
EFFECT OF INTERNAL CONTROL SYSTEM ON FINANCIAL PERFORMANCE OF SACCOS IN KENYA: A CASE OF THARAKA NITHI COUNTY

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ABSTRACT

The Savings and Credit Cooperative Societies sector is considered both economically and socially important. The sector has continued to mobilize savings and developed demand driven financial products which has encouraged members to save additional resources to finance education from primary to university through affordable loans to the members. However, sectorial report indicates that nearly 5% of Savings and Credit Cooperative Societies collapse every year and registered members withdraw their membership annually. In terms of internal control literature, components of internal control have been studied in context of institutions like banks and manufacturing firms and little has been done on components of internal control system with respect to financial performance of Savings and Credit Cooperative Societies. Therefore, the study aimed at establishing the effect of internal control system on financial performance of Savings and Credit Cooperative Societies in Kenya. The specific objectives of the study were to establish the effect of control environment and risk assessment on financial performance of Savings and Credit Cooperative Societies in TharakaNithi County. The study adopted descriptive research design on the target population of 208 members of staff from ten Savings and Credit Cooperative Societies within TharakaNithi County. The study employed a non-probabilistic purposive sampling technique to come up with a sample of 69 members of staff. The study used both primary and secondary data. The questionnaires were pre-tested to ensure validity and reliability. The study used secondary data for four years (2013-2016). Multiple regression analysis was used to determine the relationship between dependent and independent variables. A t-test and F-ratio were applied to test hypothesis and overall significance of the regression model at 5% significance level. Findings of the study indicated that control environment and risk assessment had a positive and significant effect on financial performance of Savings and Credit Cooperative Societies. This implies that internal control system is a major determinant of financial performance of Savings and Credit Cooperative Societies as proposed in the theory. The study recommends the Savings and Credit Cooperative Societies should put in place effective policies to ensure proper implementation and management of internal control system.

Key words: Control Environment, Risk Assessment, Financial Performance, SACCOs.

1. INTRODUCTION

1.1 Background of the Study

Internal control system is crucial to success and survival of any firm in today's complex and dynamic environment. They keep the organization on the right track. But in many instances organizations go off the rails thus impacting negatively on the attainment of the set objectives (Committee of Sponsoring Organizations (COSO), 1992/2008). As a result of increased number of business failure and financial scandals, organizations have started to shift their focus to improving effectiveness of their internal control systems. Management is under a lot of pressure to institute effective internal controls and communicate regularly to board of directors and shareholders (Kuhn & Sutton, 2010).

The definition of internal control system is divided into financial and non- financial controls. Financial controls deals with financial activities and may involve facets such as controls over company's cash receipts and payment for financing operations. Non-financial internal controls on the other hand pertains activities which are indirectly financial in nature, for example controls over the organization's human resource selection and operations relating to it and controls relating to organization's guidelines and laid down procedures (Reid & Ashelby, 2002).

Manasseh (2007) notes that control environment forms the foundation for all other components of internal control. It refers to the overall attitude, awareness and action of directors and management regarding internal controls and their importance in the organization. Risk assessment is the process of identifying and analyzing the relevant risks facing the organization and it involve: the consideration of the risk factor, recognition that every organization faces risks to its success, recognition that the sources of risks are both internal and external and identification of an action to achieve the organization's goals. Maintenance of strong internal control system enables a company to reduce wastage; prevent errors and cases of fraud; improvement in safe custody of organization's assets; it increases reliability and dependability of accounting data through elimination of unnecessary suspicion and maintenance of adequate and accurate accounting records (Amudo&Inanga, 2009).

However, the presence of weak internal control system or absence of strong internal controls has been the main cause of many cases of fraudulent company financial reporting and global corporate accounting scandals in the recent years (Treadway Commission, 2008). Globally, an example of accounting scandal was recorded in WorldCom a telecommunication company in USA. As a result of loopholes in their internal control system the company lost \$3.8bn. The scandal involved manipulation of reserves to create the accounting equivalent of a slush fund (Treadway Commission, 2008).

Locally, report compiled by the SACCO Societies Regulatory Authority (SASRA) shows that many SACCOs have been using creative accounting tactics to cover up fraud and non-payment of loans by some members. In one of the schemes highlighted, Sacco members paid loans and cashiers made entries into the computers, but the money was not banked. One cashier could not



explain the whereabouts of Sh324 million while another could not account for Sh30 million, according to a trial balance run between January and August 2014, the amounts were way above the limits cashiers are allowed to hold. Although it is not clear why the computer system used by the cashiers was not fully integrated into SACCO's core system, an internal audit concluded that super users, usually top managers, abetted the fraud.

Saving and Credit Co-operative Societies are autonomous association of persons united voluntarily to meet their common economic, social, and cultural needs and aspirations through a jointly-owned and democratically-controlled enterprise and are registered with the Department of co-operatives (SACCO Societies Regulatory Authority, 2011). In Western Europe there are around 11,000 local and regional saving and credit cooperatives banks, with over 56,000 outlets, a 33 million strong membership and a staff of more than 400,000. Their market share is 17 percent of savings, ranking third after the commercial and savings banks (Johnston, 2004).

In Kenya, the SACCO subsector remains a significant player in the provision of financial services to the Kenyan households and small businesses segments. Total deposits for the sector stood at Kshs.241 billion posting an increase of 8.4 % from Kshs. 213 billion in 2012. Loans to members grew by 32 billion to stand at Kshs. 253 billion up from 221 billion in 2012 (SASRA report, 2013). However, despite this growth, Out of the 7,400 registered SACCOs equivalent to 42% of all co-operatives, only 3800 are active and 215 have Front Office Service Activities offering basic banking services across the country (SASRA, 2011).

1.2 Statement of the Problem

Attainment of financial stability is a dream of almost every organization in the world inclusive of SACCOs. Since independence, Cooperative movement in Kenya has experienced tremendous growth and is actually ranked first in Africa (SACCO Societies Regulatory Authority, 2011). SACCOs play a very significant role in the provision of financial services to the households and small businesses segments. The achievement or collapse of entities is dependent on the level to which they are managed effectively. As a responsibility of management, properly instituted internal control system helps firm's boost their profitability, efficiency and even return on investment (Reid & Smith, 2000). However, despite the significant government initiative, a significant 3457 (51%) of the SACCOs were not fully operational due to matters relating to mismanagement of funds. This low operational rate of SACCOs continues to frustrate millennium development goals and vision 2030 objectives of increasing financial inclusion. Inadequate control systems in SACCOS has led to huge investments losses through fraud and misuse of assets that are used to generate revenues while members and institutions have suffered big losses for example the case of Harambee SACCO whereby over Ksh 300M could not be accounted for by the management (SASRA, 2015). Inadequate controls have also led to corruption and collusion of management and external auditors leading to organizations failing to achieve their set objectives. Several studies have been done: Mwachiro (2013), Wainaina 2011, Muraleetharan (2010) and Amaka (2012) were carried out on effectiveness of internal controls on performance and management efficiency of various firms including Deposit Taking SACCOs.

