

A STUDY ON OPERATIONS AND IMPACT OF ROTATING SAVINGS AND CREDIT ASSOCIATIONS: CASE OF MIDDLE INCOME EARNERS IN EMBAKASI NAIROBI, KENYA

Peter Kimutai Cheruiyot

Senior Lecturer, School of Business & Economics, University of Kabianga, Kenya
cheruiyotpeterkimutai@yahoo.com

Jane Kositany Cheruiyot

Ph.D Scholar, Kisii University, Kenya
& Lecturer, Daystar University, School of human and Social Sciences, Kenya
kosymemmoi@yahoo.co.uk

Charles Kiprotich Yegon 

Ph.D Scholar, Jomo Kenyatta University of Agriculture and Technology, Kenya
& Lecturer, School of Business and Economics, University of Kabianga,
Kenyachkyeg@gmail.com

Abstract

The study examined the operations and impact of rotating savings and credit organizations on the lives of middle income earners. Therefore, its contents covered introduction that dealt with trends research provides literature currently available on organisations and it assesses the impact of the organizations by analyzing how the members use their funds to enable them acquire financial assets, physical assets, human assets and social assets. Data from 57 groups located in Savannah Ward of Embakasi indicates that ROSCAs operations vary from group to group depending on the agreements by the members. The study indicates that ROSCAs had an impact in lives of middle income earners and it had enabled them acquire financial assets, physical assets, human assets and social assets. In addition the research also showed that the organizations also had an impact on money management since members also used the funds to meet current expenditure.

Keywords: Rotating savings and credit, Lump-sum payment, Informal sector, Funding, Kenya

INTRODUCTION

The overwhelmingly important issue facing the Kenyan savers when they manage their money is that of building usefully large sums of cash out of their uncertain capacity to save. The main reason that for most Kenyans income comes in small amounts, and most of it goes out again immediately in day-to-day expenditure. But there are, surprisingly often, many occasions when they need lump sums of cash that are large in relation to the sums they hold in their homes or about their persons for instance for their businesses. These needs arise from common life-cycle events, from emergencies, and from the appearance of opportunities to buy assets or invest in businesses. Three main ways of converting savings into lump sums are proposed as follows: saving up, saving down (taking a loan as an advance against future capacity to save) and saving through (making a continuous set of deposits which are converted into a lump sum at some point in time during the flow for instance insurance cover where savings take the form of premiums paid and converted to a lump sum when a claim is made and it is also the basis of ROSCAs where an individual agrees to a schedule of periodic payments in return for which she receives a lump-sum payment at a future date.

There is evidence of extensive and increasing use of informal sector financial group mechanisms in Kenya (Johnson, 2002). Apart from saving at home ROSCAs are maybe the most dominant and popular forms of informal savings in the world (Arderner, 1996) ROSCAs are locally organized groups of about 5 to 30 members that meet at regular intervals; at each meeting members contribute funds that are given in turn to one or more of the members. Once every participant has received funds, the ROSCAs can be disband or begin another round. In joining a ROSCA, an individual agrees to a schedule of periodic payments in return for which she receives a lump-sum payment at a future date. ROSCAs often pay no interest and participants may have little or no control over when they receive the funds. Participants also bear the risk that other participants may not fulfill their obligations (Gugerty, 2003). The order of which members get the “prize” (lump sum generated by ROSCA) can be predetermined, can be determined at each round, as a result of lottery or determined by auction (Rutherford, 1999). Every Rosca must make a number of decisions regarding organizational design, including how to make payments, allocate the pot to participants, and how to balance the size of the contribution, the number of participants, and the frequency of contributions.

The description given above for ROSCA allows the inclusion of a wide diversity of groups and excludes a great variety of savings and credit associations that do not exemplify the principal of rotation. In a research carried out in Uganda a few ROSCAs were identified that fell somewhere in between ROSCAs and ASCAs (operating usually like the former but with a credit facility from a small periodic contribution in addition to and separate from the normal rotating

fund). The money they lend usually comes from a “purse” held by the group leader or other executive member. This money is separate from the normal rotational fund and can come either by direct agreed contribution or from the proceeds of some activity organized by the group. The respondents identified this component as a good source of interest income for these groups where interest is shared out among members at given intervals. However, it is probably more appropriate to describe these arrangements as ROSCAs with an “Emergency Fund” than ASCAs. This fund will grow through contributions but not necessarily from the profits brought in from money lent.

ROSCAs are popular among the poor and in fluctuating economic conditions but they also thrive in some relatively affluent economic strata (Ardener, 1996). Rotating savings and credit associations are among the oldest and most prevalent savings institutions found in the world and play an important role in savings mobilization in many developing economies (Gugerty, 2003). They have their roots in the traditional mutual guarantee system. ROSCAs are especially popular in East Africa (Rutherford, 1999). However the actual number of ROSCAs in Kenya is not known, (Kibaara, 2006).Gugerty (2003) identified that people join ROSCAs because;

- First, most ROSCAs participants report that they join ROSCAs in order to commit themselves to saving, that is “to get the strength to save.” A key feature of ROSCAs is the public nature of deposits and the inability to withdraw funds once they have been deposited.
- Second, participants do not always value earlier positions in the ROSCAs allocation more highly; implying credit is not the reason for joining a ROSCA. Members may join ROSCA for instance due to social benefits derived.
- Third, ROSCAs monitor and enforce an individual’s payments to herself as well as her payments to the group. Every member of the group is motivated to continue contributing so that during their turn they may get some money as well.
- Finally, many ROSCAs participants “bind their hands” through the use of a pre-commitment mechanism in which participants, agree in advance on how they will use their funds and the group monitors the individual to ensure that she honors her commitment.

ROSCAs are ideal systems for disciplined saving towards a specific goal, particularly if the goal is cyclical or recurrent. However the cyclical nature of ROSCAs tend to make them poorly equipped to respond to the need to store money for the short term, the need to build up larger

sums of money, the need to meet unpredicted emergency needs and changes in ability of the members to save (either due to reduced capital due to issues or an increased ability due to a windfall.)

