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**A STUDY OF DETERMINANTS OF GROWTH OF ROTATING SAVINGS AND
CREDIT ASSOCIATIONS: THE CASE OF KISERIAN LOCATION IN NG'ONG
DIVISION, KENYA.**

BY

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D53/6095/2003

**A RESEARCH THESIS SUBMITTED IN PARTIAL FULFILMENT OF THE
REQUIREMENTS FOR THE DEGREE OF MASTER OF SCIENCE (FINANCE)
OF KENYATTA UNIVERSITY**

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*A study of
determinants of*



2009/339362

DECLARATION

This thesis is my original work and has not been presented for a degree in any other university or any other award.

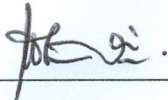


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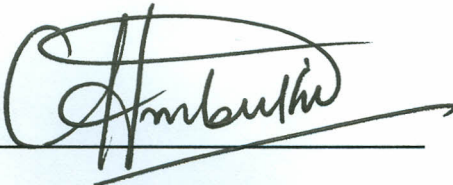
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ACKNOWLEDGEMENT

This thesis is dedicated to my loving parents and to my beloved daughter, Sharlyn Sion: may she be inspired by my work.

ACKNOWLEDGEMENT

My sincere appreciation goes to the following;

Mr Dominic Ngaba and Dr. Charles Ombuki for their acceptance to be my supervisors and for their close and tireless supervision.

Mr Maganjo for his professional guidance and monitoring in all stages of the research work.

All respondents and staff of Social Services Department in Ngong Division for their participation and cooperation in giving all the information needed for study.

My parents for their financial support, encouragement and perseverance throughout my study years at the university.

My brothers Kevin, William, Joel and Auntie Pauline, Margaret and Irene for their encouragement and prayers during my studies at the university.

Classmates; Yano, Kubasu and Ikame for their team work and support during the study period.

Most importantly, I thank the Lord Almighty for his unfailing presence throughout my study.

DEFINITION ABBREVIATIONS TERMS

| | |
|--------|--|
| ASCRA | Accumulating Savings and Credit Associations |
| EITC | Earned Income Tax Credit |
| IDA | Individual Development Accounts |
| IRAs | Individual Revenue Accounts |
| MFIs | Micro- Finance Institutions |
| RoSCAs | Rotating Savings and Credit Associations |
| SHG | Self- Help Group |
| WG | Women group |

DEFINITION OF OPERATIONAL TERMS

Rotation: Circulating in turns till the last person receives funds and start off, all over again.

Savings: Mobilization of funds with an intention of using them for a purpose.

Credit: Finances that are available the RoSCA members in form of a loan.

RoSCAs: Indigenous informal associations which are formed upon core participants to make a regular contribution to a fund, which is given in whole or part to each contributor in sequence or rotation.

Default: Difficulties in repayment of credit which result to delays and total failure to pay back the credit. In this study, default will be measured by the total amount of money defaulted in a RoSCA group.

Micro-Finance Institution: It is an informal financial institution that provides finance to Micro and Small Enterprises.

RoSCA Financial turnover: Refers to the total savings and loans in a RoSCA. It is measured in terms of money.

RoSCA Growth: Refers to an increase in RoSCA membership, amount of member contributions, interest income, loans and a decrease in the number of default cases in a RoSCA.

ABSTRACT

Rotating Savings and Credit Associations (RoSCAs) facilitate the mediation of funds by encouraging collective small scale capital accumulation in ways that keep local capital accumulation in circulation, provided that participants immediately apply the fund. The RoSCA movement in Kiserian Location has been growing in terms of increase in membership and number of groups. Despite this growth, there have been fluctuations in the financial turnover of RoSCAs which has affected the overall stability of growth in RoSCAs in the area. The general objective of the study was to analyse the determinants of RoSCA growth in Kiserian Location. Previous studies on RoSCAs have focused on economic efficiency of RoSCAs, types of RoSCAs and RoSCA participation theories. The determinants of RoSCA growth have not been systematically analysed, even though such analysis is important in facilitating growth and sustainability of RoSCAs. This study employed a descriptive research design that aimed at describing the characteristics of RoSCA members and analysing the determinants of RoSCA growth in Kiserian location. The target population was 50 RoSCA groups with a total population of 1246 members. Random sampling and proportional allocation methods were used to select a sample size of 293 members. Primary data was collected using a questionnaire which aimed at obtaining information on characteristics of RoSCA members and determinants of RoSCA growth. Secondary data was obtained from textbooks, journals, internet material and RoSCA records which included membership registers, contribution files and loan reports. Correlation analysis was used to determine the degree of relationship between the dependent variable (RoSCA growth) and the independent variables (member level of income, membership, contribution, default rate and interest income). Findings from the analysis revealed that member contribution, monthly income and membership were the most significant determinants of RoSCAs growth with positive correlation coefficients of 0.683, 0.641 and 0.327 respectively. The researcher concluded that growth of RoSCAs in Kiserian Location was determined by members' level of income, membership and amount of contributions. The study recommended that in order to accelerate RoSCA growth in Kiserian Location, members should boost up their contributions, the government should set up development projects for members which will increase their level of income and hence increase RoSCA growth, non RoSCA members should join these association so as to build a strong institution, and RoSCA groups should charge interest on loans which will generate more revenue in terms of interest income that will form a base for lending and hence increase the financial turnover of RoSCAs in the location.

| CONTENTS | PAGE |
|--|--------------|
| DECLARATION | (ii) |
| DEDICATION | (iii) |
| ACKNOWLEDGEMENT | (iv) |
| ABBREVIATIONS | (v) |
| DEFINITION OF OPERATIONAL TERMS | (vi) |
| ABSTRACT | (vii) |
| CHAPTER ONE: INTRODUCTION | 1 |
| 1.1 Background to the study..... | 1 |
| 1.2 Statement of the Problem | 7 |
| 1.3 Objectives of the Study..... | 7 |
| 1.4 Research Questions..... | 8 |
| 1.5 Significance of the Study..... | 8 |
| 1.6 Scope of the Study | 9 |
| 1.7 Assumptions of the Study..... | 9 |
| 1.8 Limitations of the Study..... | 10 |
| CHAPTER TWO: LITERATURE REVIEW | 11 |
| 2.1 Introduction..... | 11 |
| 2.2 Theoretical Literature | 12 |
| 2.3 Empirical Literature..... | 13 |
| 2.4 Conceptual Framework..... | 21 |
| CHAPTER THREE: RESEARCH METHODOLOGY | 24 |
| 3.1 Research Design..... | 24 |
| 3.2 Target Population..... | 24 |
| 3.3 Sample Size..... | 25 |
| 3.4 Sampling Strategy..... | 25 |
| 3.5 Data Collection Instruments..... | 26 |
| 3.6 Data Collection Procedures..... | 27 |
| 3.7 Data Analysis and Interpretation..... | 27 |
| CHAPTER FOUR: DATA PRESENTATION, ANALYSIS AND FINDINGS | 29 |
| 4.1 Introduction..... | 29 |
| 4.2 Demographic Characteristics of Respondents..... | 29 |
| 4.3 Determinants of RoSCAs Growth..... | 35 |
| 4.4 Analysis of Determinants of RoSCAs Growth..... | 44 |
| 4.5 Respondents Opinion Towards RoSCA Growth..... | 46 |
| CHAPTER FIVE: SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATIONS | 52 |
| 5.1 Introduction..... | 52 |
| 5.2 Summary of Findings..... | 52 |
| 5.3 Conclusions | 53 |
| 5.4 Recommendations | 55 |
| 5.5 Limitations of the Study..... | 56 |
| 5.6 Suggestions for Further Research..... | 56 |

| | |
|---|-----------|
| REFERENCES..... | 57 |
| APPENDICES..... | 60 |
| APPENDIX 1 QUESTIONNAIRE FOR ROSCA MEMBERS..... | 60 |
| APPENDIX 2 QUESTIONNAIRE GUIDE FOR REVIEW OF ROSCA RECORDS | 62 |
| APPENDIX 3 LIST OF ROSCAs IN KISERIAN LOCATION..... | 63 |
| APPENDIX 4 SAMPLING FRAME; LIST OF ROSCA MEMBERS | 64 |
| APPENDIX 5 KISERIAN LOCATION MAP: STUDY AREA..... | 65 |

LIST OF TABLES

| | |
|--|----|
| Table 4.0 Level of Education..... | 29 |
| Table 4.1 Ages of Respondents..... | 30 |
| Table 4.2 Marital Status..... | 32 |
| Table 4.3 Respondents Occupation..... | 33 |
| Table 4.4 Number of dependants..... | 34 |
| Table 4.5 Ownership of a bank account..... | 35 |
| Table 4.6 Monthly Income..... | 36 |
| Table 4.7 Contributions per Month..... | 37 |
| Table 4.8 Contributions for the Period 1997 to 2006..... | 38 |
| Table 4.9 RoSCA Membership Growth for the period 1997 to 2006..... | 39 |
| Table 4.10 Default rate..... | 41 |
| Table 4.11 Interest Rate Charged..... | 42 |
| Table 4.12 Maximum Loan..... | 43 |
| Table 4.13 Correlation Matrix..... | 45 |
| Table 4.14 Attitudes towards RoSCA Growth (Negative Statements)..... | 47 |
| Table 4.15 Attitudes towards RoSCA Growth (Positive Statements)..... | 49 |

CHAPTER ONE

INTRODUCTION

1.1 Background to the Study

A large part of financial transactions in Africa occur outside the formal financial system. Informal activity is basically a market response of economic agents to their economic environment. As such this activity is not confined to a specific area. Informal sector markets have been known to exist alongside similar activity in the formal sector or to develop rapidly in areas where no formal markets exist, or where formal markets have been prevented legally from existing. At times these markets are illegal; other times they are tolerated or brought into formal activity by means of legislation. An understanding of the economics of this informal financial sector is a prerequisite for satisfactory policy analysis (Ardener, Burman and Loury 1992)

Informal financial markets are an integral part of all economies. They are much more pervasive in developing countries than in developed ones (Basu 1994, Besley 1995, Ray 1998, Von Piske 1991). Large segments of the population do not have access to formal institutions, though their need for financial intermediation is high. Institutions in the informal sector satisfy this demand for services. In Africa informal finance has been defined as the operations of savings and credit associations, Rotating Savings and Credit Associations (RoSCAs), professional money lenders, and part-time money lenders like: traders, grain millers, small holder farmers, employers, relatives and friends, as well as cooperative societies (Aryeetey and Undry 1997).

RoSCAs, play an important role as a financial intermediary in many parts of developing countries. They flourish in both urban and rural settings. In each part of the world, RoSCAs come under different names. ROSCA is known as “Merry-Go-Round” in Kenya, Stokvel in South Africa, Committee in Pakistan, Chit fund or nidhi in India, Susu in Ghana, Tontinens in Senegal, Njagis in Cameroon, Cheetu in Sri Lanka, Pasanakus in Bolivia. In Mexican communities, RoSCAs are known under the names such as tanda, cundina, rol rifa, bolita, mutualista, quincela, vaca, vaquitaand ronda. Each name describes a slight variation of the basic institution or a regional/linguistic difference (Valez-Ibanez 1983). RoSCAs also exist in the developed world significantly in immigrant groups or closely tied communities like the Caribbean people in New York, the Mexicans in Texas and California, and the Chinese communities in the west.

More specifically, Calomiris and Rajararnan (1998) define a RoSCA as “a voluntary grouping of individuals who agree to contribute financially at each of a set of uniformly spaced dates towards the creation of a fund, which will then be allotted in accordance with some prearranged principle to each member of the group in turn.” Once a member has received a fund, in South India also called a “chit” the member is excluded from the allotment in the future chits until the RoSCA ends. RoSCAs serve as a financial intermediary by transforming the bundled savings of a group into what might be considered as a loan to one RoSCA participant in each period.

A typical RoSCA works in the following way. A group of individuals meet together on a regular basis (say once in a month or once a week) and contribute some fixed amount of money, decided either mutually or by the leader of the RoSCA, into a ‘pot’ every time they

meet. At the end of each meeting, one member of the group is selected to receive the pot. This can be done either randomly (hence the name- random RoSCA) or by bidding (which results in bidding RoSCA). This process continues till every member of the group receives the pot of money once. Obviously, those members who have already received the pot earlier cannot receive the pot again, though they still, have to contribute to the pot. When every member of the group has received the pot of money once, the group is disbanded, or can be started again with different members, different contributions, and possibly different duration between subsequent meetings (Anderson 1996).