However, despite efforts by SACCOs and recommendations from various scholars, SACCOs still struggles with Liquidity problems, financial reports are not made on time, frauds and misuse of institutional resources is still rampant.

1.3 Objectives of the Study

The general objective of the study was to determine the effect of internal control system on the financial performance of SACCOs in Kenya.

1.3.1 Specific Objectives

The following were the specific objectives of the study:

- i. To establish the effect of control environment on financial performance of SACCOs in TharakaNithi County.
- ii. To establish the effect of risk assessment on financial performance of SACCOs in TharakaNithi County.

1.4 Hypotheses of the Study

In order to achieve the above objectives, the following null hypotheses guided the study.

H₀₁:Control environment has no significant effect on financial performance of SACCOs in TharakaNithi County.

H₀₂:Risk assessment has no significant effect on financial performance of SACCOs in TharakaNithi County.

1.5 Significance of the Study

The findings of this study are expected to provide more insights to the SACCOs' management in coming up with sound policies that encourages proper implementation and better usage of internal controls to boost their financial performance. The findings are also expected to benefit SASRA and government policy makers. It would enable them provide policies that are backed by research findings regarding SACCOs' financial performance. Researchers and academicians interested in internal control system or other related topics would use the findings of this study to serve as a good source of literature review and for further research.

1.6 Scope of the Study

The study sought to determine the effect of internal control system on financial performance of SACCOs in Kenya. The study focused on control environment and risk assessment as components of internal control. The study was limited to SACCOs in TharakaNithi County only. Study took four years (2013-2016) as the source of data. The County had both SACCOs licensed and those not licensed by SASRA. This gave the researcher a chance to study both scenarios in context of their internal control system instituted by their respective management.



1.7 Limitations of the Study

The major limitation encountered was the reluctance of the key staff of SACCOs to respond to some information they considered sensitive. Also some of the respondents were not in a position to clearly understand some of the terms in the research instruments. These limitations were minimized through seeking authority from the university and National Commission for Science and Technology by obtaining permit containing the research intentions and assuring the respondents that the information was to be used only for academic purposes.

1.8 Assumptions of the study

This study was based on the assumption that the respondents provided accurate information concerning their organization. It was also assumed that the annual financial statements and reports of SACCOs provided information that depicted a fair state of affairs.

2. LITERATURE REVIEW

2.1 Introduction

This chapter provides a clear account of the developments in the literature relating to the study. It covers the following: internal control components, financial performance of SACCOs, empirical review, theoretical review and conceptual framework.

2.2 Internal Control Components

According to Treba (2003), internal control system acts as a tool for ensuring that a firm attains its mission and set objectives. He notes that many see internal control as a domain of accountants and auditors but it is actually the management that has primary responsibility for proper internal controls in the organization. They enable management to deal with rapidly changing economic and competitive environments, shifting customer demands and priorities, and restructuring for future growth. Internal controls promote efficiency, reduce risk of asset loss, help ensure the reliability of financial statements and compliance with laws and regulations (Treba, 2003).

2.2.1 Control Environment

The control environment forms foundation for the other components of internal control framework. Its designation and operation affects organization's overall activities. Therefore, control environment has a direct impact on implementation of internal control framework and every organization should create a favorable internal control environment (Aldridge & Colbert, 1994). The professional integrity and ethical values of personnel determine their preferences and value judgments, which are translated into standards of behavior. Human resources should exhibit a supportive attitude toward internal control at all times throughout the company. Commitment to competence includes the level of knowledge and skills needed to help ensure

orderly, ethical, economical, efficient and effective performance, as well as a good understanding of individual responsibilities with respect to internal control. The firm's structure defines the entity's main areas of authority and responsibility (Aikins, 2011). Empowerment and accountability relate to the manner in which authority and responsibilities are conferred throughout the company (Hevesi, 2005).

According to Spicer and Pegler (1978), proper functioning of any system is dependent on the competence and integrity of those operating it. The company must therefore recruit competent staff with integrity and intelligence. Staff should be assigned responsibilities that match their capability and undergo training where necessary.

2.2.2 Risk Assessment

According to IIARF (2014), risk assessment is the processes or procedures that a firm goes through in identifying, evaluating and responding to relevant risks which are likely to negatively affect its ability to achieve the set objectives. Risk assessment involves adoption of professional judgment in identifying and analyzing factors which can affect the firm negatively or lead to possible losses both financially and non-financially. Organizations identify risks related to objectives of the entity and risks due to internal and external factors, at both the entity and activity levels. Then analyze the significance and likelihood of the risk occurrence. In terms of responses a firm can consider either to: transfer, tolerate, treat or terminate the risk depending on risk appetite of the firm (INTOSAI, 2004).

2.3 Financial Performance

According to Cole (2004), financial performance is a subjective measure of how well a firm can use assets from its primary mode of business to generate revenues. In agreement with this, Sollenberg and Anderson (1995) assert that, performance is measured by how efficient an enterprise is in using resources to achieve its set objectives. According to Mwaura (2005), there are several measures of financial performance. Traditional management studies show that ratios are used and classified with respect to performance facets measured: liquidity, profitability, leverage and efficiency. These ratios can be computed directly using financial statement information. It is paramount to note that no one measure of financial performance should be taken on its own. The importance of financial performance measurement is to provide the organization with the maximum return on the capital employed (Ngui, 2010).

According to Johnson and Scholes (2007), there are two main reasons as to why firms should have financial performance measurement. The first one is to produce financial statements at the right time. Secondly, financial statements should be analyzed to produce information about the performance of the organization, which must be used to boost the performance. Many organizations use operating and financial ratios as tools for determining their condition and performance. Similarly, financial performance of SACCOs can also be viewed in light of their overall profitability and return on investment (Ogilo, 2012). According to Herrmann (2008), when an organization is evaluating its financial performance, it is concerned with analyzing the

firm's earnings with respect to a given level of assets/ sales / share value or owners' investment. The common financial performance measures used by firms include: Return on total assets (ROA); Return on equity (ROE); Earnings per share (EPS); Price/Earning (P/E) ratio. Return on assets (ROA) is the ratio of net income to total assets. In this study, financial performance of SACCOs was measured by Return on equity (ROE). Return on equity (ROE) indicates the return on owners' equity. It is the ratio of net income from the income statement to net worth or stockholders' equity from the balance sheet. It shows what shareholders have earned on their investment in the business during any accounting period, hence the higher the ratio the better (Herrmann, 2008).