There is no clear-cut descriptions of who the poor, the not so poor (Middle income earners) and the rich might be nevertheless in carrying out a study in Kenya, Rutherford (1999) identified the following;

The rich... Have cars, houses and 'excess' money: but they fear being attacked

The not-so-poor... Have sources of money but these are 'unstable': they have just enough money to buy essential things. They work for the government, or are fishmongers, etc

The poor... Have very small stalls selling small stocks of vegetables and

The very poor...Have very small stalls with stocks worth less than \$2. They lack self-confidence. They do not own any land.

ROSCAs have been known to succeed where the other players for instance banks, SACCOs, MFIs in the market have not managed. Rutherford (1999) identified that MFIs can improve their products using for instance, ROSCAs disciplined savings techniques to give loan to its members. K-rep for instance adopted a lending strategy known as The Chikola Methodology. Chikola is a mijikenda word for ROSCAs. K-rep realized the potential of ROSCAs particularly in saving mobilizations component and thus used it to form this new lending strategy. This lending strategy has improved the loan performance for K-rep drastically (Mwaniki, 2001).

Evidence from Central Province indicates that women regularly make use of merry-go-rounds (ROSCAs) with 45% participating in at least one and some using as many as five. ROSCAs are thus a preferred method of saving by many Kenyans (Kimuyu, 1999; Johnson, 2002). Not only do ROSCAs flourish currently, the discipline of regular contribution paying ROSCAs may have enabled new forms of financial management to emerge. For instance, in India they have been said to provide ideas for the establishment of credit unions (Ardener, 1996).

Financial management is the key to success of any financial institutions. Financial management though practiced on a small scale is practiced by ROSCAs. Financial management is the managerial activity, which is concerned with planning and controlling of the resources of organizations. Finance functions include the raising of funds investing them and distributing returns earned from assets to shareholders these are respectively known as financing, investment and dividend decisions.

Statement of the Problem

Extensive research has been done on ROSCAs however the studies have been specifically done for ROSCAs for poor people especially by institutions such as MicroSave. However there has not been sufficient study in ROSCAs participation by the other categories of persons for instance the not so poor and the rich. This research sought to find out how the operations ROSCAs for middle-income earners were carried out. This was essentially determining how the financing function was carried out in ROSCAs. To be able to determine the impact of a financial service it was important to determine how the financial service (in this case being the ROSCA) improved the client's capacity to manage and control and build up their asset base to protect against and cope with risks, (Barnes, 1996). 5 variables were identified in her study they include financial assets, physical assets, human assets and social assets. This research will seek to determine the impact ROSCAs on the lives of the middle income earners.

The research will also seek to determine what social benefits are derived from being in a ROSCA. This will be necessary so as to determine the overall impact of the ROSCA apart from providing financial services.

Research Objectives

The main objective of the study was to determine the operations and impact of ROSCAs in the lives of middle- income earners in Embakasi Sub-Constituency. The study was further guided by specific objectives which are to;

- i. Establish the method of identifying the next recipient in the ROSCA in Embakasi
- ii. Determine the usage of the acquired funds
- iii. Assess investment assets of the members of ROSCAs in Embakasi
- iv. Examine the social benefits enjoyed by the members in participating in the ROSCA

Research Questions

- i. How does the group identify the next recipient in the ROSCAs?
- ii. How does the acquired funds use?
- iii. What type of assets do the members invest in?
- iv. What are the social benefits that members enjoy in participating in the ROSCAs?

Justification for Study

Research shows that ROSCAs are a preferred method of saving by Kenyans yet majority of these institutions are not registered this implies that the affairs of the association are not

monitored by external parties the research will thus show how ROSCAs have managed their finances to ensure their success.

It will provide useful information to other players in the market for instance Kenyan banks who can offer intermediation services to these associations thus tapping into enormous amounts of wealth. The research will provide useful information to institutions of learning that may want to offer financial management skills to managers of ROSCAs.

AN OVERVIEW ON SAVINGS

Savings are defined as that portion of income that is not spent on consumption. It is making a choice not to consume cash it is thus the fundamental step in money management, without which financial services cannot operate.

Ways used by the people to save.

In a report by Rutherford et al (1999), several ways in which savings can be built into usefully large sums of money were identified but, but they fall into three main classes, which are:

1. **Saving up.** Savings are accumulated in some safe place until they have grown into a usefully large sum. Some people but especially many poor people lack a safe and reliable opportunity to save up. As a result, they may be willing to accept a negative rate of interest on savings, in order to be able to take deposits safely.
2. **Saving down.** In this case an advance against future savings. The savings then take the form of loan repayments. Many urban moneylenders offer this service at high cost. MFIs like PRIDE in East Africa offer a similar service but do so at a lower cost and with greater reliability.
3. **Saving through.** In this third case savings are made on a continuous and regular basis, and a matching lump sum is made available at some point in time during this flow of savings deposits. The services offered by insurance in which case the savings take the form of premium payments. "Saving through" is also offered by many forms of savings club, including, notably, rotating savings and credit associations, or ROSCAs (known in East Africa as merry-go-rounds or cash-rounds.)

Reasons for saving

Wright et al (2001) examined 9 reasons why people save were identified

- Precautionary Motive: to build up a reserve against unforeseen contingencies
- Lifecycle Motive: to provide an anticipated future relationship between the income and the needs of the individual

- Inter temporal Substitution motive: to enjoy interest and appreciation
- Improvement Motive: to enjoy gradually increasing expenditure
- Independence Motive: to enjoy a sense of independence and the power to do things, though without a clear idea or definite intention of specific action.
- Enterprise Motive: to carry out speculative or business projects
- Bequest Motive: to bequeath a fortune
- Avarice Motive: to satisfy pure miserliness (i.e. unreasonable but insistent inhibitions against spending money.
- Down payment motive: to accumulate deposits to buy houses, cars and other durables.

