

**A SURVEY OF THE FINANCIAL PERFORMANCE INDICATORS  
USED BY SAVINGS AND CREDIT SOCIETIES (SACCOs) IN KENYA**

**BY**

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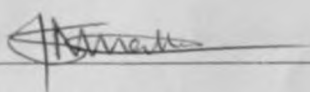
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## DECLARATION

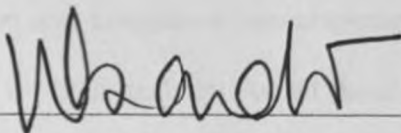
I declare that this research project is my original work and has never been submitted for a degree or qualification of the same in any other university or institute of higher learning.

Signed  Date 16/11/2010

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D61/P/7570/05

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

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## DEDICATION

To my dear wife, Mercy and loving daughter, Tatsi.

## ABSTRACT

Financial indicators help organizations define and evaluate their progress towards attaining long-term goals. This study sought to investigate the financial indicators used by Savings and Credit Societies (SACCOs) in Kenya. The study was guided by the following specific objectives: to identify financial performance indicators used by SACCOs in Kenya; and to establish the relationship between the performance indicators and financial performance of SACCOs in Kenya.

To undertake the study, a descriptive research design was used. The population of this study included all active SACCOs operating in Kenya, which are registered by the Ministry of Cooperatives and Marketing, whose number stood at 3,200 as at 30<sup>th</sup> June 2010. The target was a sample of 50 SACCOs from two groups (rural and urban). The respondent in each of the SACCOs was the head of finance function or any of his/her assistants; and where the Sacco is run by a Central Management Committee, then the treasurer was the respondent. Semi-structured questionnaires were used in data collection. The procedure used in collection of primary data was through distribution of the questionnaires that is, dropping and picking questionnaires from respondents at their most convenient time that was agreeable to both parties. The data pertaining to profile of the respondents and their respective organizations was analyzed using content analysis. Data pertaining to the objectives of the study was analyzed using descriptive statistics, which included measures of central tendency (mean scores), measures of dispersion (standard deviations) and measures of frequency among others. In order to establish the relationship between the performance indicators and financial performance of SACCOs in Kenya a correlation of variables was undertaken.

The key financial performance indicators used by most of the respondent Saccos include the following: Repayment rates, portfolio at risk (PAR), delinquent borrowers, loan loss reserve, loan loss ratio, average number of active loans, average portfolio per credit officer, average portfolio per credit officer, value of all savings accounts, savings per branch, total amount disbursed per period per credit officer, operating costs, quick ratio, net interest margin, portfolio outstanding ratio, operational self-sufficiency, financial self-sufficiency, annual growth in savings, annual growth in depositors and gearing ratio.

The findings further indicate a positive relationship between the use of financial performance indicators and financial performance of SACCOs in Kenya. Specifically, there is a direct relationship between the use of financial performance indicators and total revenue growth (47.7%); total assets growth (57.2%); net income growth (73.7%); market share growth (42.8%); and overall performance or growth (47.6%). The financial performance indicators that showed the strongest correlation with performance of the SACCOs include the following: repayment rates ( $\delta=1.11$ ); portfolio at risk ( $\delta=0.99$ ); loan loss ratio ( $\delta=1.10$ ); operating costs ( $\delta=1.31$ ); net interest margin ( $\delta=1.19$ ); operational self-sufficiency ( $\delta=1.14$ ); financial self-sufficiency ( $\delta=1.10$ ); annual growth in savings and annual growth in depositors ( $\delta=1.09$ ).

In view of the findings of the study, the researcher recommends that SACCOs should constantly review and keep track of their performance by ensuring timely periodical reporting to facilitate informed decision making when developing long-term goals; SACCOs should endeavor to choose the most appropriate financial indicators for effective evaluation of performance; and control measures should be used to address any divergences between the set goals and actual performance to ensure that processes are kept within pre-determined levels.

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## LIST OF ABBREVIATIONS

### CHAPTER ONE

ERM	Enterprise-wide Risk Management
GDP	Gross Domestic Product
GRA	Grey Relation Analysis
MFI	Micro finance institution
PAR	Portfolio at Risk
ROA	Return on Assets
ROB	Return on Business
ROE	Return on Equity
SACCOs	Savings and Credit Cooperative Societies
SASRA	Sacco Societies Regulatory Authority
SME	Small and Micro Enterprise
WOCCU	World Council of Credit Unions

# CHAPTER ONE

## 1.0 INTRODUCTION

### 1.1 Background Of The Study

Performance indicators are measures by which the performances of organizations, business units, and their division, departments and employees are periodically assessed. In a corporate environment where the Balanced Scorecard (BSC) methodology (Kaplan and Norton, 2000), is to review and track performance, the performance indicators are defined as part of a hierarchical decision-making process. Such measures are commonly used to help an organization define and evaluate how successful it is, typically in terms of making progress towards its long-term organizational goals

Financial performance indicators are usually seen as numerical measures of achievement that are easy to collect and use. In theory they can only be derived for things over which you have control, however in practice people don't have absolute control over anything and so 'having control' is really a matter of whether there is enough control for your purpose. The fundamental objective of financial statements is to communicate economic measurements and information about the resources and performance of the reporting entity useful to those having reasonable rights to such information. Financial statements also seek to provide information about the financial adaptability of an enterprise that is useful to a wide range of users for assessing the stewardship of management and for making economic decisions.

Financial management entails planning for the future of a person or a business enterprise to ensure a positive cash flow. It includes the administration and

maintenance of financial assets. Besides, financial management covers the process of identifying and managing risks. Strong financial management in the business arena requires managers to be able to interpret financial reports including income statements, Profits and Loss, cash flow statements and balance sheet statements. This helps them in improving the allocation of working capital within business operations, financial budgeting, revenue and cost forecasting. Further, managers can review the financial health of the company or business unit using ratio analyses, such as the gearing ratio, profit per employee and weighted cost of capital and also understand valuations frameworks for businesses, portfolios and intangible assets.

### **1.1.1 Saccos in Kenya**

Kenya is a country where the co-operative movement has grown strong through the last four decades. In order to help farmers with credit and saving facilities and marketing of their produce Co-operative Societies and Union Banking Sections were formed already in the early 1960s, (Ministry of Co-operatives Marketing, 2008). In the Urban areas, SACCOS were being formed to cater for salaried employees of the Government, private companies, professional organizations, parastatals, institutions of learning, local authorities among other institutions. The idea was to pool resources together through monthly savings and on lend to needy members at a minimal interest rate and thus empowering them economically.

Over time, these SACCOS have grown into strong economic powerhouses with a total savings of more than Kshs. 110 billion according to a Ministry of Cooperatives publication in 2008. Initially, SACCOS were restricted to a single employer but recent developments have seen them taking deposits from the public and other employers

using their Front Office Saving Accounts (FOSAs) which operate similar to a commercial bank. With such a massive investment and now public funds being involved, prudent financial management is necessary and financial statements must be prepared in accordance with International Financial Reporting Standards. Management must also be able to monitor the progress of the SACCO on a regular basis through the use of key financial performance ratios or indicators.

## **1.2 Statement Of The Problem**

Locally, studies undertaken in this area have focused on Small and Micro enterprises and Microfinance institutions. A study by Mbuvi (1983) focused on the causes of failure in small businesses in Machakos. Maalu (1990) carried out a case study to establish the factors influencing record keeping in small-scale enterprises in Eastlands area of Nairobi. A research by Wakah (1999) studied the perceived relevance of non-financial business development offered to SME's while Kitaka (2002) focused on the use of financial performance indicators among Kenyan SME's.

Woccu has developed a Credit Union's performance measurement tool known as PEARLS (acronym for Protection, Effective financial structure, Asset quality, Rates of return and costs, Liquidity and Signs of growth) which is a set of financial ratios and indicators. This resulted from a series of studies of credit unions in both America and South America. In 2006, Woccu carried out a study in South Africa to establish how their performance measurement tool (PEARLS) was being used to aid in financial management among SACCOs. Poyo (2000) studied the implications for the Kenyan financial co-operative system in which he emphasized more on the economic

importance of the SACCOs and thus the necessity to adapt a prudent financial management system.

None of these studies has looked at the extent in which financial performance indicators are used by SACCOs in Kenya. This study therefore sought to establish; “what are the financial performance indicators used by SACCOs in Kenya”?

### 1.3 Objectives Of The Study

- (i) To identify financial performance indicators used by SACCOs in Kenya
- (ii) To establish the relationship between the use of performance indicators and financial performance of SACCOs in Kenya.

### 1.4 Importance Of The Study

Upon completion of this study, its findings will be relevant and of much benefit to the following:

**Management of the SACCOs** – Performance indicators can be used to help an organization to define and evaluate how successful it is, typically in terms of making progress towards its long term organizational goals. This study will henceforth bring out the best performance indicators applicable by any SACCO management to ensure growth and sustainable income to the members.

**Government of Kenya:** - SACCOs stimulate voluntary savings amongst members and provide financial assistance to members at lower interest rates than commercial banks. It is in the interest of the Government of Kenya to ensure that its citizen’s funds are safeguarded. Resulting from this research, the Government through SASRA

will be able to know whether proper financial performance measures are put in place and the necessary corrective actions taken in good time.

**Academic researchers and scholars:** There is very little literature if any in the field of SACCOs especially in the developing countries. The forerunners in this area have written in depth about the micro and small enterprises. This research will therefore shed more light and form as a foundation for future research.

## **CHAPTER TWO**

### **2.0 LITERATURE REVIEW**

#### **2.1 Introduction**

This chapter presents a review of the literature related to the purpose of the study. The chapter is organized according to the specific objectives in order to ensure relevance to the research problem. The review is undertaken in order to eliminate duplication of what has been done and provide a clear understanding of existing knowledge base in the problem area. The literature review is based on authoritative, recent, and original sources such as journals, books, thesis, reliable websites and dissertations.

#### **2.2 Review OF Empirical Studies**

Ratios are used as performance measures to evaluate the financial operations of an entity and have been widely accepted and used for analysis of historical financial statements. Internally, performance measures have been used at the end of a period to determine if an entity's objectives have been achieved and to aid in adding value (Frost, 1998). With the development of enterprise-wide risk management (ERM) techniques, performance measures have become an integral part of continuous monitoring of adherence to corporate strategy at all levels of an organization's operations (Khandker and Khalily, 1995). Performance measures tied to strategic plans aid an organization in a variety of ways, including developing the strategic plan, analyzing the achievement of departmental and corporate objectives, monitoring operations by red flagging daily operations that have gone outside acceptable parameters, charting progress towards goals, and evaluating employees and suppliers.