One way of understanding RoSCAs would be to look at them from the point of view of the mechanism they would use to allocate the 'pot' (fund). There are three main ways of doing so (Geertz 1962).

Discretionary allocation: Here the organizer has the discretion of determining the order in which members receive the pot. This is non-transparent and though it allows the organizer to bear in mind the need of the members, the method can create issues regarding the 'fairness' of the process. This method is usually only used in smaller RoSCAs where the organizer has a reputation and significant confidence of the members.

Random allocation: Every time period when the pot is to be allocated, a random draw is held to determine the order before the RoSCA begins.

Bidding RoSCA: Members are allowed to bid for the pot at each time period. This allows members to take each other's needs into account, which the random method does not.

Besley, Coate, and Loury (1993) argue that RoSCAs are not helpful for hedging against risks. This is because under random allocation, the collection of the fund need not synchronize with specific participant's financial needs. Even under bidding, participants can only hope to handle situations which occur only once, since each participant collects the fund only once during a specific cycle. In rural areas where fortunes and risks are covariate, the valuations of collections by different participants are also likely to be covariate.

RoSCAs can, however deal with single, financially demanding events. More fundamentally, RoSCAs facilitate the mediation of funds by encouraging collective small-scale capital accumulation and savings in ways that keep local capital in circulation, provided participants immediately apply the fund. Some RoSCAs also encourage capital accumulation through in-kind contributions, such as when participants contribute fencing poles, pieces of roofing material, or human effort in raising granaries and constructing water tanks occasionally using materials from sources external to the schemes. These schemes can therefore make a significant difference not only in smoothing consumption but also in sustaining investments in human and physical capital with potential positive impacts on the development prospects of a community.

To secure commitment, RoSCAs attract membership from close communities and kinships within which potential members' personal attributes and circumstances are common knowledge, and from whom "social collateral" is easily extractable. Such collateral includes sanctions and reciprocity. Closeness among participants makes special needs more transparent, removing the moral hazard problem often faced when allocation mechanisms have to be relaxed to give room for such special needs.

The Accumulating Savings and Credit Associations (ASCRA) are another type of self-help group that offers financial mutual aid. Just like the RoSCA, they have saving and lending as their primary functions (Bouman 1995). Both types of institution are voluntary and autonomous, and have their own objectives, rules, and organization patterns. As financial institutions they are self-sufficient, self-regulating, and have their own control mechanisms. They are thus independent of the legal, fiscal, and financial authorities of their countries giving them flexibility, and this is where their comparative advantage over formal financial institutions lies. The difference between the two types of associations is what happens to the fund. In RoSCAs, savings are pooled and then immediately returned to members in the rotation, until each has had his or her turn. Members of an ASCRA also pool savings but in contrast to the RoSCA, the savings are not instantly redistributed but are allowed to accumulate, to make loans. Usually lending continues for one year after which redistribution takes place and a new cycle may begin.

The growth of RoSCA is indexed by a combination of three factors namely (Department of Social Services, Ngong Division) a) Changes in the total number of RoSCAs in the area, b) Changes in the total number of members in all the RoSCAs in the area c) Changes in the total financial turnover of RoSCAs which is indexed by: (i) Total volume of savings/contributions in the entire RoSCA movement in the area and (ii) Total volume of loans by the entire RoSCA movement in the area. A positive increase in the above three factors indicate growth in the RoSCA movement.

Table 1.1: Trend of RoSCA Growth Indices in Kiserian Location for the period 1997 to 2006

| Year | Number of RoSCA Groups | Membership | RoSCA financial turnover | |
|------|------------------------|------------|--------------------------|-------------|
| | | | Savings(kshs) | Loans(Kshs) |
| 1997 | 23 | 669 | 385,000 | 57,550 |
| 1998 | 27 | 755 | 572,000 | 57,000 |
| 1999 | 28 | 776 | 924,000 | 184,800 |
| 2000 | 29 | 817 | 352,500 | 70,500 |
| 2001 | 30 | 836 | 588,000 | 123,480 |
| 2002 | 37 | 978 | 492,800 | 73,920 |
| 2003 | 39 | 1014 | 667,000 | 66,670 |
| 2004 | 43 | 1074 | 480,000 | 96,000 |
| 2005 | 44 | 1087 | 825,000 | 206,250 |
| 2006 | 50 | 1246 | 937,500 | 225,000 |

Source: Department of Social services, Ngong Division

Table 1.1 above shows the trend of RoSCA growth indices in Kiserian Location for the period between 1997 and 2006. Column two and three show an increase in the number of RoSCA groups and total RoSCA membership respectively. Over the period of ten years, the numbers of RoSCA groups have grown by 114.3%. Total RoSCA membership has grown by 143.5%. Column four and five show the trend of RoSCAs savings and loans (financial turnover). These two columns show that financial turnover of

RoSCA in Kiserian Location has been fluctuating from one year to another leading to instability in the RoSCA in the area.

1.2 Statement of the Problem

Despite the substantive growth in membership and popularity of RoSCAs in Kiserian Location in the period between 1997 and 2006, the amount of savings and loans, that is the financial turnover of RoSCAs has been fluctuating (Department of social Services, Ngong Division). RoSCA members in the area contribute small amounts of money in their groups and hence the amount available for lending out to members as loans is also low. These low amounts of contribution and loans have led to low standards of living among the RoSCA participants in Kiserian.(Department of Social Services, Ngong Division) This study therefore analysed the determinants of RoSCA growth in Kiserian Location in order to provide a solution to the problem of fluctuations in RoSCA financial turnover.

1.3 Objectives of the Study

1.4 General objective

The main objective of this study was to analyse the determinants of growth of RoSCAs in Kiserian Location.

Specific objectives

The specific objectives were to:

- i) Find out the relationship between level of income and RoSCA growth

- ii) Show the relationship between membership and RoSCA growth.
- iii) Identify the relationship between member contribution and RoSCA growth.
- iv) Explain the relationship between default rate and RoSCA growth.
- v) Describe the relationship between interest income and RoSCA growth.
- vi) Provide policy strategies that will facilitate growth of RoSCA in Kiserian Location.

1.4 Research Questions

This study was set to provide answers to the following research questions:

- i) What is the relationship between level of income and RoSCA growth?
- ii) What is the relationship between membership and RoSCA growth?
- iii) What is the relationship between member contribution and RoSCA growth?
- iv) What is the relationship between default rate and RoSCA growth?
- v) What is the relationship between interest rate and RoSCA growth?
- vi) What policy strategies will facilitate growth of RoSCAs in Kiserian Location?

1.5 Significance of the Study

Results of the study are beneficial in that, first, they provide information on the determinants of RoSCA growth which at present is not available in the type of detail explained by the study. This information provides a solution to the problem of instability of RoSCA growth which is expected to accelerate RoSCA growth in Kiserian Location. Second, Micro Finance Institutions may adopt some RoSCA principles that can assist them in developing lending programmes that address the needs of the majority of clients and especially low-income earners. Third, Commercial banks may gain information on how to develop products and services that meet a wide range of customer needs. Fourth, the government will be better informed on how to engage rural populations in development activities and how to channel development finance. Fifth, donor agencies and non-governmental organizations will be better informed on the operations and problems of RoSCAs and this will facilitate improved community development programmes which will benefit the society at large. Sixth the study added more information to the existing knowledge in RoSCAs and formed a basis for further inquiry in to the study.

1.6 Scope of the Study

This study confined itself to Kiserian Location in Ngong Division, Kenya. The researcher purposively choose Kiserian location out of the eight locations in the division. This is because RoSCAs in Kiserian have been existing for a longer period than the RoSCAs in the other locations. The RoSCAs in Kiserian have been existing for more than ten years and therefore the members of these RoSCAs have more information on

RoSCA growth than members in other locations. The study targeted all members of registered RoSCAs in the area. There are several indicators of RoSCA growth; however this study focused on RoSCA financial turnover.

1.7 Assumptions of the Study

The researcher made the following assumptions:

- i) That RoSCA groups kept proper records on membership, contributions and loans.
- ii) That all respondents would be cooperative and provide reliable responses.

1.8 Limitations of the Study

- i) RoSCA members were suspicious that the research was aimed at capturing data to enable the relevant authorities to tax them effectively; hence some respondents would refuse to avail information on their income. However, the researcher convinced them that the information would be treated with a lot of confidentiality.
- ii) Cultural traditions in the study area inhibit acquisition of information on household size and wealth (especially counting of animals and children among the maasai). This was overcome by use of area administrators (village elders, sub-chiefs and chiefs) who are trusted by the locals.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter presents a review of Literature on RoSCA growth. It is divided into three sections. Section one discusses the theoretical literature on RoSCAs. Empirical literature on RoSCAs is presented in section two. Section three shows the conceptual framework of this study that presents the relationship between the dependent and independent variables of the study. The dependent variable of the study is RoSCA growth and the independent variables are member level of income, member contribution, membership, default rate and interest income.

2.2 Theoretical Literature

One of the most surprising features of RoSCAs is their prevalence. RoSCAs are found worldwide and in countries with vastly different levels of economic development. They are found in developed economies among sub-groups who have been traditionally excluded from mainstream financial services, as well as among individuals who have reasonable access to formal banking institutions. RoSCAs have been reported among employees of the IMF (Ardener 1995) and among bank employees in Bolivia (Adams and Canavesi 1992) and Ghana (Aryeteey 1997). In countries such as Taiwan with relatively well functioning credit markets, as many as 80 percent of adults are estimated to belong to RoSCAs (Besley and Levenson 1996). RoSCA-style banking mechanisms remain popular in modern Japan (Dekle and Hamada 2000) and Argentina (Schreiner 2000).

Economic literature on RoSCA provides several rationales for RoSCA formation. Besley, Coate, and Loury (1993) suggest that individuals join RoSCA to finance the purchase of an indivisible durable good, taking advantage of the gains from intertemporal trade between individuals so that individuals expect to enjoy the benefits of savings sooner than if they had saved on their own. Klonner (2003) shows RoSCAs with funds allocated by bidding allow participants to insure themselves against idiosyncratic risks. Calomiris and Rajaraman (1998) show that some bidding RoSCAs in India contain insurance components. Ambec and Treich (2004) examined the commitment properties of RoSCAs. They presented a model of RoSCAs in which the design of RoSCAs helps individuals to cope with self-control problems. Anderson and Baland (2002) argue that women's RoSCA membership in urban RoSCAs in Kenya is a forced savings mechanism that is the result of asymmetric preferences for indivisible household goods between husbands and wives.

Besley, Coate and Loury (1993) developed theoretical models that explain the prevalence of RoSCAs. They showed that participating in a RoSCA was not efficient compared to autarky (saving on their own) and that the random RoSCA may yield a higher level of ex ante expected utility to participants than the formal financial market. Despite this, individuals tend to participate in RoSCAs because they mobilize savings that would lie idle under autarkic savings and thus take advantage of gains from intertemporal trade (Besley et al. 1992). A crucial assumption of the Besley et al. (1992) model is that individuals are credit constrained. At the outset, they state that their objective is to explain how "a group of individuals without access to credit markets could improve their welfare by forming a RoSCA" (Besley et al. 1992). They make an assumption that RoSCAs are informal finance mechanisms that are predominantly for the

poor. This idea is also present in a study by Ardner (1995). Ardner carried out a comparative study on RoSCAs. Ardner argued that “where incomes are very low, where there is no formal social security network, where ill health stalks and a variety of calamities hover, a system of low cost RoSCAs help to meet challenges for ...” Kurtz (1973) sees poverty as a positive “correlate” of RoSCA participation. Calomiris and Rajaram (1998) claim that evidence on participation by the poor is widespread.

Related to that assumption is another assumption that people who generally participate in RoSCAs are credit constrained (Besley et al. 1992; Handa, and Kirton 1992). In trying to explain why wealthier individuals are members of RoSCA’s they claim that they “...observe individuals who are likely to be credit constrained in the formal capital market,” (Handa and Kirton 1999). Moreover the lack of collateral is often given as the reason why people should choose an informal finance mechanism such as the RoSCA over the formal financial institution.

The third assumption that is often made and has been supported by empirical work on RoSCA is that women are more likely to participate in RoSCA than men.