The Kenyan Financial Sector

The financial sector is organized into three categories which are:

- The formal sector: - This consists largely of banks, insurance companies and registered co-operatives, which have developed over time.
- The semiformal sector: - Consist largely of Microfinance institutions (MFIs)
- The informal sector: - consists of ROSCAs, ASCAs

Rutherford (1999) identified that Accumulated Savings and Credit Associations (ASCAs) is a saving mechanism where the cash are allowed to accumulate rather than be liquidated at each meeting like in a ROSCA. The sums collected are invested or on lent against interest during the cycle, thus yielding a net return to members' savings: the contributions can also be used to finance a collective activity of common concern. ASCAs lack the clarity of ROSCAs and so need more management skills if they are to run well. They suffer more fraud and are not as common as ROSCAs. If the fund is too small to attract a borrower, it must be stored temporarily.

Rotating Savings and Credit Associations

According to Baden (1996) members within a ROSCA tend to be having relatively similar economic standing. Members tend to belong to more than one ROSCA with each serving different financial needs short term ROSCAs to generate small amounts and longer term ROSCAs to yield larger prizes. Majority of ROSCA users tend to be women although many ROSCAs also include men. Women's high level of participation is partly explained by the forced savings pressure of ROSCA.

Brief History of Rotating Savings

The institution of rotating savings is ancient; dating back at least to the 16th century, when Yoruba slaves carried it to the Caribbean, as part of their social capital. Both the term `esusu` and the practice have persisted to this day, as esu in the Bahamas, susu in Tobago or sou in Trinidad. Among the Yoruba in Nigeria today, there is hardly a single adult who is not a member in one or even several esusu, numbering anything between two and several dozen or even hundreds of members. The institution exists all over West Africa as well as in many other parts of the world, where it is an integral part of the local micro economy and referred to with its own vernacular term. In Kenya they have varied names for instance Itega (Kikuyu), Chikola (Mijikenda).

These ROSCAs have been open and flexible adapting to varying circumstances as appropriate. For instance, in a first phase, a rotating work group may offer its services for a wage and allocate the total to one member at a time. In a second phase, it may abandon the rotating pattern by keeping the income in a joint savings fund for emergencies, joint activities or distribution at the end of the year. In a third phase, it may turn itself into a credit association, using the savings as a permanent fund for providing loans to members. In a fourth phase, as the financial volume increases, the lending becomes commercialized as indicated by high interest rates and insistence on collateral. In this phase, income interest payments become the main form of internal savings mobilization.

Types of ROSCAs

There exists a big diversity in ROSCA's identified by various researchers. One could further distinguish between:

- i. Rotating savings association: each member pays a fixed amount at regular intervals; one member receives the total amount at a given time; when the cycle ends a new cycle begins;
- ii. Rotating savings and credit association: each member pays a fixed amount at regular intervals and part of the contribution is allocated to one member at a time; another part is put into a general fund for loans;
- iii. Non-rotating savings association: each member pays a fixed or variable amount at regular intervals. The contributions are deposited and paid back to the individual at the end of the stipulated period.
- iv. Non-rotating savings and credit association: each member pays a fixed or variable amount at regular intervals. The income generated by the association (from contributions, interest, fees, etc.) are put into a fund, which may be utilized for loans, insurance or social services.

Characteristics of ROSCAs

Characteristics include

- In these savings-led models 5 to 20 member's self-select group.
- The ROSCA members will make their own rules (e.g. leadership and management,

Frequency of meetings, interest rates, repayment conditions, etc.)

- The group collects daily, weekly or monthly savings
- The administration and management is the responsibility of the group.
- Some of these groups don't have a repayment component: they only collect savings, and allocate the weekly or monthly savings to one member. Members take turns receiving the money (it rotates).

Group formation:

- The model should build upon existing groups in community
- Groups members should have similar social and economic background

Internal ROSCA system:

- The members design the savings and loan rules themselves
- The system should be transparent, in order to prevent fraud
- Groups should be self-liquidating and come to an end naturally
- Should be an efficient form of financial intermediation
- Group should be self-auditing
- All members should get back the money they put in

Sustainability:

- Depends on the coercive power of social sanctions
- Depends on the repeated participation of ROSCA participants and their ability to develop powerful internal rules that encourage discipline

Coping with inflation and disruption:

Important element in determining success or failure of ROSCA is the impact of inflation, of a sudden financial crisis or recession or social disruption for instance war. It is then that default may become overwhelming. Strength of ROSCA is that

- It permits some flexibility.

- It frequently can meet challenge of acute financial pressure, recession or inflation for instance rotation periods may be extended for everyone by increasing periods between payment thus allowing more time for collection of dues or payment may be postponed for a period for instance in Ghana in 1980's due to implementation of structural adjustment programs.
- Seasonal adjustments can be made for instance over Christmas or Diwali celebrations or when a school fee has to be made.

Default

Disgrace and humiliation, which can fall on a defaulter, is much feared. Loss of trustworthiness leads to exclusion from participation in ROSCA particularly where they are securely embedded in local social and economic system. This leads defaulters to great extent to try and make their contributions for instance borrowing from moneylenders, friends just to make the payment.

The stability of many if not all of the members of the ROSCA is to ensure that there are no defaulters. Thus members also go to great extent to ensure that payments are made.