2.4 Empirical Review

According to Zikmund, Babin and Carr (2010), empirical literature review is a directed search of published work which includes books and periodicals. It is a comprehensive survey of previous inquiries related to the research questions.

Mwachiro (2013) conducted a study on effects of internal controls on revenue collection a case of Kenya revenue authority. The study adopted descriptive case study design using causal/explanatory research. Primary data was collected using open and closed-ended questionnaires distributed to both top level managers and middle level managers in the Authority. The analysis revealed that there is a direct correlation between the level of internal controls and the amount of revenue collection by Kenya Revenue Authority. The study also established that level of internal controls can be measured by the effectiveness of those controls. Where there is an effective control system in place then revenue collection also goes up as demonstrated by the amounts collected when Kenya Revenue Authority had not put in place any controls with the time the organization started effecting controls.

Amaka (2012) conducted a study on the impact of internal control system on the financial management of an organization a case study of the Nigeria bottling company public limited company, Enugu. Primary data was obtained through questionnaires and secondary data through textbooks, journals, magazines and bulletins. The target population consisted of 500 staff which was made up of Accountants, Directors, External Auditors and Managers and other stakeholders put together. The study established that financial management of any organization cannot do without internal control as true and fair presentation of financial statement may never be possible if the board and senior management are not committed to providing a well-planned internal control system.

Olumbe (2012) did a study on the relationship between internal controls and corporate governance in commercial banks in Kenya. The study surveyed all the forty five commercial banks in Kenya. The study established that most of the banks had incorporated the various parameters which are used for gauging internal controls and corporate governance. This was indicated by the means which were obtained enquiring on the same and this showed that the respondents agreed that their banks had installed good corporate governance with a strong

system of internal controls and that there is a relationship between internal control and governance.

Wainaina (2011) carried out a research on evaluation of the internal control function. The study established that, other than the detection and prevention of fraud, instituted internal controls should reflect the strength of the overall accounting environment in an organization as well as the accuracy of its operational and financial records.

Gerrit and Mohammad (2010), in their study regarding the size and facilitation of the Internal Audit function found evidence in support of the monitoring role of the Internal Audit Function. The study specifically, established that management ownership is positively related to the relative size of the Internal Audit Function. This finding is inconsistent with traditional agency theory arguments that predict a negative relationship, but more in line with recent studies on earnings management. This finding suggests that increased management ownership may influence the board of directors to support larger Internal Audit Functions to allow them to closely monitor managers' performance. It is also apparent that management with higher share ownership is motivated to invest in larger Internal Audit Function for better monitoring of earnings and for signaling to the board of directors that, despite their high stake in earnings, they are convinced that appropriate use of resources has to be assessed on a regular basis.

From the review of the studies conducted in the past, it is clear that most of them tend to focus on facets of controls that relate to performance reporting, organization structure, behavior and external auditors' work with little focus on financial performance. Therefore, this ignored area formed the basis for the study.

2.5 Theoretical Review

The theoretical framework is the structure that can hold or support a theory of a research study. It introduces and describes the theory which explains why the research problem under study exists. The theoretical framework connects the researcher to existing knowledge (Kennedy, 2007).

2.5.1 Agency Theory

Agency Theory describes firms as necessary structures to maintain contracts, and through firms, it is possible to exercise control which minimizes opportunistic behavior of agents. According to Scapens (1985) agency theory is part of the positivist group of theories which derives from the financial economics literature. From the context of internal control of SACCOs, Managers who are the agents are tasked with responsibility of instituting adequate internal controls to ensure that the SACCOs operate effectively and efficiently. Without effective internal controls in place, mismanagement is likely to arise. As a result the shareholders who are the principals will directly suffer financially or otherwise. Therefore, this theory is concerned with resolving problems that exist between principal (shareholders) and (managers) who are responsible for controlling shareholders resources through instituting proper internal controls (agency relationship).



Agency theory is based on the assumption that agents have more information than principals and that this information adversely affects the principals' ability to closely monitor whether their interests are being properly served by agents. It also assumes that agents and principals will act in a rational manner and that they will use the contracting process to maximize their wealth. This means that because agents have self-seeking motives they are likely to take the opportunity to act against the interests of the principals, for example by giving themselves high levels of perquisite consumption (that is, perks). Scapens refers to this dilemma as the "moral hazard" problem. Another type of agency problem arises when the principal and the agent have different attitude towards risk. Due to different risk tolerance, the agent and principal may each be motivated to take a different move or action.

Coase (1937) explains that moral hazard and adverse selection affects the output of the agent in two ways; not doing exactly what the agent is appointed to do, and not possessing the relevant knowledge concerning what should be done. This therefore, affects the overall performance of the relationship as well as the benefits of the owner in form of cash residual. According to Adams (1994), agency theory can provide for more meaningful study in the internal audit. This theory asserts that internal controls in conjunction with other intervention mechanisms like financial reporting and external audit facilitate cost-efficient contracting between the principals (owners) and agents (managers). Furthermore, agency theory not only assists in explaining existence of internal controls and internal audit in firms but can also assist in explaining some of the features of internal audit department such as its scope of activities and size.

2.5.2 Contingency Theory

This theory is an approach to the study of organizational behavior. It explains how contingent factors such as technology, culture and the external environment influence the design and functioning of organizations. The assumption underlying contingency theory is that no single type of organizational structure is equally applicable to all organizations. Rather, organizational effectiveness is dependent on a fit or match between the type of technology, the size of the organization, environmental volatility, the features of the organizational structure and information system (Jokipii, 2006).