Shank *et al.* (1995) describes performance measurement as one of the four broad design tests for an effective management system. Stretch targets that are achievable and fair must be set to reward good decision-making. Managers must use the targets as drivers of behavior and not just look at results. Barsky and Bremser (1999) conclude that for management to better align actions with strategic goals, it is important to use the budget to emphasize core beliefs and critical interactive controls and then to develop an integrated set of financial and non-financial measures to evaluate progress. Harbour (1997) states that performance measures take much of the guess work out of the planning process, as a measured record of past performance is the best indicator of future performance.

Aguilar (2003) indicates that performance measures must be an integral part of the organization's culture and reward system. He states that: "the key purpose of performance management is to align the entire organization behind the goal of turning the strategic plan into effective action". Communication should serve to inform employees, to involve them in the process, and ultimately to empower them to keep implementing change on an ongoing basis.

A study by Usoff *et al.* (2002) found that firms that valued intellectual capital used performance measures significantly more to determine salary increases, bonuses, and promotions. When performance measures are used as part of an incentive compensation program, Eichen and Swinford (1997) conclude that to motivate employee behavior the measures must be developed from the company's goals, easily understood by the employee and result from activities that the employee can control.

For most companies, employees are the most valuable assets. Brown (1996) indicates that excellent companies have a vested interest in maintaining good relationships with their employees. The way that these companies use to measure employee satisfaction include climate surveys, focus groups, complaint/grievance process, stress index, absenteeism, and transfer requests. As many organizations spend a material amount of its resources on purchasing goods and services, companies can also develop an index of measures to evaluate supplier performance. Brown (1996) lists product/service quality, customer satisfaction, price/value and process measures to use as a means of determining the quality of a supplier's relationship to the company.

To be useful in the daily operations of the company, a business plan has to be tied to a budget that is used to monitor the progress towards meeting strategic goals. Harborne (1999) suggests that a company needs a set of defined activities, which allows for measures to be set and reported against to monitor progress. The Texas's State Auditor's Office provides guidance for use of performance measures for the monitoring of progress with the strategic plan. Agencies are required to provide quarterly and annual information to compare actual performance to budgets. These reports are used to report and to assess performance by governing boards and oversight agencies. Harbour (1997) states that control measures should be used when a process needs to be kept within predetermined levels. Providing responsible parties with immediate feedback allows for early warning signals so that problems can be identified and resolved quickly.

Kitaka (2002) in his MBA thesis carried out a research whose aim was to assess the use of the financial performance indicators among the MFIs in Kenya and whether the

financial performance indicators used are influenced by the financiers of the MFIs. The study revealed that MFIs use various financial performance indicators and some of them have used these indicators for over ten years. The highly used financial performance indicators are among others Arrears Rate, Delinquent Borrowers, Quick Ratio, and Average Number of Active Loans. The use of these financial performance indicators has led to improvement in the operations of the MFIs in Kenya. The study revealed that MFIs get funds from different sources. Donors are the largest single source of finances to MFIs in Kenya followed by the Self-Help Groups and Deposit mobilization respectively. Other sources of finance include Commercial banks and Savings and Credit societies. The government does not offer financial support to MFIs according to the study.

It was concluded from the study that there is a relationship between the financiers of the MFIs and the financial performance indicators the MFIs use. Financiers determine the type of the financial performance indicator to be used by the particular MFI.

Various financiers of Kenyan microfinance institutions need to be aware of the financial performance indicators their beneficiaries use for this would ensure that the financial performance indicators used by the MFIs reflect what the financiers would prefer.

### **2.3 Performance Measurement**

Terence (1989) defines performance measurement as a way of ensuring that resources available are used in the most efficient and effective way. The essence is to provide for the organization the maximum return on the capital employed in the business.

Financial performance for any entity is very important because managers need to know how well the organization is performing.

There are two major reasons as to why any business should have financial performance measurement (Johnson, 1997). The first one is to produce financial statements at the right time. He argues that information given late can not give accurate picture of the organization's financial position. Secondly, financial statements should be analyzed to produce information about the performance of the organization, which must be used to improve that performance. For example if one is trying to find out whether the portfolio of a loan and saving that the scheme is holding is being effectively managed, financial performance measurements are used.

If the management of enterprises could conduct their own measurement or diagnosis of the enterprises at regular intervals, management most likely would gain a better understanding of how effectively they have used their resources. The result of this performance evaluation could serve as reference for them in their future allocation of resources for the enterprise. Benchmarking is undoubtedly a very important tool for enterprises and consultants for establishing their goals, developing methods for achieving the goals, and measuring system performance (Tapas, 1998). Therefore, effective benchmarking performance evaluation for SACCOs could definitely contribute to effective management.

Performance evaluation of financial institutions, particularly commercial banks, has received increased attention over the past several years (Seiford and Zhu, 1999). Also, most previous studies concerning bank performance evaluation focus merely on

operational performance. Stock performance, however, which might directly influence the decision-making of investors, is usually ignored. As a result, and since SACCOs in Kenya operate more or less like commercial banks (taking deposits and lending to members) this paper tries to construct a financial performance indicators evaluation within Kenyan SACCOs.

The evaluation of operational performance has always been a major concern for industries, governments and academe. Operational performance not only serves as a basis for organizational improvement and criteria for detecting problems in enterprises, but also as a policy determinant for governments in mapping out relevant measures. However, choosing a viable method for effective evaluation of performance is not an easy task. There is a substantial body of literature discussing different research methods applied to performance evaluation.

Huang (1986) defined multivariate statistical analysis as a form of statistics encompassing the simultaneous observation and analysis of more than one variable to bring out a correlation or variance between the variables being analyzed. This method includes many different models each with its own type of analysis, for example; - Multivariate analysis of variance (MANOVA), Principal components analysis (PCA), factor analysis, canonical correlation analysis, redundancy analysis, correspondence analysis, multidimensional scaling, t square among others.

The analytic hierarchy process (Shih, 2000) is a structured technique for dealing with complex decisions. Rather than prescribing the 'correct' decision, the analytic hierarchy process helps the decision makers find the one that best suits their needs and

the understanding of the problem based on mathematics and psychology. This method provides a comprehensive and rational framework for structuring a decision problem, for representing and quantifying its elements, for relating those elements to overall goals and for evaluating alternative solutions.

The Fuzzy set theory (Tsai, 2000), in the classical set theory, the membership of elements in a set is assessed in binary terms according to a bivalent condition; - an element either belongs or does not belong to the set. By contrast, fuzzy set theory permits the gradual assessment of the membership of elements in a set; this is described with the aid of a membership function valued in the real unit interval (0, 1). Fuzzy sets generalize classical sets since the indicator functions of classical sets are special cases of the membership function of fuzzy sets, if only the latter only take values 0 or 1. The fuzzy set theory can be used in a wide range of domains in which information is incomplete or imprecise such as bioinformatics.

According to Tsai (2000), Grey relation analysis uses a specific concept of information. It defines situations with no information as black and those with perfect information as white. However neither of these idealized situations occurs in real world situations. In fact, situations between these extremes are described as grey, hazy or fuzzy. Therefore a grey system means that a system in which part of information is known and part of information is unknown. Grey analysis then comes to a clear set of statements about system solutions. At one extreme, no solution can be defined for a system with no information while at the other extreme, a system with perfect information has a unique solution. In the middle, grey systems will give a variety of available solutions. Grey analysis does not attempt to find the best solution,

but does provide techniques for determining a good solution, an appropriate solution for real world problems.

Kaplan and Norton (2000), re-introduced the concept of the balanced score card which is a strategic performance management tool. The balanced score card is a semi standard structured report supported by proven design methods and automation tools that can be used by managers to keep track of the execution of staff within their control and monitor their consequences arising from these actions. The design of a balanced score card ultimately is about the identification of a small number of financial and non financial measures and attaching targets to them, so that when they are reviewed, its possible to determine whether current performance meets expectations. The idea behind this is that by alerting managers to areas where performance deviates from expectations, they can be encouraged to focus their attention to these areas and hopefully as a result trigger improved performance within the part of organization they lead.

Some of these methods may have already been known to the public. Other methods were simply borrowed from the domain of industrial study and applied to commerce. Some are still in the embryonic stage. Each of the above five methods can be independently applied to evaluating performance. However, no one of them is perfect. Researchers can only choose a method to evaluate performance that has the least amount of drawbacks for each study's particular situation Therefore; a viable method for effective evaluation of performance is aimed at providing solutions for issues with multiple variables and targets.

## 2.4 The Types Of Performance Indicators

The essence of calculating and coming up with analysis of financial performance indicators (ratios) is to provide information that can identify the potential or existing problems, which can lead to changes in policies or operations which in turn may improve the financial performance. Ledgerwood (1998) highlighted six major indicators of financial performance. They include - portfolio quality, productivity and efficiency, financial viability, profitability, leverage and capital adequacy and scale, outreach and growth. This approach is adopted in this research for easy understanding of performance indicators.

### 2.4.1 Portfolio Quality

Woccu (2000) defines asset quality as the main variable that affects institutional profitability. An excess of defaulted or delayed repayment of loans and high percentages of other non earning assets have negative effects on credit union earnings because these assets are not earning any income. Ledgerwood(1998) emphasizes that portfolio quality ratios provide information on the percentage of non-earning assets, which in turn decreases the revenues and liquidity position of an entity. Various ratios are used to measure portfolio quality and provide other information about the portfolio. They are the repayment rates, portfolio quality ratios, and loan loss ratios.

Ledgerwood (1998) states that repayment rate measures the amount of payments received with respect to the amount due. It is an important measure for monitoring repayment performance overtime and projecting future cash flow – because it indicates what percentage of the amount due that is expected to be received based on the past experience.

$$\text{On – time repayment Rate} = \frac{\text{Collection on current amount due less prepayment}}{\text{Total current amount due}}$$



$$\text{Repayment Rate including past due amounts} = \frac{\text{Collection on current amount due plus past due amount less prepayments}}{\text{Total current amount due plus past due amount}}$$

In addition to controlling delinquency, institutions also must monitor the ratio of non earning assets to total assets (Woccu, 2000) and ensure that the non earning assets are not financed by savings deposits, external credit or members' shares. Further, sources of funds for SACCOs have a financial cost and such savings deposits need to be invested in productive assets that will earn a greater return than the cost of funds. According to Ledgerwood (1998), there are three ratios used to measure portfolio quality, these are defined as follows:

**Arrears Rate**

Arrears represent the amount of loans principal that has become due and has not been received. The arrears rate provides an indication of the risk that a loan will not be repaid, that is the ratio of overdue loan principal (or principal + interest) to the portfolio outstanding.

$$\text{Arrears Rate} = \frac{\text{Amount in Arrears}}{\text{Portfolio outstanding (including amount past due)}}$$

According to Ledgerwood (1998), Portfolio at Risk (PAR) refers to all loans that have an amount overdue. PAR is different from arrears ratio because it considers the amount in arrears plus the remaining outstanding balance of the loan. Kitaka (2002) in a survey of the use of financial performance indicators by microfinance institutions in Kenya established that the Co-operative bank of Kenya uses PAR in its microfinance section. The bank defines PAR as the outstanding amount of loan in arrears for over seven days divided by the total outstanding loan balance multiplied by 100 and its policy is to maintain this at below 5%.

$$\text{PAR} = \frac{\text{Outstanding balance of loans with payments past due}}{\text{Portfolio outstanding (including amount past due)}}$$

The PAR ratio reflects the true risk of a delinquency problem because it considers the full amount of the loan at risk – this is particularly important when the loan payments are small and loan terms are long.