Reasons for Saving in the Informal Sector

According to Adams and Fitchett, (1992) this is a very vibrant financial sector than the formal financial sector. The reasons given for this preference include;

- Ability to make small daily deposits
- An unwavering discipline because nonperformance is quickly punished and borrowers have to earn their money through adherence to the system
- Savings is the basis of transactions which are not subsidized by outside cash
- Reciprocity is often a strong basis for financial transactions
- Low cost of transaction especially on the part of the borrower
- Financial innovations engender flexibility, speed and suppleness
- Service providers have close proximity to the clients among other reasons

Benefits of joining a ROSCA include

- High level of commitment to contribute and repay
- Social occasion / purposes
- Individual benefits
- Saving money
- Quick access to money of large sums and easy withdrawal

Disadvantages of ROSCAs may face include

- Dependency on continued participation of members
- Fails if people cannot rely on each other
- Fixed monthly contribution (possible obstacle for people without any regular income)
- Largely inflexible and unresponsive to emergency needs (although this is sometimes managed through auctioning or swapping the prize or by adding an ASCA component)
- ROSCAs make very poor long-term savings instruments because ROSCAs with longer cycles are less likely to complete cycle.
- Credit advances very short term.
- The ones who get the lump sum first gets an interest free loan at their fellow member's expense.

Management of ROSCAs

Rutherford (1999a) identified four ways in which users of ROSCAs decide the order in which the lump sum is going to be taken

- Prior arrangement
- Agreement at each round
- Lottery
- Bidding for the lump sum (Auction ROSCA)

Prior arrangement

In this system the position one in the ROSCA is determined before the ROSCA begins. This type is particularly appropriate where the intention is to run the ROSCA one after another. After a few cycles, unfairness in the order shrinks in to insignificance. It is simple since no other decision is made about the order of disbursement other than the first one. The members then do not have to meet each time the lump sum is taken.

Agreement at each round

This is used especially where members are well acquainted with one another. A fresh decision is made about who gets the lump sum at each round usually on the basis of who needs it most. There are very few ROSCAs of this type because of the difficulties of determining who needs it most without recourse to the price mechanism and the risk that the more articulate will manipulate the process. This method is however very common where a ROSCA is initiated by someone who suddenly needs a lump sum and who gets friends to join in. The person gets the

lump sum first and accepts responsibility for management of subsequent rounds until the ROSCA finishes.

Lottery

The lottery avoids the issues of any perceived unfairness in the order in which the lump sum is taken, or of comparing risks by leaving the order to chance. Typically names are drawn out of a 'hat' (or the local equivalent). Every member's name goes to the hat in the first round but winners are excluded from the lotteries of subsequent rounds. At the last round no lottery is needed since only one remaining member has not received the lump sum. Friends may agree to 'swap' their luck where one member has a pressing need than another or one member may even 'buy' another member's lucky draw.

Bidding for the lump sum/Auction

This is where a market is set up to decide who should take the lump sum at each round. This allocates cash to the member who most values it at the time while at the same time compensating others richly for their patience. It benefits both the borrowers and the savers. It also arranges them in a serial order with those who are most in need to borrow and arranges them in serial order with those who most need to borrow taking the lump sum at the beginning and those most content to save taking it at the end.

This is how they work. Imagine a twelve-person ROSCA that meets monthly with each member contributing \$10 (that is twelve 'rounds' for a twelve month 'cycle'). At each round \$120 is available as the lump sum. At the first round those members in immediate need of cash choose to bid for the lump sum. Let us say that five members want the money, but the one who most wants it is willing to bid \$24, and wins. She then takes \$96 of the lump sum (\$120 minus 24), while her bid of \$24 is given back, in equal shares, to each of the twelve members, who walk off with \$2 each (thus making a net contribution of only \$8 that month). As the rounds proceed, the size of the winning bid tends to diminish, since there are fewer members remaining.

Classification of Assets

Barnes (1996) identified that assets may be acquired and held for a variety of reasons. The composition of a household or other unit's stock of assets reflects its strategies for maximizing their wellbeing both present and future. Such strategies take into account income generation, production for internal consumption, need for liquidity or financial savings, and attitudes toward

risk. An asset may be acquired because it meets one or a combination of these. The following are example of assets that may be acquired and their classification.

Financial Assets:

These will be financial assets acquired primarily through the financial service provided by the ROSCA. Examples include cash, savings accounts, deposit/checking accounts and interest earnings loans and gifts (that contain the explicit agreement of repayment) financial instruments such as bonds, working capital for business, purchase of productive assets for instance sewing machines, fridges, beauty saloon equipment, accounts receivable loans, switching business activities, building up savings, establishing insurance mechanisms for instance using the money to acquire assets that can be used to build up defense against future crises

Physical Assets:

This include owning houses, TV, land, rental units, bicycles, buildings and land, and improvements to these livestock permanent crops and trees with marketable crops or value other physical items which maintain or increase in value such as gold jewelry physical items that decrease in value; consumer durables such as household appliances, shoes and clothing, vehicles

Human Assets:

This include children education, family health care, skills and knowledge labor inputs self-esteem, bargaining power, autonomy, control over decisions management improved work discipline, increased business/household budget planning and financial management skills

Social Assets:

These are benefits above and beyond allowing members access to financial services. They include; learning new skills from the group, different roles within the group induce individuals to pick up new skills for instance public speaking, increased respect from the husband, increased influence over decision making, and expanded web of business relationships.

To summarize, ROSCAs are a preferred savings technique especially in East Africa. Extensive research has been carried out on ROSCAs as a player in the informal sector and especially as a saving used technique for the poor. According to Adams and Canavesi de Sahonero (1989), the most likely ROSCA subscribers in developing countries can be found among white-collar workers in large cities. However little research has been carried out on ROSCAs that are used by middle-income earners in Kenya and evidence shows that it is also a

common method of savings used by people in this group. ROSCAs have been known to succeed where other financial institutions have failed. The research will seek to find out how the ROSCAs carry on their financing. Do they prefer to contribute daily weekly, monthly and what system do they use to run their ROSCA using the 4 methods identified by Rutherford (1999a). How do they use the funds acquired and in addition to financial benefits what social benefits are gained by joining the group? This research will thus determine the impact of ROSCAs for middle and high-income earners.

