sustenance and development. They have solid bases of small savings accounts with stable and relatively low-cost source of funding and low administrative costs, (Branch,2005) .Bailey (2001), defines SACCOs as cooperatives which provide its members with convenient and secure way of saving money and obtaining credit at affordable interest rates. A cooperative is an autonomous association of persons united voluntarily to meet their common economic and social needs (International Co-operative Alliance, 2002). Furthermore co-operatives particularly SACCOs are integral part of the government economic strategy for income generating opportunities both in rural and urban areas.

Study by Chipembere (2009) assert that performance of SACCOs is mainly determined by the management and governance structures, apart from financial deficiencies, the provision of Credit products to profitable low risk borrower members and the appropriate risk management are more indefinable. However, managers need to reduce Credit default risk because the institutions financial viability is weakened by loss of principal and interest, the cost of recovery and opportunity cost of management time taken to follow up, (Eales and Bosworth, 1998).

The provision of credit has increasingly been regarded as a tool for raising the incomes of populations through mobilization of resources to productive uses. However, credit risk as compared to other kind of risks has a greater magnitude and higher level of losses, as it affects stability and growth which can lead to failure of any financial institution. While several of the institutions have faced difficulties over the years for myriad reasons, major causes can be directly linked to lax credit standards for borrowers, poor portfolio risk management and lack of attention to macroeconomic changes that can lead to deterioration in the credit standing of borrowers, (Basel, 1999).Generally, SACCOs are a form of financial intermediary which play a vital role in provision of financial services to their members. This study was concerned with the assessment of the effect of credit default risk on the growth of turnover in SACCOs in Kenya.

### 1.1.1 Credit Default

According to Chijoriga (1997) credit default is one of the most expensive risks in financial institutions and it has a significant side effect; as it directly threatens the solvency, inability to meet its short term and long-term obligations, by the institution. It also refers to Credit delinquency which is the probability that principal, interest or both will not be paid on the due date and in the agreed amount, thus violating the Credit covenant. There are major factors that can lead to Credit default by borrowers which include poor supervision, attitudes towards repayments, inefficient policies, and inadequate government intervention.

Gaita (2007) showed that the lending institutions were not growing significantly due to poor lending practices. The recommendations of the study were that the institutions

should make more products and services available to customers and to have favorable regulatory and legal framework to enable efficiency in Credits management and acceptable average collection period. These generally lead to enhanced shareholders confidence, attraction of new members and prevention of potential crises.

Credit default is a major concern to any lending financial institution as it can make it vulnerable and therefore effective lending procedures need to be considered. Other factors that largely lead to high default rates are lack of reliable information about borrowers, weak institutional policy framework and shrinking economic growth. Gachara (1990) did a study on investment practices of reserve funds in SACCOs, the study concluded that the criteria of investing on reserve could affect their performance through reduction of financier problems caused by defaulters. This study shall determine credit default through the actual Credit defaults.

### 1.1.2 Growth in Turnover

Growth in turnover is a key objective for any firm, Penrose (1959) in the theory of the growth of the firm, postulates that the ways in which firms grow and how fast they do depends on some important administrative restraints connected with the human resources required for the management of change as tied to the individual firm. They are internally scarce, expansion requires the recruitment of more such resources and new recruits cannot become fully effective overnight; the growth process is therefore dynamically constrained.

Accordance with the study of Ronald (2011) SACCOs have registered tremendous growth since mid 70s and have currently achieved an average growth of 25% per year in

deposits and assets. In addition they have created employment thus hugely contributing to the achievement of Vision 2030 and the Kenyan economy as a whole. Mumanyi (2014) the rapid growth signify that they are filling a need, in terms of provision of credit for a wide range of purposes and a relatively affordable terms, which has not been met by other financial institutions especially banks.

Financial ratios which use data from the firm's statements of financial position, statement of comprehensive income, statement of cash flow and other market data are often used to gather data to measure the growth of a firm. Growth of SACCOs depends on various factors, previous studies reveal how the following factors can effectively measure growth in terms of number of active members for a given period of time, rebate to Sacco's members as dividends and turnover considering the effect of credit default on the growth on SACCOs. In this study growth in turnover shall be measured by increase in interest income on members' Credits, interest from investments and other operating income for a period of five years.

### 1.1.3 Effect of Credit Default on Growth in Turnover

Schumpeter (1911) in his innovation theory talks about the essentiality of bank credit to introduce something new to break the stationary equilibrium in which the society exists. Credit increases money income, thus increasing demand for products and industries expand by borrowing from the banks, this together with over-optimism and speculation induces a secondary wave of credit inflation. As the innovators start paying out the bank Credits out of profits, the quantity of money decreases and prices tend to fall, thus the profits. Depression ensues when uncertainty and risks increase, leading to credit deflation

as a result of new set of innovations and a new expansion in credit. Credit and growth exhibit bidirectional causality in this theory.

Wenner et al. (2007), postulates that credit default in SACCOs are expected to have negative impact on their growth as can be indicated by low annual turnover, inactive members and low or no dividends to members. Adequately managing credit default in financial institutions is critical for their survival and growth. Young (2006) reiterates that when an organization has a structured platform for effective risk management it may lead to the effectiveness of overall performance. Keitany (2013) carried out a study on the relationship between Credit default and the financial performance of Sacco's in Kenya and the findings were that an increase in Credit default cause decrease in turnover, which explains profitability.

### 1.1.4 Savings and Credit Cooperative Societies in Kenya

Following widespread bank failures in Kenya in the 1980s and 1990s, rural SACCOs which associated with Co-operative bank thrived further as the banks generally withdrew from rural areas, (Cooperative Bank of Kenya Report, 2008).SACCOs in Kenya have been pooling members' savings together until 1990's when sector liberalization enabled diversity of their financing sources through provision of FOSA services leading to satisfaction of their members, (Owen, 2007). The cooperative Societies Act (2004) guides the formation and management of cooperatives in Kenya; it enhances state regulation of cooperative movement through the office of the Commissioner for Cooperative Development. SACCO Societies Act of (2008) provides licensing, regulation, supervision and promotion of SACCOs by SASRA; this is a government agency which licenses and

supervises SACCOs to carry out deposit-taking businesses called Front Office Service Activity (FOSA).

There are over 12,000 registered Cooperatives Societies in Kenya, of which 5,000 are SACCOs offering about 1.5 million jobs, contributing 33% of national savings at the tune of Ksh. 400 billion (MIED,2014). Kenya cooperative movement has an objective to spur sustainable economic growth through a focus to achieve results through strengthening the movement, improvement of cooperative extension service delivery, corporate governance, market access and marketing efficiency (IMF, 2007). The SACCOs comprise both deposit and non-deposit taking, in the current framework Deposit Taking SACCO is the one which operate FOSA activities; a quasi-banking activity undertaken by those licensed by SASRA.

Further, the establishment of SASRA falls within the reform process in the financial sector which has the dual objectives of protecting the SACCO members' interests and guaranteed confidence in the public towards Sector with an aim to spur economic growth through mobilization of domestic savings. The phenomenon of fast growth of SACCOs in Kenya in the last two or so decades can be attributed to provision of credit for a wide range of purposes on a relatively affordable terms and conditions suited for various categories of borrowers (Alila & Obado, 1990).Gaita (2007) in his study on 'factors that influence the growth of enterprises in Kenya' situates that lending institutions fail due to poor practices, when SACCOs manage their Credits efficiently there is high quality Credit management and the average collection period is short thus enhancing shareholders confidence retention which leads to growth of SACCOs wealth.

## 1.2 Research Problem

One of the most fundamental objective of any firm is increasing profitability, or rather growing through maximization of members' benefits to raise their living standards, credit default management is equally important as the default can adversely affect the overall growth. In SACCOS the most important function is to enhance mobilization of savings and provide Credits to members to raise income, invest in employment generating activities and for entrepreneurial development, (Hossain, 1988). For SACCO managers it's paramount to reduce the credit default rate to avoid the weakening of the institutions' viability as a result of lost principal and interest. The social roles conflict with financial viability if managers are less stringent in the lending practices and follow up on the Credits to members. This study sought to close the gap by providing further insights on the effect of credit default on the growth of turnover of SACCOs.

Goto (2004) carried out a study to examine the financial management problems at Nyati SACCO, and revealed that lack of skilled manpower and staff systems, favoritism, and corruption and limited review of the operating system by the supervisory committee as the major causes. Further the same problems affect the operations of many other SACCOs countrywide. According to Mudibo (KUSCCO, 2005) the challenges encountered SACCOs involves unprofessional board of directors who are involved in highly technical issues for example Credit analysis and disbursement, budgeting and financial expenditure control, in addition the guidelines governing various stakeholders, for example authority of credit committees, executive committee and the staff members are insufficient. Furthermore, important decisions on urgent matters for instance change

in interest rates, introduction of new products and proper services have to await approval by the annual general meeting which leads to a lot of inconveniences and losses.

Chege (2006), did a study with a major concern on determinants of Credit default in commercial banks in Kenya, he found out that Credit default was subjected to changes in interest rates, credit scores effect, demographic changes Credit default and value of collateral to security. The recommendations were that there should be lower interest rates, participatory involvement in regulating monetary policy introduction of new Credit products among others; however the study didn't review the how the Credit default has affected growth, which is part of the gap to be filled by this study.

Keitany (2013) reviewed the relationship between Credit default and financial performance of SACCOs in Kenya using descriptive design, a sample of 20 SACCOs the data sources were only secondary data from SASRA. The study findings indicated that there is a strong negative relationship between Credit default and financial performance of SACCOs. This study however seeks to get further information on factors leading to credit default and how this affects growth of SACCOs by covering a larger sample of 35 SACCOs licensed by SASRA. Generally, this study seeks to answer the following question: - What is the effect of credit default on the growth of turnover Sacco's in Kenya?

### 1.3 Objective of the Study

To establish the effect of credit default on the growth in turnover of SACCOs in Kenya.