Ledgerwood (1998) defines delinquency as the ratio that aims to determine the number of borrowers who are delinquent relative to the volume of delinquent loans. If there is variation in the size of the loans disbursed, it is helpful to know whether the larger or the smaller loans result in greater delinquency. If the ratio of delinquent borrowers is lower than the portfolio at risk or the arrears rate, then it is likely that larger loans are more problematic than smaller ones. Kitaka (2002) in his study of MFI's discovered that the delinquency ratio is given priority as a performance indicator. Seriously delinquent is the percentage of loans that are 90 days or more delinquent or in the process of foreclosure. A delinquent borrower is obtained as follows:

$$\text{Delinquent Borrowers} = \frac{\text{Number of delinquent borrowers}}{\text{Total number of active borrowers}}$$

In a study of the performance evaluation model of the Commercial Bank of Taiwan, Tsai (2000) observed that loan loss ratios are calculated to provide an indication of the expected loan losses and the actual losses for the bank. He found out that the bank used loan loss reserve ratio and loan loss ratio.

The loan loss reserve ratio shows what percentage of the loan portfolio has been reserved for future losses. Woccu (2000) also emphasizes that provision of loan losses by credit unions are the first line of defense against unexpected losses to the

institution. Allowances for loan losses are essential since delinquency signals that the loans are at risk, thus the institution must set aside earnings to cover the possible losses so that member savings remain protected. By comparing this over time, the business entity can determine how well they are managing delinquency, provided they are making adequate loan loss reserves. It is recommended to be at 5% and below. It should decrease as the business improves its delinquency management.

$$\text{Loan loss reserve ratio} = \frac{\text{Loan loss reserve for the period}}{\text{Portfolio outstanding for the period}}$$

According to Tsai (2000), the loan loss ratio reflects the only amount written off during the period (one year) hence it is calculated to determine the rate of loan losses for this period. It provides an indication of the volume of a loan loss in a period relative to average portfolio outstanding. Under protection of members savings in a credit union, Woccu (2000) considers loan write offs on a quarterly basis for loans delinquent greater than 12 months. The practice of writing off loans is important because after a loan is delinquent for one year, it is unlikely the institution will receive repayment of that loan and as a result of the write off, the balance sheet will state accurately the value of the institutions assets. The average portfolio outstanding is determined by adding the portfolio outstanding at the beginning of the year to the portfolio outstanding at the end of the year and then divides by the results of the two;

$$\text{Loan loss ratio} = \frac{\text{Amount written off in the period}}{\text{Average portfolio outstanding for the period.}}$$

#### **2.4.2 Productivity And Efficiency Ratios**

They provide information about the rate at which a business entity generates revenues to cover their expenses. Yields and costs directly affect the growth rates of an institution (Woccu, 2000). The intent is for an institution to pay real rates of return on

savings and shares, charge rates on loans that recover all costs and pay competitive salaries for employees. For credit unions, the rates of return and costs indicators monitor the return earned on each type of asset and the cost of each type of liability. Ledgerwood (1998) stated that by calculating and comparing productivity and efficiency ratios over time, an entity can determine whether they are maximizing their use of resources. Productivity refers to the volume of the business that is generated (output) for a given resources or asset (input), while efficiency refers to the cost per unit of output. These ratios are used to compare performance over time and to measure improvements in the entity's operations. This means branch (FOSA) managers (for those SACCOs with two or more branches) can compare their branches to other branches and determine where they might need to reduce costs to increase productivity.

Kitaka (2002) identified that in the Kenyan MFI's, the main focus is on the productivity of the credit officers, because they are the primary generators of revenue. These ratios include - the number of active borrowers per credit officer, portfolio outstanding per credit officer, and total amount disbursed in the period per credit officer. For each entity there is optimal number of clients that each credit officer can manage effectively. When comparing this ratio with other entities (or between different branches or different lending products within the same SACCO), it is necessary to take into account the average loan term because this greatly affects the number of borrowers a credit officer can maintain. According to Kitaka (2002), credit officers are supposed to lend, manage arrears and ensure recovery of delinquent loans thus their assessment is based on the quality of their portfolio. Measurement the credit officers performance is thus based on the portfolio quality (active loans) as follows:-

$$\text{Average number of active loans per credit officer} = \frac{\text{average number of active loans}}{\text{average number of credit officers}}$$

The size of the average portfolio outstanding per credit officer will vary depending on the loan sizes, the maturity of the MFI's clients, and the optimal number of active loans per credit officer. According to Kitaka (2002), internal management uses this ratio especially when comparing productivity with other MFI's. This means that, if a particular credit officer is with a particular MFI's over a long period of time, the number of active borrowers and portfolio outstanding should increase to an optimal level, at which point growth in the number of active borrowers that the credit officer manages should be minimized. This is calculated as follows:

$$\text{Average portfolio per credit officer} = \frac{\text{average value of loan outstanding}}{\text{Average number of credit officers.}}$$

Kitaka (2002) states that in accounting terms, the amount disbursed by a credit officer is a flow item (cash flow item) whereas the amount outstanding is a stock item (balance sheet item). It is important to distinguish them because there are specific costs associated to either of them. The average portfolio outstanding ratio measures the stock (portfolio outstanding) i.e. the flow of loan disbursements. As clients take out additional loans, both the portfolio outstanding and the total amount disbursed per credit officer should increase, provided the clients require larger loan amounts or the MFI is operating in an inflationary environment.

$$\text{Total amount disbursed per period per credit officer} = \frac{\text{Total amount disbursed}}{\text{average number of credit officers.}}$$

Efficiency ratios measure the cost of providing services (loans) to generate revenue. This is also referred to as operating costs. Ledgerwood (1998) states that operating costs can be broken down to measure the efficiency of specific cost elements such as

salaries and benefits, occupational expenses such as rent, and utilities, or travel. Huang (1986) in a study of domestic banks performance defined operating cost ratio in simple terms as the company's operating expenses divided by its operating revenues. It provides an indication of the efficiency of the lending operations - also called efficiency indicator.

$$\text{Operating cost ratio} = \frac{\text{operating cost}}{\text{Average portfolio outstanding}}$$

According to Huang (1986), it is advisable for a bank to maintain operating cost ratios to between 15% and 21% of the average loan portfolio and between 5% and 16% of their average total assets. Kitaka (2002) in his survey of performance indicators among MFI's in Kenya found that many MFI's have salaries and benefits running between 4% and 16% of average portfolio outstanding. The variation is depended on the model used, the density of the population, and the salary level in the country.

$$\text{Salaries and benefits to average portfolio outstanding ratio} = \frac{\text{Salaries and benefits}}{\text{average portfolio outstanding}}$$

For a successful entity, efficiency ratios should be decreasing over time. This means the disbursed amount and the average portfolio outstanding appear to grow at a greater rate than costs.

### **2.4.3 Financial Viability**

Lin (1998) in his study of efficiency evaluation in Taiwan's securities defines financial viability as the ability of a company to generate sufficient income to meet operating payments, debt commitments and where applicable to allow growth while maintaining service levels. To determine financial viability, self-sufficiency indicators are required which are in two levels – the operational self-sufficiency and financial self-sufficiency. It should be noted here that if an organization is not self-sufficient,

the subsidy dependence index can be calculated to determine the rate at which the entity interest rate needs to be increased to cover the same level of costs with the same revenue base (loan portfolio). Financial viability can be determined by assessing the operational self sufficiency, financial self sufficiency and gearing ratio.

Setting out some of its efficiency ratios, the Woccu has come up with the operational self sufficiency which it states that a credit union must be generating enough operating revenue to cover operating expenses, financing costs, and the provision for loan losses.

$$\text{Operational self-sufficiency} = \frac{\text{operating income}}{\text{operating expenses} + \text{financing costs} + \text{provision for loan loss.}}$$

It is important to note that if a credit union does not reach operational self-efficiency, eventually its equity (loan-fund capital) will be reduced by losses (unless additional grants can be raised to cover operating shortfalls). This means there will be a smaller amount of funds to borrowers. To increase its self-sufficiency, the credit union must either increase its yield (return on assets) or decrease its expenses (financial costs, provisions for loan losses, or operating costs). According to Lin (1998), financial self-sufficiency indicates whether or not enough revenue has been earned to cover both direct costs, including financing costs, provision for loan losses, and operating expenses, and indirect costs – including the adjusted cost of capital.

$$\text{Financial self-sufficiency} = \frac{\text{operating income}}{\text{operating expenses} + \text{financing costs} + \text{provision for loan losses} + \text{cost of capital}}$$

He concludes that for a successful entity, this ratio must show an increasing trend. In risk analysis, gearing ratio is a financial ratio that compares some form of owners' equity to borrowed funds i.e. leverage. Collins (1980), the higher a company's degree

of leverage, the more the company is considered risky. A company with high gearing is more vulnerable to a down turn in the business cycle because the company must continue to service its debt regardless of how bad sales are. A greater proportion of equity provides a cushion and is seen as a measure of financial strength. Gearing ratio measures the degree to which a business relies on external funds (borrowed funds) for its continued operations and on lending to members. Gearing ratio will be able to calculate the extent to which an entity requires to borrow to earn a return equal to the opportunity cost of capital.

A gearing ratio of zero means that a business has achieved financial self-sufficiency whereas a ratio of 100% means that a doubling of the average on-lending interest rate is required if loans are to be eliminated. A gearing of negative value means full self-sustainability and profit achievement. Gearing ratio is calculated as follows:

$$\text{Gearing Ratio} = \frac{\text{Long term debt}}{\text{Shareholders Equity}}$$

Long term debt will include the entity's external borrowing of periods above one year while shareholders equity is all the members' savings in the case of a Sacco.