Contingency theory is used to explain the relationships between the context and structure of internal control effectiveness and organizational performance, mostly on the reliability of financial reporting. According to Committee of Sponsoring Organizations the need for internal control varies according to the organization's characteristics. This concurs with contingency theory which claims that each firm has to select the most suitable control system by considering contingent characteristics. Past studies by Cadez and Guilding, 2008 showed that internal auditors who are specialized in internal audit function are more likely to ensure internal control effectiveness and that the organization will benefit from effectiveness derived from internal control efficiency. They identified: technology, strategy and national culture, structure, size and control environment as some of the factors which affect management control systems of an organization. In uncertain environments with non-routine technology, information is frequently internal. Where environments are certain, or where technology is routine, information is external. The dimensions of structure and control include authority structure and activities structures like

rules and procedures that determine the discretion of individuals. In the contingency model, decentralized authority is more appropriate where uncertain environments or non-routine technology exist. Centralized authority is more appropriate when environments are certain. Contingency theory states that ‘the design and use of control systems is contingent upon the context of the organizational setting in which these controls operate’ (Fisher, 1998). Therefore the idea of contingency theory is that the selection and use of internal control system is contingent on a variety of internal and external factors.

It is therefore clear that, factors such as external environment, technology, structure, size, strategy and national culture impact organization’s Control Systems. The theory suggests that the demands imposed by technical tasks in the organization encourage the development of strategies to coordinate and control internal activities. Contingency theories were developed from the sociological functionalist theories of organization structure such as the structural approaches to organizational studies (Woods, 2009).

2.6 Conceptual Framework

According to Kombo and Tromp (2009), a conceptual framework is a set of broad ideas and principles taken from relevant fields of enquiry and used to structure a subsequent presentation.

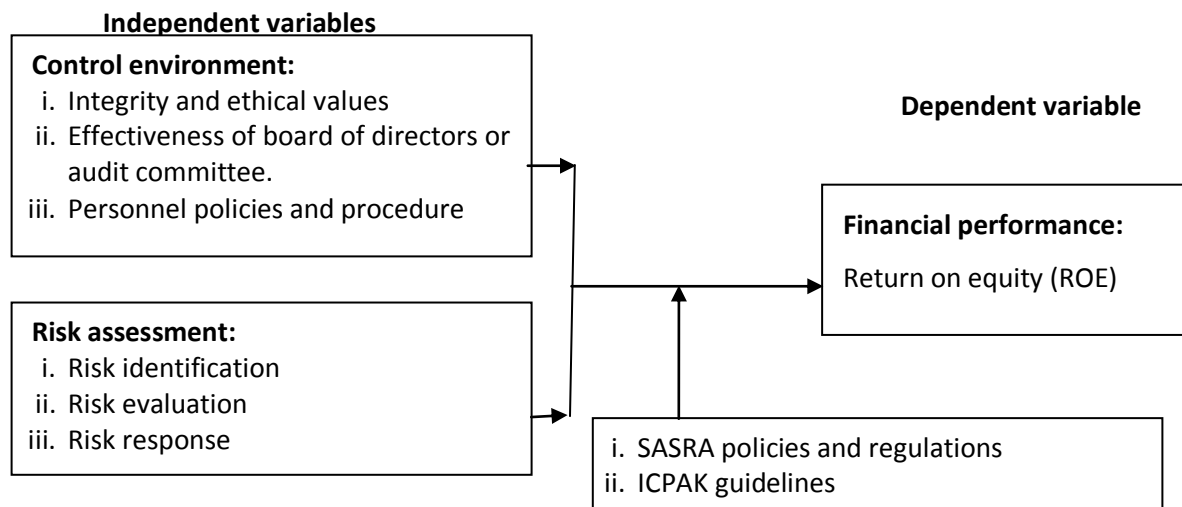


Figure 1: Relationship between internal control system and financial performance of SACCOs

Figure one represent conceptual framework that the researcher used to explain the relationship between internal system and financial performance of SACCOs. According to the conceptual framework, financial performance of SACCOs is dependent on internal control system put in place by the SACCOs. The independent variables in this study were control environment and



risk assessment. Control environment was determined by factors like: integrity and ethical values of personnel, effectiveness of board of directors or audit committee, organization structure and personnel policies and procedures. Risk assessment is recognizing the internal and external factors that prevent goals from being achieved and assessing the potential risk. It involves risk identification, risk evaluation and risk response.

2.7 Operationalization of Variables

Table 1

Operationalization of Variables

Variables	Definition	Measurement
Financial performance	Financial performance is a subjective measure of how well a firm can use assets from its primary mode of business and generate revenues.	This will be measured by Return on Equity (ROE) ROE= Net Income/ Net worth × 100
Control environment	Presence of integrity and ethical values, commitment to competence, human resource practices and organization structure.	Measured by the number of reported cases concerning integrity and ethical issues, the number of qualified and competent personnel under the internal audit function or committee
Risk assessment	Entails risk identification, risk evaluation and response to risks that an organization faces.	Measured by the frequency at which credit risk, Fraud risk, customer risk and operational risk assessment is done.

3. METHODOLOGY

3.1 Introduction

This chapter contains information on the research methodology that was used in collecting data, analyzing the data and presenting the findings. It comprises of the research design, location of the study, population of the study, sampling procedure and sample size, research instruments, piloting, data collection procedure, ethical consideration and data analysis techniques.

3.2 Research Design

According to Kothari (2004), research design is the arrangement of conditions for collecting and analyzing data in a manner that is aimed to combine relevance to the research purpose with economy in procedure. The study adopted a descriptive survey study research design which was



aimed at examining the internal control system of SACCOs in Kenya a case of TharakaNithi County. Descriptive research portrays an accurate profile of persons, events, or situation (Robson, 2002). A descriptive survey is usually concerned with describing a population with respect to important variables with the major emphasis on establishing the relationship between the variables in question and reporting the way things are. Descriptive research is the description of state of affairs as it exists (Kombo& Tromp, 2006). This design is easy to understand and it often uses visual aids such as graphs and charts to aid the reader in understanding the data distribution (Zikmund et al, 2010).

3.3 Location of the Study

The study was undertaken in TharakaNithi County, Kenya. The County covers an area of about 2,662.1 km²; including the shared Mt Kenya forest estimated to cover 360 km². It is located in the upper Eastern region of Kenya and borders Embu County to the South and South West, Meru County to the North and North East, Kirinyaga and Nyeri Counties to the West and Kitui to the East and South East. According to Singleton (2003) an ideal location for any study should be easily accessible to the researcher and should be that which permits rapport with the informants.

3. 4 Population of the Study

According to Mugenda and Mugenda (2003), a population refers to an entire group of individuals, events or objects having a common observable characteristic. In other words, population is the aggregate of all that conforms to a given specification (Mugenda&Mugenda, 2003). The target population for this study was 208 staff members from ten SACCOs in TharakaNithi County, Kenya.