## 1.4 Value of the Study

The study will be of value to several parties as indicated below:-

The government of Kenya and the East African Community in general may use the findings as an outline on policy formulation for SACCOs to increase their productivity, as they contribute heavily to the economy of Kenya in terms of employment and domestic savings which contributes significantly to national savings (Ministry of Industrialization and Enterprise Development (MIED),2014).In addition SACCOs are major players in financial sector and therefore the study findings can be used to support Vision 2030 as it plays a critical role in savings and investments mobilization for development in Kenya which can be replicated in the East African Community. Allocation of resources in the economy need to be more efficient, where the participation of SACCOs is very crucial (Government of the Republic of Kenya, 2008)

SASRA can apply the knowledge to check out on the poor and ineffective regulations affecting the SACCOs fight in curbing credit defaults and to carry out further studies on the impact of policy and regulation on performance of SACCOs. KUSCCO as the umbrella organization for developing and empowering of SACCOs can use the findings of this study in their bid for the SACCOs to be recognized as the key players in the financial sector and be allowed to join the credit reference system to deal with Credit default.

Scholars and other researchers may use the study to identify further areas of research on SACCOs growth and other factors affecting their growth. This will also be a valuable addition to literature. Further, SACCO management may find the research insightful as it

highlights the causes of credit default and its effect on growth of SACCOs and can capitalize on curbing the default rates. It will further give better understanding on factors leading to high credit defaults. SACCO members will be enlightened and take charge on electing leaders who will be in charge of their savings and investments and come up with internal policies and good governance to reduce cases of credit default for their increased profitability and wealth. They will be careful when guaranteeing other members as they will have more information.

# CHAPTER TWO

# LITERATURE REVIEW

## 2.1 Introduction

This chapter entails the review of theories and previous research that relate to this study. It will provide an assessment on various aspects on credit default, factors leading to credit default in SACCOs and other financial sectors locally as well as internationally, the effect of credit default on growth and performance of a firm, including measures of growth.

## 2.2 Theoretical Review

The following theories are expounded: - growth of wealth theories, stewardship theory and agency theory. They attempt to show the effect of credit default on growth or performance of firms.

### 2.2.1 Growth of Wealth Theories

The neoclassical growth theory argues that the rate of growth is exogenously determined using Harrod Domar model or Solow model which states that savings mobilization is not an end itself, it plays an important role in sustaining growth and development. Solow – Swan (1956) growth theory focuses on capital and labor and indicates that capital is added when SACCOs invest, however lost due to depreciation. The indication is that there is capital growth in wealth only when the investment exceeds depreciation, Gardner (2006). The investment should insist on keeping the capital growing to achieve capital growth, increase in capital yields leads to growth in Sacco's wealth. This theory explains growth as a factor of accumulation of capital, the model is supported by Harrod (1939)

and Domar (1946) models of development economics as they explain growth rate in terms of savings and productivity of capital.

Further the theories postulate that in the long run growth rate is unaffected by the rate of savings or investments, this increase has only a level effect, the steady state value of capital per worker grows and not a growth effect. Thus a growth is exogenous in the sense that the behavior of economic agents does not alter the steady-state growth rate, with assumptions that single good produced with a constant technology, continuous time, no government or international trade, all factors of production fully employed, and that labor force grows at a constant rate, any deviation would cause model to diverge away from the equilibrium.

### 2.2.2 Stewardship Theory

In this theory stewards protect and make profits for the shareholders and they are satisfied and motivated when the objectives of the SACCO are met, (Abdullah & Valentine, 2009). The theory posits that the SACCO managers are stewards who ensure SACCOs are operated effectively to maximize financial performance and shareholders' profits, (Daly et al., 2003). Donaldson & Preston (1995) assert that this theory appreciates the importance of structure which empowers the agents and allows stewards autonomy built on trust.

This model provides an alternative to agency theory in interpreting the principal-agent relationship. It advocates the overriding status of shareholders while presuming that managers interests align with those of their principal, instead of being characterized as opportunist as in agency theory , the managers are described as good stewards, which

gives motivation to attain high levels of returns for members as they are empowered. It suggests the corporate practice to allow ultimate powers of decisions, however the theory has a weakness in that there is no clear line between the board and the management responsibilities.

### 2.2.3 Agency Theory

The agency theory originated in the 1970s in the field of finance and economics, and developed a predominant theoretical support for shareholder value orientation, managers (agents) manages the business for the benefit of their principals (shareholders) and ensures accountability through a single purposed governance structure. Theory rests upon the separation of ownership and management, but whilst this has resulted in conflict as agents are presumed to be imperfect and self-interested as they are tempted to engage in opportunistic behavior for their own benefit rather than doing proper risk management to benefit principals who prefer to maximize their returns, high dividends and stock prices. Information asymmetry restricts the shareholders from making qualified decisions in response to directors' decisions; this offers director's opportunity to pursue their own objectives.

This theory is also concerned with ensuring that managers act to maximize shareholders wealth, it's an efficient market model, (Blair, 1995; Keasey et al., 2004) which recognizes the agency costs, (Jensen & Meckling, 1976). The myopic market models shares a common view with the agency theory where the firm should serve shareholders' interests only. As per this model, short-term performance is completed sacrificing the long-term goals, value and competitive capacity of SACCOs, (Moreland, 1995).

According to this theory earnings can provide a clue as to the firms value, (Stein, 1988). This model argues that maximization of shareholder welfare mean share price maximization. This is owing to the fact that the market system tends to undervalue long-term expenditure which lead to the increase of shareholder welfare.

### 2.3 Determinants of Growth of Turnover in SACCOs

Growth in companies refers to an average increase; in this case the growth is in terms of the annual turnover of SACCOs as determined by interest income from members' loans and other investments. The following are some factors that determine the growth in turnover in SACCOs:-

#### 2.3.1 Innovation

This refers to the introduction of new products to ensure SACCOs remain relevant and are able to adapt to changes in the business environment. Olando et al. (2013) did a study which found out that most of Credit products applied for by members of SACCOs are the ones designed to fit their needs, it was noted that there is regular diversification of products. SACCOs should therefore design proper mechanisms to enhance innovativeness which leads to variety and quality of Credit products hence growth of SACCOs wealth. Innovativeness showed a positive relationship with SACCOs growth. According to Mudibo (2005) major decisions which involve financial stewardship and growth include product innovation, FOSA and BOSA activities, decisions on finance staff, Credit management and asset management.

### 2.3.2 Liquidity

Liquidity, also known as marketability, refers to the degree in which debt obligation due within twelve months can be paid from cash or assets can be converted into cash quickly and how well a firm manages its working capital. It expressed as current assets/current liabilities (current ratio).A study by Ochoki (2007) found out that lack of laws to govern FOSA in terms of lack of qualified staff, improper planning and inadequate capital affect the growth of SACCOs, and therefore sound business practices including a consideration of safety and liquidity is vital.

Further, Muruana (2007) postulates that a failing Credit portfolio, erosion of members' shares and loss of value greatly affect SACCOs wealth. In light of this, Credit recovery should be highly upheld to ensure high earning capacity from investments on Credit, as shown by Credit Recovery Rate (LRI), where high recovery rate indicates growth of SACCOs wealth and low recovery rate the opposite. The recovery should be in line with by-laws set out on Credit requirements, obviously delays in repayment affect the liquidity in that the principal and the interest are withheld at no additional profitable gain thus reduced growth in turnover. A higher liquidity would enable a SACCOs to deal with its unexpected contingencies for example refunds to resigning members and other administrative costs during periods of low earnings.

### 2.3.3 Investments

According to Cheruiyot et al. (2012) the long term investments improve the SACCOs performance to enable them to effectively meet the demands of their members; the most effective strategy for promoting this is transparent management systems. Since 1993,

KUSCCO has been instrumental in encouraging growth in SACCOs through introduction of front office services and offering a platform to invest in however, with challenges such as capacity building, change of attitude, dependence, cost cutting funding unviable projects, promotion of savings culture among others. Increasing interest income is key for SACCOs through creating ways to access more funds to lend to innovative members thus resorting in external borrowing and broadening the lending parameters.

For SACCOs to overcome the low member confidence occasioned by low expectations of achieving capital gains from their savings has caused them to invest in various avenues including government bonds, KUSCCO, Cooperative bank, real estate among others. This has encouraged more savings by members with an expectation of high returns as dividends. A well motivated membership has lead to maximum benefits, variety of products offered, increased deposits which in return enhance profitability, growth and overall liquidity position to more reasonable levels (SACCO Star, 2009).

**2.4 Empirical Review**

Several studies have been done relating to credit default and growth, including the following:-

Chirwa (1997) did a probity model to assess the determinants of the probability of credit repayment among small holders in Malawi, the model analyzed borrowers as being defaulters and non-defaulters. Various specifications of the X-Vector were explored by step-wise elimination; the explanatory power of the model is probable with the log likelihood statistically significant at 1-percent. Four independent variables –gender, amount of Credit, club experience and household size were not statistically significant in

various specifications. This theory is relevant to this study as the Credit repayment by the borrower is dependent of various aspects such as monitoring financial and business performance of the borrower, state of the country's economy and diversion of the Credit funds to other purposes not in the agreement.

Chege (2006) studied the effects of non-remittance of members deduction by the employer to the societies, he deduced that the 64% of SACCOs studied experience the problem and it has a negative impact on SACCO performance, major effects are SACCOs are unable to give further Credits, non-payment of dividends, unmet administrative costs for example salaries. Also some members may withdraw and ultimately liquidity position is likely to deteriorate.

Kimani (2007) did a study and found out that the main causes of inefficiency and ineffectiveness in credit administration were unqualified staff in SACCOs, inadequate funds to lend, inadequate training, lack of effective technology, weak internal control systems and manipulation by credit management committee. He recommends that SACCOs should increase lending funds through external borrowing, competent staff, effective organizational structure and that funds should be allocated to investment with high returns, increase the Credit products to satisfy members, teamwork, adoption of modern technology, adjust interest rates to attract members and have a competitive edge to other financial institutions, networks with other SACCOs, provision of education and training to members and staff, convenient location and corporate social responsibility. Growth and sustainability of SACCOs was related to stewardship and legal framework.