#### 2.4.4 Profitability Ratios

Profitability ratios measure an entity's net income in relation to the structure of its balance sheet (Frost, 1998). These ratios help the investors and managers in determining whether they are earning an adequate return on the funds invested in the business. Examples include - return on assets (ROA), return on business (ROB), and return on equity (ROE). Frost (1998) describes return on assets as the percentage that shows how profitable a company's assets are in generating revenue. ROA is an indicator of how profitable a company is before leverage and is compared with



companies in the same industry. Since the figure for the total assets of the company depends on the carrying value of the assets, some caution is required for companies whose carrying value may not correspond to the actual market value. When calculating ROA, average total assets are used rather than performing assets, because the organization is being measured on its total financial performance, including decisions made to purchase fixed assets or invest in land and building or securities. The return on total assets ratio shows how the company is performing relative to all assets, including non-productive assets such as fixed assets, or land and property.

$$\text{Return on Assets} = \frac{\text{Net Income}}{\text{Average total assets}}$$

The importance of analyzing this ratio is that it will improve the ability of an entity to determine the revenue impact of policy changes, improve delinquency management or the addition of new products. The Return on Business ratio is important because even MFI's mobilize deposits as a large part of their operations (Ledgerwood, 1998). ROB is directly affected by the capital structure of any MFI's. If the majority of a MFI's assets are funded by equity, the return on the business level will be misleading and should not be calculated. On the other hand, if a MFI's is acting as a true financial intermediary, and funding its loan portfolio with client savings, the return on business ratio may be a fairer ratio to compare with other institutions other than the return on asset ratio. Average business base is obtained by summing assets and liabilities and then dividing by two (Ledgerwood, 1998).

$$\text{Return on Business} = \frac{\text{Net Income}}{\text{Average Business Base.}}$$

Frost (1998) states that ROE measures the rate of return on the ownership interest (shareholders equity) of the common stock owners. It measures a firm's efficiency at the generating profits from every unit of shareholders equity. It shows how well a

company uses investment funds to generate earnings growth. This ratio provides the management and investors with the rate of return earned on invested equity. It measures the return on funds that are owned by the members of the company and its calculated as follows:

$$\text{Return on Equity} = \frac{\text{Net Income}}{\text{Average equity}}$$

It should be noted that most business entities target a high ROE though this is influenced by the inflation rate in the particular country.

#### **2.4.5 Leverage And Capital Adequacy.**

Leverage refers to the extent to which a firm borrows money relative to its amount of equity (Ledgerwood, 1998). This answers the question of how many additional shillings can be mobilized from commercial sources for every shilling owned by the entity. Leverage states the relationship of funding assets with debt versus equity. A firm's leverage is measured by calculating its debt to equity ratio. This ratio states how much debt a firm has relative to equity.

$$\text{Debt to Equity Ratio} = \frac{\text{Debt}}{\text{Equity}}$$

The degree of leverage greatly affects the return on equity ratio of a firm. An entity that is more highly levered than another will have a high return on equity, all other things remaining constant. Capital adequacy means that there is a sufficient level of capital required in absorbing the potential losses while providing financial sustainability. According to the Sacco Societies Act (2008), a new requirement is that all SACCOs have to maintain sufficient capital to cater for depositors funds and such funds shall be maintained under the Deposit Guarantee Fund. The main purpose of

establishing and measuring capital adequacy for a firm is to ensure there is solvency in the organization.

$$\text{Capital to risk-weighted assets} = \frac{\text{Invested capital} + \text{reserves} + \text{retained earnings}}{\text{Risk-weighted assets.}}$$

This ratio needs to be calculated periodically to determine the level of a capital sufficiency in a firm. As a firm grows and presumably increases its leverage, this ratio will decrease over time as the organization takes advantage of increased borrowings.

#### **2.4.6 Scale, Outreach And Growth.**

In his survey of the Kenyan MFI's, Kitaka (2000) noted that scale refers to the number of clients served with different types of instruments while the depth of outreach refers to the type of clients reached and their level of income. The indicators of outreach are both qualitative and quantitative. They are simple to collect and provide a good measure of scale of outreach and good proxies for depth of outreach. These indicators can be weighted, quantified, and prioritized according to their relevance to a particular organization.

To evaluate the successful outreach of a credit union, it is useful to track these indicators over time and compare them with the stated goals of the organization.

Kitaka (2002) identified the various outreach indicators as used by the Kenyan MFI's as follows:

First, it is important to evaluate the number of clients per staff. This is the number of clients or members which are under the management of a particular staff. It is further broken down to assess the number of women as a percentage of the total clientele serviced and also the number of women as a percentage of total borrowers per staff.

Second, there is the loan outreach which assesses the number of current active borrowers against the total balance of outstanding loans or the average outstanding portfolio. The main aim of the loan outreach measure is to evaluate the number of clients who have loans and probably understand why the rest of the clients are not borrowing. This is because most of the MFI's income is generated from loans.

Third, the saving outreach looks at the total balance of voluntary savings accounts against the total annual average savings. It also evaluates the number of current voluntary saving clients and the value of funds in an average saving account. This measure helps define the savings culture between members of a particular MFI.

## **2.5 Summary And Conclusion**

The review of literature covered the multiple ways companies and institutions are using performance measures throughout the organization in the areas of strategic planning, monitoring operations, evaluation of employee's work and satisfaction with the company.

The strongest indicators of use of performance measures in the organization are in the achievement of corporate strategy at all levels throughout the organization. Linked to this, company executives employed at the most senior levels, departmental managers and individual employees at many levels are all evaluated with performance measures indicating their success in achieving stated corporate and departmental goals and strategies.

Similarly, compensation and bonuses for these same individuals are influenced by the results of these same performance measures. This combination of linking attainment

of corporate and departmental goals and strategy, financial evaluation and compensation, and regular monitoring of on-going operations is consistent with the expectation that performance measures help organizations manage variances in achieving stated corporate goals.

Further research could explore the use of financial performance measures for the achievement of stated strategy, monitoring of operations and the evaluation of employees by the size of the company or by industry, service-based or product-based. Additionally, understanding why external benchmarking is used less often than internal benchmarking would help researchers understand how organizations establish their strategy and annual corporate goals. Finally, the gathering of data to assess any links between the use of performance measures and risk assessment in organizations would be appropriate in this era of enterprise-wide risk management.

## **CHAPTER THREE**

### **3.0 RESEARCH METHODOLOGY**

#### **3.1 Introduction**

This chapter aims at defining the research design and methodology to be used in the study. It presents a description of the study design, target population, sample size, data collection instruments and procedures. The findings from the research were tabulated and analyzed using specific tools to answer the problem of the study.

#### **3.2 Research Design**

To undertake the study, a descriptive research design was used. According to Kumar (2000), descriptive research design is a scientific study done to describe a phenomena or an object. This kind of study involves a rigorous research planning and execution and often involves answering research questions. It involves an extensive well-focused literature review and identification of the existing knowledge gap. The method is preferred as it permits gathering of data from the respondents in natural settings.

#### **3.3 The Population**

Kumar (2005) describes population as a complete set of individuals, cases or objects with some common observable characteristics. The population of this study included all active SACCOs operating in Kenya, which are registered by the Ministry of Cooperatives and Marketing, whose number stood at 3,200 as at 30<sup>th</sup> June 2010. The Cooperatives Societies Act (Cap 490 Laws of Kenya) requires that all co-operatives societies and SACCOs should file their annual returns by 30<sup>th</sup> April every year after

they hold their annual general meetings. During the SACCOs AGM, the leadership is supposed read the audited financial report of the immediate past year to the members who either adopt or reject the statements. This directive was found critical in this research as it's expected that the most current data of SACCOs and their annual returns for 2010 are available at the ministry headquarters in Nairobi. In addition to that, the SACCOs' Central Management Committee and other staff in the finance department have the relevant information for this study.

**3.4 Sampling**

The Ministry of Co-operatives Development and Marketing classifies Kenyan SACCOs into two groups; rural and urban. From each of the two strata, a representative sample of 25 SACCOs was selected using the systematic random sampling procedure. The target was a total of 50 respondents from the two groups and this ensured that a fair chance is given to each of the classifications. Under the simple random sampling method, a subset of individuals (sample) is chosen from a larger set (population). Each individual is chosen randomly and entirely by chance such that each individual has the same probability of being chosen at any stage during the sampling process and each subset of individuals has the same probability of being chosen for the sample as any other subset. Table 3.1 below presents the sample size.

**Table 3.1: Sample Size**

<b>Category of SACCOs (Strata)</b>	<b>Sample Size</b>
Urban Savings and Credit Cooperative Societies	25
Rural Savings and Credit Cooperative Societies	25
<b>Total</b>	<b>50</b>

**3.5 Data collection tools**

Semi-structured questionnaires were used in data collection. The questionnaire consisted of two sections, Section I and section II. Section I consisted of items

pertaining to profile of the respondents and their respective SACCOs while section II consisted of items pertaining to the objectives of the study. The procedure used in collection of primary data was through distribution of the questionnaires that is, dropping and picking questionnaires from respondents at their most convenient time that was agreeable to both parties.

The respondent in each of the SACCOs was the head of finance function or any of his/her assistants; and where the Sacco is run by a Central Management Committee, then the treasurer was the respondent. It was expected that the personnel in the above categories have an understanding in finance, have access to some of the Sacco records and could express in confidence the performance of the employees over a specified period of time. This enhanced the reliability and validity of the data collected from the respondents.

Secondary data from the selected sample of SACCOs was obtained, which included the latest audited financial statements. As mentioned earlier, it is a statutory requirement that all SACCOs in Kenya file their returns by the 30<sup>th</sup> April with the Ministry of Co-operatives under SASRA. These returns include among others, the previous years audited financial statements. This means that the information was readily available with the Sacco or at the Ministry headquarters in Nairobi and thus it was not a challenge obtaining this data. Financial statements were resourceful in identifying the financial indicators applied by the SACCOs.

### **3.6 Data Analysis**

The collected data from the questionnaires and secondary sources was systematically organized in a manner to facilitate analysis. Data analysis involved preparation of the



collected data - coding, editing and cleaning of data so that it may be processed using Statistical Package for Social Sciences (SPSS) package. The coded data was keyed into the SPSS program where it was developed into a database and hence analyzed. SPSS is preferred because it is very systematic and covers a wide range of the most common statistical and graphical data analysis.