METHODOLOGY

Research design

The research design used to obtain data was a survey this was because the population to be interviewed was too large. The sample survey attempted to collect data from members of the population and to describe the existing phenomena. The advantage of the survey is that it leads to a reduction in terms of time and labour hours spent.

Population

The population for the study was all ROSCAs for middle-income earners in Embakasi Sub-County. The region was chosen since it was the largest constituency in Nairobi with an average of 70,000 registered voters. The study was carried out in the Savannah Ward of the constituency, which had about 2,500 members who were considered middle-income earners. Characteristics that determined middle-income earners were anyone who received an income of more than ten thousand.

Sample and Sampling technique

Random sampling was used to collect the data. This avoided having a sample with same characteristics, facing the same issues or facing no issues at all. The sample was big enough to ensure good conclusions. The actual number of ROSCAs in Kenya was not known however for the study 100 ROSCA participants were selected. The questions were targeted to any member of the ROSCA. 57 respondents participated in the study.

Data collection procedures

The data collection method used was personal interviews. The interview questions were made up of both structured and unstructured ones. Structured questions involved the use of a set of predetermined questions. Unstructured questions on the other hand were characterized by a flexibility approach of questioning. They do not follow a system of predetermined questions.

Data analysis and presentation

Once data was collected it was compiled and presented. Data analysis included the use of both qualitative and quantitative analysis. Descriptive statistical data methods used included percentages, frequencies and mean. Data findings were presented using tables and charts for ease of interpretation.

ANALYSIS AND FINDINGS

The study was carried out to determine the operations and impact of ROSCAs in the lives of middle- income earners. The study was carried out in Savannah ward of Embakasi constituency. Random sampling technique was used. 100 people were sampled and 57 respondents agreed to participate in the study. 1 respondent did not complete the interview.

Operations of ROSCAs

The section below reveals the findings on the operations of ROSCAs.

Participation in ROSCAs

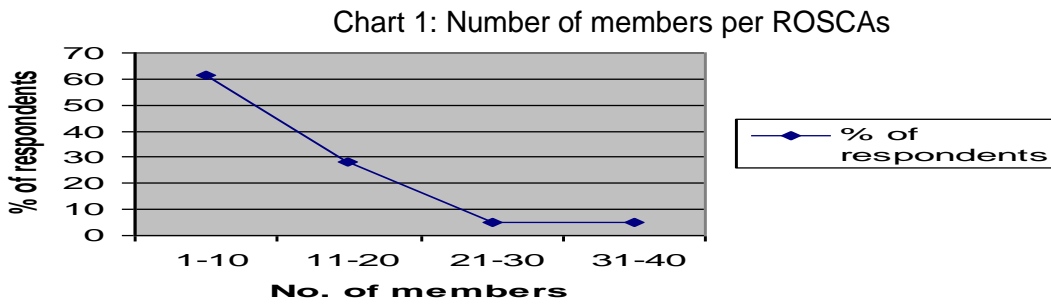
Table 1 shows that majority of the respondents (74%) participated in 2 or less ROSCAs. Majority of the business owners were in more than 2 ROSCAs. For those with more than one, each ROSCA served a different purpose for instance one ROSCA was used for business purpose, another to meet friends and another for the location.

Table 1: Respondents participation in ROSCAs

No. Of ROSCAs	No of respondents	%of respondents
0 to 2	42	74
3 to 4	10	18
5 to 6	4	7
More than 6	1	2
Total	57	100

Members in ROSCAs

Chart 1 below shows that over 60% of the ROSCAs were comprised of 1 to 10 members. This showed ROSCAs preferred having fewer members in the group. This was intended to reduce the likelihood of default since number of members determined how long the cycle was going to be. The calculated average number of members per ROSCA was 11 months.



The nature of composition

Table 2 reveals that the age group location and profession/trade were the most common natures of the composition of the ROSCA while other natures of ROSCA participation were the least common. Examples of other natures of ROSCAs were religion based ROSCAs, mixed groups for instance location and age group combined. Locational ROSCAs were the most common having 35% of the respondents. This may imply that ROSCAs were more common among people living in the same area due to convenience especially when organizing for the meetings. These groups tended to have a social objective.

Table 2: Nature of ROSCAs

Nature of ROSCAs	% of Respondents	No of Respondents
Age group	25	14
Location	35	20
Profession	28	16
Others	12	7
Totals	100	57

Frequency of Contribution

Table 3 shows that monthly ROSCAs were most prevalent having 67% of the respondents. This may be explained due to the institutional arrangements for instance salaries were paid monthly or businesses determined cash they will use to restock monthly. This may also be due to the fact that members of the ROSCA had to meet during disbursements. This somehow confirmed that monthly meetings were more convenient.

Table 3: Frequency of contribution

Frequency of Contribution	% of respondents	No of respondents
Daily	4	2
Weekly	26	15
Monthly	67	38
Others	4	2
Total	100	57

Contribution

Table 4 reveals that 80% of the respondents contributed shs1, 000 or less to the ROSCAs. This shows that ROSCAs were used for saving small amounts of money. Total amounts disbursed during the cycle (determined by multiplying the number of members in the group times the amount contributed) ranged from Shs 1,800 to 100,000. This showed that ROSCAs were not very efficient in assembling large amounts of money.

Table 4: Contribution Range

Contribution Range	% of respondents	No of Respondents
0-500	40	23
501-1000	40	23
1001-1500	16	9
1501 and Above	4	2
Total	100	57

Determination of who gets funds

Table 5 reveals that auction ROSCAs were not common. This is similar to a previous study by Ardener and Burman (1995) that the use of such auction mechanisms in African ROSCAs appeared quite limited.

The study, as shown in table 5 below, revealed that the most common way of determining the person who gets the money was the lottery method where at the beginning of the ROSCA, numbers were written on pieces of papers and each member picked a paper that had a number. This number determined the order in which the members would receive the prize or lump sum paid out by the ROSCA. This method was preferred since it reduced biasness.