2.3 Empirical Literature.

Leverson and Besley (1996) and Handa and Kirton (1999) studied the role of informal finance in household capital accumulation. They offer empirical evidence that RoSCAs may not necessarily be meant for the poor. They show that RoSCA participation increases with income. Richer individuals are more likely to participate in RoSCAs. However, income and RoSCA participation cannot be simultaneously determined. Leverson

and Besley (1996) allude to this problem of endogeneity but do not address this specifically due to lack of good instruments. Handa and Kirton (1999) treat income as exogenous to participation.

Moreover, this upward relationship between expenditure and RoSCA participation can itself be an indication that RoSCA participants may not be credit constrained. Yet this assumption that individuals who participate in RoSCAs are credit constrained has not been specifically tested.

Several reasons have been suggested as to why individuals participate in RoSCAs. Baland (2002) suggest that intra-household conflict over savings and consumption patterns encourage women rather than men to participate in RoSCAs. Using data from RoSCAs in a low-income neighborhood in Nairobi, Anderson and Baland (2002) first note that participation rates of women in RoSCAs are higher than for men. They then develop a hypothesis, which they empirically test, where RoSCA participation is positively related to a woman's bargaining position in the household as measured by contribution to household income. Similar studies conducted in Indonesia show that the intra household argument does not hold in Indonesia since husbands know that their wives are participating in the *arisan* (RoSCA in *Indonesia*).

A more plausible explanation is one of forced savings (Gugerty and Aliber 2000). They argue that RoSCA provides participants with the opportunity to safely keep their funds, both from themselves, and from the demand of others. Thus the RoSCA improves the level of individual financial responsibility.

Another competing hypothesis is one of social capital and networks. Geertz (1962) claims that "...the primary attraction to the RoSCA is not the money you receive but the

creation of a *rukun* (Communal harmony) which occurs, and the example of *Gotong rojong* (mutual assistance), which is demonstrated. By joining the RoSCA, one builds social capital networks, by interacting with peers and building on his contacts and thus increases social capital. Moreover building social capital networks further explains participation in more than one RoSCA as each RoSCA varies in terms of the value of social capital it generates.

Descriptive evidence from sociological and anthropological studies as well as theoretic work in institutional economics suggests that the dense network of social relations in which participants are embedded allows them to undertake credit transactions where formal banks could not. The information and enforcement advantages held by residents of a close-knit community allow groups to screen out poor risks through peer selection (Stiglitz 1990) and to monitor other group members' level of effort by peer monitoring (Varian 1990). This informational advantage is backed up by the power of social sanctions: group members have the ability to exclude defaulters from community networks that provide insurance and access to local resources. Much of the descriptive evidence on RoSCAs stresses the effectiveness of these mechanisms and the rarity of any kind of default (Ardener 1964; Ardener and Burman 1995). The dire sanctions that befall a defaulter make the thought of default in RoSCAs to be quite infrequent. Many descriptive accounts of RoSCAs stress the rarity of default (Burman and Lambete 1995; Srinivasan 1995). They noted that among RoSCA members interviewed, the question 'what if someone does not pay?' gets little response as default is unheard of.

Gugerty (2003) conducted a study titled 'you can't save alone': Testing Theories of Rotating savings and credit association in Kenya. The major objective of this study was to find out why individuals develop and maintain local-level financial savings organizations

known as RoSCAs. Gugerty tested three theories on RoSCA participation. First, that individuals join RoSCAs to purchase durable goods, second, as a response to intra-household conflict over savings and third, to provide insurance. Random sampling was used to select 70 RoSCAs and 1066 RoSCA members in Teso and Busia Districts in Western Kenya. Gugerty found that RoSCAs are not organised primarily to provide credit for purchase of durable goods, or to provide solution to intra-household conflict. RoSCAs are organised to provide a collective mechanism for individual self control in the presence of time inconsistent preferences and in the absence of alternative saving technologies.

Gugerty (2003) found that defaults in many RoSCAs in the sample were not rare, and that the social connectedness of participants had a somewhat different implication: RoSCA members are able to distinguish between default due to genuine need and cases of strategic opportunism. Where RoSCA participants cannot pay for good reason, RoSCA members are reluctant to punish their peers by damaging their reputations in the community. Participants are keenly aware of the value of social relations and social capital and would prefer not to diminish the social collateral of their peers. The reluctance to use extra-organizational sanctions to ensure perfect payment discipline means that RoSCAs must design other mechanisms internal to the organization to prevent opportunistic behaviour. RoSCAs are able to do this in two ways: by repeating the RoSCA, so that the benefits of future participation ensure current cooperation, and by instituting a repayment strategy in which creditors of RoSCA defaulters do not pay the defaulters in future rounds. The use of such internal mechanisms to sustain cooperation is consistent with the evidence on the institutional factors underlying successful collective action. For example, Ostrom (1990) notes that successful and long-standing resource management organizations do not rely solely on pre-existing

social relations and trust, but establish clear organizational boundaries, use graduated sanctions, and establish low-cost mechanisms for resolving disputes. RoSCAs successfully accomplish all these goals.

Stefan and Treich (2005) argue that people with limited self-control can sign binding financial agreements amongst themselves, thereby forming coalitions. These financial agreements may help alleviate self-control problems. They further argue that people have a tendency to spend money for purposes other than the ones originally planned. Therefore temporal disagreements (among different selves or within a household) explain RoSCA participation. Social pressure from communities or relatives may cause self-control problems for example people may tend to purchase superfluous goods due to social or economic pressure. They might enjoy instantaneous social gratification by doing so or feel guilty if they do not. The basic idea is that individuals belonging to a RoSCA commit to contribute fixed amount in the future. As a result, participating in a RoSCA reduces their available income, and thus reduces their future vulnerability to social pressure. As Platteau (2000) puts it "RoSCAs provide socially accepted alibis to protect people's savings against all sorts of social pressure."

Aliber (2001) in his survey found the 'durable good motive' to be secondary. For instance, none of the 340 respondents in his study in South Africa indicated that the purpose for joining a RoSCA was to be able to obtain money earlier. Respondents referred to self-control problems above all. This idea is also present in other empirical studies (e.g., Bourman 1977 and Gugerty 2000).

Besley, Coate, and Loury (1993, 1995) suggest that individuals join RoSCAs to finance the purchase of an indivisible durable good. According to these researchers, RoSCAs

take advantage of the gains from intertemporal trade between individuals. All individuals except the last improve their welfare by joining a RoSCA, as each receives the indivisible durable good sooner than by saving alone. The arrangement is sustainable if the benefit of default is lower than the (exogenously set) cost of defaulting.

Besley, Coate, and Loury (1993) model RoSCAs as one-shot games and focus on two mechanisms for allocating funds: bidding for the pot and concurrent randomization. In the latter, the pot is randomly allocated to one member at each meeting.

Anderson and Baland (2000) conducted a study on the Economics of RoSCAs and intra-household conflict. Their main objective was to investigate individual motives to participate in RoSCAs. They provide a second rationale for the existence of RoSCAs: intra-household conflict over savings and consumption patterns. They collected data by conducting interviews on households in Kibera in a village called Kianda. Random sampling was used to select a sample of 520 households from the area. Anderson and Baland noted that the participation rates of women in RoSCAs in a low-income area of Nairobi are higher than for men and that participation rates for married women who work are higher than for unmarried women who work. They explain this gap with a model that shows that married women are more likely than men to join RoSCAs because of a stronger preference for saving for indivisible goods. In their model, RoSCA participation is positively related to a woman's bargaining position in the household, as measured by her contribution to household income. They argue that husbands tend to prefer status-enhancing current consumption to saving for household items and school fees.

Individuals might form RoSCAs in order to provide each other with insurance, particularly in a setting such as rural Kenya where formal markets for insurance are virtually

non-existent. The ability to bid on the pot provides an explicit insurance mechanism because participants can access money when they need it. Klonner (2000) shows how risk-averse participants in a bidding RoSCA can insure themselves against idiosyncratic risks. Calomiris and Rajaraman (1998) show that in Indian RoSCAs with concurrent bidding, the actual amount received by the winner is subject to variation through the bidding process in a manner consistent with insurance.

Kimuyu (1999) studied RoSCAs in Rural East Africa. His main objective was to show differences in participation between two communities. Data was collected from two rural communities in Kenya and Tanzania. The two communities were selected so as to control for climate, culture and general prospectus. 25% of the households in each of the communities were randomly sampled. This was done using latest census listings and village chairman listings as sampling frames for Kenya and Tanzania respectively. Kimuyu found out that: First, households unable to benefit from formal credit contracts are more inclined to seek out alternative intertemporal resource exchanges and are therefore more likely to be attracted to RoSCAs. Second, there was a significant association between participation in RoSCAs and household size. He found the proportion of participating household higher for medium and larger households than that of smaller households. Third, those households with regular income participate more in RoSCAs. Fourth, those female headed households are more likely to participate than male headed. This is because in patrilineal communities, inheritance and ownership arrangement are often biased against women. This means that women who become household heads through widowhood, single motherhood, separation and divorce are less likely to access formal credit. They are then likely to be driven to surrogates such as RoSCAs. Fifth, those households owning more land are better able to

access formal and other forms of credit and therefore have less need to participate in RoSCAs.

Kimuyu found greater RoSCA participation in Kenya relative to Tanzania. He argued that RoSCAs in Kenya attract households with greater need for alternative sources of liquidity and accumulation. They are headed by persons with better human capital attributes and are therefore better able to perceive and exploit opportunity for self improvement.

Levenson and Besley (2005) studied RoSCA participation in Taiwan. The objective of the study was to; First, to analyze participation in RoSCAs using a national household survey from Taiwan. Second to show how RoSCA financial turnover increase with income. Third to show the relationship between RoSCA participation and occupation. They found that individual level of income was the main factor influencing the desire to participate in RoSCAs. This is because, first, the lowest income individuals spend a larger fraction of their income on subsistence consumption so that their demand for savings in a RoSCA is lower. Second, higher income individuals have higher levels of savings so their demand for RoSCAs is higher and hence greater financial turnover in RoSCAs.

Kathure (2005) studied the characteristics and impact of RoSCAs on the growth of MSEs. In the sampling process, the researcher combined more than one sampling technique, viz. cluster, simple random, stratified random sampling and snowballing. A sample size of 130 MSEs and 7 RoSCA groups were selected. Data was collected through personal interviews of enterprise managers and direct administration in the case of RoSCA groups. The study revealed that; first, the members coming to form a group must know each other in order to close loopholes that can bring problems of default in the group in the future. 19.4% of the RoSCA members interviewed found default to be a major weakness of RoSCA groups.

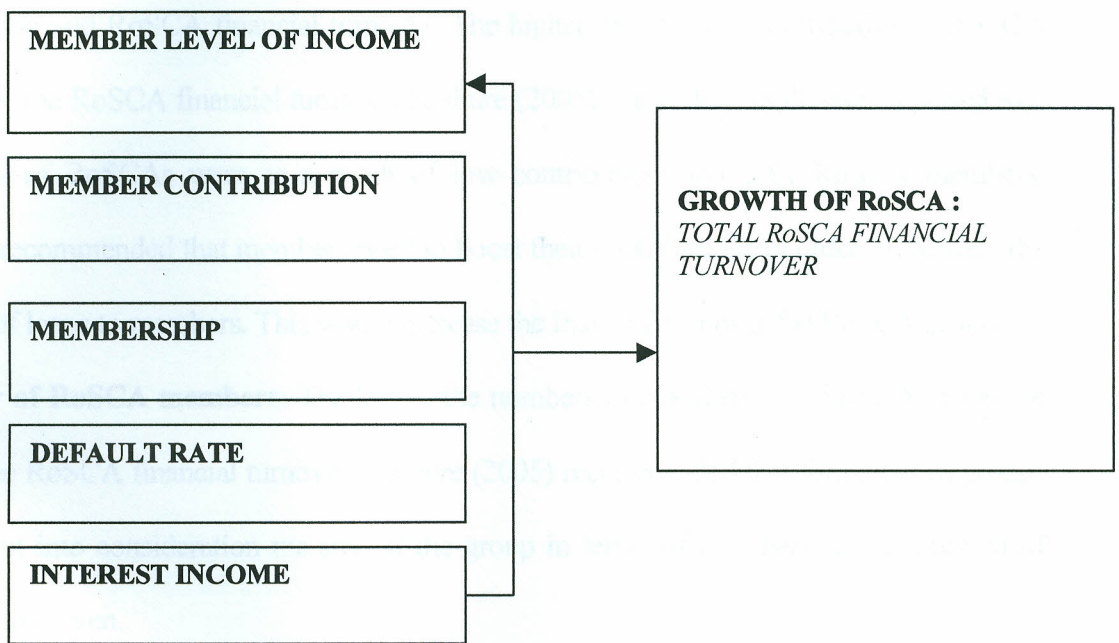
Second, 58.5% of the respondents interviewed found small loans to be a weakness of RoSCAs. Small loans were as a result of low contributions made by some RoSCA groups. Kathure recommended that RoSCA members need to boost up their contributions in order to increase the amount of loans to members hence increase RoSCA financial turnover.