The data pertaining to profile of the respondents and their respective organizations was analyzed using content analysis. Cooper and Schindler (2005) states that content analysis may be used to analyze written data from experiments, observations, surveys and secondary sources. Data pertaining to the objectives of the study was analyzed using descriptive statistics, which included measures of central tendency (mean scores), measures of dispersion (standard deviations) and measures of frequency among others. According to Mugenda and Mugenda (1999) descriptive statistics enable meaningful description of a distribution of scores or measurements using a few indices or statistics. Measures of central tendency gave the expected score or measure from a group of scores in a study. Measures of variability, such as standard deviation, informed the analyst about the distribution of scores around the mean of the distribution. Frequency distribution showed a record of the number of times a score or record appears.

In order to establish the relationship between the performance indicators and financial performance of SACCOs in Kenya, a correlation of variables was undertaken. The financial performance indicators were subjected to a factor analysis; the individual items (financial performance indicators) were loaded with differing strengths onto several identified factors. The four factors identified were composed of those financial

performance indicators with the highest factor loadings. Thus, each factor was identified by a different set of financial performance indicators.

### 2.1 Introduction

Summary of the study and its objectives. The study aimed to investigate the financial performance of companies listed on the London Stock Exchange. The study was conducted over a period of 12 months, from January 2010 to December 2011. The study was conducted in the following manner: first, a list of companies was obtained from the London Stock Exchange. Then, financial data for each company was collected from the annual reports. The data was then analysed using factor analysis to identify the underlying factors that explain the variation in financial performance. The results of the study are presented in the following sections.

### 2.2 Methodology

Description of the methodology used in the study, including data collection and analysis techniques.

### 2.3 Results and Discussion

Summary of the results of the study and a discussion of the findings.

## CHAPTER FOUR

### 4.0 DATA ANALYSIS, RESULTS AND DISCUSSION

#### 4.1 Introduction

The study utilized a combination of both quantitative and qualitative techniques in the collection of data. The study targeted 50 Savings and Credit Co-operative Societies in Kenya. The Sacco officers gave their responses and the relevant documentation relating to the objectives of the study. Out of the 50 questionnaires that were distributed, 42 questionnaires were returned completed, (84%) response rate. The data was analyzed by employing descriptive statistics such as percentages, frequencies and tables. Statistical Package for Social Sciences (SPSS) was used to aid in analysis. The researcher preferred SPSS because of its ability to cover a wide range of the most common statistical and graphical data analysis and is very systematic. Computation of frequencies in tables, charts and bar graphs was used in data presentation. Standard deviations were computed to show measures of dispersion and mean scores were computed to show measures of central tendency. The information is presented and discussed as per the objectives and research questions of the study.

#### 4.2 Background Information

This section presents a summary of findings pertaining to the profile of respondents and their respective organizations.

##### 4.2.1 Period The SACCO Has Been In Existence

The respondents were asked to give the number of years that their SACCO has been in operation in Kenya. Responses are summarized and presented in table 4.1 below.

**Table 4.1: Period of existence**

Period of existence	Frequency	Valid percent	Mean	Standard deviation
1 to 5 years	2	4.8		
6 to 10 years	7	16.7		
16 years and above	33	78.6		
<b>Total</b>	<b>42</b>	<b>100</b>	<b>3.74</b>	<b>0.54</b>

The findings in table 4.1 above show that majority of the respondent SACCOs (78.6%) have been in operation for more than 16 years, (16.7%) of the respondents have been in operation for between 6 and 10 years and only (4.8%) of the respondents has been in operation for between 1 and 5 years. The mean score was 3.74 while the standard deviation was 0.54. The findings indicate that at least (95.2%) of the respondent SACCOs have been in operation for a period exceeding 5 years, which is long enough and the responses to the study were thus expected to be objective.

#### 4.2.2 Length Of Time Respondents Had Worked In The Saccos

Respondents were asked to give the period they had worked in their respective SACCOs. Responses are summarized and presented in table 4.2 below.

**Table 4.2: Length of time respondents had worked in the SACCOs**

Length of time in the organization	Frequency	Valid percentage	Mean	Standard deviation
Less than 1 year	2	4.8		
Between 1 to 5 years	4	9.5		
Between 6 to 10 years	14	33.3		
Between 11 to 15 years	12	28.6		
16 years and above	10	23.8		
<b>Total</b>	<b>42</b>	<b>100</b>	<b>3.57</b>	<b>1.11</b>

The findings in table 4.2 above show that (33.3%) of the respondents had worked in their respective SACCOs for between 6 and 10 years, (28.6%) of the respondents had worked for between 11 to 15 years, (23.8%) of the respondents had worked for more than 16 years, (9.5%) of the respondents had worked for between 1 and 5 year and

only (4.8%) of the respondents have worked for less than 1 year. The mean score was 3.57 while the standard deviation was 1.11. The findings show that (85.7%) of the respondents had worked for their respective SACCOs for at least 6 years, which is long enough for them to understand the operations of their organizations. The responses were thus expected to be objective.

### 4.3 Financial Indicators Used By Savings And Credit Societies (Saccos) In Kenya

This section presents a summary of findings pertaining to the objectives of the study.

#### 4.3.1 Use Of Financial Performance Indicators By SACCOS In Kenya

In order to meet the first objective of the study, “to identify financial performance indicators used by SACCOs in Kenya”, various questions were asked. The responses are summarized and presented as follows.

##### 4.3.1.1 Preparation Of Financial Reports

Respondents were asked whether they prepare financial reports, respondents are summarized and presented in table 4.3 below.

**Table 4.3: Preparation of financial reports**

Preparation financial reports	Frequency	Valid percentage	Mean	Standard deviation
Yes	42	100		
No	0	0		
<b>Total</b>	<b>42</b>	<b>100</b>	<b>1.00</b>	<b>0.00</b>

The findings in table 4.3 above show that all respondent SACCOs prepare financial reports.

##### 4.3.1.2 Types Of Financial Reports

Respondents were asked to specify the type of financial reports that they submit, responses are summarized and presented in table 4.4 below

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**Table 4.4: Types of financial reports**

Types of financial reports	Frequency	Valid percentage	Mean	Standard deviation
Profit & loss only	0	0		
Balance sheet only	0	0		
Profit & Loss and balance sheet	42	100		
<b>Total</b>	<b>42</b>	<b>100</b>	<b>3.00</b>	<b>0.00</b>

The findings in table 4.4 above show that all respondent SACCOs prepare both profit & loss and balance sheet reports.

#### 4.3.1.3 Period Of Preparing Financial Reports

Respondents were asked how often they submit the financial reports; responses are summarized and presented in table 4.5 below

**Table 4.5: Period of submitting financial reports**

Frequency of the financial reports preparation	Frequency	Valid percentage	Mean	Standard deviation
A quarter yearly	11	26.2		
Half yearly	13	31.0		
Annually	18	42.9		
<b>Total</b>	<b>42</b>	<b>100</b>	<b>2.17</b>	<b>.82</b>

The findings in table 4.5 show that (42.9%) of the respondent SACCOs prepare their financial reports annually, (31.0%) of the respondent SACCOs prepare their financial reports in half yearly, while (26.2%) of the respondent SACCOs prepare their financial reports quarterly.

#### 4.3.1.4 Financial Indicators

Respondents were asked whether they use financial indicators to assess their performance, responses are summarized and presented in table 4.6 below.

**Table 4.6: Financial indicators**

Usage of financial indicators	Frequency	Valid Percentage	Mean	Standard deviation
Yes	42	100		
No	0	0		
<b>Total</b>	<b>42</b>	<b>100</b>	<b>1.00</b>	<b>0.00</b>

The findings in the table 4.6 show that all respondent SACCOs use financial indicators

#### 4.3.1.5 Types Of Financial Indicators

In order to assess the use of financial indicators, respondents were asked to tick which type of indicator they use; responses are summarized and presented in table 4.7 below.

**Table 4.7: Financial Performance indicators**

Financial Performance Indicators		Yes	No	Mean	Standard deviation
Repayments rates	Frequency	42	0	1.00	0.00
	Percentage	100	0		
Arrears rates	Frequency	37	5	1.12	0.33
	Percentage	88.1	11.9		
Portfolio at Risk (PAR)	Frequency	40	2	1.05	0.22
	Percentage	95.2	4.8		
Delinquent borrowers	Frequency	38	4	1.10	0.30
	Percentage	90.5	9.5		
Loan loss reserve	Frequency	39	3	1.07	0.26
	Percentage	92.9	7.1		
Loan loss ratio	Frequency	40	2	1.05	0.22
	Percentage	95.2	4.8		
Average number of active loans	Frequency	37	5	1.12	0.33
	Percentage	88.1	11.9		
Average portfolio per credit officer	Frequency	30	12	1.29	0.46
	Percentage	71.4	28.6		
Active clients per branch	Frequency	12	30	1.71	0.46
	Percentage	28.6	71.4		
Percentage of female clients	Frequency	6	36	1.86	0.35
	Percentage	14.3	85.7		
Value of all saving accounts	Frequency	36	6	1.14	0.35
	Percentage	85.7	14.3		
Savings per branch (if any)	Frequency	7	35	1.83	0.38
	Percentage	16.7	83.3		

Continued

Financial Performance Indicators		Yes	No	Mean	Standard deviation
Total amount disturbed per period per credit officer	Frequency	8	34	1.81	0.40
	Percentage	19.0	81.0		
Operating costs	Frequency	39	3	1.07	0.26
	Percentage	92.9	7.1		
Quick ratio	Frequency	38	4	1.10	0.30
	Percentage	90.5	9.5		
Net interest margin	Frequency	40	2	1.05	0.22
	Percentage	95.2	4.8		
Portfolio self-sufficiency	Frequency	36	6	1.14	0.35
	Percentage	85.7	14.3		
Operational self-sufficiency	Frequency	41	1	1.02	0.15
	Percentage	97.6	2.4		
Financial self-sufficiency	Frequency	40	2	1.05	0.22
	Percentage	95.2	4.8		
Annual growth in savings	Frequency	39	3	1.07	0.26
	Percentage	92.9	7.1		
Annual growth in depositors	Frequency	41	1	1.02	0.15
	Percentage	97.6	2.4		
Gearing Ratio	Frequency	35	7	1.17	0.38
	Percentage	83.3	16.7		

(a) Repayments rates

With respect to repayments rates, all respondent SACCOs indicated “yes”.

(b) Arrears rates

With respect to arrears, majority of the respondents (88.1%) indicated “yes” while only 11.9% of the respondents indicated “no”.

(c) Portfolio at Risk (PAR)

With respect to portfolio at risk (PAR), majority of the respondents (95.2%) indicated “yes” while only 4.8% of the respondents indicated “no”.