Other ways of running the ROSCA were determined depending on who needed it most. Predetermined ROSCAs identified were similar to those identified by Rutherford (1999a) in Bangladesh since they tended to be initiated by one person who got the amount saved first and the rest would then follow. Also common for ROSCAs was that the person would get the funds depending on when they joined the ROSCA. These ROSCAs were initially started by a group of people who would then admit new members to the group. The last member to join the group would be the last to get the funds.

The fact that most members know when they were going to get the funds at the beginning of the ROSCA cycle means that insurance was not a reason of joining the ROSCAs since they were unable to access funds when needed through a bidding or auction mechanism. They had other reasons for joining the ROSCA.

Table 5: Determination of who gets funds

Method of running ROSCA	% of Respondents	No of Respondents
Predetermined	14	8
Determined at each round	26	15
Lottery	54	31
Auction	0	0
Others	5	3
Total	100	57

Source of funds for saving

Table 6 reveals that 74% of the respondents got funds for saving from businesses. This implied that 74% of the respondents were business people. ROSCAs were therefore a preferred means of saving up by businesses people. Business people said that ROSCAs were very good for their businesses since there was no other way to save up to restock the business unless one was compelled to save up using the ROSCA. The ROSCA reduced the propensity to spend business money. Money received from the ROSCA was then used to restock the business or for personal use.

Table 6: Sources of funds for saving

Source of funds to Save	% of Respondents	No of Respondents
Employment	25	14
Business	74	42
Finance	0	0
Others	2	1
Total	100	57

Length of cycle

The minimum period for the cycle was 20 days and the maximum period was 40 months. Table 7 shows that 74% of the ROSCAs had a cycle of less than 10 months. This implied that most ROSCAs were yearly since the members got the funds only once a year. 96% of the respondents had a cycle of between 0 to 20 months implying that ROSCAs were short term saving tools. The calculated mean period was 8 months. The most common length of the cycle (the mode) was 10 months.

N/B: Data for length of cycle was collected in days, weeks and months. However for analysis purpose, the length of the cycle was converted into months.

Table 7: Length of ROSCA cycle

Length of cycle in months	% of respondents	Frequency of contribution
0-10	74	42
11-30	23	13
21-30	2	1
31-40	2	1
Total	100	57

Use of funds

The question was first phrased in an open-ended manner: “How do you use the funds from the ROSCA?” The study showed that ROSCA participants used funds for more than one purpose. Uses of the funds included paying school fees, restocking of the business, paying for further education, buying building materials for a house, meeting current expenditure for instance to buy clothing or food, having their hair done (for the ladies) and buying household goods. The question was subsequently re-phrased to ask the respondent to choose the most important use of the funds. The most frequent response was the use of funds to purchase items for use in the business (39%).

Table 8: Possible uses of ROSCA funds

Possible use of Funds	% of respondents	No of respondents
Purchase of items for use in the business	39	22
Purchase of household goods	26	15
Payment of children's school fees	11	6
Purchase of items to start new businesses	0	0
Payment of current expenditure	23	13
Purchase of capital items	2	1
Totals	100	57

Small amounts of money were used to meet current expenditures while large amounts tended to be used to meet business needs.

Reason for joining ROSCA

Reasons given for joining the ROSCAs included:-

- Compulsory saving nature of the ROSCA that helped members to save as opposed to saving alone.
- Pressure from the family where it was a requirement to join the ROSCA if one was a member of the family.

- To be able to access funds from a microfinance institution. Some microfinance institutions could only give funds to participants of a ROSCA since they required each member to act as a security for the other.

Majority of the respondents however joined the ROSCA due to the compulsory nature of the ROSCA. This is consistent with previous data on Kenyan ROSCAs (Gugerty, 1996) that individuals can't save alone.

Presence of credit function

39% of the respondents had a credit function in their ROSCAs while 61% of them did not have a credit function. For the ones with a credit function, their operations varied from group to group. All the ROSCAs with a credit function ran it along with the normal merry go round system whereby a portion of the funds was set aside for use as an accumulated fund. The amount set aside ranged from 200 to 1,000. Interest rate varied from group to group. It ranged from 1% to 20%. Majority of the members had an interest rate of 10%. Table 9 shows variation in interest rate charged.

Table 9: Variation of interest rate among members

Interest rate	No of respondents	% of respondents
1%	2	9
5%	3	14
10%	12	55
20%	1	5
Not indicated	4	18
Total	22	100

Social Assets

Social assets that the respondents acquired included

- Support during times of need some since the ROSCAs would contribute amounts ranging from 500 to 1, 000 for instance due to death of a loved one or sicknesses. This money was not refundable.
- ROSCA groups also helped the participants understand each other better.
- It expanded web of business relationships.
- It offered advice to members on how to deal with various issues (business or family).

DISCUSSIONS AND RECOMMENDATIONS

Financing of ROSCAs

ROSCAs, like banks, make the decision on the financing method to be used based on certain information. Banks arrive at a credit decision by assessing the borrower's credit history, current income, and available collateral. ROSCAs, in contrast, rely on a person's social capital to assess a participant's creditworthiness.

Financing of ROSCAs thus relied heavily on social capital. Social capital, was a concept coined by Glenn Loury in 1977, it represented "the consequences of social position in facilitating individual acquisition of (say) the standard human capital characteristics" (Loury, 1977, p. 176). In regard to ROSCAs, a person's social capital is the basis of his or her creditworthiness and can grant him or her access to capital. Most ROSCA members were personally acquainted with each other and were generally part of the same community. As a result, a participant's current and previous economic status, as well as his or her commitment to meeting his or her financial obligations, was generally known. This acted as the basis of the operational decisions of ROSCA. This included decisions on: -

- Number of members to be included in the group
- Nature of the composition of the ROSCA
- Frequency of contribution and length of the cycle
- Amount to be contributed
- Method of running ROSCA

Table 7 shows that ROSCAs made very poor long-term savings instruments the longer the cycle; the less likely they are to complete. Wright (1997) observed that people are unwilling to put large amounts into ROSCAs and indeed they prefer to take a loan from an MFI and repay it in weekly installments at high interest. This illustrated a very simple principle, in order to build up larger lump sums for investment; the savers also need formal or semi-formal institutions with which they can make regular, small savings in relative confidence.

