CONTRIBUTION OF SAVINGS AND CREDIT ASSOCIATIONS TO MEMBERS' WELFARE IN RWANDA: A CASE OF *IBIMINA* IN NGOMA SECTOR, HUYE DISTRICT

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Master of Arts in Co-operative and Community Development

CONTRIBUTION OF SAVINGS AND CREDIT ASSOCIATIONS TO MEMBERS' WELFARE IN RWANDA: A CASE OF *IBIMINA* IN NGOMA SECTOR, HUYE DISTRICT

By

ANNONCIATA KABEGA

A Dissertation Submitted in Partial Fulfilment of the Requirements for the Award of Master of Arts in Co-operative and Community Development of Moshi Co-operative University

Moshi

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	(Supervisor's name)
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DEDICATION

To the Almighty God

To my Husband

To all my Children

To my Mother in Law

To my Sister

To my Brother

To all SCA members

I dedicate this Dissertation.

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ABBREVIATIONS

ADEPR: Association des Eglises de Pentecost au Rwanda

ASA: Accumulating Savings Associations

ASCA: Accumulating Savings and Credit Associations

CARE: Co-operative for American Remittances to Europe

CBHI: Community Based Health Insurance

DDP: District Development Plan

DRC: Democratic Republic of Congo

FGD: Focus Group Discussion

HI: Health Insurance

Ibid.: The same author

IGA: Income Generating Activity

MINALOC: Ministry of Local Government

MINECOFIN: Ministry of Finance and Economic Planning

MoCU: Moshi Co-operative University

NGOs: Non-Governmental Organizations

NISR: National Institute of Statistics Rwanda

ROSCAs: Rotating Savings and Credit Associations

SCAs: Savings and Credit Associations

SPSS: Statistical Package for Social Sciences

UEM: United Evangelical Mission

VSLA: Village Savings and Loan Associations

WHO: World Health Organization

ABSTRACT

The study was conducted with the aim of assessing the contribution made by SCAs to their members' welfare in Rwanda, with focus on *Ibimina* in Ngoma sector, Huye District. Specifically, the objectives were to evaluate the socio-economic status of SCA members before and after joining SCAs, assess the use of loans obtained from SCAs and identify challenges based on loan repayment. The study employed a cross-sectional design where both qualitative and quantitative approaches were used. Primary data were collected from 100 SCA members, eight non SCA members, seven key informants and four FGD. The secondary data were collected from SCAs' records and documents complemented by previous reports, journals and books. Data were analysed using descriptive statistics, content analysis, inferential statistics and McNemar's test. The findings revealed that before members joined SCAs, they were economically poor. About 78% of members were mainly involved in subsistence farming, and socially they were disintegrated with a great number of vulnerable people. The research proves that, after members joined the SCAs, socially, improvements were made on networks, friendships, unity and reconciliation, entrepreneurial skills, and mutual aids as well as better living conditions. Economically, they have learnt to diversify their income sources by improving agricultural practices, increasing the number of assets as well as being involved in more valuable activities. However, in loan repayment, many challenges were registered including defaulters. There is a need for formalizing and supporting SCAs in managerial technicalities so as to improve their efficiency in contributing to the members' welfare. The study therefore, came up with a conclusion that, SCAs proved to be a great tool whereby becoming rich is no longer a dream; it is now a reality.

CHAPTER ONE

1.0 INTRODUCTION

Access to financial resources has been problematic to both individuals and nations as a whole due to strict requirements of lending and borrowing procedures. In most cases, the imposed collateral, interest rate and repayment procedures are the most forbidding factors limiting many less privileged people to access financial resources from formal financial institutions. However, savings and credit associations (SCAs) as informal financial institutions that exist in both rural and urban areas in developed and developing countries across the world as seen to ease the situation.

SCAs are thought to be important tools contributing to the welfare of their members, mainly through multiple functions played in both social and economic dimensions among their members. Benefits include affordability of financial services (savings and credits) and accessibility to social needs (social capital). Thus, the establishment and strengthening of SCAs which are multiplying in Rwanda in general and in Ngoma Sector in particular seem to be the right means to contribute to the welfare of their members. The existed situation of SCA members before joining SCAs, the use of financial resources obtained from SCAs and loan repayment challenges were the concerns answering the main problem of this study, which is an assessment of SCAs' contribution to their members' welfare.

1.1 Background Information

Historically, Savings and Credit institutions such as Rotating Savings and Credit Associations (ROSCAs) and Accumulating Savings and Credit Associations (ASCAs) have existed for many centuries (Kabuya, 2015). This is when the barter system existed; where village people formed saving groups by making periodical contributions of grain

such as wheat, rice, corn, and paddy (*ibid*). SCAs were forbidden in the developed countries because in several cases, participants began to murder each other in order to access finance first (Kabuya, 2015). ROSCA Model was very popular in different developing countries across the world. It was generally predominant in Africa with a particularly high participation of the population in Sub-Saharan Africa (Gugerty, 2005).