(d) Delinquent borrowers

With respect to delinquent borrowers, majority of the respondents (90.5%) indicated “yes”, and (9.5%) of the respondents indicated “no”.

(e) Loan loss reserve

With respect to loan loss reserve, majority of the respondents (92.9%) indicated “yes” while 7.1% of the respondents indicated “no”.



(f) Loan loss ratio

With respect to loan loss ratio, majority of the respondents (95.2%) indicated “yes” and only 4.8% of the respondents indicated “no”.

(g) Average number of active loans

With respect to average number of active loans, majority of the respondents (88.1%) indicated “yes” and (11.9%) of the respondents indicated “no”.

(h) Average portfolio per credit officer

With respect to average portfolio per credit officer, majority of the respondents (71.4%) indicated “yes” and (28.6%) of the respondents indicated “no”.

(i) Active clients per branch

With respect to active clients per branch, majority of the respondents (71.4%) indicated “no” and (28.6%) of the respondents indicated “yes”.

(j) Percentage of female clients

With respect to percentage of female clients, majority of the respondents (85.7%) of the respondents indicated “no” and (14.3%) of the respondents indicated “yes”.

(k) Value of all savings accounts

With respect to value of all savings accounts, majority of the respondents (85.7%) indicated “yes” and (14.3%) of the respondents indicated “no”.

(l) Savings per branch

With respect to savings per branch, majority of the respondents (83.3%) indicated “no” and (16.7%) of the respondents indicated “yes”.

(m) Total amount disbursed per period per credit officer

With respect to total amount disbursed per period per credit officer, majority of the respondents (81.0%) indicated “no” and (19.0%) of the respondents indicated “yes”.

(n) Operating costs

With respect to operating costs, majority of the respondents (92.9%) indicated “yes” and only 7.1% of the respondents indicated “no”.

(o) Quick ratio

With respect to quick ratio, majority of the respondents (90.5%) indicated “yes” and only (9.5%) of the respondents indicated “no”.

(p) Net interest margin

With respect to net interest, majority of the respondents (95.2%) indicated “yes” and only (4.8%) of the respondents indicated “no”.

(q) Portfolio outstanding ratio

With respect to portfolio outstanding ratio, majority of the respondents (85.7%) indicated “yes” and (14.3%) of the respondents indicated “no”.

(r) Operational self-sufficiency

With respect to operational self-sufficiency, majority of the respondents (97.6%) indicated “yes” and only (2.4%) of the respondents indicated “no”.

(s) Financial self-sufficiency

With respect to financial self-sufficiency, majority of the respondents (95.2%) indicated yes and only (4.8%) of the respondents indicated “no”.

(t) Annual growth in savings

With respect to annual growth in savings, majority of the respondents (92.9%) indicated “yes” and (7.1%) of the respondents indicated “no”.

(u) Annual growth in depositors

With respect to annual growth in depositors, majority of the respondents (97.6%) indicate “yes” and only (2.4%) of the respondents indicated “no”.

(v) Gearing Ratio

With respect to gearing ratio, majority of the respondents (83.3%) indicated “yes” and only (16.7%) of the respondents indicated “no”.

#### 4.3.1.6 Other Financial Performance Indicators

Respondents were asked whether they use other financial indicators, responses are summarized and presented in table 4.8 below.

**Table 4.8: Other financial performance indicators**

Other financial performance indicators	Frequency	Valid Percentage	Mean	Standard deviation
Yes	0	0		
No	42	100		
Total	42	100	2.00	0.00

The findings in table 4.8 above shows that none of the respondents use other financial performance indicators

#### 4.3.1.7 Superiority Of Performance Indicators

Respondents were asked whether they consider some performance indicators as superior than others, responses are summarized and presented in table 4.9 below.

**Table 4.9: Superiority of performance indicators**

Superiority of performance indicators	Frequency	Valid Percentage	Mean	Standard deviation
Yes	42	100		
No	0	0		
<b>Total</b>	<b>42</b>	<b>100</b>	<b>1.00</b>	<b>0.00</b>

The finding in table 4.9 above shows that all respondents consider some performance indicators superior than others.

#### 4.3.1.8 Period Of Using Performance Indicators

Respondents were asked if their SACCO uses performance indicators, responses are summarized and presented in the table 4.10 below

**Table 4.10 Period of using performance indicators**

Period of using performance indicators	Frequency	Valid percentage	Mean	Standard deviation
Less than 1 year	0	0		
Between 1 and 5 years	0	0		
Above 5 years	42	100		
<b>Total</b>	<b>100</b>	<b>100</b>	<b>3.00</b>	<b>0.00</b>

The findings in table 4.10 above show that all respondents used performance indicators for more than 5 years.

#### 4.3.1.9 Financial Performance

Respondents were asked whether the use of financial performance indicators determines their financial performance, responses are summarized and presented in table 4.11 below.

**Table 4.11: Financial performance**

Financial performance	Frequency	Valid percentage	Mean	Standard deviation
Yes	40	95.2		
No	2	4.8		
<b>Total</b>	<b>42</b>	<b>100</b>	<b>1.05</b>	<b>0.22</b>

The findings in table 4.11 above shows that majority of the respondents (95.2%) indicated “yes” and only (4.8%) of the respondents indicated “no”.

### 4.3.2 The Relationship Between The Performance Indicators And Financial Performance Of Saccos In Kenya

In order to meet the second objective of the study, “to establish the relationship between the performance indicators and financial performance of SACCOs in Kenya” the respondents were asked to rate how their respective SACCOs compared with competitors (other SACCOs) on the basis of listed performance indicators as a result of using the various financial indicators over the most recent three year period. The responses are summarized and presented as follows:

**Table 4.12: Total Revenue Growth**

Total revenue growth	Frequency	Valid Percent	Cumulative Percent	Mean	Standard deviation
Lowest (1-20%)	11	26.1	26.1		
Lower (21 - 40%)	7	16.7	42.8		
Middle (41 - 60%)	4	9.5	52.3		
Next (61-80%)	5	12.0	64.3		
Top (81 - 100%)	15	35.7	100.0		
<b>Total</b>	<b>42</b>	<b>100.0</b>		<b>3.22</b>	<b>1.69</b>

With respect to total revenue growth, 26.1% of the respondents indicated that their SACCOs belonged to the lowest bracket (1 – 20%), 16.7% of the respondents indicated that their respective SACCOs belonged to the lower bracket (21 – 40%), 9.5% of the respondent SACCOs belonged to the middle bracket (41 – 60%), (12.0%) of the respondent banks belonged to the next bracket (61 – 80%) and (35.7%) of the respondents belonged to the top bracket (81 – 100%).

**Table 4.13: Total Asset Growth**

Total Asset Growth	Frequency	Valid Percent	Cumulative Percent	Mean	Standard deviation
Lowest (1-20%)	2	4.8	4.8		
Lower (21 - 40%)	8	19.0	23.8		
Middle (41 - 60%)	8	19.0	42.8		
Next (61-80%)	9	21.5	64.3		
Top (81 - 100%)	15	35.7	100.0		
<b>Total</b>	<b>42</b>	<b>100.0</b>		<b>3.69</b>	<b>1.24</b>

With respect to total asset growth, the responses show that (4.8%) of the respondent SACCOs belonged to the lowest bracket (1-20%), (19.0%) of the respondent SACCOs belonged to the lower bracket (21 – 40%), (19.0%) of the respondent SACCOs belonged to the middle bracket (41 – 60%), (21.5%) of the respondent SACCOs belonged to the next bracket (61 – 80%) and (35.7%) belonged to the top bracket (81 – 100).

**Table 4.14: Net Income Growth**

Net Income Growth	Frequency	Valid Percent	Cumulative Percent	Mean	Standard deviation
Lowest (1-20%)	2	4.8	4.8		
Lower (21 - 40%)	2	4.8	9.6		
Middle (41 - 60%)	7	16.7	26.3		
Next (61-80%)	12	28.5	54.8		
Top (81 - 100%)	19	45.2	<b>100.0</b>		
<b>Total</b>	<b>42</b>	<b>100.0</b>		<b>4.00</b>	<b>1.17</b>

With respect to net income growth, the findings show that (4.8%) of the respondent SACCOs belonged to the lowest bracket (1 – 20%), (4.8%) of the respondent SACCOs belonged to the lower bracket (21 – 40%), (16.7%) of the respondent SACCOs belonged to the middle bracket (41 – 60%), (28.5%) of the SACCOs belonged to the next bracket (61 – 80%) and (45.2%) of the SACCOs belonged to the top bracket (81 – 100%).

**Table 4.15: Market Share Growth**

Market Share Growth	Frequency	Valid Percent	Cumulative Percent	Mean	Standard deviation
Lowest (1-20%)	9	21.5	21.5		
Lower (21 - 40%)	6	14.2	35.7		
Middle (41 - 60%)	9	21.5	57.2		
Next (61-80%)	5	11.9	69.1		
Top (81 - 100%)	13	30.9	<b>100.0</b>		
<b>Total</b>	<b>42</b>	<b>100.0</b>		<b>3.14</b>	<b>1.55</b>

Findings in table 4.15 show that with respect to market share growth, (21.5%) of the respondent SACCOs belonged to the lowest bracket (1 – 20%), (14.2%) of the SACCOs belonged to the lower bracket (21 – 40%), (21.5%) of the SACCOs

belonged to the middle bracket (41 – 60%), (11.9%) of the respondents belonged to the next bracket (61 – 80%) and (30.9%) of the respondent SACCOs belonged to the top bracket (81 – 100%).

**Table 4.16: Overall Performance or Growth**

Overall Performance or Growth	Frequency	Valid Percent	Cumulative Percent	Mean	Standard deviation
Lowest (1-20%)	4	9.5	9.5		
Lower (21 - 40%)	5	11.9	21.4		
Middle (41 - 60%)	13	31.0	52.4		
Next (61-80%)	5	11.9	64.3		
Top (81 - 100%)	15	35.7	100.0		
<b>Total</b>	<b>42</b>	<b>100.0</b>		<b>3.61</b>	<b>1.34</b>

With respect to overall performance and growth, findings of the study in table 4.16 above show that (9.5%) of the of the respondents belonged to the lowest bracket (1-20%), (11.9%) of the respondents belonged to the lower bracket (21 – 40%), (31.0%) of the respondents belonged to the middle bracket (41 – 60%), (11.9%) of the respondents belonged to the next bracket (61 – 80%) and (35.7%) of the respondents belonged to the top bracket (81 – 100%).