Gomez & Santor (2008) used descriptive statistics and a standard probit model to study if the microfinance model actually work in Nova Scotia, Canada and the study revealed that the ratio of household income to Credit repayment was higher for group than individual borrowers (16.9 versus 125 percent). It was noted also that those who knew more of their fellow members before forming peer group were less likely to default. They further reveled that individuals with greater social ties were less likely to default than those who didn't belong to an association, club or sports team.

Fun HO and Yusoff (2009), applied descriptive analysis to assess the credit risks management where they find that diversification of Credit services, risk mitigation and training and development of staff are the most popular practices implemented in Malaysian financial institutions. This was to review the strategies to mitigate credit default. Further, Kithinji (2010) used descriptive and regression model to assess the relationship between credit default management and profitability for commercial banks in Kenya, the findings were; that main sources of credit default include inappropriate credit policies and lack of competent staff leading to poor assessment, lending practices and credits follow-up.

Keitany (2013) reviewed the relationship between Credit default and the financial performance of SACCOs in Kenya using descriptive design; the findings indicated that there is a strong negative relationship. The study recommends that Sacco's should continuously review credit policies; establish irrecoverable provision policies and character of borrowers.

Magali (2013) carried out a study to assess factors affecting credit default for Sacco's in Tanzania, the study used qualitative, descriptive and multivariate regression. The study revealed that Credit size and years of schooling of borrowers contributed positively to the Credit default, further the study found out that other independent variables such as Credit activity, marital status, age, family size, interest, Credit duration, value of collateral and borrowers' experiences unfit the regression model. Other factors for instance lack of entrepreneurship and investment analysis skills, embezzlement by Sacco leaders and staffs, political influence, inadequate Credit follow-ups, improper credit risks management among others result in huge overdue Credits.

### 2.5 Summary of Literature Review

The theoretical review has clearly indicated how the wealth is grown, SACCO management, as agents, expectations to have an objective to maximize the value of the shareholders through protection of their returns from various risks including the credit default. Previous studies and analysis have clarified that credit default is a major threat to SACCOs growth as it affects the overall liquidity and profit maximization of Shareholders wealth. There are various factors that contributes to Credits default in Kenya and worldwide with a great emphasis on poor corporate governance and knowledge gap among the SACCO members as they do not have sufficient knowledge on how to invest in high returns investments.

# CHAPTER THREE

# RESEARCH METHODOLOGY

## 3.1 Introduction

This chapter discusses the steps that are adopted to study the research problem along with the logic behind them (Kothari, 2004).The research methodology will cover research design, population of the study, sample design, data collection and data analysis.

## 3.2 Research Design

According to Kothari (2004) "A research design is the arrangement of conditions for collection and analysis of data in a manner that aims to combine relevance to the research purpose with economy in procedure". A descriptive design was adopted for this study, Boyd et al (1990) defines a descriptive design as aimed at determining the what, when and how of a phenomenon which is the concern of this study. It's deemed appropriate as it involved collecting data from various organizations to answer the questions concerning current phenomena and draw conclusion from facts obtained and it guarantees breadth of information and accurate descriptive analysis of characteristics. The study was carried out in Nairobi County, Kenya and sought to assess the effect of credit default on growth in turnover of SACCOs.

## 3.3 Population

Mugenda & Mugenda (2003) noted a population refers to an entire group of individuals, events or objects with a common observable characteristic. The study targeted all

SACCOs in Kenya which are licensed and regulated by SASRA for a period of five years (2009-2013). They are a total of 135 SACCOs (SASRA, 2014)

### 3.4 Sample

This study used non-probability sampling technique, purposive sampling. This method is reliable as the researcher purposively target group of objects believed to be reliable to the study, (Orodho & Kombo, 2002). Purposive sampling does not produce a sample that is representative of a larger population, rather the sample is selected subjectively, (Patton, 1990). In this study 35 SACCOs were studied, those licensed by SASRA and located in Nairobi County due to limited time, budgetary constraints and prevalence of SACCOs. The list of all SACCOs was accessed from SASRA website http://www.sasra.go.ke, accessed on 20th June, 2014.

### 3.5 Data Collection

The study utilized secondary data due to its reliability and its cost-effectiveness nature, collected through review of existing journals, SACCO Star Times, periodicals, published articles, internet and audited financial statements of the SACCOs from SASRA for a period of five years (2009-2013) and summarized into a data collection sheet. The collected data focused on the following variables: annual turnover, credit default over time, total assets, total Credits and member deposits (withdrawable savings).

### 3.5.1 Data Validity and Reliability

To obtain data which is free from any kind of errors the data was verified, it was checked for completeness, consistency, reliability and validity. Statistical computations such as averages and percentages were done to confirm accuracy.

The reliability is determined by how the measurements have been performed and how accurate is the data collected. Validity is determined by what is measured and how it's framed in the questions, (Eriksson & Kovalainen, 2010). Validity refers to the accuracy of data obtained for a study representing the variables and the objectives, data must be a true representation and meaningful. The reliability of the questions and secondary data for this study is to be measured by achievement of the set objectives. The secondary data to be gathered will exclusively be gathered from SASRA, the regulatory body as well as their website.

## 3.6 Data Analysis

The data collected in this study was quantitative; which was analyzed using descriptive statics to describe, summarize and relate the variables which included frequencies, percentages and measures of central tendency like means and standard deviation. The analyzed data was presented using tables. The study used regressions to help determine the relationship between credit default and the growth of turnover of SACCOs. According to Gujarat & Porter (2010), regression analysis is concerned with measurement of how independent variables influence dependent variable. In this study, the data was analyzed using multiple regressions to establish the direction and the

strength of the relationship. The regression output was obtained using Statistical Package for Social Sciences (SPSS Version 20); similar model was used by (Keitany, 2013).

### 3.6.1 Analytical Model

The study used multiple regression models to examine the relationship between credit default and growth in turnover among SACCOs. Multiple regression attempts to determine whether the independent variables can predict a given dependent variable. For this study turnover was regressed against credit default and member deposits as independent variables. The regression models applied:-

$Y=\alpha+B1X1+B2X2+€$

Where;

α- Constant

Y: Turnover measured by interest income on Credits, interest from investments and other operating income, as a proportion of Total Assets.

X1: Credit Default as measured by the amount of Credits defaulted; as a proportion of Total Credits.

X2: Member Deposits (withdrawable savings) as a proportion of Total Assets

€: Error term

B1, B2-coefficients functions of independent variables; to determine the amount by which dependent variable is changed for every unit change in independent variable.

The study was interested in measuring the effect of credit default on the annual turnover in SACCOs, in Nairobi County, Kenya.

### 3.6.2 Test of Significance

According to Gupta (2000) in order to verify the regression results, some parameters need to be observed such as F-statistics, the analysis of variance and the level of significance of individual Beta coefficients. The F-test was used to analyze the joint significance of all coefficients while ANOVA was used to analyze the significance of all variables. The results from the regression analysis demonstrate that the ANOVA on the F-Statistics affirms that the model fits well the dependent and the independent variables and there is no deviation. This study, Correlation Coefficient (r) was determined to measure the strength and direction of the relationship between dependent variable and each of the independent variables. Further, ANOVA was used to analyze the significance of all variables and F-test to analyze the joint significance of all the coefficients. In addition $R^2$ which is a coefficient of determination was used to measure how well the regression line approximates the real data points.

# CHAPTER FOUR

# DATA ANALYSIS, RESULTS AND DISCUSSION

## 4.1 Introduction

This chapter presents findings and analysis of the study set out in the research methodology, the results are presented establish the effect of credit default on growth in turnover in SACCOs regulated by SASRA in Kenya. The study target of 35 SACCOs based in Nairobi was considered adequate for a period of five years, thus a sample size of 35. Secondary data was used which was collected from SASRA offices and analyzed using SPSS and findings represented using tables.

## 4.2. General Findings

### 4.2.1 Correlation Analysis

Table 4.1 :Correlation between credit default and turnover

| | | Turnover | Credit Default |
|---|---|---|---|
| Turnover | Pearson Correlation | 1 | -.117 |
| | Sig. (2-tailed) | | .050 |
| | N | 35 | 35 |
| Credit Default | Pearson Correlation | -.117 | 1 |
| | Sig. (2-tailed) | .050 | |
| | N | 35 | 35 |

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

**Source: Research Findings**

From the above table, there exists a moderate correlation of 0.117 between credit default and turnover from the sample size of 35 used. This means that credit default has a potential of interfering with turnover of SACCOs. A partial correlation analysis using Karl Pearson Correlation was performed and indicated a negative relationship between credit default and turnover as a correlation coefficient r=0.117, p=0.050=0.05, this is significant at 5% significance level.

Table 4.2 :Correlation between member deposits and turnover

| | | Turnover | Member Deposits |
|---|---|---|---|
| Turnover | Pearson Correlation | 1 | .152 |
| | Sig. (2-tailed) | | .038 |
| | N | 35 | 35 |
| Member Deposits | Pearson Correlation | .152 | 1 |
| | Sig. (2-tailed) | .038 | |
| | N | 35 | 35 |

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

**Source: Research Findings**

From the above table, there exists a moderate correlation of 0.152 between credit default and turnover from the sample size of 35 used. This means that member deposits have potential effect on liquidity hence enhancing the turnover of SACCOs. The partial correlation analysis using Karl Pearson correlation coefficient was performed, a positive coefficient indicates a positive effect of members deposits on turnover. P=0.038<0.05.This is significant at 5% significance level.

### 4.2.2 Summary of variables

Table 4.3: Summary of correlations of variables

| | | Turnover | Member Deposits | Credit Default |
|---|---|---|---|---|
| Turnover | Pearson Correlation | 1 | .152 | -.117 |
| | Sig. (2-tailed) | | .038 | .050 |
| | N | 35 | 35 | 35 |
| Member Deposits | Pearson Correlation | .152 | 1 | -.004 |
| | Sig. (2-tailed) | .038 | | .098 |
| | N | 35 | 35 | 35 |
| Credit Default | Pearson Correlation | -.117 | -.004 | 1 |
| | Sig. (2-tailed) | .050 | .098 | |
| | N | 35 | 35 | 35 |

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

**Source: Research Findings**

From the Table all the three variables are correlated with criterion containing both negative and positive correlations. There exists a moderate correlation between turnover and member deposits at 15.2%. Between turnover and Credit default the negative

correlation is moderate at 11.7% whereas between Credit default and member deposits the correlation is insignificant at 0.004.