The impact of ROSCAs

Financial Assets

ROSCAs have had a great impact especially to entrepreneurs it has provided them with working capital necessary to restock their businesses. Business respondents said that the ROSCAs have enabled them save up in order to restock their shops since it reduced their ability to spend the money. ROSCAs have thus lead to growth of businesses thus leading to improved welfare of ROSCA members.

Results from the study (Table 8) revealed that ROSCA funds were not used for new investments. This was because ROSCA funds were very small. They were not enough to enable a person start a new business. The presence of the credit function in 39% of the ROSCAs further showed that the group could also lead to accumulation of savings. If allowed to grow they would eventually become banks due to the increased number of members that in the long run would lead to increased volume of transactions.

Physical Assets

ROSCA funds also had a great impact on the physical assets of members. 26% of the respondents used ROSCA funds to buy household goods which included consumer durables such as household appliances, shoes and clothing.

Human Assets

ROSCA funds also had a great impact on developing human assets for instance funds could be used for children education or paying for their own education (further training).

In addition being in a ROSCA also provided a human asset to the member. Due to their compulsory nature, it helped the members improve their business planning skills since the ROSCAs forced them to save, improved household budgeting skills ROSCA members had to minimize household expenditure in order to make savings.

Social Assets

74% of the respondents acquired other benefits apart from financial services they included.

- ROSCAs helped the members learn new skills their was mutual learning among members
- Expanded web of business and personal relationships. The group facilitates new contracts and relationships
- Advice on issues affecting members for instance solving family issues. This helped improve the welfare and wellbeing of the members

In a research carried out by Barnes (1996) 5 variables were identified in her study they include financial assets, physical assets, human assets and social assets to assess impact of financial services. However, the criterion is not sufficient for assessing the impact of ROSCAs. The research reveals that ROSCAs also have an impact on meeting the current needs of the members. 23 % of the respondents used the funds to meet their current expenditure. Hence to

be able to assess the impact ROSCAs have, it is also important to consider the impact of the savings on current expenditure.

Recommendations

To ROSCA members

- **Risk Management:** - ROSCAs face high rate of default due to their reliance on social capital in their financing activities. Default may occur in two ways. The member may refuse to contribute to the group after they have received their funds or they may fail to repay the loan provided. Only one ROSCA dealt with this risk. They did this by having a portion of the funds contributed by the members being set aside in case of default. Other ROSCAs should also find a way of dealing with such risks.
- **Credit creation:** - 51% of the respondents did not have the credit function in their ROSCAs. This meant that the members missed out on the opportunity to access credit funds at lower interest rates than those provided by other financial institutions.
- **Collaboration with financial institutions:** - The study reveals that ROSCAs lack the ability to build up large sums of money required for capital investments. The ROSCAs can coordinate with other financial institutions to provide them with the loans that they need. They can be able to negotiate for lower interest rates since they borrow large amounts of money
- **Other services:** - In addition to carrying out financing activities ROSCAs should strive also to other start other business activities within the ROSCAs as way to increase their income and diversify their risk.

To other players in the finance sector

- **Competition:** - ROSCAs are a great source of competition for banks and other financial institutions due to their advantages of flexibility, convenience, accepting small amounts of money and lack of additional costs in carrying out transactions such as ledger fees. In the long run if this trend continues many formal financial institutions may be forced out of the market. Banks and other players in the financial sector should thus see this as a source of competition. They should seek to offer attractive products that will attract small savers, prioritize cost control so as to reduce costs charged to the customers and to charge realistic prices for their products
- **Lending:** - Financial institutions create deposits through the credit creation process. However, ROSCAs have been able to provide the same service to their members at

competitive interest rates. They have done this through use of social capital as the security to provide the funds. Financial institutions can tap into this market by offering loans to already existing ROSCAs where the members of the ROSCAs act as a security for the others.

- **Source of funds:** - Ability of persons to save using the ROSCA system shows that individuals do have the ability to save small amounts of money for small periods of time. Financial institutions should see this as a potential market for instance they can come up with saving schemes where savers can save small amounts for a period of less than two years. They can then offer an attractive interest rate to the members if they do not withdraw their money within the given period.
- **Investment firms** :-Investment firms can come up with a suitable investment package that would encourage this small savers for instance an investment program that requires deposits of Kshs. 1,000 per month

To Government

- **Regulation:** - ROSCAs lack the necessary regulation by the government. This makes the associations prone to manipulation by people. The government should come up with simple regulations that can allow for retrieval of the funds in the event of malicious default by a member.
- **Growth of economy:** - ROSCAs do lead to growth of the economy since they enable members to save. Savings are then used as investments in businesses. Businesses then provide a source of employment. Increased employment leads improved living standards leading to growth in the economy. The government should thus encourage the formation of ROSCAs

Conclusion

Financial intermediation is the process through which financial people turn their savings into useful large sums of money. The ROSCA have been able to do this and have emerged as one of the world's most efficient and cheapest intermediary device (Rutherford 2000). Middle-income earners have not been left out. Despite them having the ability to access formal financial institutions such as banks and SACCOs they still use the ROSCAs as a saving technique. The popularity of ROSCAs world-wide is due in some part to their adaptability to meet small loan needs of group members and to their reliance on the group ethic to ensure against default. They facilitate saving among middle-income earners enabling them to make financial commitments. ROSCAs do not encourage large-scale capital accumulation or make large or long-term loans.