**4.3.2.1 Correlation Between Financial Performances Indicators Used And By Saccos And Performance Of Saccos In Kenya**

Tables 1-5 in appendix 1 present the correlation between the strategies adopted by SACCOs and their respective performance. Controlling for the performance indicators used by the SACCOs: Repayment rates; Portfolio at Risk (PAR); Loan loss ratio; Operating costs; Net interest margin; Operational self- sufficiency; Financial self-sufficiency; Annual growth in savings; and Annual growth in depositors.

## CHAPTER FIVE

### 5.0 SUMMARY, CONCLUSION AND RECOMMENDATIONS

#### 5.1 Introduction

This chapter presents conclusions drawn from the research findings and the recommendations for practice and further studies.

#### 5.2 Summary And Conclusion

The findings of the study indicate that all respondent SACCOs prepare financial reports. The financial reports prepared were in the form of both profit & loss and balance sheets. Whereas some of the respondent SACCOs prepared their reports on a quarterly basis (26.2%), others prepared half yearly reports (31%) while the rest of the respondents (42.9%) prepared their reports on annual basis. In addition, all the respondents indicated that their respective SACCOs used financial indicators to assess organizational performance.

The key financial performance indicators used by most of the respondent SACCOs include the following; Repayment of rates, as indicated by all the respondents; arrears rates, as indicated by 88.1% of the respondents; portfolio at risk (PAR), as indicated 95.2% of the respondents; delinquent borrowers, as indicated by 90.5% of the respondents; loan loss reserve, as indicated by 92.9% of the respondents; loan loss ratio, as indicated by 95.2% of the respondents; average number of active loans, as indicated by 88.1% of the respondents; average portfolio per credit officer; as indicated by 71.4% of the respondents; average portfolio per credit officer, as indicated by 71.4% of the respondents; value of all savings accounts, as indicated by 85.7% of the respondents; savings per branch, as indicated by 83.3% of the respondents; total amount disbursed per period per credit officer, as indicated by

81.0% of the respondents; operating costs, as indicated by 92.9% of the respondents; quick ratio, as indicated by 90.5% of the respondents; net interest margin, as indicated by 95.2% of the respondents; portfolio outstanding ratio, as indicated by 85.7% of the respondents; operational self-sufficiency, as indicated by 97.6%; financial self-sufficiency, as indicated by 95.2% of the respondents; annual growth in savings, as indicated by 92.9% of the respondents; annual growth in depositors, as indicated by 97.6% of the respondents; gearing ratio, as indicated by 83.3% of the respondents.

Findings of the study also show that all the respondent SACCOs had used financial performance indicators for a period exceeding five years. Majority of the respondents (95.2%) also indicated that they used financial performance indicators to determine their financial performances.

Specifically, there is a direct relationship between the use of financial performance indicators and total revenue growth; total assets growth; net income growth; market share growth; and overall performance or growth. The financial performance indicators that showed the strongest correlation with performance of the SACCOs include the following: repayment rates; portfolio at risk; loan loss ratio; operating costs; net interest margin; operational self-sufficiency; financial self-sufficiency; annual growth in savings; and annual growth in depositors.

The findings show that performance indicators, the measures by which performances of organizations are periodically assessed are of great importance to organizations, SACCOs included. Terence (1989) defines performance measurement as a way of ensuring that resources available are used in the most efficient and effective way. The



essence is to provide for the organization the maximum return on the capital employed in the business. According to Aguilar (2003), he indicates that performance measures must be an integral part of the organization's culture and reward system. He states that: "the key purpose of performance management is to align the entire organization behind the goal of turning the strategic plan into effective action". Ustoff *et al.* (2002) found that firms that valued intellectual capital used performance measures significantly more to determine salary increases, bonuses, and promotions. The importance attached to the use of financial performance indicators by SACCOs in Kenya is confirmed by the fact that all respondents indicated that they had used them for a period exceeding 5 years.

The findings further reveal a positive relationship between the use of financial performance indicators and financial performance of SACCOs in Kenya. The financial performance indicators that showed the strongest correlation with performance of the SACCOs include the following: repayment rates; portfolio at risk; loan loss ratio; operating costs; net interest margin; operational self-sufficiency; financial self-sufficiency; annual growth in savings; and annual growth in depositors.

Strong financial management in the business arena requires managers to be able to interpret financial reports including income statements. SACCOs should constantly review and keep track of their performance by ensuring timely periodical reporting to facilitate informed decision making when developing long-term goals. Operational performance not only serves as a basis for organizational improvement and criteria for detecting problems in enterprises, but also as a policy determinant for governments in mapping out relevant measures. However, the SACCOs should endeavor to choose the most appropriate financial indicators for effective evaluation of performance.

Providing responsible parties with immediate feedback allows for early warning signals so that problems can be identified and resolved quickly. Control measures should be used to address any divergences between the set goals and actual performance to ensure that processes are kept within predetermined levels.

Performance measures tied to strategic plans aid an organization including SACCOs in a variety of ways, including developing the strategic plan, analyzing the achievement of departmental and corporate objectives, monitoring operations by red flagging daily operations that have gone outside acceptable parameters, charting progress towards goals, and evaluating employees and suppliers. SACCOs should, therefore, ensure that performance measures become an integral part of continuous monitoring of adherence to corporate strategy at all levels of organizations' operations.

The management of the SACCOs should conduct their own measurement or diagnosis of the organization at regular intervals in order to gain a better understanding of how effectively they have used their resources. The result of this performance evaluation could serve as reference for them in their future allocation of resources for the enterprise. Benchmarking is a very important tool for SACCOs in facilitating the establishment of their goals, developing methods for achieving the goals, and measuring system performance. Therefore, effective benchmarking performance evaluation for SACCOs could definitely contribute to effective management.

### 5.3 Limitations Of The Study

First, the scope of the study could be a limiting factor in that only 42 Savings and Credit Societies countrywide participated in the study out of the active total of 3,200 active SACCOs operating in Kenya, which are registered by the Ministry of Co-operatives and Marketing as at 30<sup>th</sup> June 2010. The findings may thus not be representative of the whole population of the SACCOs. However, the sampling technique used ensured that each SACCOs had a non-zero chance of being selected to participate in the study.

Secondly, though the researcher was determined to undertake the study to completion within the given time frame, various constraints were encountered as earlier envisaged. The time allocated for data collection may not have been sufficient to enable the respondents complete the questionnaires as accurately as possible, considering that they were at the same time carrying out their daily duties whose priority is of essence. The researcher preferred to administer the data collection tools to only the heads of finance or treasurer, however, this was practically not possible as some of them delegated this request since they were either too busy or were away on official duties.

Lastly, due to the use of questionnaires to collect the primary data, the weaknesses associated with this technique can not be ruled out. In some cases, some of the respondents had a difficult time understanding certain questions and either left them blank or answered irrelevantly.

#### 5.4 Suggestions For Further Research

This study focused on the financial performance indicators used by SACCOs in Kenya and therefore forms a strong basis of further research in this area which could include;-

- 1) A study of the non financial indicators used by savings and credit societies (SACCOs) in Kenya and their relationship with performance.
- 2) Future studies should seek to establish whether the same financial indicators as examined in this research are applicable to other sectors of the Kenyan economy.
- 3) Further studies should also focus on the challenges faced in the usage of the financial indicators and the possible mechanisms that could be employed to overcome the challenges.

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APPENDIX I

CORRELATION TABLES

Table 1: Correlation between performances indicators used and by SACCOs and total revenue growth

Total Revenue Growth		Repayment rates	Portfolio at Risk (PAR)	Loan loss ratio	Operating costs	Net interest margin	Operational self-sufficiency	Financial self-sufficiency	Annual growth in savings
Lowest (1-20%)	Mean	3.00	4.00	4.00	3.67	4.22	3.56	3.67	2.78
	N	11	11	11	11	11	11	11	11
	Std. Deviation	1.32	0.87	1.32	1.00	1.39	1.33	0.71	1.09
Lower (21 - 40%)	Mean	4.50	3.50	3.33	2.67	2.50	3.17	4.33	4.50
	N	7	7	7	7	7	7	7	7
	Std. Deviation	0.84	.55	1.21	1.63	0.84	0.75	.82	0.55
Middle (41 - 60%)	Mean	4.67	4.00	4.33	3.33	4.33	4.67	4.00	4.67
	N	4	4	4	4	4	4	4	4
	Std. Deviation	0.58	1.00	1.15	1.53	.58	0.58	1.00	0.58
Next (61-80%)	Mean	4.25	4.50	3.75	2.25	4.25	4.75	3.75	4.75
	N	5	5	5	5	5	5	5	5
	Std. Deviation	0.96	0.58	0.50	1.50	0.50	0.50	1.50	.50
Top (81 - 100%)	Mean	4.00	4.07	3.93	3.71	3.64	3.79	3.93	4.07
	N	15	15	15	15	15	15	15	15
	Std. Deviation	0.88	1.27	1.07	1.14	1.08	1.19	1.14	0.92
Total	Mean	3.92	4.00	3.86	3.33	3.72	3.81	3.92	3.94
	N	42	42	42	42	42	42	42	42
	Std. Deviation	1.11	0.99	1.10	1.31	1.19	1.14	1.00	1.09



**Table 2: Correlation between performances indicators used and by SACCOs and Total Asset Growth**

<b>Total Asset Growth</b>		<b>Repayment rates</b>	<b>Portfolio at Risk (PAR)</b>	<b>Loan loss ratio</b>	<b>Operating costs</b>	<b>Net interest margin</b>	<b>Operational self-sufficiency</b>	<b>Financial self-sufficiency</b>	<b>Annual growth in savings</b>
Lowest (1-20%)	Mean	3.00	3.00	3.00	3.00	3.00	2.00	3.00	2.00
	N	1	1	1	1	1	1	1	1
	Std. Deviation	.	.	.	.	.	.	.	.
Lower (21-40%)	Mean	4.14	3.14	3.14	3.00	3.14	3.57	3.29	4.29
	N	8	8	8	8	8	8	8	8
	Std. Deviation	0.90	1.07	1.07	1.41	0.90	0.79	0.49	0.95
Middle (41 - 60%)	Mean	4.00	3.86	3.71	3.43	2.86	3.71	4.86	4.43
	N	8	8	8	8	8	8	8	8
	Std. Deviation	0.82	1.07	1.11	1.51	1.07	1.11	.38	.53
Next (61-80%)	Mean	4.38	4.50	4.13	3.00	4.25	4.75	4.00	4.25
	N	9	9	9	9	9	9	9	9
	Std. Deviation	0.92	0.76	0.83	1.60	0.46	0.46	1.07	1.04
Top (81 - 100%)	Mean	3.54	4.31	4.23	3.69	4.23	3.54	3.77	3.46
	N	16	16	16	16	16	16	16	16
	Std. Deviation	1.39	.75	1.17	1.03	1.36	1.33	1.09	1.20
Total	Mean	3.92	4.00	3.86	3.33	3.72	3.81	3.92	3.94
	N	42	42	42	42	42	42	42	42
	Std. Deviation	1.11	0.99	1.10	1.31	1.19	1.14	1.00	1.09