In 1986, 50% of the adult population in the Democratic Republic of Congo (DRC) were involved in ROSCAs. However, participation ranged from 50% to 95% in many rural areas in Liberia, Ivory Coast, Togo, and Nigeria (Bouman 1995). In 1992, membership in ROSCAs in Cameroon was estimated at 80% of the adult population (*ibid*) and in several villages in Nigeria in 1987, adult membership was found to be 66% of the population (Gugerty, 2005).

The history of the enterprising "Bamileke" in Cameroon and Igbo in Nigeria provided ample proof that SCAs prospered along with their members' fortune (Schrieder and Cuevas, 1992). SCAs were proved to be the effective lending model in rural areas in Niger, Zimbabwe, Mozambique, Uganda, and Eritrea (Hendricks, 2011). SCAs were introduced in East African countries especially in Tanzania; as Village community Banks (VICOBA) by Cooperative for American Remittances to Europe (CARE)/Tanzania in the year 2000 (Bakari *et al.*, 2014). The aim was to empower less privileged people in both urban and rural settings (Haule, 2015).

In Rwanda, the informal microfinance known as *Ibimina* started in 1962 (Ukwibishaka, 2010). It had a crucial role to play in providing financial services to small self-help peasant organizations. These organisations were used for agriculture, livestock keeping, purchase of domestic equipments, school fees and in the other projects generating income for their members (*ibid.*).

Transparency Rwanda (2012) reported that the country had the least savings ratios in Africa with just 10% of the population who owned a bank account. Currently, nearly 11% of its adults (around 0.7 million individuals) do not use any financial products or services (neither formal nor informal) to manage their financial lives, i.e. they are financially excluded (FINSCOPE, 2016). So, that is why the government, NGOs and other donor agencies such as World Vision and Care International, set up projects that raised loan-funds which were put at the disposal of commercial banks as well as formal microfinance institutions. These were used as a link in applying and administering the loans to rural investors (MINECOFIN, 2013).

Unfortunately, people had no access to financial resources since banks and formal microfinance loans disbursement required the fulfillment of some conditions which were different from one bank to the other. Consequently, people had to resort to the loans obtained from informal sources such as SCAs or *Ibimina*. *Ibimina* had been operating in Rwanda for a very long period of time, but very little or none is known about their contribution to the welfare of their members. This study therefore aimed at assessing contribution of Savings and Credit Associations to members' welfare in Ngoma Sector, Huye District in the Southern Province of Rwanda.

1.2 Statement of the Problem

Despite the positive progression of Rwanda in terms of extreme poverty eradication (MDG No.1), there are still considerable disparities across provinces and between rural and urban areas (MINECOFIN, 2013). According to National Institute of Statistics (NISR, 2011) in Rwanda, the poverty rate decreased from 58.9% in 2000 to 44.9% in 2011; extreme poverty also decreased from 40% to 24% during the same period. However, the Southern Province remained the poorest province with 31% of the

population living in the extreme poverty (ibid.). Ngoma sector is the headquarters of Huye District which is among the districts in Southern Province with a high percentage of extremely poor and poor population categories (NISR, 2012). Hence, access to financial resources has been a problem to these poor and poorest due to demands of lending and borrowing procedures in formal financial institutions. The imposed collaterals, high interest rates and complicated repayment procedures are the factors constraining many poor people from accessing financial resources from these financial institutions (NISR, ibid.) As a result, most of rural active population who practices agriculture, livestock keeping, arts and craft have limited possibilities to access loans and other financial services. To address this challenge the government of Rwanda adopted a microfinance strategy with a goal to contribute to the economic and social development of the poor population (MINECOFIN, 2013). Similarly, non-governmental organizations and religious institutions in Rwanda responded to these challenges by creating and supporting SCAs in order to improve the welfare of the members. As a result, about 72% of adults (around 4.2 million individuals) use informal mechanisms in accessing financial services (Aghion and Durlauf, 2005). The intended purpose of SCAs is to raise the living standard of these less privileged people and improve their quality of life.

To date however, few studies have been conducted in the country on SCAs. Few of these include the study on the use of ROSCAs in Reducing Poverty in Local Communities by Kabuya (2015), Trust and Development: ROSCAs in Rwanda by Ntamazeze (2013). Also, a study was carried out by Cecilia Benda (2012) on Community Rotating Savings and Credit Associations as an Agent of Well-being in northern Rwanda. She examined the potential of rotating savings and credit associations (RoSCAs) as agents of pro-poor community development and well-being in rural

northern Rwanda. Despite these efforts made by aforementioned researchers having significantly studied SCAs, no researcher had assessed whether establishment of SCAs in Ngoma sector, Huye district has contributed to the members' access of financial resources which lead to their welfare at both social and economic aspects.