### 4.2.3 Analysis of Variance

Table 4.4: Analysis of Variance

| Model | Sum of Squares | Df | Mean Square | F | Sig. |
|---|---|---|---|---|---|
| Regression | 7127.884 | 9 | 791.987 | 138.16 | 0.000 |
| Residual | 14.287 | 25 | .571 | | |
| Total | 7142.171 | 34 | | | |

Dependent variable: Turnover; Predictors: (Constant), Member Deposits, Credit Default

**Source: Research Findings**

The results of the above table give the analysis of variance in the regression model. It indicates that the model had an F-ratio of 138.16. It means that the overall regression model is statistically significant and is useful for prediction purposes at 95% significance level. This further indicates that the independent variables are statistically significant in predicting turnover.

### 4.2.4 Regression Analysis

Table 4.5: Test of Significance of Independent Variables

| Model | Unstandardized Coefficients | | Standardized | T | Sig. | 95 % confidence interval | |
|---|---|---|---|---|---|---|---|
| | | | Coefficients | | | Lower bound | Upper bound |
| | B | Std. Error | Beta | | | | |
| (Constant) | 2.608 | .169 | | 15.457 | .000 | 2.264 | 2.9852 |
| Member Deposits | -.007 | .007 | -.152 | -.879 | .038 | -.022 | .009 |
| Credit Default | -.007 | .010 | -.117 | -.676 | .050 | -.028 | .014 |

Dependant variable: Turnover

**Source: Research Findings**

Unstandardized coefficients indicate how much dependent variables varies with an independent variable, when other independent variables are held constant. For example the unstandardized coefficient for credit default is-0.07. This means that for each shilling increase in credit default decreases the turnover by 0.07.The general form of the equation to predict turnover from credit default and member deposits as obtained from the coefficients table shown above is:

**Predicted Dependant =2.608-(0.007xMember Deposits)-(.007xCredit Default)**

In linear regression the size of the coefficient for each independent variable gives the size of the effect that variable has on the dependent variable and the sign indicates the direction of the effect holding all the other independent variables constant. From the above analysis and the model an increase in credit default cause a decrease in turnover by the negative figure shown in the model of , -0.007.

Table 4.6: Model summary of correlation between credit default and turnover

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate |
|---|---|---|---|---|
| 1 | .377[a] | .142 | -.157 | 5.58660 |

a. Predictors: (Constant), Credit Default

**Source: Research Findings**

From the table above the correlation coefficient of 0.377 indicates the relationship between the credit default and turnover.37.7% of variation in turnover can be explained by credit default and vice versa. Adjusted R square is a coefficient of determination which gives the variation of the dependent variable due to changes in the independent variable. From the study findings as per the table above the value of adjusted R square was 0.157.This shows a negative relationship by -0.157.As R-Square increases the standard error of estimate decreases hence the better the line of best fit and less the estimation error.

Table 4.7: model summary of correlation between Member Deposits and turnover

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate |
|---|---|---|---|---|
| 1 | .540[a] | .292 | .170 | .77738 |

a. Predictors: (Constant), Member Deposits

**Source: Research Findings**

From the table above the correlation coefficient of 0.540 indicates the relationship between the member deposits and turnover.54.0% of variation in turnover can be explained by member deposits and vice versa. Adjusted R square is a coefficient of determination which gives the variation of the dependent variable due to changes in the independent variable. From the study findings as per the table above the value of adjusted R square was 0.170.This shows a positive relationship by 0.170.As R-Square increases the standard error of estimate decreases hence the better the line of best fit and less the estimation error. R is the correlation coefficient which shows the relationship between the study variables, from the study finding there was a positive relationship between the variables as shown by 0.292.

### 4.2.5 Descriptive Statistics

Table 4.8: Measures of Central Tendency

| | N | Minimum | Maximum | Mean | Std. Deviation |
|---|---|---|---|---|---|
| Turnover | 35 | 1.00 | 6.00 | 2.5143 | .85307 |
| Member Deposits | 35 | 2.00 | 88.00 | 8.7429 | 19.81435 |
| Credit Default | 35 | 1.000 | 88.000 | 5.28571 | 14.518895 |
| Valid N | 35 | | | | |

The mean for Turnover is 2.5 with a standard deviation of 0.85 which is small meaning that the data is clustered within the mean, however the other variables, that is the member deposits and credit default, have larger standard deviation meaning the data is dispersed from the mean.

### 4.3 Interpretation of the Findings

From the findings there exists a moderate correlation between the Credit default and turnover from the sample size of 35 used. This signifies that credit default has a potential of affecting SACCOs liquidity due to lost principal and interest repayments which could be advanced to members as Credits thus affecting the overall turnover due to decreased interest income. The model is good as it fits the data and can be used to explain the dependent variable as indicated in the ANOVA table. There exists a moderate correlation between member deposits and turnover.

# CHAPTER FIVE

## SUMMARY, CONCLUSION AND RECOMMENDATIONS

### 5.1 Introduction

This chapter concluded the research study as it presents the findings, recommendations and conclusions based on the objective of the study, intended to establish the effect of credit default on growth in turnover in SACCOs regulated by SASRA in Kenya

### 5.2 Summary

The study intended to establish the effect of credit default on growth in turnover in SACCOs regulated by SASRA in Kenya. From the data collected and the analysis done the following discussions and recommendations are made based on the objective of the study. From the data there exist a moderate correlation between credit default and growth in turnover. Increase in active membership implies an increase in member deposits which guarantees increase in availability of funds for borrowing and capital for the SACCO.

Credits are granted from members' savings and if the credits are not repaid as per the agreement therefore members deposits are at a risk and same to the annual turnover. Best practices require that Credits considered past due, an immediate action must be taken to control the loss of principal and interest, for instance provisions for Credits losses are required to protect members' savings from identified risks through prudence.

## 5.3 Conclusion

According to the results from the data analysis and findings the following conclusions are made: R, R-square and adjusted R-square used to determine the strength and the direction of the effect of credit default on the growth in turnover. Adjusted R –square is a fraction of the variation in dependent variable(turnover) that can be predicted by independent variables(credit default and member deposits).F-ratio tests whether the overall regression model is a good fit for data and for this study this is true. The standard error measures the dispersion of the dependent variable around the mean.

The study basically was to determine the effect of credit default on the growth in turnover of SACCOs, and from the analysis it can be deduced that an increase in default cause a decrease in growth of turnover as indicated by the negative sign before the loan default in the model. Generally there is a moderate correlation between the credit default and the turnover as the default affects the overall well being of a SACCO.

## 5.4 Recommendations for Policy

The following recommendations are considered important to guide other researchers and policy makers, there is need for SACCO stakeholders, especially KUSCCO which the umbrella body and the SACCOs management to come up with stringent rules to curb he high and increasing credit default in the sector. Also government should review the legal framework to ensure that SACCO sector is included in the national payment system to ensure credit information sharing. SACCOs should seek insurance covers for larger Credits. SASRA need to carry out an in-depth study on the impact of the current regulations in regard to credit and how to improve them to achieve the desired goals.

SACCOs should review credit policies in regular basis, for instance thorough review of Credit applications, proper Credit disbursement, employ, retain and train staff with required academic and professional qualifications and overall minimization of administrative costs.

### 5.5 Limitations of the Study

The study was not without limitations; one of the major limitations was time and resources which led to inability to include more SACCOs for broader analysis in the study as it concentrated only on the sampled firms.

Some data was difficult to find especially for Harambee SACCO which has a pending legal suit; further some data accessed was inconsistent.

Complexity of data as some datasets contained huge numbers for cases and variables which was daunting to manage.

### 5.6 Suggestions for Further Studies

From the study the following directions for future research in growth of turnover are recommended to know other factors that affect it and to analyze the reasons behind the non-repayment of credits by the members.

Impact of SASRA rules on curbing the credit default among SACCO societies.

A closer look and study should be replicated in the rural SACCOs which are not necessarily regulated by SASRA to find out if the results are the similar.

A similar study should be replicated for non-regulated SACCOs both in Nairobi and other counties as well.

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# APPENDICES

## APPENDIX I: List of Deposit-Taking Sacco Societies Licensed by the Sacco Societies Regulatory Authority as at January 2014

| NO. | NAME OF SOCIETY | POSTAL ADDRESS |
|---|---|---|
| 1. | AFYA SACCO SOCIETY LTD | P.O.BOX 11607 – 00400, NAIROBI. |
| 2. | AIRPORTS SACCO SOCIETY LTD | P.O.BOX 19001 – 00501, NAIROBI. |
| 3. | ASILI SACCO SOCIETY LTD | P.O.BOX 49064 – 00100, NAIROBI. |
| 4. | BANDARI SACCO SOCIETY LTD | P.O.BOX 95011 – 80104, MOMBASA. |
| 5. | BARAKA SACCO SOCIETY LTD | P.O.BOX 1548 – 10101, KARATINA. |
| 6. | BIASHARA SACCO SOCIETY LTD | P.O.BOX 1895 – 10100, NYERI. |
| 7. | BINGWA SACCO SOCIETY LTD | P.O.BOX 434 – 10300, KERUGOYA. |
| 8. | BORESHA SACCO SOCIETY LTD | P.O.BOX 80 – 20103, ELDAMA RAVINE |
| 9. | BURETI SACCO SOCIETY LTD | P.O.BOX 601 – 20210, LITEIN. |
| 10. | BUSIA TESO TEACHERS SACCO SOCIETY LTD | P.O.BOX 448 – 50400, BUSIA. |
| 11. | CAPITAL SACCO SOCIETY LTD | P.O BOX 1479-60200, MERU. |
| 12. | CENTENARY SACCO SOCIETY LTD | P.O.BOX 1207 – 60200, MERU. |