Table 2

Target Population

SACCO	Staff Population
Transnational	50
County	32
Thamani	31
Southern Star	51
Ndosha	16
Centenary	20
Chuka University	2
Meru South Chambers	2
Muguni	2
Thanns	2
Total	208

Source: Ministry of Co-operative society Development and Marketing, TharakaNithi County.



3.5 Sampling Procedure and Sample Size

A sample procedure is a definite plan for obtaining a sample from a given population. It refers to the technique or the procedure the researcher would adopt in selecting items for the sample (Kothari, 2004). The study adopted purposive sampling technique to select respondents from each SACCO Society in the County. This method of sampling was used because it enabled the researcher to select cases from the population that have the required information for the study. According to Palys (2008), the main goal of purposive sampling is to focus on particular characteristics of a population that are of interest, which will best enable a researcher to answer the research questions. The sample being studied may not be representative of the population, but for researchers pursuing qualitative or mixed methods research designs, it is not considered to be a weakness. Rather, it is a choice, the purpose of which varies depending on the type of purposive sampling technique that is used (Palys, 2008).

According to Gupta and Gupta (2008), it is important to take note of the sample size while selecting a sampling technique to adopt. A sample of at least 10% of the target population is recommended.

Table 3

Sample Size

SACCO	Staff Population	Percentage of the population	Sample size
Transnational	50	30%	15
County	32	30%	10
Thamani	31	30%	10
Southern Star	51	30%	15
Ndosha	16	30%	5
Centenary	20	30%	6
Chuka University	2	100%	2
Meru South Chamber	2	100%	2
Muguni	2	100%	2
Thanns	2	100%	2
Total	208		69

3.6 Research Instruments

The research instruments that were adopted for collecting data were questionnaire and checklist. According to Mugenda and Mugenda (2003) a questionnaire is a series of questions asked to individuals to obtain statistically useful information about a given topic. Usually a questionnaire consists of a number of questions and its use is preferable because it is free from the bias of the interviewer; answers are in respondents' own words, respondents have adequate time to give well thought out answers and also respondents, who are not easily approachable, can also be

reached conveniently (Kothari, 2004). A five point likert scale ranging from very great extent to no extent was used in measuring the extent of the responses provided. The Likert measures the level of agreement or disagreement. Likert scale is good in measuring perception, attitude, values and behavior. The Likert scale has scales that assist in converting the qualitative responses into quantitative values (Mugenda&Mugenda, 2003).

3.7 Piloting

According to Cooper and Schindler (2003), pilot test or study is a study conducted to assess clarity of the instrument, detect weaknesses in the design, instrumentation and to provide proxy data for selection of a probabilistic sample. According to Mugenda and Mugenda (2003), a pretest sample between 10% and 30% of the study population is recommended to test validity and reliability of the instruments. Pilot study was carried out on 20 members of staff from SACCOs in TharakaNithi County, but was only done on those who were not to form part of the final sample. Based on the pilot study, questions that were discovered to be inappropriate in answering the research questions and attaining the research objectives were modified to improve the quality and appropriateness of the data.

3.7.1 Validity

According to Joppe (2000), Validity in research context refers to the extent to which a test measures what we actually wish to measure. Validity determines whether the research truly measures that which it was intended to measure or how truthful the research results are. Content validity was used to determine whether the content had validity or not. Content validity is a measure of the degree to which data collected using a particular instrument represents a specific domain of indicators or content of a particular concept (Mugenda&Mugenda 2003). Content validity focuses on whether the full content of conceptual description is represented in the measure. In this study the researcher worked closely with the supervisors who went through the instrument and made their suggestions.

3.7.2 Reliability

Reliability in research means that an instrument yields the same results again and again on every trial. Joppe (2000) defines reliability as the extent to which results are consistent over time and an accurate representation of the total population under study is obtained. To test for instrument reliability Cronbach's alpha was used. Cronbach's alpha is an index of reliability associated with the variation accounted for by the true score of underlying construct (Hatcher, 1994).

3.8 Data Collection Procedure

According to Donald (2006) there are two main sources of data available to a researcher; primary and secondary data. Combinations of both primary and secondary data were used by the researcher. The primary data was collected through the use of structured questionnaires issued to the respondents. The researcher personally administered the questionnaires to the identified respondents and gave them instructions regarding how to go about in filling the questionnaire.



The primary data provided detailed data pertaining the actual situations or responses that arose out of the field study. The secondary data was obtained from SACCOs' financial statements, SASRA annual reports and journals. The structured questionnaires were administered through a drop and pick later method at an agreed time with the respondents.

3.9 Ethical Considerations

Ethical consideration in research presents the researcher with the guidelines to ensure that research is conducted in the best interest of the respondents (Cardwell, 1999). According to Regis 2006, ethical issues in research include: informed consent, confidentiality and harm for the respondents. Informed consent as one of the ethical requirement demands that respondents be given a choice to participate or not to participate in the research after being given full information concerning the risks and benefits of their participation. In this study, the respondents were given freedom to choose whether to participate or not to participate in the study. The researcher also obtained recommendation letter from Chuka University and sought permission to conduct research from National Commission for Science, Technology and Innovation to legitimize the research activity. The researcher explained the objectives of the study to the respondents to ensure that they all had the information about the purpose of the research. After seeking their consent, the respondents were requested to provide honest answers to all questions availed to them and were assured that the information will be used for academic purposes and that it will be handled with a lot of privacy and confidentiality.

3.10 Data Analysis

According to Zikmund et al (2010), data analysis refers to the application of reasoning to understand the data that has been gathered with the aim of determining consistent patterns and summarizing the relevant details revealed in the investigation. The data collected from the questionnaires was first edited for accuracy, consistency, completeness and arranged to simplify coding. Data analysis was done with the aid of Statistical Package for Social Science (SPSS Version 23.0) program.

A multiple regression model was adopted to check the form of relationship between the dependent and the independent variables. This model was adopted, since it is used when one is interested in predicting a continuous dependent variable from a number of independent variables. Hypotheses were tested using t-test at five percent significance level. The p-value for each t-test was used to make conclusions on whether to fail to accept or fail to reject the null hypotheses. If the p-value for t-test was less than 5% (0.05) then null hypothesis failed to be accepted and the alternate hypothesis failed be rejected. Also if the p-value was greater than 5% (0.05) then null hypothesis failed to be rejected and the alternate hypothesis failed to be accepted. Fischer distribution test called F-test was applied in testing the significance of the overall model at a 5% significance level.