1.3 Objectives

1.3.1 Main objective

The overall objective of this study was to assess the contribution of Savings and Credit Associations to the welfare of their members in Ngoma Sector, Huye District in Rwanda.

1.3.2 Specific objectives

Specifically, the study sought to:

- (i) Determine the socio-economic status of SCA members before and after joining SCAs
- (ii) Examine whether loans were tailored to the needs and demand patterns of the borrowers
- (iii) Identify the challenges which face SCA members in their loan repayment

1.4 Research Questions

The study sought to answer the following research questions:

- (i) What was the socio-economic status of members before and after joining SCAs?
- (ii) How are the loans from SCAs used by borrowers?
- (iii) What are the challenges facing SCA members in loan repayment?

1.5 Significance of the Study

The study on the contribution of SCAs to their members' welfare is significant as it is generating new knowledge and ideas to the researcher and to the public in the field of informal microfinance. It has revealed the best practices, challenges and opportunities in savings and credit associations in Ngoma Sector, Huye District as far as socioeconomic development is concerned. The findings of this study are particularly serving as a basis for decision makers on ways leading to the improvement of the performance of *Ibimina*. Besides, the study has provided a platform for other researchers to investigate more on untouched aspects and challenges in this field.

1.7 Justification of the Study

In Rwanda, since 2008, the existence of SCAs in general and in Ngoma sector was thereby explained by identifying different ways in which such institutions mitigate the financial constraints to different people settled in both urban and rural areas. It was noted that no research on the contribution of SCAs to their members has been conducted. Therefore, this study was conducted to provide changes which have occurred as a result of the influences of the SCAs to their members. The study is in line with the current Economic Development and Poverty Reduction Strategy of Rwanda (EDPRS), (FinScope Rwanda, 2012) as stated below:

"To enhance savings mobilisation by creating an appropriate environment, developing institutions and fostering market incentives for the development of long-term financial instruments and an efficient capital market and to develop an appropriate policy, legal and regulatory framework for non-bank financial institutions."

Therefore, the findings will contribute to the community development practitioners and professionals at national, district, sector and cell levels on the ways in which they can engage SCAs in their programmes.

1.8 Study Limitations

There were a few limitations encountered during this study. The rainfall season and the period of genocide commemoration interrupted SCA meetings, and their implications were on data collection timetable. Also, the study, being in rural and urban areas, some villages did not have good roads; hence it was difficult to reach the destination. In the urban area, the challenges were the timetable of SCAs: some of them meet on Sundays soon after their respective church services, others meet in the very late evening hours after their normal daily jobs in their respective families and few SCA members were in a hurry in doing their business as in order to give an extra time for this study.

1.9 Organisation of the Study

This Dissertation is divided into five chapters: chapter one is an introduction covering the background information, the statement of the problem, main and specific objectives, research questions, significance of the study, justification and organisation of the study. Chapter two contains the literature review. It includes: definitions of key terms, theoretical and empirical literature review as well as conceptual framework of the study. Chapter three provides the methodology that was used in conducting the study, which includes: research design, description of the study area, population, sample size and sampling strategies, data collection methods, sources of data and tools, data reliability and validity, data analysis, ethical consideration and dissemination of findings. Chapter four provides the findings and discussions which include analysis and interpretation of data as well as the presentation. Finally, chapter five presents a summary, conclusions and recommendations from the study. It also highlights areas for further studies.

CHAPTER TWO

2.0 LITERATURE REVIEW

2.1 Overview

This chapter provides some insights about SCAs. The information is based on past studies and research findings by various authors, researchers or agencies that are directly concerned with financial institutions issues. The key terms are defined first and some theoretical discussion and empirical evidence provided from earlier studies related to the savings and credit associations in Rwanda and elsewhere in the world.

2.2 Definitions of Key Words

2.2.1 *Ibimina*/Associations

Widespread in Rwanda, the commonly called *Ibimina* or Associations are the informal credit and saving groups generally found among Rwandan population. They are groups of individuals making Savings and Loan Associations, ranging in size from 7 to 30 members. On average, around 16 members meet and save every week into an internal regulation (Maes, 2007). SCAs are informal savings and credit institutions that are pervasive in developing countries and among immigrant communities in some developed countries (Kedir *et al.*, 2005). They use one or two models of Accumulating Savings and Credit (ASCAs), Rotating Savings and Credit (ROSCAs) and Accumulating Savings (ASAs) (The Chalmers center, 2009). It is important to understand what these *Ibimina* are, what they were designed for and the kind of outcomes should be expected from them. It seems significant to make a difference between ASCAs, ROSCAs and ASAs:

(i) Rotating Savings and Credit Associations (ROSCAs)

According to Beck (2012), ROSCA is an association formed upon a core of participants who make regular contributions to a fund which is given, in whole or in part, to each contributor in rotation, or the members make a commitment to pour a sum predetermined with a given frequency. For every round of payment, one of the participants is indicated to be the beneficiary of the funds as a loan to pay back to other members. All of these contributions are for investment or for other purposes and the cycle continues until each member receives the lump sum once until the end of the cycle (Rutherford, 2000).