| | | |
|---|---|---|
| 13. | CHAI SACCO SOCIETY LTD | P.O.BOX 278 – 00200, NAIROBI. |
| 14. | CHEMELIL SACCO SOCIETY LTD | P.O.BOX 14 – 40112, AWASI. |
| 15. | CHEPSOL SACCO SOCIETY LTD | P.O.BOX 81 – 20225, KIMULOT. |
| 16. | CHUNA SACCO SOCIETY LTD | P.O.BOX 30197 – 00100, NAIROBI. |
| 17. | COMOCO SACCO SOCIETY LTD | P.O.BOX 30135 – 00100, NAIROBI. |
| 18. | COSMOPOLITAN SACCO SOCIETY LTD | P.O.BOX 1931 – 20100, NAKURU. |
| 19. | COUNTY SACCO SOCIETY LTD | P.O.BOX 21 – 60103, RUNYENJES. |
| 20. | DAIMA SACCO SOCIETY LTD | P.O.BOX 2032 – 60100, EMBU |
| 21. | DHABITI SACCO SOCIETY LTD | P.O.BOX 353 – 60600, MAUA. |
| 22. | DIMKES SACCO SOCIETY LTD | P.O.BOX 886 – 00900, KIAMBU. |
| 23. | EGERTON UNIVERSITY SACCO SOCIETY LTD | P.O.BOX 178 – 20115, EGERTON. |
| 24. | ENEA SACCO SOCIETY LTD | P.O.BOX 1836 – 10101, KARATINA. |
| 25. | FARIJI SACCO SOCIETY LTD | P.O.BOX 589 – 00216, GITHUNGURI. |
| 26. | FORTUNE SACCO SOCIETY LTD | P.O.BOX 559 – 10300, KERUGOYA. |

| | | |
|---|---|---|
| 27. | FUNDILIMA SACCO SOCIETY LTD | P.O.BOX 62000 – 00200, NAIROBI. |
| 28. | GITHUNGURI DAIRY & COMMUNITY SACCO SOCIETY LTD | P.O.BOX 896 – 00216, GUTHUNGURI. |
| 29. | GUSII MWALIMU SACCO SOCIETY LTD | P.O.BOX 1335 – 40200, KISII. |
| 30. | HARAMBEE SACCO SOCIETY LTD | P.O.BOX 47815 – 00100, NAIROBI. |
| 31. | HAZINA SACCO SOCIETY LTD | P.O.BOX 59877 – 00200, NAIROBI. |
| 32. | IMARIKA SACCO SOCIETY LTD | P.O.BOX 712 – 80108, KILIFI. |
| 33. | IMARISHA SACCO SOCIETY LTD | P.O.BOX 682 – 20200, KERICHO. |
| 34. | IMENTI SACCO SOCIETY LTD | P.O.BOX 3192 – 60200, MERU. |
| 35. | ISIOLO TEACHERS SACCO SOCIETY LTD | P.O BOX 105-60300, ISIOLO. |
| 36. | JAMII SACCO SOCIETY LTD | P.O.BOX 57929 – 00200, NAIROBI. |
| 37. | JIJENGE SACCO SOCIETY LTD | P.O.BOX 6222 – 01000, THIKA. |
| 38. | KAKAMEGA TEACHERS SACCO SOCIETY LTD | P.O.BOX 1150 – 50100, KAKAMEGA. |
| 39. | KEIYO TEACHERS SACCO SOCIETY LTD | P.O.BOX 512 – 30700, ITEN. |
| 40. | KENPIPE SACCO SOCIETY LTD | P.O.BOX 314 – 00507, NAIROBI. |

| | | |
|---|---|---|
| 41. | KENVERSITY SACCO SOCIETY LTD | P.O.BOX 10263 – 00100, NAIROBI. |
| 42. | KENYA ACHIEVAS SACCO SOCIETY LTD | P.O BOX 3080-40200, KISII. |
| 43. | KENYA BANKERS SACCO SOCIETY LTD | P.O.BOX 73236 – 00200, NAIROBI. |
| 44. | KENYA CANNERS SACCO SOCIETY LTD | P.O.BOX 1124 – 01000, THIKA. |
| 45. | KENYA HIGHLANDS SACCO SOCIETY LTD | P.O.BOX 2085 – 002000, KERICHO. |
| 46. | KENYA MIDLAND SACCO SOCIETY LTD | P.O BOX 287, BOMET. |
| 47. | KENYA POLICE STAFF SACCO SOCIETY LTD | P.O.BOX 51042 – 00200, NAIROBI. |
| 48. | KIAMBAA DAIRY RURAL SACCO SOCIETY LTD | P.O.BOX 669 – 00219, KARURI. |
| 49. | KINGDOM SACCO SOCIETY LTD | P.O.BOX 8017 – 00300, NAIROBI. |
| 50. | KIPSIGIS EDIS SACCO SOCIETY LTD | P.O BOX 228, BOMET. |
| 51. | KITE SACCO SOCIETY LTD | P.O.BOX 2073 – 40100, KISUMU. |
| 52. | KITUI TEACHERS SACCO SOCIETY LTD | P.O.BOX 254 – 90200, KITUI. |
| 53. | KMFRI SACCO SOCIETY LTD | P.O.BOX 80862, MOMBASA. |
| 54. | KONOIN SACCO SOCIETY LTD | P.O.BOX 83 – 20403, MOGOGOSIEK. |
| 55. | K-UNITY SACCO SOCIETY LTD | P.O.BOX 268 – 00900, KIAMBU. |

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| 56. | LAIKIPIA TEACHERS SACCO SOCIETY LTD | P.O BOX 414-10400, NANYUKI. |
| 57. | LENGO SACCO SOCIETY LTD | P.O.BOX 371 – 80200, MALINDI. |
| 58. | MAGADI SACCO SOCIETY LTD | P.O.BOX 13 – 00205, MAGADI. |
| 59. | MAGEREZA SACCO SOCIETY LTD | P.O.BOX 53131 – 00200, NAIROBI. |
| 60. | MAISHA BORA SACCO SOCIETY LTD | P.O.BOX 30062 – 00100, NAIROBI. |
| 61. | MARAKWET TEACHERS SACCO SOCIETY LTD | P.O.BOX 118 – 30705, KAPSOWAR. |
| 62. | MARSABIT TEACHERS SACCO SOCIETY LTD | P.O.BOX 90 – 60500, MARSABIT. |
| 63. | MENTOR SACCO SOCIETY LTD | P.O.BOX 789 – 10200, MURANG'A. |
| 64. | MERU SOUTH FARMERS SACCO SOCIETY LTD | P.O.BOX 514 – 60400, CHUKA. |
| 65. | METROPOLITAN SACCO SOCIETY LTD | P.O.BOX 871 – 00900, KIAMBU. |
| 66. | MILIKI SACCO SOCIETY LTD | P.O.BOX 43582-00100, NAIROBI |
| 67. | MMH SACCO SOCIETY LTD | P.O.BOX 469 – 60600, MAUA. |
| 68. | MOMBASA PORT SACCO SOCIETY LTD | P.O.BOX 95372 – 80104, MOMBASA. |
| 69. | MOMBASA TEACHERS SACCO SOCIETY LTD | P.O.BOX 86515 – 80100, MOMBASA. |

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| 70. | MUDETE TEA GROWERS SACCO SOCIETY LTD | P.O.BOX 221 – 50104, KAKAMEGA. |
| 71. | MUHIGIA SACCO SOCIETY LTD | P.O.BOX 83 – 10300, KERUGOYA. |
| 72. | MURATA SACCO SOCIETY LTD | P.O.BOX 816 – 10200, MURANG'A. |
| 73. | MWALIMU NATIONAL SACCO SOCIETY LTD | P.O.BOX 62641 – 00200, NAIROBI. |
| 74. | MWITO SACCO SOCIETY LTD | P.O.BOX 56763 – 00200, NAIROBI. |
| 75. | NACICO SACCO SOCIETY LTD | P.O.BOX 34525 – 00100, NAIROBI. |
| 76. | NAFAKA SACCO SOCIETY LTD | P.O.BOX 30586 – 00100, NAIROBI. |
| 77. | NAKU SACCO SOCIETY LTD | P.O.BOX 78355 – 00507, NAIROBI. |
| 78. | NANDI HEKIMA SACCO SOCIETY LTD | P.O.BOX 211 – 30300, KAPSABET. |
| 79. | NAROK TEACHERS SACCO SOCIETY LTD | P.O.BOX 158 – 20500, NAROK. |
| 80. | NASSEFU SACCO SOCIETY LTD | P.O.BOX 43338 – 00100, NAROBI. |
| 81. | NATION SACCO SOCIETY LTD | P.O.BOX 22022 – 00400, NAIROBI. |
| 82. | NAWIRI SACCO SOCIETY LTD | P.O BOX 400-16100, EMBU. |
| 83. | NDEGE CHAI SACCO SOCIETY LTD | P.O.BOX 857 – 20200, KERICHO. |
| 84. | NDOSHA SACCO SOCIETY LTD | P.O.BOX 532– 60401, CHOGORIA – |

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| | | MAARA. |
| 85. | NG'ARISHA SACCO SOCIETY LTD | P.O.BOX 1199 – 50200, BUNGOMA. |
| 86. | NITUNZE SACCO SOCIETY LTD | P.O.BOX 295 – 50102, MUMIAS. |
| 87. | NRS SACCO SOCIETY LTD | P. O BOX 575-00902, KIKUYU. |
| 88. | NTIMINYAKIRU SACCO SOCIETY LTD | P.O.BOX 3213-60200, MERU |
| 89. | NYAHURURU UMOJA SACCO SOCIETY LTD | P.O BOX 2183-20300, NYAHURURU. |
| 90. | NYALA VISION SACCO SOCIETY LTD | P.O BOX 27-20306, NDARAGWA. |
| 91. | NYAMBENE ARIMI SACCO SOCIETY LTD | P.O.BOX 493 – 60600, MAUA. |
| 92. | NYAMIRA TEA FARMERS SACCO SOCIETY LTD | P.O.BOX 633 – 40500, NYAMIRA. |
| 93. | NYERI TEACHERS SACCO SOCIETY LTD | P.O.BOX 1939 – 10100, NYERI. |
| 94. | ORIENT SACCO SOCIETY LTD | P.O.BOX 1842 – 01000, THIKA. |
| 95. | PUAN SACCO SOCIETY LTD | P.O BOX 404-20500, NAROK. |
| 96. | SAFARICOM SACCO SOCIETY LTD | P.O.BOX 66827 – 00800, NAIROBI. |
| 97. | SHERIA SACCO SOCIETY LTD | P.O.BOX 34390 – 00100, NAIROBI. |
| 98. | SIMBA CHAI SACCO SOCIETY LTD | P.O.BOX 977 – 20200, KERICHO. |