Table 4

Data Analysis Matrix

Hypothesis	Independent variable	Dependent variable	Statistics
H ₀₁ : Control environment has no significant effect on the financial performance of SACCOs in TharakaNithi County.	Control environment	Financial performance	Tables, Percentages, t- statistic, F ratio
H ₀₂ : Risk assessment has no significant effect on the financial performance of SACCOs in TharakaNithi County.	Risk assessment	Financial performance	Tables, Percentages, t- statistic, F ratio

3.10.1 Econometric Model

The variables in the study were related using a multiple regression model of the form:

$$FP = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \epsilon$$

Where

FP= Financial performance of SACCOs in TharakaNithi County, Kenya

β_0 = Constant

β_1, β_2 , = Predictor variable coefficients

X₁= Control environment

X₂= Risk assessment

ϵ = Error term

3.11 Significance for Model Assumptions

The study performed diagnostic tests on the model to determine whether regression assumptions hold. The assumptions of the model that were tested included Normality, Multicollinearity and Autocorrelation.

3.11.1 Normality Test

The study conducted normality test using descriptive statistics. Ordinary Least Squares (OLS) assumes that the error term is normally distributed. A normal distribution of data helps in making

accurate and reliable conclusions. Skewness goodness of fit test was used to determine the normality of the data. Skewness is used to determine whether the frequency curve of the distribution is not a symmetric bell-shaped curve making it stretched more to one side than the other thus rendering the data not to be normal (Aczel&Sounderpadian, 2002). Application of linear regression model is validated by normally distributed data, thus increased reliability of the findings.

3.11.2 Multicollinearity Test

Multicollinearity occurs when a combination of independent variables in a regression model is highly but not perfectly correlated (Aczel&Sounderpadian, 2002). Presence of Multicollinearity makes it difficult to isolate the effect of each independent variable on the dependent variable. The greater the multicollinearity between two variables, the less precise is the estimates of individual regression parameters (Aczel&Sounderpadian, 2002). The study detected multicollinearity using coefficient of determination (R^2). If R^2 is high in excess of 0.9 or very low with few significant t – ratios, then multicollinearity is present.

3.11.3 Autocorrelation

Autocorrelation arise where error terms are correlated across observations. The study used Durbin Watson test statistic to test for autocorrelation. Generally Durbin Watson ranges between 0-4. A Durbin Watson of value between 2 and 2.5 implies that there is no autocorrelation.

4. RESULTS AND DISCUSSIONS

4.1 Introduction

This chapter presents data analysis and findings of the study as set out in the research objective and research methodology. The chapter presents results and discussions on the study involving the effect of internal control system on financial performance of SACCOs. Specifically, the study investigated the effect of control environment and risk assessment on financial performance of SACCOs in Kenya.

4.2 Response Rate

The number of questionnaires that were administered to all the respondents was 69 questionnaires. A total of 66 questionnaires were properly filled and returned from the SACCO staff members. This represented a successful response rate of 95.65%. According to Mugenda and Mugenda (2003), a response rate of 50% or more is adequate.

Table 5

Response Rate

Response rate	Frequency	Percentage
Returned	66	95.65
Unreturned	3	4.35
Total	69	100

4.3 Background Information of Respondents

The study sought to establish the background information of the respondents to establish their ability to give satisfactory information concerning the internal control system instituted by their respective organizations. The background information was categorized into: gender, age, level of education and position held.

4.3.1 Gender

The study examined and described the gender details of respondents in table 6 below.

Table 6

Gender

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	42	63.6	63.6	63.6
	Female	24	36.4	36.4	100.0
	Total	66	100.0	100.0	

From table 6 above, it is evident that 63.6% of the respondents were male while 36.4% were female. This could mean that the level of female employment by the SACCOs is still low as compared to that of their male counterparts.

4.3.2 Age Distribution

The study sought to identify the age distributions of respondents who participated in the study. Table 7 presents the results.

Table 7

Age Distribution

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Below 25	13	19.7	19.7	19.7
	25-34	33	50.0	50.0	69.7
	35-44	14	21.2	21.2	90.9
	45-50	6	9.1	9.1	100.0
	Total	66	100.0	100.0	

From the findings on table 7 above, it is clear that most of SACCOs’ staff members are between the age brackets of 25-34 constituting 50% of the total respondents. It also shows that the least number of staff members are at age bracket of between 45-50 constituting 9.1% of the total respondents.

4.3.3 The level of Education

The study sought to find out the level of education attained by various respondents. This was done to find out whether the respondents understood the internal control system and its impact on financial performance of the organization. The results are shown on table 8.

Table 8

The Level of Education

	Frequency	Percent	Valid Percent	Cumulative Percent
Certificate	7	10.6	10.6	10.6
Diploma	13	19.7	19.7	30.3
Valid Undergraduate degree	31	47.0	47.0	77.3
Masters	15	22.7	22.7	100.0
Total	66	100.0	100.0	

The level of education of the respondents was as follows; 22.7% had masters, 47.0% were bachelors degree holders, 19.7% were holders of diploma while the remaining 10.6% had Certificate. This clearly shows that most of the staff members in SACCOs under study were undergraduate degree holders.

4.3.4 Position Held in the Organization

The study sought and obtained details about the positions held by the respondents in the organization for purposes of understanding their role in the provision of information regarding the variables of the study. Table 9 shows the details of the respondents and their positions.

Table 9

Position Held in the Organization

	Frequency	Percent	Valid Percent	Cumulative Percent
Chief executive officer	8	12.1	12.1	12.1
Senior manager	14	21.2	21.2	33.3
Manager	18	27.3	27.3	60.6
Employee	26	39.4	39.4	100.0
Total	66	100.0	100.0	

From the findings on table 9, it is clear that majority of the respondents were from management level cumulatively consisting of 60.6% of the total respondents while the remaining 39.4% were

employees. Therefore, majority of the respondents in this study were those directly responsible for or directly involved in the implementation of the Internal Control System. Therefore, their responses are deemed to reflect what actually takes place in the organization.

4.4 Functionality of Internal Control System of SACCOs in Kenya

The respondents were requested to determine the extent of functionality of internal control system in their organization in a five point Likert scale. The statements are ranked in terms of their means and standard deviations so as to deduce meaning out of the results. The range was from very great extent to no extent. Great extent was assigned the value (5) while no extent was assigned the value (1). A standard deviation greater than 1.5 was taken to imply a significant variation in the responses provided by respondents under the study.