They provide useful models in relation to micro and small loans. They can be used for both consumption and productive purposes. ROSCAs thus have a great impact in the lives of middle-income earners by enabling them to acquire financial assets, human assets, physical assets and social benefits. In addition to this, they have helped in money management since the funds are also used to meet their day-to-day expenses. The case below reveals that ROSCAs if well managed can provide a variety of services to the members.

Case Study of an advanced ROSCA

The ROSCA had 32 members. Each member contributed shs 2,000 this was equivalent to one share. The group allowed one member to have more than 1 share implying that they could get the funds more than once during the cycle. The amount a member took home was shs.32, 000 per cycle. The ROSCA also had an accumulated fund that allowed the members to borrow from an accumulated account the maximum amount being shs 40,000. The borrowed amount was returned at an interest rate of 10%. As a security incase of default the member who had borrowed the funds was required to leave Shs. 1,000 to act as their security. The member's also contributed shs.500 and shs.1000 each in the event of illness or death of the member or next of kin. They had an office where the members took their savings. In addition to each member contributed shs.200 for maintenance of the office. The group has employed someone to manage the office. The office had a public payphone and a place for charging phones, which served as income to the members. This acts as a source of income for the members. The office also provides postal services to the members. This case highlights that ROSCAs with time develop and can offer a variety of services to its members.

Limitations of the study

Some of the limitations encountered during the study include: -

- Non-response: - Some of the people sampled did not want to participate in the study since they deemed information on ROSCAs as personal information.
- Variability of data owing to different respondents interactions with the interview

Areas for further research

- Determining the impact ROSCAs have had on financial institutions.
- Determining the impact of ROSCAs on money management
- Determining the risk and vulnerability of ROSCA participants.
- Determining operations and impact of ROSCAs in the lives of high income earners

REFERENCES

- Adams D W and Fichett D (Ed), *Informal Finance in Low-income Countries*, Westview Press, Colorado, 1992
- Adams, D. and Canavesi de Sahonero, M. L. (1989). "Rotating Savings and Credit Associations in Bolivia." *Savings and Development*, 13: 219-236.
- Ardener, Shirley, and Sandra Burman (eds) 1995, "Money Go-Rounds: The Importance of Rotating Savings and Credit Associations for Women", Berg Publications Limited, Oxford
- Baden, S., 1996 "Gender Issues in Financial Liberalization and Financial Sector Reform", Topic paper prepared for DG 8 of the European Commission, Brussels, August 1996.
- Barnes, Carolyn (1996) *Assets and the Impact of Micro enterprise Finance Programs*, Washington DC, Management Systems International
- Bouman, F.J.A. (1995), "Rotating and Accumulating Savings and Credit Associations: A Development Perspective", *World Development*, Vol.23, No. 3 pp.371-384.
- Gugerty, M. K. (2003) "You Can't Save Alone: Testing Theories of Rotating Savings and Credit Associations," Mimeo, Harvard University.
- Gugerty, M. K. 2003 "You Can't Save Alone: Testing Theories of Rotating Savings and Credit Associations," UCLA International Institute, United States, viewed 31 October 2006, <http://www.microfinancegateway.org/content/article/detail/3102?PHPSESSID=4a42b5d1c43d60f97477e5b9d03b325c>
- Hospes, O. et al, 2002, *An Evaluation of Micro-Finance Programmes in Kenya as Supported through the Dutch Co-Financing Programme with a focus on KWFT*, viewed 31 October 2006 <http://www.gdrc.org/icm/country/Kenya-finalreport.pdf>
- Johnson, S., "Milking the Elephant": financial markets as real markets in Kenya. Paper presented to the Conference on Finance and Development, April 2002.
- Kibaara, B.W (2006). "Rural Financial Services in Kenya: What is Working and Why?" Working Paper 20/2006, Tegemeo Institute of Agricultural Policy and Development.
- Kimuyu, P. (1999). "Rotating Savings and Credit Associations in Rural East Africa." *World Development* 27(7): 1299-1308.
- Loury, Glenn C. "A Dynamic Theory of Racial Income Differences," in Phyllis A. Wallace and Annette LeMund (eds.), *Women, Minorities, and Employment Discrimination*. Lexington: Lexington Books, 1977.
- Mugwanga, E.H.A. 1999. "Use and Impact of Savings Services for Poor People in Kenya." Background paper for Rutherford, Stuart et al, "Savings and the Poor," 1999, Nairobi, Kenya, viewed 30 October 2006, <http://www.microsave.org>.
- Mugwanga, E.H.A., 1999. "Use and Impact of Savings Services for Poor People in Kenya.", mimeo prepared for MicroSave,
- Mutesasira, Leonard. 1999. "Savings and Needs: An Infinite Variety." Mimeo, MicroSave Africa, Kampala, Uganda, viewed 30 October 2006, <http://www.microsave.org/SearchResults.asp?cboKeyword=9&ID=20&cmdSubmit=Submit&NumPerPage=10>
- Mwaniki, R. (2001) "Harnessing Informal Systems: The experience of K-Rep ", mimeo prepared for MicroSave-Africa
- Rutherford, (1999a) "The Poor and Their Money – An Essay About Financial Services for Poor People", Institute of Development Policy and Management, Manchester
- Rutherford, S. (1999) "Savings and the poor: The Methods, Use and Impact of savings by the Poor of East Africa", mimeo prepared for Microsave-Africa.
- Rutherford, Stuart. 2000. *The Poor and their Money*, Oxford and New Delhi: Oxford University Press.

Tchuindjo, I. (1999). "The Evolution of an Informal Financial Institution: The Rotating Savings and Credit Association in Cameroon" African Review of Money Finance and Banking, University of Michigan, Ann Arbor.

Wright, G. et al: (2001) "Vulnerability, Risks, Assets and Empowerment: The Impact of Microfinance on Poverty Alleviation", World Development Report 2001

Wright, Graham. 1999. "A Critical Review of Savings Services in Africa and Elsewhere." Mimeo, Microsave Africa, Kampala, Uganda, viewed 30 October 2006, <http://www.microsave.org>