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| 99. | SIRAJI SACCO SOCIETY LTD | P.O.BOX PRIVATE BAG, TIMAU. |
| 100. | SKYLINE SACCO SOCIETY LTD | P.O.BOX 660-20103, ELDAMA RAVINE. |
| 101. | SOLUTION SACCO SOCIETY LTD | P.O.BOX 1694 – 60200, MERU. |
| 102. | SOT TEA GROWERS SACCO SOCIETY LTD | P.O.BOX 251 – 20400, BOMET. |
| 103. | SOTICO SACCO SOCIETY LTD | P.O.BOX 959 – 20406, SOTIK. |
| 104. | STAKE KENYA SACCO SOCIETY LTD | P.O.BOX 208 – 40413, KEHANCHA. |
| 105. | STIMA SACCO SOCIETY LTD | P.O.BOX 75629 – 00100, NAIROBI. |
| 106. | SUKARI SACCO SOCIETY LTD | P.O.BOX 841-50102, MUMIAS |
| 107. | SUPA SACCO SOCIETY LTD | P.O.BOX 271 – 20600, MARALAL. |
| 108. | TAI SACCO SOCIETY LTD | P.O.BOX 718 – 00216, GITHUNGURI. |
| 109. | TAIFA SACCO SOCIETY LTD | P.O.BOX 1649 – 10100, NYERI. |
| 110. | TAITA TAVETA TEACHERS SACCO SOCIETY LTD | P.O.BOX 1186 – 80304, WUNDANYI. |
| 111. | TARAJI SACCO SOCIETY LTD | P.O.BOX 605 – 40600, SIAYA. |
| 112. | TEMBO SACCO SOCIETY LTD | P.O.BOX 91 – 00618, RUARAKA. |

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| 113. | TENHOS SACCO SOCIETY LTD | P.O.BOX 391 – 20400, BOMET. |
| 114. | THAMANI SACCO SOCIETY LTD | P.O.BOX 467 – 60400, CHUKA. |
| 115. | THARAKA NITHI TEACHERS SACCO SOCIETY LTD | P.O.BOX 15 – 60400, CHUKA. |
| 116. | TIMES U SACCO SOCIETY LTD | P.O.BOX 310 – 60202, NKUBU. |
| 117. | TOWER SACCO SOCIETY LTD | P.O.BOX 259 – 20303, OL'KALOU. |
| 118. | TRANS-NATIONAL TIMES SACCO SOCIETY LTD | P.O.BOX 2274 – 30200, KITALE. |
| 119. | UFANISI SACCO SOCIETY LTD | P.O BOX 2973-00200, NAIROBI. |
| 120. | UKRISTO NA UFANISI SACCO SOCIETY LTD | P.O BOX 872-00605, NAIROBI. |
| 121. | UKULIMA SACCO SOCIETY LTD | P.O.BOX 44071 – 00100, NAIROBI. |
| 122. | UNAITAS SACCO SOCIETY LTD | P.O.BOX 1145 – 10200, MURANG'A. |
| 123. | UNITED NATIONS SACCO SOCIETY LTD | P.O.BOX 30552 – 00100, NAIROBI. |
| 124. | UNIVERSAL TRADERS SACCO SOCIETY LTD | P.O.BOX 2119 – 90100, MACHAKOS. |
| 125. | VISION POINT SACCO SOCIETY LTD | P.O.BOX 42 – 40502, NYANSIONGO. |
| 126. | WAKENYA PAMOJA SACCO SOCIETY LTD | P.O.BOX 829 – 40200, KISII. |
| 127. | WAKULIMA COMMERCIAL SACCO SOCIETY LTD | P.O.BOX 232-10103, NYERI. |

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| 128. | WANAANGA SACCO SOCIETY LTD | P.O.BOX 34680-00501 | NAIROBI |
| 129. | WANANCHI SACCO SOCIETY LTD | P.O.BOX 910-10106 | OTHAYA. |
| 130. | WANANDEGE SACCO SOCIETY LTD | P.O.BOX 19074-00501 | NAIROBI. |
| 131. | WARENG TEACHERS SACCO SOCIETY LTD | P.O.BOX 3466 – 30100, | ELDORET. |
| 132. | WASHA SACCO SOCIETY LTD | P.O.BOX 83256-80100 | MOMBASA |
| 133. | WAUMINI SACCO SOCIETY LTD | P.O.BOX 66121-00800 | NAIROBI. |
| 134. | WINAS SACCO SOCIETY LTD | P.O.BOX 696-60100 | EMBU. |
| 135. | YETU SACCO SOCIETY LTD | P.O.BOX 511-60202 | NKUBU. |

**Source: SASRA**

## Appendix II: Raw Data

| SACCO | Year | Turnover | Total Assets | Credit Default | Member Deposits | Total Credits | Active membership |
|---|---|---|---|---|---|---|---|
| AFYA | 2009 | 60,700,990 | 2,970,136,547 | 271,308,405 | 4,468,464,126 | 1,498,302,110 | 21,167 |
| | 2010 | 855,131,034 | 7,946,001,400 | 176,392,867 | 5,835,736,363 | 5,498,367,118 | 32,497 |
| | 2011 | 1,022,602,388 | 9,351,710,222 | 614,246,401 | 7,127,532,651 | 7,081,776,053 | 37,228 |
| | 2012 | 1,384,782,110 | 10,721,027,129 | 31,383,429 | 8,277,702,883 | 7,829,270,710 | 38,182 |
| | 2013 | 1,616,050,229 | 11,885,165,364 | 137,429,854 | 9,369,236,253 | 8,574,945,811 | 36,675 |
| AIRPORTS | 2009 | 12,041,722 | 138,138,043 | 7,084,433 | 120,974,881 | 819,626,640 | 1,100 |
| | 2010 | 15,540,125 | 180,538,986 | 1,503,282 | 143,700,356 | 401,261,545 | 1061 |
| | 2011 | 26,356,701 | 281,062,431 | 3,006,565 | 176,474,408 | 242,350,720 | 1302 |
| | 2012 | 36,071,409 | 351,575,617 | 2,829,765 | 231,520,979 | 233,781,784 | 1432 |
| | 2013 | 59,272,361 | 421,339,972 | 315,744 | 285,990,799 | 301,472,662 | 1485 |
| ASILI | 2009 | 85,184,951 | 873,919819 | 14,609,330 | 647,609,290 | 606,530,221 | 7546 |
| | 2010 | 114,382,633 | 989,710,656 | 101,043,035 | 722,581,745 | 796,134,407 | 9030 |
| | 2011 | 116,663,154 | 1,219,588,295 | 27,602,546 | 817,932,063 | 979,568,725 | 9284 |
| | 2012 | 186,202,904 | 1,429,029,986 | 34,730,034 | 1,030,770,398 | 1,042,522,806 | 8168 |
| | 2013 | 147,283,658 | 1,577,396,176 | 44,740,011 | 1,175,522,745 | 1,067,864,151 | 8109 |
| CHAI | 2009 | 134,776,595 | 1,137,135,356 | 6,458,001 | 848,835,910 | 934,817,983 | 6,365 |
| | 2010 | 130,564,918 | 1,110,090,103 | 7,898,444 | 938,610,611 | 899,040,187 | 7,931 |
| | 2011 | 144,836,104 | 1,214,334,580 | 13,017,729 | 879,638,018 | 1,026,902,806 | 8,168 |
| | 2012 | 177,967,439 | 1,288,143,364 | 1,091,534 | 1,039,932,263 | 1,104,935,391 | 8144 |
| | 2013 | 214,203,401 | 1,533,892,016 | 480,120 | 1,211,587,727 | 1,388,258,325 | 8976 |
| CHUNA | 2009 | 109,160,007 | 1,286,670,842 | 4,164,625 | 970,133,903 | 1,138,834,307 | 3,736 |
| | 2010 | 121,383,124 | 1,378,438,636 | 3,997,166 | 1,098,782,477 | 1,248,301,101 | 3,834 |
| | 2011 | 149,946,639 | 1,536,791,659 | 2,172,020 | 1,234,599,736 | 1,438,049,461 | 3972 |
| | 2012 | 195,204,978 | 1,414,235,675 | 1,069,988 | 1,034,757,852 | 1,338,246,206 | 4,081 |
| | 2013 | 204,724,247 | 1,740,316,114 | 866,248 | 1,191,962,494 | 1,708,456,109 | 4,432 |