4.4.1 Control Environment

The study sought to determine the extent to which the control environment as functionality of the internal control system of the institution affects the financial performance of SACCOs in Kenya. Table 10 shows the results obtained.

Table 10

Control Environment

Control Environment	N	Mean	Std. Dev
Our firm has an accounting and financial management system	66	4.05	.883
Management is committed to the operation of the system	66	3.12	.697
Management closely monitors implementation of internal control system in our institution	66	3.42	.914
Management provides feedback to the junior officers about the operation of the system	66	3.29	1.099
Management acts with greater degree of integrity in execution of their roles	66	2.93	.929
Ethical values are upheld in all management decisions	66	3.30	.896
Our organization has an objective independent audit committee	66	2.71	1.415
Our board of directors and its committees are independent of management	66	3.23	1.059
Valid N (listwise)	66		

From table 10 above, most SACCOs were committed to control environment as one of the component of internal control system. The aspect of organizations having accounting and financial management system was rated high with a mean of 4.05 which appear to be close to maximum rank of 5. This clearly shows that majority of the respondents agreed to great extent about existence of accounting and financial management system in their organization. Standard deviation of 0.883 indicates the low variation in responses provided by the respondents. Management closely monitoring implementation of internal control system in organizations was also ranked high with a mean of 3.49 and a standard deviation of 0.941. Organizations having an objective independent audit committee was ranked low with a mean of 2.71 and standard deviation of 1.415 indicating varied responses.

4.4.2 Risk Assessment

The study sought to determine the extent to which the risk assessment as functionality of internal control system of institution affects the financial performance of SACCOs in Kenya. Table 11 shows the results obtained.

Table 11

Risk Assessment

Risk assessment	N	Mean	Std. Dev
Management has defined appropriate objectives for the organization	66	4.23	.731
Management identifies risks that affect achievement of the objectives	66	3.62	.893
Management has a criteria for ascertainment of which fraud-related risks to the organization are most critical	66	3.17	.954
Management has put in place mechanisms for mitigation of critical risks that may result from fraud	66	3.67	.995
Valid N (listwise)	66		

In table 11, it can be seen that most of the SACCOs undertook risk assessment function. The results revealed that most SACCOs had well defined objectives with a very high mean of 4.23 and a standard deviation of 0.731 indicated low variation in responses. Management identifying risks affecting attainment of objectives (M=3.62, SD=0.893), management having a criteria for ascertainment of which fraud-related risk to the organization are most critical (M=3.17, SD=0.954) and management putting in place mechanisms for mitigating critical risk that may result from fraud (M=3.67, SD=0.995) showed that most of the respondents agreed to great and moderate extent about their existence with low variation in the responses (SD< 1.5).



4.5 Significance Test for Model Assumption

The linear regression model was tested to ensure that the model is applicable and that the assumptions of ordinary least squares hold. The following tests were carried out:

4.5.1 Test for Normality

The study tested normality of the sample data using descriptive statistics. A normal distribution of data helps in making accurate and reliable conclusions. The mean was used to determine the average of the data and standard deviation was used to measure dispersion from the mean. Skewness goodness of fit test was used to determine the normality of the data. Skewness is used to determine whether the frequency curve of the distribution is not a symmetric bell-shaped curve making it stretched more to one side than the other thus rendering the data not to be normal (Aczel & Sounderpadian, 2002). Data is normal and unbiased when skewness statistic is between the range of ± 3 (Aczel & Sounderpadian, 2002).

Table 12

Skewness of Data for the Model

Variable	Skewness	
	Statistic	Std. Error
Financial performance (ROE)	1.154	.687
Control Environment	.037	.687
Risk Assessment	.378	.687

From the Skewness of data table above, the value of skewness for the data of all the variables were in the range of ± 3 , this implied that the data of all the variables was normal and unbiased.

4.5.2 Autocorrelation

The study employed Durbin Watson test to detect presence of autocorrelation. Autocorrelation leads to biasness and inconsistency of parameter estimates. Autocorrelation is present when variances of the error terms are serially interdependent. A Durbin Watson of zero implies presence of positive autocorrelation, while Durbin Watson of 4 implies high negative correlation level. A Durbin Watson of value between 2 and 2.5 implies that there is no autocorrelation. The results of Durbin Watson value is shown on table 13 below.

Table 13

Durbin Watson Value

Model	Durbin Watson value	Status
Model	2.456	No autocorrelation

From table 13 above, the model’s Durbin Watson value was 2.456. Since this value lies between 2 and 2.5, it indicates that there was no autocorrelation in the model.

4.5.3 Multicollinearity Test

Multicollinearity occurs when a combination of independent variables in a regression model is highly but not perfectly correlated (Aczel&Sounderpadian, 2002). Presence of Multicollinearity makes it difficult to isolate the effect of each independent variable on the dependent variable. The greater the multicollinearity between two variables, the less precise is the estimates of individual regression parameters (Aczel&Sounderpadian, 2002). The study detected multicollinearity using coefficient of determination (R^2). If the coefficient of determination (R^2) is high in excess of 0.9 or very low of less than 0.1, with a significant t – ratios, then multicollinearity is present (Granger &Hatanaka, 1964). Table 14 shows coefficient of determination estimate.

Table 14

Coefficient of Determination Estimate

Model	Coefficient of determination (R^2)	Status
1	0.880	No multicollinearity

From table 14 above, coefficient of determination value is between 0.1 and 0.9. This implied that there was no intercorrelation that existed among explanatory variables, hence absence of multicollinearity.

4.6 Regression Analysis

The study was carried out to determine the effect of internal control system on financial performance of SACCOs in Kenya. Regression analysis was conducted to establish whether internal control system significantly affected financial performance of SACCOs in Kenya.

4.6.1 Model Summary

The model summary shows the summary of the regression analysis as shown in the regression model.

Table 15

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics		Durbin-Watson
					F Change	Sig.F Change	
1	.938 ^a	.880	.784	.325	9.161	.016	2.456

a. Predictors: (Constant), Control Environment and Risk Assessment

b. Dependent Variable: ROE

The study used coefficient of determination to explain the variation in the dependent variable financial performance as explained by independent variables. According to research analysis on table 18 above, the adjusted R² is 78.4%. This implies that 78.4% of total variation in the financial performance is explained by the Control Environment and Risk Assessment jointly in the model, it also signify existence of a strong correlation between the variables. The remaining 21.6% of the total variability in financial performance is explained by other factors not included in the model.

4.6.2 Analysis of Variance

The study carried out Analysis of Variance, in order to test the impact of the relationship between internal control system and financial performance of SACCOs in Kenya.