2.4 The Conceptual Framework

A conceptual framework is a model of presentation where a researcher conceptualizes or represents relationships between variables in the study and shows the relationship graphically or diagrammatically. The purpose of a conceptual model is to help the reader to quickly see the proposed relationships (Orodho, 2004). Figure 2.1 below shows the researcher's conception about the relationship between the variables in this study.

Figure 2.1: Relationship among independent variables and the dependent variable.



Independent Variables

Dependent variable

Source: Researcher (2007)

Member Income: There is a positive relationship between individual level of income and financial turnover. According to Levenson and Besley (2005) RoSCA financial turnover increases with increase in income. This is because, the lowest income individuals spend a larger fraction of their income on subsistence consumption, so that their demand for saving in RoSCA is low and hence RoSCA financial turnover becomes low. Second, higher income individuals have higher levels of saving so their demand for RoSCAs is higher and hence higher RoSCA financial turnover. Kimuyu (1999) also found that households with higher income participate more in RoSCAs and hence financial turnover is higher than for those with low income.

Member contribution to RoSCA: There is a positive relationship between member contribution and RoSCA financial turnover. The higher the member contribution to RoSCA the higher the RoSCA financial turnover. Kathure (2005) found that small loans reported as a weakness of RoSCAs were as a result of low contributions made by RoSCA members. Kathure recommended that members need to boost their contributions in order to increase the amount of loans to members. This would increase the financial turnover the RoSCA groups.

Number of RoSCA members: The higher the numbers of members in a RoSCA group the higher the RoSCA financial turnover. Kathure (2005) recommended that formation of groups should put into consideration the size of the group in terms of membership and amount of contribution given.

Default rate: The higher the default rate in a RoSCA the lower the financial turn over. Kathure (2005) found that one of the limitations of RoSCA is default. 19.4% of the respondents found default to be a major weakness of RoSCA groups. This is because group formation is based on non –tangible collateral (Trust). The members coming to up to form a

group must know each other in order to close any loopholes that can bring about problems of default in the group in future.

Interest income: the higher the interest income the higher the financial turnover in RoSCAs. Interest charges are a common phenomenon in financial institutions. Nevertheless a study by Kathure (2005) showed that 80.8% of RoSCA respondents do not charge interest. Asked why they said that, RoSCAs are rotation group association that every person benefits from contributions made without further charges. Some 19.2% of the respondents charged a roughing interest in their RoSCAs between 5% and 18% annually. Those that charged interest had a component of saving, meaning the association was formed on the basis of building extra capital to boost their capital base for loan able funds. Interest charged basically acted as a means of raising funds and hence increasing the turnover of the group.

RoSCA growth: is the independent variable of the study. It is measured by the financial turnover of RoSCAs. An increase in the financial turnover of RoSCAs will lead to an increase in growth of RoSCAs. Variables influencing the financial turnover of RoSCAs will also affect RoSCA growth.

RoSCA Financial Turnover: This is the amount of RoSCA savings and loans. It is measured in money terms.

2.5 Summary of Literature Review

In the review of literature the researcher found that previous studies on RoSCAs have focused on the relationship between RoSCA participation and income (Leverson and Besley 1996), RoSCAs as a means of dealing with intra- household resource allocation (Anderson and Baland 2002), the importance of social sanctions in dealing with default cases (Ardener

and Burman 1995), the theories of RoSCAs participation (Gugerty 2003), the impact of RoSCAs on the growth of MSE's (Kathure 2005). Studies on RoSCAs have documented the effectiveness of RoSCAs as a means of facilitating savings and raising capital at local levels. Accordingly, some development experts describe RoSCAs as 'state-of-the-art financial intermediation' (Von Pischke 1992). Those who champion RoSCAs as the financial equivalent of appropriate technology, argue that these organizations have grown because they intertwine, social and economic domains building on local cultures and concepts. However, because many investigations on growth of RoSCAs focus primarily on social questions, the full significance of economic aspects of growth such as financial turnover remains unknown (Ardener 1995). This study therefore focused on the economic aspect of RoSCA growth; by exploring the determinants of RoSCA growth, the study aimed at identifying factors that cause fluctuations in RoSCA financial turnover and hence leading to the instability of RoSCA growth in Kiserian location.

CHAPTER 3

RESEARCH METHODOLOGY

3.1 Research Design

This study adopted a descriptive research design that aimed at describing the characteristics of RoSCA members and the determinants of RoSCA growth in Kiserian Location. According to Kothari (2004) descriptive studies must focus on certain factors which this study focused on. These factors are; formulating study objectives, designing data collection methods, selecting a sample, collecting data, analysis of data and reporting of findings.

3.2 Target Population

The target population of this study was all the ordinary members and officials of RoSCA groups in Kiserian Location. There were 50 registered RoSCA groups. The total number of RoSCA members was 1246. There were three officials (Chairperson, Secretary and Treasurer) in each RoSCA group and therefore the total number of officials in the 50 RoSCA groups was 150 (Department of Social Services; Ngong Division). Table 3.0 shows the target RoSCA population.

Table 3.0: Target RoSCA Population

| RoSCA Type | Number of Groups | Number of Members | % of Total Membership |
|--------------|------------------|-------------------|-----------------------|
| Women Only | 25 | 640 | 51.36% |
| Men Only | 10 | 268 | 21.51% |
| Mixed Groups | 15 | 338 | 27.13% |
| TOTAL | 50 | 1246 | 100% |

3.3 Sample Size

At 95% Confidence Level, in a population of 1246 members, the sample size of ordinary members was estimated at 278 members.

3.4 Sampling Strategy

The population of RoSCA groups in Kiserian Location existed in three groups namely; women only, men only and men and women (mixed) groups. These groups then formed the strata. Registers of members for each stratum were then obtained from the group officials to form the sampling frame. Simple random sampling with the help of random number tables was then used to identify the respondents. Proportional representation of each stratum was used as shown in table 3.1.

Table 3.1: Sampling Strategy for RoSCA members

| Rosa Type | Percentage of Total | Sample Size |
|--------------|---------------------|----------------------------|
| Women Only | 51.36% | $51.36\% \times 278 = 143$ |
| Men Only | 21.51% | $21.51\% \times 278 = 60$ |
| Mixed Groups | 27.13% | $27.12\% \times 278 = 75$ |
| TOTAL | 100% | 278 |

Table 3.1 above shows that a sample of 143, 60 and 75 RoSCA members was randomly selected from the women only, men only and mixed group categories respectively. In total a sample size of 278 RoSCA members was randomly selected from the registers.

3.5 Data Collection Instruments

The study made use of both primary and secondary data. Primary data was collected using a questionnaire containing both open ended and closed questions. Secondary data was obtained from RoSCA records, journals, textbooks and internet material. Records were obtained from RoSCA officials and the Department of Social Services.

Questionnaire: A questionnaire was administered to all the RoSCAs members in the sample. The researcher found this instrument efficient because it was free from bias since the respondents were allowed to answer in their own words and had adequate time to give well thought answers, hence increasing the reliability of this instrument. A questionnaire was used to collect information on membership status, individual level of income, occupation, age, number of dependants, marital status and level of education. In addition the questionnaire gathered data on determinants of RoSCA growth which included level of income,

membership, contributions, default rate and interest income. Respondents attitudes towards increasing RoSCA growth were also analysed.

RoSCA Records: Secondary data was obtained from RoSCA records which included membership registers, contributions files and loan reports. These records provided data on member contribution, number of members, default rate and interest rate on loans.

3.6 Data Collection Procedures

The researcher with the help of officials from the Department of Social Services approached the chairpersons of the selected RoSCA groups. The RoSCA Chairpersons provided the researcher with membership registers from which respondents were selected. The respondents were then issued with questionnaires which they filled in under the supervision of the researcher. The researcher then reviewed RoSCA records from the 15 RoSCA groups. The researcher finally collected the completed questionnaires from the respondents and the data obtained from RoSCA records for data analysis.

3.7 Data Analysis and Interpretation

The collected data was edited by carefully scrutinizing the completed questionnaires to ensure that data were accurate, consistent with other facts gathered, uniformly entered, as complete as possible and well arranged to facilitate coding and tabulation. The data was then coded by assigning numerals to answers in order to allow the responses to be put into a limited number of categories or classes. The coded data was then be classified and reduced into homogenous groups. The researcher analyzed data using both descriptive and inferential statistics with the aid of SPSS (Statistical Package for Social Sciences). Correlation analysis was used to determine the association between the dependent variable and the independent variables of the study. The likert scale question which aimed at testing the respondents'

attitudes towards RoSCA growth was analysed by computing averages. Scale values were assigned to each of the five responses, and every statement in the question. Total scores and averages were computed for each respondent which measured the respondents' favourableness towards a given point of view. Tables were used to present the output values of the data. Conclusions and recommendations were made based on the findings of the study.

The following table presents data analysis for the respondents' level of education.

4.1.5.1. PHIC CHARACTERISTICS OF RESPONDENTS

This section discusses the demographic characteristics of the respondents. The researcher managed to interview 100 respondents who were members of RoSCA giving a response rate of 100%.

4.1.5.1.1. Level of Education

The respondents were asked in what level of education they were currently enrolled in. The results are shown in table 4.0 below.

Table 4.0: Level of Education

| Level of Education | Frequency | and Percentage |
|--------------------|-----------|----------------|
| PRIMARY | | |
| SECONDARY | | |
| UNIVERSITY | | |
| POST GRADUATE | | |

From the table above, it can be seen that the majority of RoSCA members are currently enrolled in primary education. The majority of the respondents are currently enrolled in primary education.

CHAPTER FOUR

DATA PRESENTATION, ANALYSIS AND FINDINGS

4.1 Introduction

The purpose of this study was to identify factors that determine growth of RoSCAs in Kiserian Location. Data was collected from primary and secondary sources. Data from the two sources was merged together in order to provide answers to the research questions of the study. This chapter presents data analysis and discussions of findings of this research study.

4.2 DEMOGRAPHIC CHARACTERISTICS OF RESPONDENTS

This section discusses the demographic characteristics of RoSCA members in Kiserian Location. The researcher managed to obtain responses from 12 RoSCA officials and 275 ordinary RoSCA members giving a total of 287 respondents.

4.2.1 Level of Education

Respondents were asked to indicate their level of education and their responses are as shown in table 4.0 below.

Table 4.0: Level of Education

| Level of Education | Frequency | Valid Percent | Cumulative Percent |
|--------------------|-----------|---------------|--------------------|
| PRIMARY | 123 | 41.7 | 41.7 |
| SECONDARY | 99 | 33.6 | 75.3 |
| POST SECONDARY | 59 | 20.0 | 95.3 |
| UNIVERSITY | 6 | 4.7 | 100.0 |
| TOTAL | 287 | 100.0 | |

From table 4.0, it can be seen that RoSCA members in Kiserian location are educated with 123(41.7%) having completed primary education, 99(33.6%) with secondary education,

59(20%) having acquired Post secondary education and 6(4.7%) with university education. Sufficient education provides a strong base for training in RoSCA management, growth and sustainability. RoSCA members in Kiserian Location have not been trained on how to increase growth of their groups. However, findings indicate that RoSCA members are educated and therefore have a potential to be trained since most of them have received basic primary and secondary education. The fact that majority 164(58.3%) of RoSCA members in Kiserian Location have attained secondary education and above means that the members can be trained on how to keep records, importance of savings, how to utilize RoSCA loans efficiently and RoSCA management. Training of RoSCA members will lead to efficient RoSCA management, increase in amount of member contributions, profitable investment of RoSCA credit by members and hence low default rates resulting to an increase in growth of RoSCAs in Kiserian location.

4.2.2: Age of respondents

The respondents were asked to indicate their age bracket. Table 4.1 below shows the age brackets of RoSCA members in Kiserian location.