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|---|---|---|---|---|---|---|---|
| COMOCO | 2009 | 64,942,520 | 461,862,525 | 0 | 251,937,428 | 363,631,665 | 2,184 |
| | 2010 | 57,460,482 | 524,943,721 | 0 | 289,386,618 | 397,894,930 | 2,144 |
| | 2011 | 75,293,968 | 520,221,821 | 395,499 | 310,091276 | 405,440,379 | 2,138 |
| | 2012 | 82,120,949 | 526,354,722 | 122,603 | 317,229,350 | 414,746,206 | 2,878 |
| | 2013 | 85,597,785 | 578,342,069 | 1,836,176 | 343,519,025 | 443,074,909 | 2,738 |
| FUNDILIMA | 2009 | 40,750,682 | 345,703,112 | 0 | 254,103,008 | 292750150 | 1,011 |
| | 2010 | 42,729,989 | 392,214,208 | 462,589 | 286,286,526 | 322,365,474 | 1,389 |
| | 2011 | 41,843,204 | 482,246,648 | 926,670 | 326,550,180 | 403,091,334 | 1,500 |
| | 2012 | 61,940,274 | 514,418,862 | 568,406 | 410,163,237 | 417,452,532 | 1,712 |
| | 2013 | 72,387,321 | 554,000,143 | 0 | 448,181,276 | 456,893,577 | 1,864 |
| HARAMBEE | 2009 | | | 359,403,380 | | 9,833,609,810 | |
| | 2010 | 1,278,539,910 | 14,655,159,915 | 380,346,849 | | 10,877,609,810 | 92,842 |
| | 2011 | 1,431,840,622 | 15,909,438,522 | 635,324,469 | | 13,020,437,982 | 92,842 |
| | 2012 | 1,422,692,762 | 16,911,028,098 | 508,297,636 | | 10,388,968,889 | 89,347 |
| | 2013 | | | 163,501,574 | | | |
| HAZINA | 2009 | 186,115,991 | 1,671,180,866 | - | 1,422,595,786 | 1,411,973,731 | 10,234 |
| | 2010 | 219,333,746 | 2,027,116,394 | 5,875,016 | 1,735,087,901 | 1,666,078,102 | 11,494 |
| | 2011 | 285,446,214 | 2,486,564,472 | 3,037,402 | 2,117,745,112 | 1,660,203,086 | 12,457 |
| | 2012 | 310,905,059 | 2,977,957,920 | 4,223,938 | 2,520,075,615 | 2,621,633,713 | 13,215 |
| | 2013 | 389,058,457 | 3,574,790,356 | 19,094,825 | 3,006,219,712 | 3,005,823.609 | 14,310 |
| JAMII | 2009 | 92,675,479 | 937,943,359 | - | 554,532,445 | 797,206,539 | 8,835 |
| | 2010 | 117,460,874 | 1,079,349,412 | 51,248,110 | 628,915,104 | 870,477,551 | 10,493 |
| | 2011 | 154,420,722 | 1,260,339,955 | 52,980,068 | 920,102,973 | 1,065,769,946 | 12,954 |
| | 2012 | 228,155,902 | 1,521,935,447 | 5,900,806 | 1,100,528,849 | 1,285,051,362 | 13,065 |

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|---|---|---|---|---|---|---|---|
| | 2013 | 286,537,630 | 1,802,016,744 | 26,544,763 | 1,330,939,769 | 1,505,427,782 | 14,168 |
| KENPIPE | 2009 | 113,132,973 | 930,145,098 | 18,420,756 | 708,770,883 | 864,330,572 | 1,321 |
| | 2010 | 122,098,286 | 1,021,561,194 | 17,488,191 | 787,937,915 | 940,635,850 | 1,336 |
| | 2011 | 124,951,631 | 1,128,394,366 | 1,252,566 | 879,488,750 | 1,043,641,837 | 1,471 |
| | 2012 | 158,806,498 | 1,267,536,297 | 3,771,370 | 1,013,237,554 | 1,157,589,090 | 1,404 |
| | 2013 | 188,296,214 | 1,461,652,953 | 979,838 | 1,171,499,070 | 1,259,692,130 | 1,467 |
| KENVERSITY | 2009 | 17,530,411 | 674,650,277 | 0 | 479,635,286 | 476,700,885 | 2,088 |
| | 2010 | 92,854,983 | 734,792,659 | 11,634,167 | 549,504,422 | 602,784,334 | 2,256 |
| | 2011 | 113,119,557 | 848,130,626 | 2,918,211 | 624,149,445 | 752,983,082 | 2,302 |
| | 2012 | 130,252,857 | 954,091,573 | 8,583,071 | 774,815,287 | 832,093,320 | 2409 |
| | 2013 | 159,262,537 | 1,101,343,093 | 13,136,296 | 912,315,129 | 959,010,995 | 2940 |
| KENYA BANKERS | 2009 | 340,903,672 | 4,178,870,644 | 17,488,191 | 3,029,745,109 | 2,819,268,955 | 15,487 |
| | 2010 | 369,555,535 | 4,109,947,723 | 18,500,797 | 3,267,518,876 | 3,002,831,529 | 16,565 |
| | 2011 | 390,033,048 | 4,287,259,898 | 36,700,224 | 3,443,520,752 | 3,176,439,527 | 17,476 |
| | 2012 | 421,331,748 | 4,849,098,277 | 83,857,201 | 4,087,589,374 | 3,491,494,004 | 14,555 |
| | 2013 | 472,801,748 | 5,020,885,142 | 55,093,304 | 4,150,368,374 | 3,384,770,070 | 15,794 |
| KENYA POLICE | 2009 | 513,730,125 | 5,184,638,402 | 85,297,989 | 4,024,755,565 | 3,832,775,670 | 33,145 |
| | 2010 | 728,761,890 | 6,427,563,418 | 46,155,867 | 4,880,430,866 | 4,909,841,529 | 32,341 |
| | 2011 | 827,936,515 | 7,722,609,795 | 94,669,169 | 5,967,332,757 | 4,093,488,281 | 34,330 |
| | 2012 | 1,179,328,627 | 8,895,453,000 | 37,482,912 | 6,998,385,000 | 7,545,730,000 | 33,466 |
| | 2013 | 1,577,820,000 | 11,522,841,000 | 16,344,161 | 7,828,070,000 | 10,135,363,000 | 33,214 |
| KINGDOM | 2009 | 10,947,036 | 117,485,712 | 1,999,214 | 75,114,393 | 98987,777 | 2,986 |
| | 2010 | 15,168,918 | 146,392,615 | 5,830,006 | 112,140,909 | 112,348,293 | 3879 |
| | 2011 | 22,498,964 | 187,489,676 | 2,602,068 | 145,165,968 | 142,893,721, | 4029 |
| | 2012 | 28,850,521 | 293,820,392 | 5,271,966 | 189,955,754 | 198,248,807 | 5856 |

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|---|---|---|---|---|---|---|---|
| | 2013 | 58,314,249 | 537,513,126 | 10,583,220 | 261,321,309 | 373,957,394 | 8101 |
| MAGEREZA | 2009 | 251,320,493 | 2,609,955,837 | - | 1,958,781,199 | 1,616,449,242 | 16,958 |
| | 2010 | 268,415,930 | 2,942,276,854 | 40,494,208 | 2,100,106,852 | 1,949,375,956 | 16,377 |
| | 2011 | 322,022,992 | 3,386,575,223 | 10,543,636 | 2,030,942,841 | 2,008,283,845 | 15899 |
| | 2012 | 340,515,452 | 3,738,550,530 | 69,508,389 | 2,337,322,332 | 2,008,283,845 | 17,458 |
| | 2013 | 389,326,142 | 4,321,807,964 | 100,123,009 | 2,611,710,852 | 2,297,293,194 | 18,075 |
| MAISHA BORA | 2009 | 84,881,392 | 719,699,980 | 0 | 597,535,764 | 639,953,176 | 1764 |
| | 2010 | 106,363,615 | 1,033,339,474 | 6,366,207 | 792,257,872 | 854,161,059 | |
| | 2011 | 137,543,047 | 1,147,804,817 | 801,054 | 941,541,866 | 1,031,186,484 | 2255 |
| | 2012 | 156,959,066 | 1,275,536,218 | 1,872,334 | 1,033,328,538 | 1,164,830,363 | 2676 |
| | 2013 | 177,614,261 | 1,504,251,618 | 2,863,623 | 1,234,822,602 | 1,366,242,890 | 2,706 |
| MILIKI | 2009 | 5,676,515 | 47,145,526 | 960,580 | 26,638,280 | 33.841,330 | 570 |
| | 2010 | 11,488,323 | 57,719,000 | 425,648 | 39,286,629 | 36,204,447 | 1135 |
| | 2011 | 18,915,783 | 62,840,378 | 528,759 | 42,025,752 | 47,811,861 | 2703 |
| | 2012 | 16,407,402 | 62,840,378 | 290,334 | 42,025,752 | 47,811,861 | 3573 |
| | 2013 | 19,523,782 | 72,707,029 | 684,922 | 37,959,983 | 42,584,274 | 2703 |
| MWALIMU | 2009 | 1,598,469,457 | 14,933,305,285 | 209,827,759 | 10,861,999,542 | 12,126,102,315 | 47,179 |
| | 2010 | 2,290,717,472 | 17,029,390,479 | 38,466,599 | 12,210,493,709 | 14,814,217,843 | 47,916 |
| | 2011 | 2,453,787,903 | 19,104,255,837 | 565,617,676 | 13,566,751,569 | 16,340,300,353 | 49,040 |
| | 2012 | 3,045,842,379 | 22,007,934,926 | 321,335,662 | 15,137,336,774 | 18,989,080,942 | 54,664 |
| | 2013 | 3,510,157,922 | 24,540,360,723 | 271,339,871 | 17,098,820,141 | 20,963,431,510 | 57,277 |
| MWITO | 2009 | 39,183,202 | 444,699,282 | 711,156 | 392,585,049 | 383,622,507 | 3,814 |