Table 16

Analysis of Variance

Model		Sum of Squares	Mean Square	F	Sig.
1	Regression	3.872	.968	9.161	.016 ^b
	Residual	.528	.106		
	Total	4.400			

From table 16, the results of analysis of variance indicated that the overall model was significant, that is, the independent variables are good joint explanatory variables for financial performance of SACCOs (F=9.161, P value =0.016<0.05).

4.6.3 Test of Significance of Regression Coefficients

To determine the cause effect relationship between dependent variable and the explanatory variables the regression coefficients were tested at 5% level of significance using t-test. The regression is presented in table 17.

Table 17

Regression Equation Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.828	.176		10.383	.000
	Control Environment	.999	.212	.857	4.712	.002
	Risk Assessment	.911	.271	.765	3.359	.010

a. Dependent Variable: ROE

Table 17 above shows the results of multiple regression analysis that was carried out to determine the relationship that exist between financial performance and the two independent variables. The following regression equation was obtained.

$$ROE = 1.828 + .999X_1 + .911X_2$$

According to equation obtained the value of financial performance (ROE)=1.828 when Control Environment and Risk Assessment are held constant.

4.6.3.1 Effect of Control Environment on Financial performance

The study sought to determine the effect of Control Environment on financial performance of SACCOS. The coefficient obtained was 0.999 with a p-value of 0.002 which is less than 0.05 as indicated on table 17. This shows that the relationship between Control Environment and financial performance is positive and significant. Therefore, the null hypothesis that control environment has no significant effect on financial performance of SACCOS was rejected as the analysis results revealed that there existed a significant positive relationship between control environment and financial performance at 5% significance level. The coefficient of 0.999 implies that for every one unit increase or improvement in control environment, financial performance increases by 0.999 units. The results are consistent with the findings of Wee Goh (2009) that enhancement of audit committees and boards of directors' independence positively influences financial performance.

4.6.3.2 Effect of Risk Assessment on Financial Performance

The study sought to find out the effect of risk assessment on financial performance of SACCOS. The coefficient obtained was 0.911 with a p-value of 0.010 which is less than 0.05 as indicated on table 17. This shows that the relationship between risk assessment and financial performance is positive and significant hence the null hypothesis that risk assessment has no significant effect on financial performance of SACCOS was rejected as the analysis results revealed that there existed a significant positive relationship between risk assessment and financial performance at 5% significance level. The coefficient of 0.911 implies that for every one unit increase or improvement in risk assessment, financial performance increases by 0.911 units. The findings



contradicted those of Muraleetharan (2010) who found negative relationship between risk assessment and financial performance.

5. SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter presents a summary of findings for the study in relation to the objectives. It also includes conclusions, recommendations and suggestions for further research.

5.2 Summary of Findings

The main objective of the study was to determine the effect of internal control system on the financial performance of SACCOs in Kenya. This was achieved by analyzing the effect of control environment and risk assessment on financial performance of SACCOs in Kenya.

The first objective sought to determine the effect of control environment on financial performance of SACCOs in TharakaNithi County. The analysis was based on descriptive statistics, regression analysis and analysis of variance. Results indicated that most of the SACCOs observed control environment as functionality of internal control system. Specifically, the study showed that most of the SACCOs controlled their environment to a great extent. The results further indicated that there existed a positive and significant relationship between control environment and financial performance of SACCOs at 5% significance level. Therefore the null hypothesis that control environment had no significant effect on financial performance of SACCOs in Kenya was rejected. The results implied that an increase or improvement in the control environment led to increase in the financial performance of SACCOs.

The second objective sought to determine the effect of risk assessment on financial performance of SACCOs in TharakaNithi County. Analysis was based on descriptive statistics, regression analysis and analysis of variance. Results indicated that most of the SACCOs had in place proper policies to ensure effective assessment of risks. The results further revealed that risk assessment was statistically significant in explaining financial performance of SACCOs at 5% significance level. This implied that the null hypothesis, risk assessment has no significant effect on the financial performance of SACCOs in Kenya was rejected, since an improvement in risk assessment led to an increase in financial performance of SACCOs.

5.3 Conclusion

Based on the findings of the study, it is concluded that SACCOs that had implemented effective internal control system had more improved financial performance as compared to those SACCOs that had weak internal control system. This has been clearly indicated by high significant relationship between internal control system and financial performance. It is also clear that small SACCOs (with less than three members of staff) encountered challenges in proper

implementation of internal control system due lack of adequate resource including finances and competent personnel as compared to those with more than twenty members of staff. From the findings, control environment and risk assessment had a positive and significant effect on financial performance of SACCOs. Therefore, the final conclusion of this study is that there is a significant relationship between internal control system (control environment and risk assessment) and financial performance (Return on Equity) of SACCOs in Kenya.

5.4 Recommendations

Based on the findings of the study, the following recommendations are made:

- i. The study recommends that SACCOs should put in place policies and mechanisms which will ensure that only competent and able management and board of directors are retained to create a conducive working environment within and outside the organization, since there exist a positive and significant relationship between control environment and financial performance of SACCOs.
- ii. The study recommends that extensive credit risk, Fraud risk, customer risk and operational risk assessment should be done by SACCOs. This move will ensure that no money is lost through fraudulent means as well as minimizing the rate of loan default which impacts negatively on financial performance of SACCOs. This is necessary as the results showed a positive and significant relationship between risk assessment and financial performance.

5.5 Suggestions for further Research.

- i. Since the study was based on SACCOs within TharakaNithi County, a similar study should be done on the effect of the internal control system on the financial performance of all the SACCOs in Kenya, so as to determine the overall effect and allow for generalization on the effect of the internal control system on the financial performance of SACCOs.
- ii. The study used Return on Equity as a measure of financial performance. Further research should be done using other measures of financial performance like Return on Assets and liquidity.

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LIST OF ABBREVIATIONS AND ACRONYMS

COSO	:	Committee of Sponsoring Organizations
DFID	:	Department of Foreign Investment and Development
DTS	:	Deposit Taking Saving and Credit Co-operatives
EPS	:	Earning Per Share
ICPAK	:	Institute of Certified Public Accountants of Kenya
INTOSAI	:	International Organization of Supreme Audit Institutions
KUSCCO	:	Kenya Union of Savings and Credit Cooperatives
ROE	:	Return on Equity
SACCO	:	Saving and Credit Co-operative
SASRA	:	SACCO Societies Regulatory Authority
WOCCU	:	World Council of Credit Unions