Table 4.1: Age of Respondents

| Age | Frequency | Valid Percent | Cumulative Percent |
|-------------------------|-----------|---------------|--------------------|
| UNDER 20 YEARS | 6 | 2.1 | 2.1 |
| BETWEEN 20 AND 30 YEARS | 132 | 46.0 | 48.1 |
| BETWEEN 30 AND 40 YEARS | 121 | 42.2 | 90.2 |
| BETWEEN 45 AND 60 YEARS | 28 | 9.8 | 100.0 |
| TOTAL | 287 | 100.0 | |

The findings presented in the table 4.1 show that RoSCA members in Kiserian Location are in the age between 20 and 60 years with 6(2.1%) being below 20 years of age, 132 (46%) of the respondents are between the age of 20 and 30 years, 121 (42.2%) are between the ages of 30 and 40 years while 28(9.8%) are between 45 and 60 years. Age influences the ability to make wise decisions, as old age is associated with a wealth of experience and wisdom. The experience as a result of age makes a person not rush out on new ideas without careful considerations and to weigh shortcomings of each source of credit. The findings of this study reveal that majority 259(90.3%) of the RoSCA members in Kiserian location are in the productive age bracket of between 20 and 40 years. This is an age bracket where people need resources to settle down and educate their children, to accumulate wealth for future and need financial institutions where they can save money and borrow loans. RoSCAs in Kiserian Location meet these financial needs by offering a savings and credit facility to the members. The fact that majority of RoSCA members in Kiserian were found to be in their youthful age shows continuity of RoSCA groups in the location. Continuity of RoSCAs mean that RoSCA groups in Kiserian location are expected to operate for a long period of time since majority of participants are youth. Time will give these RoSCAs a chance to grow in terms of increase in; number of members, amount of member contribution and efficiency in group operation and management as a result of training.

4.2.3: Marital Status

The respondents were asked to indicate their marital status and findings are as indicated on table 4.2.

Table 4.2: Marital Status

| Marital Status | Frequency | Valid Percent | Cumulative Percent |
|----------------|-----------|---------------|--------------------|
| MARRIED | 86 | 59.9 | 59.9 |
| SINGLE | 172 | 29.9 | 89.8 |
| OTHERS | 29 | 10.2 | 100 |
| TOTAL | 287 | 100.0 | |

Table 4.2 shows that out of the 287 respondents, 59.9% were married while 29.9% were single. The finding that majority (59.9%) of RoSCA members in Kiserian Location are married is a positive indicator of stability and growth of RoSCAs that is attributed to the RoSCA characteristic that RoSCAs are sustained by trust among members. It is more unlikely for a married person to relocate than a single person. Married people have a more settled life than singles in terms of mobility and asset accumulation. This characteristic of RoSCA members in Kiserian has increased the stability and growth of RoSCAs in terms of increase in membership and low default rates as a result of trust among RoSCA members.

4.2.4: Members occupation

RoSCA members were asked to indicate their occupations and findings are as shown in table 4.3.

Table 4.3: Respondents Occupation

| Occupation | Frequency | Valid Percent | Cumulative Percent |
|---------------|-----------|---------------|--------------------|
| SELF EMPLOYED | 176 | 61.3 | 61.3 |
| EMPLOYED | 80 | 27.9 | 89.2 |
| UNEMPLOYED | 31 | 10.8 | 100.0 |
| TOTAL | 287 | 100.0 | |

The table above shows that 176(61.3%) of RoSCA members are self-employed, 80 (27.9%) of the respondents are employed while 31(10.8%) are unemployed. Kiserian location being a semi- urban area has most (61.3%) of its residents engaging in self-employment activities such as farming and local market trading. Incomes from these self-employment activities are low and therefore they cannot afford loan services from formal sources, which require collateral. They therefore join RoSCAs where lending is based on social collateral rather than an asset as is the case with commercial banks. The great accessibility of RoSCAs to self-employed residents in Kiserian indicates that RoSCAs in this area have a potential to grow even further in terms of increase in membership.

4.2.5: Number of Dependants

RoSCA members were asked to state the number of dependants in their households and findings are as shown in table 4.4.

Table 4.4: Number of Dependants

| Number of Dependants | Frequency | Valid Percent | Cumulative Percent |
|----------------------|-----------|---------------|--------------------|
| 3 OR BELOW | 155 | 54.0 | 54.0 |
| 4, 5 OR 6 | 111 | 38.7 | 92.7 |
| OVER 6 | 21 | 7.3 | 100.0 |
| TOTAL | 287 | 100.0 | |

Findings in Table 4.4 above reveal that 54% of RoSCA members have 3 or less than 3 dependants, 38.7% had between 4 and 6 dependants while 7.3% had more than 6 dependants. This means that households with higher number of dependants are less likely to be members of RoSCA as compared to those with lower number of dependants. This is because large households spend most or all of their incomes on subsistence consumption leaving little or nothing to save. Therefore, they are less likely to be members of RoSCAs since they cannot raise the member contributions. The number of dependants in a household relates negatively with RoSCA growth. This is because the higher the number of dependants in a household the less likely an individual is to join a RoSCA and hence the lower the growth of RoSCAs in terms of membership. The fact that most (54%) of RoSCAs members in Kiserian have less than 3 dependants means that the members can be able to save and hence can increase their RoSCA contributions thereby increasing growth of RoSCAs in the area.

4.2.6: Ownership of a bank account

The respondents were asked to state whether or not they have a bank account and their responses were as shown in Table 4.5.

Table 4.5: Ownership of bank account

| Bank Account | Frequency | Valid Percent | Cumulative Percent |
|--------------|-----------|---------------|--------------------|
| YES | 38 | 12.9 | 12.9 |
| NO | 249 | 84.4 | 100.0 |
| TOTAL | 287 | 100.0 | |

The table above shows that 12.9% of the respondents have bank accounts while 84.4 percent of the respondents do not have bank accounts. This means that RoSCAs are a primary source of savings and credit for most RoSCA members in Kiserian Location since a majority of the members prefer to keep their money in their RoSCA group than in a bank (table 4.15). A review of RoSCA records revealed that RoSCA groups in the sample operate group accounts with commercial banks where they deposit part of their group contributions and also obtain loans from the banks. The loans obtained from the bank are shared among the RoSCAs members who guarantee each other.

4.3 DETERMINANTS OF ROSCA GROWTH

RoSCA growth is determined by a multiple of factors, which include; monthly income of members, member contributions, the number of RoSCA members, interest income from loans and default rate. A review of RoSCA records on these determinants of RoSCA growth was carried out. This section presents the findings from the review.

4.3.1 Monthly Income

RoSCA members were asked to indicate their income. Table 4.7 shows the monthly income of respondents.

Table 4.6: Monthly Income

| Income | Frequency | Valid Percent | Cumulative Percent |
|-----------------------|-----------|---------------|--------------------|
| LESS THAN KSHS 2,000 | 26 | 9.1 | 9.1 |
| KSHS 2,000-5,000 | 36 | 12.5 | 21.6 |
| KSHS 5,001-10,000 | 89 | 31.0 | 52.6 |
| KSHS 10,001-15,000 | 68 | 23.7 | 76.3 |
| KSHS 15,000 AND ABOVE | 65 | 22.6 | 99.0 |
| NO RESPONSE | 3 | 1.0 | 100.0 |
| TOTAL | 287 | 100.0 | |

The table shows that 9.1% of the members earn incomes of less than Kshs 2,000 per month, 12.5% earn between Kshs 2,000 and 5,000 per month, 31% earn between Kshs 5,000 and 10,000 monthly, 23.7% earn between 10,000 and 15,000 per month while 22.6% of the respondents earn above 15,000 per month. This findings show that majority 222(77.3%) of RoSCA members earn incomes above five thousand shillings per month and therefore RoSCA participants in Kiserian are not poor since they live on more than a dollar a day. This finding concurs with the findings of Handa and Kirton (1999) who found out that RoSCAs are not necessarily meant for the poor. They found RoSCA participation to be greater among households with high income levels compared to those with low income levels. The higher an individuals level of income the greater the propensity to save and therefore RoSCAs

members in Kiserian location have a potential to increase the amount of savings or contributions to RoSCAs which will lead to an increase in growth of RoSCAs.

4.3.2 Member contributions

Member contributions were measured in monetary terms (Kenya shillings). RoSCA records on member contributions were reviewed in order to find out the amount that each member contributed per month. Table 4.7 below shows the monthly member contributions of RoSCA members in the sample.

Table 4.7: Contributions per Month

| Contributions | Frequency | Valid Percent | Cumulative Percent |
|----------------------|-----------|---------------|--------------------|
| LESS THAN KSHS 200 | 35 | 12.2 | 12.2 |
| KSHS 201- 500 | 64 | 22.3 | 34.5 |
| KSHS 501- 1,000 | 87 | 30.3 | 64.8 |
| KSHS 1,001-3,000 | 72 | 25.1 | 89.9 |
| KSHS 3,000 AND ABOVE | 29 | 10.1 | 100.0 |
| TOTAL | 287 | 100.0 | |

The table shows that member contributions range from Kshs 200 to 3,000 and above with 12.2% of the members contributing less than Kshs 200 per month, 22.3% contribute between Kshs 200 and Kshs 500 per month, 30.3% of the RoSCA members contribute between five hundred and one thousand shillings per month, 25.1% of the members contribute between Kshs 1,000 and 3,000 per month while 10.1% of the respondents contribute above three thousand shillings. An analysis of amount contributed by the fifteen sampled RoSCA groups over a period of ten years was done. Table 4.8 shows the trend of

yearly contributions (in Kenya shillings) by the selected 15 RoSCA groups beginning from year of formation of each group.

Table 4.8: RoSCA Contributions for the Period 1997 to 2006

| NAME OF ROSCA | '97 | '98 | 99 | '00 | '01' | '02 | '03 | '04 | '05 | '06 |
|-----------------------|---------|---------|---------|---------|---------|-----------|---------|---------|-----------|-----------|
| DUPOTEI ELUAI | - | - | - | - | - | - | 28,800 | 24,000 | 33,600 | 36,000 |
| MATERIAL SILO.ANGA | - | - | 27,000 | 24,000 | 26,400 | 30,600 | 30,600 | 27,000 | 34,200 | 54,000 |
| MILIMANI | 24,000 | 36,000 | 34,200 | 30,600 | 30,600 | 27,000 | 24,000 | 29,405 | 25,500 | 24,000 |
| MUGUMO | 78,000 | 60,200 | 57,600 | 43,200 | 57,600 | 67,200 | 72,000 | 57,000 | 96,000 | 96,000 |
| NABULU | - | - | - | - | - | - | - | - | - | 30,600 |
| OYARATA | - | - | - | - | 48,000 | 45,250 | 46,224 | 44,800 | 48,000 | 48,000 |
| THREE IN ONE OLTEYANI | - | - | - | - | 27,000 | 30,345 | 36,100 | 31,400 | 32,500 | 31,450 |
| WONDER | 32,400 | 32,400 | 35,700 | 33,990 | 35,510 | 27,000 | 36,100 | 31,400 | 32,500 | 32,400 |
| COMRADES | - | - | - | - | - | - | - | 90,000 | 90,000 | 90,000 |
| GROGAN LABOUR | - | 28,800 | 28,800 | 27,150 | 57,600 | 40,615 | 39,910 | 76,800 | 46,200 | 100,800 |
| KIRIMA KABAGA | 24,000 | 24,000 | 30,000 | 27,150 | 43,200 | 40,615 | 39,810 | 48,000 | 46,200 | 48,000 |
| KISERIAN NEW BORN | - | - | - | - | 108,000 | 100,400 | 125,700 | 186,000 | 154,000 | 106,000 |
| MWANA WIKIO | 60,000 | 60,000 | 60,000 | 48,000 | 60,000 | 720,000 | 52,800 | 60,000 | 105,000 | 60,000 |
| OLEHORO FARMERS | - | 79,200 | 79,200 | 66,000 | 79,200 | 92,400 | 52,800 | 79,200 | 105,600 | 81,250 |
| SAUTI YA WAKULIMA | - | - | - | - | - | - | - | 168,000 | 180,000 | 180,000 |
| TOTAL | 218,400 | 320,600 | 352,500 | 300,090 | 573,110 | 1,221,425 | 584,844 | 953,005 | 1,029,300 | 1,018,000 |

The table shows the annual amounts contributed by RoSCA members in the sampled fifteen RoSCA groups in Kiserian Location. The amount contributed vary from one year to another and as can be seen in the table there were fluctuations in the periods between 1999 and 2000, 2002 and 2003, 2005 and 2006 where annual amounts contributed decreased. The annual amount contributed decreased from Kshs 352,500 in the year 1999 to Kshs 300,900 in the year 2000 representing a 14.8% decrease in amount contributed. In the period between year 2002 and 2003, amount contributed decreased from Kshs 1,221,425 to Kshs 584,844 giving a 52% decrease in annual contributions. A decrease in contributions was also

experienced in the period between year 2005 and 2006 where contribution amount decreased with a range of Kshs 10,800 from Kshs 1,029,300 in 2005 to Kshs 1,018,500 in 2006.