**Table 3: Correlation between performances indicators used and by SACCOs and Net Asset Growth**

Net Asset Growth		Repayment rates	Portfolio at Risk (PAR)	Loan loss ratio	Operating costs	Net interest margin	Operational self- sufficiency	Financial self- sufficiency	Annual growth in savings
Lowest (1-20%)	Mean	3.50	4.00	2.00	2.50	4.00	3.00	4.00	2.50
	N	2	2	2	2	2	2	2	2
	Std. Deviation	0.71	1.41	1.41	.71	1.41	1.41	1.41	0.71
Lower (21-40%)	Mean	2.00	3.50	4.00	3.50	5.00	4.50	4.00	3.50
	N	2	2	2	2	2	2	2	2
	Std. Deviation	0.00	.71	0.00	0.71	0.00	0.71	.00	2.12
Middle (41 - 60%)	Mean	3.50	3.83	4.50	4.00	4.00	3.50	3.83	3.83
	N	7	7	7	7	7	7	7	7
	Std. Deviation	1.64	0.75	0.84	1.26	1.26	0.55	0.75	0.98
Next (61-80%)	Mean	4.20	3.80	3.80	2.60	3.40	4.00	3.30	3.70
	N	12	12	12	12	12	12	12	12
	Std. Deviation	0.92	1.32	1.03	1.17	1.26	1.33	0.82	1.25
Top (81 - 100%)	Mean	4.19	4.25	3.88	3.63	3.63	3.81	4.31	4.38
	N	19	19	19	19	19	19	19	19
	Std. Deviation	0.83	0.86	1.09	1.36	1.15	1.22	1.08	0.81
Total	Mean	3.92	4.00	3.86	3.33	3.72	3.81	3.92	3.94
	N	42	42	42	42	42	42	42	42
	Std. Deviation	1.11	0.99	1.10	1.31	1.19	1.14	1.00	1.09

**Table 4: Correlation between performances indicators used and by SACCOs and Market Share Growth**

<b>Market Share Growth</b>		<b>Repayment rates</b>	<b>Portfolio at Risk (PAR)</b>	<b>Loan loss ratio</b>	<b>Operating costs</b>	<b>Net interest margin</b>	<b>Operational self- sufficiency</b>	<b>Financial self- sufficiency</b>	<b>Annual growth in savings</b>
Lowest (1-20%)	Mean	3.38	3.75	3.50	3.38	4.38	3.87	4.00	3.63
	N	9	8	8	8	8	8	8	8
	Std. Deviation	1.30	0.71	1.31	0.92	.92	0.99	0.76	1.30
Lower (21-40%)	Mean	4.00	3.80	4.00	2.60	3.60	3.60	4.60	4.60
	N	6	5	5	5	5	5	5	5
	Std. Deviation	1.41	0.84	0.71	1.52	1.14	0.55	0.89	0.89
Middle (41 - 60%)	Mean	3.63	4.50	4.38	3.75	3.50	4.25	3.13	3.87
	N	9	9	9	9	9	9	9	9
	Std. Deviation	0.92	0.76	0.74	1.28	1.31	0.71	1.25	1.25
Next (61-80%)	Mean	4.50	3.25	3.25	2.25	3.25	4.00	3.50	3.25
	N	6	6	6	6	6	6	6	6
	Std. Deviation	0.58	1.50	1.26	1.26	1.26	1.15	0.58	1.26
Top (81 - 100%)	Mean	4.27	4.18	3.91	3.73	3.64	3.45	4.27	4.18
	N	12	12	12	12	12	12	12	12
	Std. Deviation	1.01	1.08	1.22	1.35	1.29	1.63	0.79	0.75
Total	Mean	3.92	4.00	3.86	3.33	3.72	3.81	3.92	3.94
	N	42	42	42	42	42	42	42	42
	Std. Deviation	1.11	0.99	1.10	1.31	1.19	1.14	1.00	1.09

**Table 5: Correlation between performances indicators used and by SACCOs and Overall Performance or growth**

<b>Overall Performance or growth</b>		<b>Repayment rates</b>	<b>Portfolio at Risk (PAR)</b>	<b>Loan loss ratio</b>	<b>Operating costs</b>	<b>Net interest margin</b>	<b>Operational self- sufficiency</b>	<b>Financial self- sufficiency</b>	<b>Annual growth in savings</b>
Lowest (1-20%)	Mean	4.33	3.33	3.67	2.67	3.33	3.33	3.33	3.67
	N	4	4	4	4	4	4	4	4
	Std. Deviation	1.15	0.58	0.58	0.58	1.53	1.53	1.53	1.53
Lower (21 -40%)	Mean	2.75	3.75	4.50	3.25	4.50	4.25	4.00	4.00
	N	5	5	5	5	5	5	5	5
	Std. Deviation	1.50	0.50	0.58	1.71	0.58	0.50	0.82	1.15
Middle (41 -60%)	Mean	4.18	3.82	3.73	3.45	3.45	3.55	4.09	4.00
	N	13	13	13	13	13	13	13	13
	Std. Deviation	0.98	0.98	1.19	1.57	1.29	1.29	0.83	.77
Next (61-80%)	Mean	3.50	5.00	4.25	3.00	4.25	4.25	3.00	4.25
	N	5	5	5	5	5	5	5	5
	Std. Deviation	1.00	0.00	0.96	1.83	0.50	0.96	1.41	0.50
Top (81 -100%)	Mean	4.07	4.07	3.71	3.50	3.64	3.86	4.14	3.86
	N	15	15	15	15	15	15	15	15
	Std. Deviation	1.00	1.14	1.27	1.02	1.28	1.17	0.86	1.41
Total	Mean	3.92	4.00	3.86	3.33	3.72	3.81	3.92	3.94
	N	42	42	42	42	42	42	42	42
	Std. Deviation	1.11	0.99	1.10	1.31	1.19	1.14	1.00	1.09

## APPENDIX II

### LETTER OF INTRODUCTION

ALEXANDER MWANTHI NGUI  
C/O SCHOOL OF BUSINESS  
UNIVERSITY OF NAIROBI  
P.O. Box 30197-00100  
NAIROBI.

Dear Sir/Madam

#### RE: REQUEST FOR RESEARCH DATA

I am a post graduate student at the University of Nairobi studying Masters of Business Administration (MBA) degree and specializing in finance. In partial fulfillment of the requirement of the stated degree, I am conducting a research entitled "A SURVEY OF THE FINANCIAL PERFORMANCE INDICATORS USED BY SACCOS IN KENYA."

You have been selected for this research. I would greatly appreciate if you completed the attached questionnaire. The information obtained will be purely used for academic purposes and the findings of the research shall be made available to you upon request.

Kindly avail any other information or comment not included in the questionnaire that you think is of importance to the research.

Thank you for your co-operation.

Yours faithfully,

Ngui A. Mwanthi  
MBA Student

W. Nyamute  
Lecturer / Supervisor

Sign.....

Sign.....

## APPENDIX III

### QUESTIONNAIRE

This questionnaire has been designed to collect information from the staff of selected SACCOs in Kenya and is meant for academic purposes only. The questionnaire is divided into two sections. Please complete each section as instructed. Do not write your name or any other form of identification on the questionnaire. All the information in this questionnaire will be treated in confidence.

#### SECTION I: BACKGROUND INFORMATION

1. Name of SACCO (Optional) \_\_\_\_\_
  
2. For how long has this SACCO been in operation in Kenya? (Tick as appropriate)  
Less than 1 year                      
1 to 5 years                              
6 to 10 years                            
16 years and above
  
3. For how long have you worked in the organization? (Tick as appropriate)  
Less than 1 year                      
Between 1 and 5 years                
Between 6 and 10 years              
Between 11 and 15 years            
16 years and above

#### SECTION II: THE FINANCIAL INDICATORS USED BY SAVINGS AND CREDIT SOCIETIES (SACCOs) IN KENYA

4. **Financial performance indicators used by SACCOs in Kenya**
  - 4.1 Do you prepare financial reports? (Tick as appropriate) Yes  No
  
  - 4.2 If "yes" to question 4.1 above, which financial statements do you prepare? (Tick as appropriate)  
(a) Profit and loss only                      
(b) Balance sheet only                        
(c) Both Profit and loss & Balance Sheet
  
  - 4.3 If "yes" to question 4.1 above, how often does your Sacco prepare financial statements? (tick as appropriate)  
(a) Quarterly                                  
(b) Half Yearly                                 
(c) Annually

4.4 Do you use financial indicators to assess your performance? (tick as appropriate)

(a) Yes [     ] ]

(b) No [     ] ]

4.5 If "yes" to question 4.4 above, which of the financial indicators of performance listed below do you use? (Tick as appropriate) – Multiple responses allowed

Indicators of financial performance	Responses	
	Yes	No
Repayment rates		
Arrears rates		
Portfolio at Risk (PAR)		
Delinquent borrowers		
Loan loss reserve		
Loan loss ratio		
Average number of active loans		
Average portfolio per credit officer		
Active clients per branch		
Percentage of female clients		
Value of all saving accounts		
Savings per branch (if any)		
Total amount disbursed per period per credit officer		
Operating costs		
Quick ratio		
Net interest margin		
Portfolio outstanding ratio		
Operational self- sufficiency		
Financial self- sufficiency		
Annual growth in savings		
Annual growth in depositors		
Gearing Ratio		

4.6 Do you use any other financial performance indicators? (Please specify)

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4.7 If your SACCO uses performance indicators, for how long has it been using them?

(a) Less than one year [     ] ]

(b) 1 to 5 years [     ] ]

(c) Above 5 years [     ] ]

4.8 Does the use of financial performance indicators determine financial performance of your Sacco?

- (a) Yes [ ]  
 (b) No [ ]

**5 The relationship between the performance indicators and financial performance of SACCOs in Kenya.**

Listed below is the rating of how the SACCOs compare to competitors on the basis of the listed performance indicators in use. Comparison of SACCOs' financial performance level to competitors for each of the five items, over the most recent three-year period organization.

Objective performance indicators	Average over three years					
	Lowest 1-20 percent	Lower 21-40 percent	Middle 41-60 percent	Next 61-80 percent	Top 81-100 percent	Not applicable
Total revenue growth						
Total asset growth						
Net income growth						
Market share growth						
Overall performance or growth						

THANK YOU.