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|---|---|---|---|---|---|---|---|
| | 2010 | 45,930,725 | 520,090,950 | 735,989 | 456,709,579 | 458,182,298 | 4294 |
| | 2011 | 57,116,517 | 616,755,315 | 2,302,424 | 534,771,914 | 549,207,451 | 4678 |
| | 2012 | 68,789.425 | 726,611,777 | 661,322 | 624,666,037 | 663,915,455 | 5032 |
| | 2013 | 97,986,379 | 878,845,468 | 809,231 | 737,726,449 | 810,625,243 | 5253 |
| NACICO | 2009 | 169,829,672 | 1,603,701,767 | 6,854,723.00 | 721,815,426 | 542,909,762 | 9,648 |
| | 2010 | 181,906,041 | 1,698,457,876 | 3,300,252 | 904,148,713 | 685,472,366 | 10,046 |
| | 2011 | 235,531,409 | 2,343,434,526 | - | 880,583,493 | 1,374,105,251 | 9403 |
| | 2012 | 249,750,781 | 2,364,652,351 | 1,941,545 | 992,877,095 | 1,329,536,704 | 7473 |
| | 2013 | 303,641,921 | 2,564,895,649 | 2,096,201 | 1,246,522,622 | 1,584,669,817 | 8148 |
| NAFAKA | 2009 | 23,062,972 | 203,749,279 | 30,474 | 179,780,462 | 179,393,827 | 1,203 |
| | 2010 | | | 61,542 | | | |
| | 2011 | 29,381,297 | 254,829,490 | 40,768 | 207,888,850 | 222,873,739 | 1,147 |
| | 2012 | 33,722,438 | 279,951,955 | 61,735 | 214,105,962 | 216.247,311 | 1,151 |
| | 2013 | 36,636,160 | 294,804,570 | 13,086 | 225,239,421 | 180,463,760 | 1,163 |
| NAKU | 2009 | 45,525,956 | 554,390,387 | 0 | 519,113,896 | 470,152,638 | 7,564 |
| | 2010 | 55,667,220 | 758,368,374 | 23,858,875 | 649,274,439 | 585,625,547 | 6,028 |
| | 2011 | 80,070,681 | 899,600,029 | 5,991,606 | 772,431,152 | 704,092,157 | 9,427 |
| | 2012 | 143,799,733 | 1,153,346,509 | 38,495,587 | 1,041,580,444 | 838,975,799 | 10,969 |
| | 2013 | 173,552,182 | 1,497,683,660 | 19,523,361 | 1,211,152,519 | 1,151,314,434 | 10,752 |
| NASSEFU | 2009 | 81,228,246 | 713,248,328 | 1,994,428 | 435,250,516 | 445,618,590 | 1,731 |
| | 2010 | 111,704,983 | 780,005,352 | 3,779,749 | 485,073,490 | 480,282,072 | 1,905 |
| | 2011 | 127,883,628 | 914,648,089 | 2,509,816 | 516,224,070 | 673,350,432 | 2,935 |
| | 2012 | 167,737,698 | 991,584,157 | 5,457,217 | 627,611,610 | 821,235,692 | 3,219 |
| | 2013 | 171,982,858 | 937,057,087 | 7,543,736 | 627,958,944 | 723,216,215 | 3,182 |
| NATION | 2009 | 62,845,736 | 499,265,109 | 23,671,326 | 402,693,555 | 415,542,942 | 1,166 |
| | 2010 | 65,616,727 | 565,531,361 | 17,992,251 | 461,191,443 | 431,451,458 | 1,261 |
| | 2011 | 77,502,180 | 677,144,172 | 9,862,576 | 488,301,688 | 556,474,023 | 1,379 |
| | 2012 | 84,614,929 | 739,255,893 | 19,785,589 | 548,978,729 | 655,491,547 | 1529 |
| | 2013 | 101,369,944 | 925,307,025 | 19,356,397 | 628,617,948 | 760,978,698 | 1917 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| SAFARICOM | 2009 | 90,998,603 | 881,594,971 | 1,295,181 | 406,439,967 | 812,684,039 | 2,037 |
| | 2010 | 102,513,303 | 791,486,819 | 16,118,250 | 505,095,257 | 668,994,767 | 1913 |
| | 2011 | 101,954,765 | 951,927251 | 18,242,207 | 607,146,197 | 857,628.534 | 2070 |
| | 2012 | 121,804,527 | 1,064,033,767 | 9,495,673 | 848,709,153 | 917,076,721 | 2,940 |
| | 2013 | 166,038,812 | 1,535,197,310 | 2,640,722 | 1,117,174,576 | 1,287,787,309 | 4,737 |
| SHERIA | 2009 | 124,763,167 | 1,154,913,476 | 6,227,500 | 989,954,635 | 1,009,131,310 | 5,653 |
| | 2010 | 129,274,580 | 1,248,585,274 | 7,765,916 | 75,556,365 | 65,022,992 | 6,255 |
| | 2011 | 147,052,475 | 1,634,614,030 | 7,250,625 | 94,772,319 | 85,904,697 | 6,255 |
| | 2012 | 180,314,622 | 2,324,091,802 | - | 1,617,616,039 | 1,846,398,623 | 8146 |
| | 2013 | 312,770,035 | 2,835,831,928 | 8,528,134 | 1.902,889,128 | 2,289,303,089 | 9034 |
| STIMA | 2009 | 637,049,242 | 5,124,312,279 | - | 3,839,823,466 | 4,381,058,949 | 8,310 |
| | 2010 | 812,020,744 | 6,283,238,958 | 2,396,996 | 4,667,351,408 | 5,395,843,087 | 9,737 |
| | 2011 | 1,013,191,790 | 7,632,596,170 | 1,180,942 | 5,481,844,282 | 6,292,002,888 | 11,945 |
| | 2012 | 1,321,818,000 | 9,402,400,000 | 6,349,327 | 7,045,280,000 | 8,109,155,198 | 14,977 |
| | 2013 | 1,650,145,523 | 12,401,789,000 | 3,232,678 | 8,984,634,000 | 10,571,249,988 | 26,468 |
| UFANISI | 2009 | 12,345,353 | 94,879,854 | 2,517,921 | 66,631,258 | 72,563,417 | 476 |
| | 2010 | 12,441,555 | 99,773,289 | 2,373,921 | 72,879,847 | 75,410,172 | 459 |
| | 2011 | 12,564,117 | 96,776,379 | 4,844,093 | 75,819,391 | 71,571,107 | 512 |
| | 2012 | 15,140,621 | 105,488,066 | 3,350,643 | 81,642,857 | 90,537,611 | 439 |
| | 2013 | 17,813,450 | 115,144,314 | 4,452,150 | 89,222,196 | 98,561,742 | 486 |
| UKRISTO | 2009 | 16,006,614 | 140,265,987 | 2,533,115 | 125,624,099 | 124,366,289 | 5,810 |
| | 2010 | 24,009,529 | 228,485,512 | 1,135,710 | 198,985,478 | 196,104,015 | 7581 |
| | 2011 | 46,806,529 | 351,340,175 | 3,737,595 | 299,351,085 | 287,199,837 | 9767 |
| | 2012 | 69,205,462 | 538,659,164 | 2,420,777 | 446,542,157 | 450,676,365 | 9767 |
| | 2013 | 106,769,509 | 783,249,588 | 2,927,343 | 638,451,940 | 715,677,968 | 11449 |
| UKULIMA | 2009 | 534,383,798 | 4,246,936,567 | 0 | | 2,842,877,077 | 26,843 |
| | 2010 | 558,446,778 | 4,608,030,021 | 17,002,491 | 3,739,227,537 | 3,638,211,198 | 27,749 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | 2011 | 649,260,992 | 5,080,073,525 | 101,738,243 | 4,165,983,617 | 4,093,488,281 | 30,841 |
| | 2012 | 721,297,435 | 6,420,421,725 | 68,745,232 | 4,697,873611 | 4,819,062,513 | 31,750 |
| | 2013 | 798,396,268 | 7,321,315,578 | 17,604,134 | 5,514,465,939 | 5,624,702,557 | 32,722 |
| UN | 2009 | 482,192,612 | 3,887,145,888 | 0 | 3,010,551,366 | 3,395,830,208 | 3,294 |
| | 2010 | 613,597,200 | 4,656,875,859 | 0 | 3,748,852,303 | 3,995,860,008 | 3,503 |
| | 2011 | 775,932,543 | 5,610,570,727 | 11,216,546 | 4,462,385,144 | 4,832,582,691 | 3,944 |
| | 2012 | 960,941,197 | 6,547,006,193 | 10,847,833 | 5,374,384,513 | 5,840,225,640 | 4088 |
| | 2013 | 1,057,257,016 | 7,553,609,809 | 18,258,076 | 6,188,095,784 | 6,453,383,482 | 4387 |
| WANAANGA | 2009 | 87,069,526 | 503,323,859 | 0 | 219,689,430 | 451,056,453 | 1478 |
| | 2010 | 99,354,713 | 603,811,524 | 5,045,226 | 270,638,002 | 514,858,534 | 1,990 |
| | 2011 | 127,980,763 | 812,605,516 | 1,138,988 | 324,543,751 | 647,564,618 | 2,048 |
| | 2012 | 138,138,899 | 911,362,906 | 8,190,856 | 793,454,135 | 776,076,398 | 2,477 |
| | 2013 | 143,300,535 | 986,763,397 | 13,195,901 | 858,694,192 | 769,763,241 | 2,790 |
| WANANDEGE | 2009 | 120,462,550 | 963,342,667 | 0 | 661,380,865 | 572,156,550 | |
| | 2010 | 129,544,016 | 1,298,209,836 | 12,222,412 | 730,902,513 | 638,512,015 | 3,582 |
| | 2011 | 141,028,594 | 1,206,286,516 | 27,295,338 | 772,806,844 | 586,452,555 | 3,757 |
| | 2012 | 168,803,359 | 1,204,999,335 | 9,389,455 | 811,712,713 | 606,679,339 | 5,014 |
| | 2013 | 163,634,909 | 1,179,389,848 | 21,832,244 | 971,974,845 | 561,360,107 | 6,176 |
| WAUMINI | 2009 | 89,134,615 | 934,282,905 | 0 | 776,834,090 | 805,872,590 | 11,084 |
| | 2010 | 105,435,113 | 1,149,361,057 | 0 | 875,219,003 | 954,632,449 | 10,071 |
| | 2011 | 123,101,204 | 1,372,655,346 | 12,778,383 | 1,186,155,336 | 1,103,004,043 | 11,739 |
| | 2012 | 167,938,244 | 1,648,371,022 | 37,536,657 | 1,398,387,721 | 1,298,365,856 | 14,697 |
| | 2013 | 192,990,693 | 2,130,630,266 | 3,219,138 | 1,823,574,295 | 1,620,966,617 | 16,125 |

## Appendix III: Letters of Data Collection