However, during this period 1999 to 2006, RoSCA membership increased by 180%, from 138 to 387 members as can be seen in table 4.9. Despite this positive increase in RoSCA membership there were fluctuations in amounts contributed during the period. These fluctuations in contributions lead to instability in RoSCA financial turnover resulting to slow negative growth of RoSCAs in Kiserian Location. RoSCA members in Kiserian Location need to increase their contributions in order to facilitate growth of these associations.

4.3.3: Membership

Membership registers were reviewed in order to obtain information on growth of RoSCA membership among RoSCA groups in the sample. Table 4.10 shows the trend in growth of RoSCA membership for the period between 1997 and 2006.

Table 4.9: RoSCA Membership Growth for the Period 1997 to 2006

| NAME OF ROSCA | '97 | '98 | 99 | '00 | '01' | '02 | '03 | '04 | '05 | '06 |
|--------------------------|-----|-----|-----|-----|------|-----|-----|-----|-----|-----|
| DUPOTEI ELUAI | - | - | - | - | - | - | 12 | 15 | 14 | 15 |
| MATERIAL SILANGA | - | - | 15 | 15 | 20 | 20 | 28 | 25 | 25 | 30 |
| MILIMANI | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 |
| MUGUMO | 13 | 18 | 18 | 24 | 15 | 15 | 30 | 40 | 40 | 45 |
| NABULU | | 17 | 17 | 30 | 25 | 34 | 34 | 40 | 44 | 45 |
| OYARATA | - | - | - | - | 20 | 20 | 20 | 20 | 20 | 20 |
| THREE IN ONE OLTEYANI | - | - | - | - | 15 | 15 | 18 | 25 | 28 | 30 |
| WONDER | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 |
| COMRADES | - | - | - | - | - | - | - | 15 | 15 | 15 |
| GROGAN LABOUR | - | 12 | 12 | 18 | 16 | 20 | 28 | 30 | 36 | 42 |
| KIRIMA KABAGA | 20 | 15 | 25 | 35 | 30 | 34 | 40 | 35 | 35 | 40 |
| KISERIAN NEW BORN | - | - | - | - | 18 | 22 | 27 | 31 | 34 | 39 |
| MWANA WIKIO | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| OLEHORO FARMERS | - | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 |
| SAUTI YA WAKULIMA | - | - | - | - | - | - | 15 | 15 | 15 | 15 |
| TOTAL | 72 | 113 | 138 | 173 | 210 | 231 | 303 | 342 | 357 | 387 |

The table shows that out of the fifteen selected RoSCA groups, six groups (Milimani, Oyarata, Wonder, Comrades, Mwana Wikio, Olehoru Farmers, Sauti ya Wakulima) were repeated with essentially the same number of members showing stability of RoSCA membership in these six groups over the period. However, the other nine RoSCA groups had members leaving in a particular year and new members being admitted.

The rate of decrease in membership in cases of members leaving the groups was lower than the rate of increase in membership as a result of new members being admitted in to the groups. RoSCA membership in Kiserian location increased from 72 members in 1997 to 387 members in 2006 representing a 180% growth in membership. These findings reveal a positive growth in RoSCA membership in Kiserian location. Growth in RoSCA membership indicates an increase in the popularity of associations and the importance of numbers in generating more savings, possibly attracting external assistance and most importantly accelerating growth of RoSCAs in Kiserian Location

4.3.4: Default rate

The researcher reviewed loan records in order to find out the number of default cases among RoSCA groups in the sample. Default rate was measured in terms of number of members who had defaulted in making loan repayments since formation of a RoSCA group. Table 4.10 shows the number of default cases in each of the 15 RoSCA groups since their year of formation.

Table 4.10: Default rate

| NUMBER | NAME OF ROSA | YEAR OF FORMATION | NUMBER OF DEFAULT CASES |
|--------|-----------------------|-------------------|-------------------------|
| | | | 1-5 CASES |
| 1 | SAUTI YA WAKULIMA | 2005 | 1 |
| 2 | MWANA WIKIO | 1997 | 2 |
| 3 | KISERIAN NEW BORN | 2001 | 3 |
| 4 | DUPOTEI ELUAI | 2003 | 3 |
| 5 | COMRADES | 2004 | 4 |
| 6 | MILIMANI | 1997 | 5 |
| | | | 6-15 CASES |
| 1 | THREE IN ONE OLTEYANI | 2001 | 6 |
| 2 | GROGAN LABOUR | 1998 | 6 |
| 3 | OYARATA | 2000 | 7 |
| 4 | MUGUMO | 1997 | 8 |
| 5 | WONDER | 1997 | 8 |
| 6 | OLEHORO FARMERS | 1998 | 8 |
| 7 | NABULU | 1998 | 10 |
| 8 | MATERIAL SILANGA | 1999 | 11 |
| 9 | KIRIMA KABAGA | 1997 | 15 |

From the table it can be seen that 6 groups out of the 15 RoSCA groups had between 1 and 5 default cases since formation while 9 of the RoSCA groups had between 6 and 15 default cases reported most of which were spread over the period of ten years. RoSCA groups with longer years of existence had higher default rates than those which had existed for lesser number of years. One notable negative effect of financial assistance that runs across RoSCAs is the loss of savings as a result of inability of members to repay the loans. Members become reluctant to contribute savings thereby killing the capital base of RoSCAs. This leads to general apathy towards group activities leading to members exiting from RoSCAs. However, RoSCAs in Kiserian were found to have had very low default cases. The

rarity of default among these RoSCA groups can be explained by the fact that members fear the social sanctions that can befall a defaulter. Defaulting may result to member's exclusion from the group or taking away defaulters property. Low number of default cases in these RoSCA groups has led to an increase in the capital base of RoSCAs and also explain the increasing positive growth in RoSCA membership in Kiserian location as shown in table 4.9.

4.3.5 Interest Income

Loan records were reviewed in order to find out the amount of interest that RoSCAs charge on loans issued to members. Table 4.11 shows the interest rate charged on loans issued to members in the fifteen selected RoSCA groups.

Table 4.11: Interest Rate Charged.

| Interest charged | Name of RoSCA | Frequency |
|------------------|--|-----------|
| No interest | Mugumo, Nabulu, Comrades, Kirima Kabaga and Olehoro farmers) | 5 |
| Less than 5% | Material Silanga, Milimani, Three in one olteyani, Wonder, Grogan labour, Sauti ya wakulima) | 6 |
| 5% | (Dupotei Eluai,Oyarata, Mwana Wikio | 3 |
| 12% | Kiserian Newborn | 1 |
| TOTAL | - | 15 |

The table above shows that out of the fifteen sampled RoSCA groups, five (Mugumo, Nabulu, Comrades, Kirima Kabaga and Olehoro farmers) charge no interest on loans issued to RoSCA members. Six of the groups (Material Silanga, Milimani, Three in one olteyani, Wonder, Grogan labour, Sauti ya wakulima) charge less than 5% interest. Three of the groups (Dupotei Eluai,Oyarata, Mwana Wikio charge an interest of 5% on loans issued. While one group, Kiserian Newborn was found to charge a relatively high interest of 12%.

The RoSCA groups that charged interest had a component of savings. This means that the association was formed on the basis of building extra capital to boost their financial base for loanable funds. Interest charged basically acted as a means of raising interest income and hence boosting the growth of RoSCAs.

4.3.6 Financial Turnover

RoSCA Financial Turnover was measured in terms of amount (in Kenya Shillings) of maximum loan issued to RoSCA members in the sampled groups. The researcher reviewed loan records of the RoSCA groups' in order to find out the maximum amount of loans issued to members and findings are as shown in table 4.12 below.

Table 4.12: Maximum Loan

| Loan amount | Name of RoSCA | Frequency |
|-------------------------------|---|------------------|
| Upto Kshs 20,000 | Dupotei Eluai, Milimani, Nabulu, Oyarata, Three in one Olteyani and Wonder group | 6 |
| Kshs 20,001 to 50,000 | Material Silanga, Kirma kabaga and Mwana Wikio | 3 |
| Kshs 50,001 to 100,000 | Olehoru Farmers, Grogan labour, Comrades and Mugumo | 4 |
| Above Kshs 100,000 | Kiserian Newborn, Sauti ya wakulima | 2 |
| TOTAL | — | 15 |

Table 4.12 shows that 2 (Kiserian Newborn and sauti ya Wakulima groups) out of the total 15 RoSCA groups lend the highest amount of above Kshs 100,000. These two groups were

found to have the highest amount of annual contributions as can be seen in table 4.8. These findings indicate that groups with higher contributions lend more loans leading to an increase in financial turnover of the groups and hence facilitating further growth of RoSCAs. However RoSCA groups lending loans of less than kshs 20,000 were found to be contributing low amounts of member contribution and hence lowering the financial turnover and growth of these RoSCAs. Therefore, the financial turnover of RoSCA groups in Kiserian Location is dependent on the amount of loans issued which in turn depend on amount of member contributions.

4.4: ANALYSIS OF THE DETERMINANTS OF RoSCA GROWTH

The main objective of this study was to find out the relationship between RoSCA growth and its determinants which include; members level of income, membership, member contribution, and interest income and default rate. These variables were subjected to correlation analysis with the determinants of RoSCA growth as the independent variables and financial turnover as the dependent variable. RoSCA financial turnover was measured by maximum loan amount issued to RoSCA members. When these variables were subjected to correlation analysis, the output was as shown by the correlation matrix in table 4.13.

Table 4.13: Correlation Matrix

| | | MONTHLY INCOME | MEMBERSHIP | MEMBER CONTRIBUTION | MAXIMUM LOAN | INTEREST RATE | DEFAULT RATE |
|---------------------|---------------------|----------------|-----------------|---------------------|-----------------|---------------|--------------|
| MONTHLY INCOME | Pearson Correlation | 1 | .013 | -.024 | .641 | .060 | -.056 |
| MEMBERSHIP | Pearson Correlation | .013 | 1 | -.299(**) | .327(**) | -.069 | .012 |
| MEMBER CONTRIBUTION | Pearson Correlation | -.024 | -.299(**) | 1 | .683(*) | .196(**) | -.032 |
| MAXIMUM LOAN | Pearson Correlation | .641 | .327(**) | .683(*) | 1 | .091 | -.014 |
| INTEREST RATE | Pearson Correlation | .060 | -.069 | .196(**) | .091 | 1 | -.243(**) |
| DEFAULT RATE | Pearson Correlation | -.056 | .012 | -.032 | -.014 | -.243(**) | 1 |

4.4.1: Level of Income and RoSCA Growth

The correlation matrix presented on table 4.13 shows monthly income and RoSCA growth measured by maximum loan, have a strong positive correlation of 0.641. This means that an increase in RoSCA member income leads to an increase in member contributions which results to an increase in maximum loan and thereby increasing the financial turnover of RoSCAs which then increases the growth of RoSCAs. Alternatively, a decrease in monthly income leads to low RoSCA contributions and low maximum loan issued leading to low financial turnover and low RoSCA growth. Therefore, income is an important determinant of growth of RoSCAs in Kiserian Location.

4.4.2: Membership and RoSCA Growth

Results shown on table 4.13 indicate that membership and RoSCA growth have a moderately strong positive relationship with a correlation coefficient of 0.327. This means that an

increase in the number of RoSCA members leads to an increase in RoSCA growth since the more the members the higher the amount contributed and hence the greater the financial turnover of RoSCAs in Kiserian location.

4.4.3: Member contribution and RoSCA Growth

The correlation matrix shows that member contribution relates positively with RoSCA growth with a correlation coefficient equal to 0.683, indicating that when member contribution increases maximum loan also increases leading to an increase in growth of RoSCAs in Kiserian location. Hence RoSCA members should be encouraged to contribute more to RoSCAs so as to increase the lending base and hence facilitate growth of RoSCAs.

4.4.4: Interest Income and RoSCA Growth

Table 4.13 shows that interest rate and maximum loan have a weak positive relationship with a correlation coefficient equal to 0.091. This means that growth of RoSCAs in Kiserian Location is not largely dependent on interest rates charged on RoSCA loans but is more dependent on monthly incomes of members, contributions and membership.

4.4.5: Default rate and RoSCA Growth

Default rate relates inversely with financial turnover. This variable was found to have a correlation coefficient equal to -0.014 indicating a weak negative correlation between the two. This means that a decrease in default rate would lead to an increase in RoSCA financial turnover.

4.5: RESPONDENTS OPINIONS TOWARDS RoSCA GROWTH

The researcher sought to find out RoSCA members opinions towards increasing RoSCA growth. Various statements based on the determinants of RoSCA growth were used to test the respondents' attitudes. The respondents' opinions on the statements were analysed

by computing averages. Averages were computed to determine whether the respondents strongly agreed, agreed, strongly disagreed, disagreed or were undecided about each of the statements. The eight statements were classified into negative and positive statements and then statements from each classification were coded differently.

Table 4.14 shows the respondents attitudes towards the negative statements on RoSCA growth. The mean indicated on the table shows whether on average, respondents strongly agreed, agreed, disagreed, strongly disagreed or were undecided about the given statements. Frequencies and percentages were also computed in order to show the number or the proportion of respondents, who strongly agreed, agreed, disagreed, strongly disagreed or were undecided on the given negative statements. The negative statements were coded as follows 1=strongly agree, 2=Agree, 3=Undecided, 4=Disagree, 5=strongly disagree. The respondents were asked to give their opinion on the following negative statements on RoSCA growth and findings are as indicated on table 4.14 below.

Table 4.14: Respondents attitudes towards negative statements on growth of RoSCAs

| Number | Description Negative Statements | Mean | Mode | Frequency | Valid percent |
|--------|--|------|------|-----------|---------------|
| 1 | I cannot contribute more money than I already do | 3.6 | 4 | 195 | 67.9 |
| 2 | Banks offer loans at lower interest rates than my group does | 3.3 | 3 | 202 | 70.4 |
| 3 | I sometimes don't pay back loans in time | 3.5 | 3 | 144 | 50.2 |

The respondents were asked to give their opinion on the amount of money they contribute in their RoSCA groups. Findings on table 4.14 above reveal that 67.9% of the respondents disagreed with the first statement 'I cannot contribute more money than I already do'. This means that RoSCA members in Kiserian Location are willing to contribute more money than they have been contributing in the past. An increase in the amount of money contributed by the RoSCA members will increase the financial turnover of RoSCAs and hence facilitate growth of RoSCAs in the location.

RoSCA members were asked to give a comparative opinion on the rate of interest charged by banks and that charged by their respective RoSCA groups. Results indicated on table 4.14 show that 70.4% of the respondents were undecided on the second statement 'banks offer loans at lower interest rates than my group does'. The finding that majority of the respondents were undecided on interest rates offered is attributed to the fact that RoSCA members lack information on commercial bank products and services given that majority (84.4%) of RoSCA members do not operate personal bank accounts (table 4.5) and hence are not informed on bank rates and charges.

The respondents were asked to give their opinion on repayment of loans. Responses from the sample of members on the third statement indicated on table 4.14 show that 50.2% of the respondents were undecided on the statement 'I sometimes don't pay back loans in time'. The dire sanctions that befall a defaulter make the thought of default in RoSCAs to be quite infrequent. Many descriptive accounts of RoSCAs stress the rarity of default (Burman and Lambete 1995; Srinivasan 1995). They noted that among RoSCA members interviewed, the question 'what if someone does not pay?' gets little response, as default is unheard of. RoSCA members in this study found the issue of default on loans foreign given the fact that

default cases among respondents were found to be low (table 4.10) this explains why most (50.2%) of the respondents were undecided on this statement on loan repayment.

Positive statements on growth of RoSCAs were coded as follows; 1=strongly disagree, 2=disagree, 3=undecided, 4=agree, 5=strongly agree. Table 4.15 shows the respondents opinions on the following positive statements on RoSCA growth.

Table 4.15: Respondents attitudes towards RoSCA Growth

| Number | Description | Mean | Mode | Frequency | Valid Percent |
|--------|--|------|------|-----------|---------------|
| | Positive Statements | | | | |
| 4 | I always make payments at each meeting | 3.5 | 4 | 144 | 50.2 |
| 5 | It is better to keep my money in the group than a bank | 3.6 | 4 | 195 | 67.9 |
| 6 | A large group is better than a small group | 3.62 | 4 | 179 | 62.4 |
| 7 | Increasing interest rates on loans would improve group performance | 3.61 | 5 | 176 | 61.3 |
| 8 | Those who don't pay back loans should be punished | 3.5 | 4 | 146 | 50.9 |

Respondents were asked to give their opinion on the payments they make in RoSCA meetings. Table 4.15 shows that 50.2% of the respondents agreed with the fourth statement 'I always make payments at each meeting'. This finding shows that RoSCA members feel obligated to make contributions in every meeting since most (50.2%) of them always make

payments at each RoSCA meeting. This finding is further explained by the fact that default cases in this sample of RoSCA members were found to be low as indicated on table 4.10.

RoSCA members were asked to give their opinion on the fifth statement 'it is better to keep my money in the group than in a bank'. Results indicated on Table 4.15 show that 67.9% of the members agreed with this statement meaning that RoSCA members in Kiserian Location prefer to keep their money in their RoSCA groups than in the bank. This finding explains why only 12.9% of respondents in this study had personal bank accounts while a majority (84.4%) of the respondents had no bank accounts as indicated on table 4.5.

Respondents were asked to give their opinion on the sixth statement 'a large group is better than a small group'. Findings presented in table 4.15 show that 62.4% of the respondents agreed with this statement meaning that RoSCA members in Kiserian location prefer large groups to small ones. A large group means increased number of members and member contributions which then increase the financial turnover of RoSCAs.

RoSCA members were asked to state whether increasing interest rates on loans would improve group performance. Sixty one point three percent of the respondents agreed with the seventh statement meaning that increasing interest rates on loans would improve group performance. This means that the amount of interest charged on loans issued to RoSCA members is an important factor in the determination of RoSCA growth. Increasing interest rates on loans would increase interest income earnings and hence increase growth of RoSCAs.

RoSCA members were asked to state whether members who do not pay back loans should be punished. Table 4.15 shows that 50.9% of the respondents agreed with this

statement meaning that those members who do not pay back loans should be punished.

Punishing defaulters would deter RoSCA members from defaulting on payments.

5.1 INTRODUCTION

The general objective of this study was to assess the impact of RoSCA on the growth of the banking services in the ASAN Government Region. This study also presents the summary of findings, especially on the impact of RoSCA on the growth of banking services.

5.1.1 SUMMARY OF FINDINGS

The amount of income a RoSCA member earns from the bank has a positive impact on the growth of banking services. The regression analysis revealed a positive regression of 0.641. This means that for every unit increase in the amount of income of RoSCA members, the growth of banking services increases by 0.641 units. The number of RoSCA members also has a positive impact on the growth of banking services. The regression analysis revealed a positive correlation coefficient of 0.345. This means that for every unit increase in the number of RoSCA members leads to an increase in the growth of banking services.

The amount of money a RoSCA member could borrow from the bank has a positive impact on the growth of banking services. The regression analysis revealed a positive regression of 0.067. This means that for every unit increase in the amount of money a RoSCA member could borrow from the bank, the growth of banking services increases by 0.067 units.

Majority (33%) of RoSCAs in the sample did not have access to the bank's services. This means that the amount of money a RoSCA member could borrow from the bank is low. This means that the amount of money a RoSCA member could borrow from the bank is low.

RoSCA members in Kessu location have a positive impact on the growth of banking services since they have a higher income than other locations. They preferred large transactions and they preferred keeping money in the bank rather than

CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

5.1 INTRODUCTION

The general objective of this study was to analyse the determinants of growth of Rotating Savings and credit Associations in Kiserian location, Ngong Division. This chapter presents the summary of findings, conclusions and recommendations of the study.

5.2 SUMMARY OF FINDINGS

The amount of income a RoSCA member earns highly determines the financial turnover and hence the growth of RoSCAs. Level of income and RoSCAs growth had a positive correlation of 0.641. Therefore member level of income is an important variable in the determination of RoSCA growth in Kiserian Location.

The number of RoSCA members and RoSCA growth have a positive relationship with a correlation coefficient of 0.327. This means that an increase in the number of RoSCA members leads to an increase in RoSCA growth.

The amount of money a RoSCA member contributes determines the lending base of RoSCAs and hence influences the growth of RoSCAs. Member contribution and RoSCA growth were found to have a positive correlation of 0.683

Majority (33%) of RoSCAs in the sample did not charge interest and those that did charged a low interest of less than 5%. This means that the amount of interest income earned in these RoSCA groups is low.

RoSCA members in Kiserian Location have a positive attitude towards RoSCA growth since they were willing to contribute more money than they were contributing, 62.4% preferred large to small groups, 67.9% preferred keeping money in the group than in the

bank, and 61.3% agreed that increasing interest rates on loans would improve group performance.

5.3 CONCLUSIONS

The level of income of a RoSCA member, amount of RoSCAs contributions and RoSCA membership are the most significant variables in the determination of RoSCAs growth in Kiserian Location. The amount of income a RoSCA member earns greatly influences the amount of savings into the group and hence affects the overall growth of the RoSCA. This means that RoSCA growth will increase as the level of income of RoSCA members increases and decrease as the income level of RoSCA member decreases. Income is therefore an important determinant of growth of RoSCAs in Kiserian Location.

The capacity to contribute more to a RoSCA may influence its growth. This is because contributions in RoSCAs are savings which form the basis for lending, therefore the higher the contributions made the higher the lending capacity of RoSCAs and hence the greater the growth of RoSCAs.

High RoSCA membership is an important component of of RoSCA growth. This is because an increase in the number of members in a particular RoSCA will lead to an increase in the total amount of money contributed in the RoSCA. Therefore, the higher the membership the higher the total amount contributed and hence the greater the growth of a RoSCA.

5.4 RECOMMENDATIONS

Given the growth in membership and popularity of RoSCAs in Kiserian location, the study recommends that the government, donor agencies and NGO's should recognize the

economic potential of these groups and include them in their development plans by establishing and financing development projects for the groups. This assistance will boost the income of ROSCA members in Kiserian Location. With increased incomes, these members will increase their contributions leading to an increase in the financial turnover of RoSCAs..

This study recommends that for efficient and optimal growth of RoSCAs in Kiserian Location, RoSCA members should increase the amount of money they contribute in their RoSCA groups. This is because member contributions form the capital base for lending to members and the loans earn revenue in terms of interest income thereby expanding the financial turnover of RoSCAs. Findings on level of income indicate that most (77.3%) RoSCA members in the sample are not poor and hence can be able to increase their contributions.

This study recommends that to ensure that there are no defaulters RoSCAs should be formed on the basis of social relations among individuals. Default cases in such groups are non existent or few. This is because the frequent associations with each other through business or social relations not only facilitate the transfer of information about capacity to pay but also increase the social cost of default. To avoid default members must also provide guarantors who will take on responsibility for failure of a member to pay.

This study recommends that it is important that banks and other financial institutions help registered RoSCA groups by lending money to them so as to uplift their loanable funds and by expert opinion in order to build a strong institution among RoSCA groups in Kiserian.

5.5 SUGGESTIONS FOR FURTHER STUDY

This study uncovers several issues related to RoSCAs that beg investigation. These include;

1. *The impact of government policy on Growth of RoSCAs.* A study should be conducted to establish how government policies, especially those on poverty alleviation and rural development influence the growth of RoSCAs.
2. *The efficiency of RoSCAs in providing financial services in Kiserian location compared to formal financial institutions.* RoSCAs have been found to exist even in areas where formal financial institutions such as commercial banks are established (Ardener, Burman and Loury 1992) However others have argued that RoSCAs are set up as a result of inefficiencies of formal financial institutions in providing financial services (Aryeety and Undry 1997) It is therefore necessary to conduct a study on how these two institutions influence each other.
- 3 *The impact of participation in RoSCAs on individuals' living standard.* A RoSCA is viewed as a means of mobilizing savings in order to purchase some durable good. Hence it is important to find out whether the savings by RoSCAs members improve their standards of living once they receive the fund.

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APPENDICES

APPENDIX 1

QUESTIONNAIRE FOR RoSCA MEMBERS

SECTION 1: DEMOGRAPHIC CHARACTERISTICS

INSTRUCTIONS: Please tick (✓) WHERE appropriate.

1. What is your membership Status?
 - A group official ()
 - An ordinary member ()

2. Level of education.
 - a) Primary ()
 - b) Secondary ()
 - c) Post secondary ()
 - d) University ()

3. Indicate your age bracket
 - a) Under 20 years ()
 - b) Between 20 and 30 years ()
 - c) Between 30 and 45 years ()
 - d) Between 45 and 60 years ()
 - e) Over 60 years ()

4. Marital Status
 - a) Single ()
 - b) Married ()
 - c) Other () Specify.....

5. What is your occupation?
 - Employed ()
 - Self-employed ()
 - Unemployed ()

6. How many are you in your household?
 - a) 3 or below ()
 - b) 4, 5 or 6 ()
 - c) Over 6 ()

7. Do you have a bank account?

Yes () No ()

8. From the following income brackets which one tallies with your monthly earnings?

Less < 2,000 Kshs ()

2,001 – 5,000 Kshs ()

5,001 – 10,000 Kshs ()

10,001 – 15,000 Kshs ()

15,001 and above ()

9. Roughly, how much do you contribute in the group per meeting?

10. Please Circle (O) the number that corresponds to your opinion in each of the following.

| No | Description | Strongly Agree | Agree | Un decided | Disagree | Strongly Disagree |
|----|---|----------------|-------|------------|----------|-------------------|
| 1 | I cannot contribute more money than I already do | 1 | 2 | 3 | 4 | 5 |
| 2 | A large group is better than a small group | 1 | 2 | 3 | 4 | 5 |
| 3 | I always make payments at each meeting | 1 | 2 | 3 | 4 | 5 |
| 4 | Banks offer loans at lower interest rates than my group does | 1 | 2 | 3 | 4 | 5 |
| 5 | I sometimes don't pay back loans in time. | 1 | 2 | 3 | 4 | 5 |
| 6 | Increasing interest rates on loans would improve group performance. | 1 | 2 | 3 | 4 | 5 |
| 7 | Those who don't pay back loans should be punished | 1 | 2 | 3 | 4 | 5 |
| 8 | It is better to keep my money in the group than in a bank | 1 | 2 | 3 | 4 | 5 |

APPENDIX 2

QUESTIONNAIRE GUIDE FOR REVIEW OF ROSCA RECORDS

Member Contribution

1. How much does a member of this group contribute in each meeting per /per month?
Kenya shillings.....
2. How much money has this group been contributing annually since it was formed?
3. How often do members in this RoSCAS group make their contributions? (daily, weekly, fortnightly or monthly)

Membership

4. What is the annual membership of this group since the year of formation?
5. How many members have left the group in the last one year?
6. How many members have joined the group in the last one year?

Default rate

7. How many cases of default has this group had since it was formed?
8. What action do you take in cases of default by group member(s)?

Interest income

9. How much interest do you charge on loans issued to RoSCA members?.....%

RoSCA Financial Turnover

10. What is the maximum amount of money a RoSCA member can be loaned?
Kshs.....

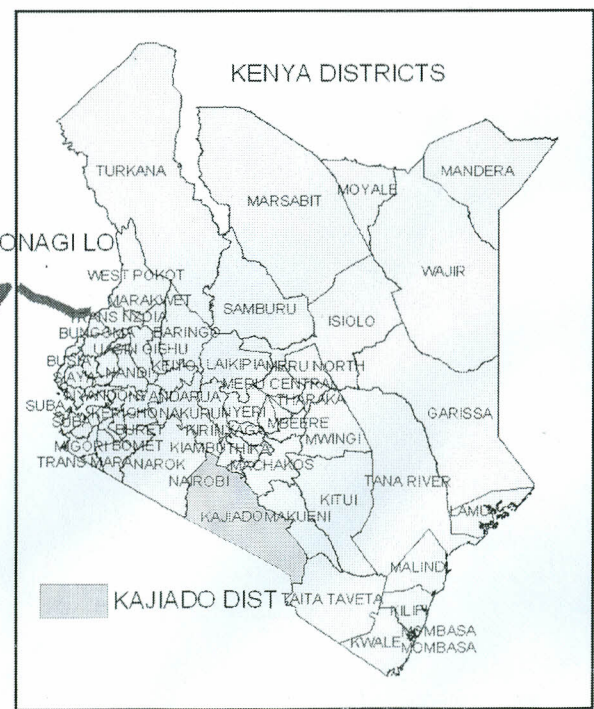
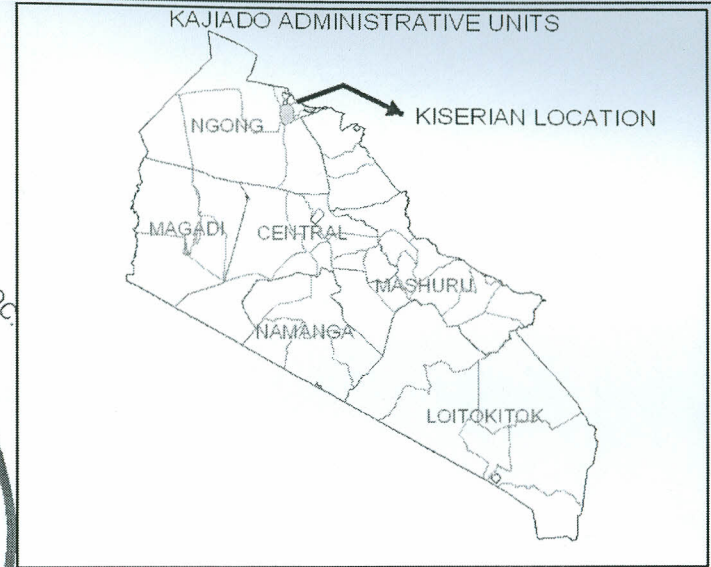
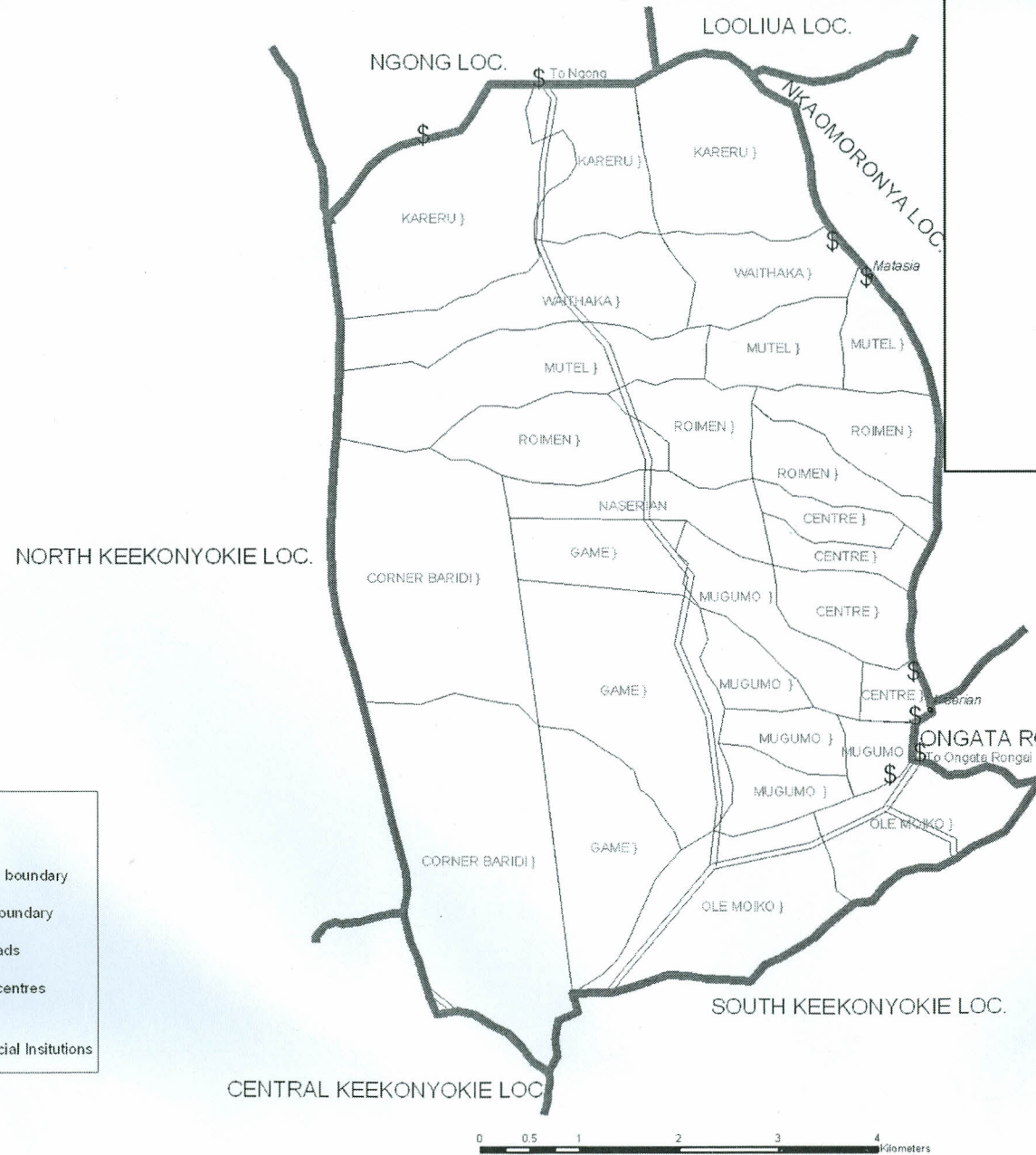
APPENDIX 3

LIST OF RoSCA GROUPS IN KISERIAN LOCATION (1996 -2005)

| NAME OF GROUP | MEMBERS | | MEMBERS |
|----------------------------------|------------|----------------------------------|-------------|
| WOMEN GROUPS | | MEN GROUPS | |
| 1. AMANI WG | 15 | 1.BARBERS | 15 |
| 2. DUPOTEO ELUAI | 15 | 2.COMRADES | 15 |
| 3. GATAMBAA WG | 30 | 3.GROGAN LABOUR | 42 |
| 4. HAPPY SISTERS WG | 25 | 4.KIRIBIBURU | 42 |
| 5. KESARUNI WG | 39 | 5.KIRIMA KABAGA | 40 |
| 6. KISERIAN MAEKA WG | 20 | 6.KISERIAN CYCLING | 12 |
| 7. KISERAN MERCIFUL | 32 | 7.NASERIAN | 15 |
| 8. LIGHT | 10 | 8.OLOLUA | 40 |
| 9. MATASIA ACTIVE | 34 | 9.OSILINGI LANYUAK | 30 |
| 10. MATERIAL SILANGA | 30 | 10. UMOJA TRADERS | 17 |
| 11. MILIMANI | 20 | TOTAL | 268 |
| 12. MUGUMO | 40 | MIXED GROUPS | |
| 13. NABULU | 45 | 1.FIRST KISERIAN | 40 |
| 14. NAMAYAN | 30 | 2. ILORETO | 15 |
| 15. NEEMA | 15 | 3.KISERIAN NYAKINYUA | 17 |
| 16. OLOCHEPO | 63 | 4.KISERIAN TOWN WELFARE | 33 |
| 17. OLOMUNYAK | 16 | 5.KISERIAN NEW BORN | 39 |
| 18. OLOSERIAN | 19 | 6.KOIKAI HONEY | 30 |
| 19. OSOTUA | 16 | 7.MWANA WIKIO | 10 |
| 20. OYARATA | 20 | 8. NANANA COMMUNITY HEALTH TEAM | 21 |
| 21. SESERANI | 20 | 9.NEW SHG | 26 |
| 22. SHINE B | 17 | 10. OLEHORO FARMERS | 12 |
| 23. SHINERS | 30 | 11OLMAREI ODUPAI | 21 |
| 24. THREE IN ONE OLTEYANI | 30 | 12.SAUTI YA WAKULIMA | 15 |
| 25. WONDER | 9 | 13.SANGO | 24 |
| TOTAL | 640 | 14.UPPER MATASIA | 27 |
| | | 15.UPPER MATASIA GOOD NEIGHBOURS | 8 |
| | | TOTAL | 338 |
| NUMBER OF GROUPS | 50 | NUMBER OF MEMBERS | 1246 |

*Source: Department of Social Services, Ngong Division.

KISERIAN LOCATION: Study area



Legend

- Location boundary
- Village boundary
- Other roads
- Trading centres
- Formal Financial Insitutions