(ii) Accumulating Savings and Credit Associations (ASCAs)

The term 'Accumulating Savings and Credit Association' was first introduced by Bouman in the 1980s (Bouman, 1989) to describe savings groups in which funds are not immediately withdrawn like in ROSCA. On the contrary, the funds are accumulated in the cash box of the Association. Usually, savings are accumulated in regular meetings throughout a cycle of six to twelve months. Funds collected belong to the Association until the members decide on how to use them (Beck, 2012). According to Dean *et al.* (2005), ASCAs acquire a higher level of trust, management and record keeping in order to perform well.

(iii) Accumulating Saving Associations (ASAs)

ASAs use a triple-locked box to secure the funds; they have standardized election procedures and maintain a careful separation of various duties, such as record-keeping, money-counting and meeting facilitation. In Rwanda, ASAs are normally used for community based health insurance (mutuelle de santé) which is renewable once a year.

2.2.2 Welfare

Welfare is a notion which is difficult to define. It can also be defined as a state of a person's well-being (Fleurbaey, 2008). Dodge *et al.*, (2012) defined wellbeing as a state of equilibrium or balance that can be affected by life events or challenges. The welfare state expands on this concept to include services such as universal health care and unemployment insurance and so on. Thus, welfare is a set of factors which a person needs to enjoy a good quality of life. Welfare can also be a state of satisfaction and can take a variety of forms according to the social contentedness of the community members (Ashok *et al.*, 2004). Therefore, welfare in this study was understood to be the ability of members of Savings and Credit Associations to earn income, get education, improve housing conditions, access water, food security and get satisfactions of health services as well as assets growth.

2.3 Theoretical Literature Review

From the foregoing, it is clear that savings and credit practices have been around even in the dim past. As a practice therefore, SCAs must have evolved around theories. In modern times, a number of theories have been put front in relation to savings and credit. In this study, two theories were introduced to them: finance growth theory and the social wealth theory. There are briefly discussed here under.

2.3.1 Finance – Growth Theory

The study envisaged to use Finance – Growth Theory, which was developed by Serrao *et al.* (2012). It was used to study the accessibility and impact of financial inclusion. This refers to "being served by the financial sector" as an individual. When he/she does not use financial products or services would be regarded as being "financially excluded"

(FinScope, 2012). The theory indicates that lack of access to finance is a critical factor responsible for persistent income inequality and a slower growth.

Therefore, access to safe, easy and affordable source of finance is recognized as a prerequisite for accelerating growth and reducing income disparities and poverty. As, it was applied to this study, the theory holds that independent variables were access to financial services, quality of financial services and usage of financial services to influence or explain the dependent variable expansion of marginalized financial inclusion. Because of affordable interest rate, proximity of access point, wider choice and frequent use of financial services were attractive to members of SCAs for their welfare.

2.3.2 The Social Wealth Theory

The Social Wealth Theory emanates from Social Capital Theory developed by Putnam (1993) which is the institutions, the relationships, the attitudes and values that govern interactions among people and contribute to economic and social development. According to Basargekar (2010), social capital is "the abilities of people to work together towards resolving community or social issues and promote equitable access to benefits of development". Social Wealth Theory can therefore be considered as a tool of welfare among people which also affects their environment and community either positively or negatively based on their collective action for mutual benefit of a group of people (Rankin, 2002).

2.4 Empirical Review

2.4.1 The socio-economic status of members before and after joining SCAs

2.4.1.1 The socio-economic status of members before joining SCAs

Musahara (2012) conducted a research on perspectives toward co-operatives with reference to Rwanda and he found that the spirit of cooperation as part of traditional social capital has been in Rwanda from time immemorial and there are common practices as 'Umuganda' (community work), 'umubyizi' (mutual support in agriculture), 'ibimina' (financial mutual support) and 'Ubudehe' (community based and participatory effort towards problem solving) but, they actually exist in modified forms. Bucyensenge (2013) recorded many testimonies on the contribution of Ibimina in Rwanda, and one of his interviewees Uyisabye testified: "by joining the informal credit or Ikimina as members, the expectation is to put an end to the deplorable situation. If I was not part of this group, I am sure I wouldn't have been able to realise such tremendous achievements in my life. Through our Ikimina magic, I have been able to save money and learn from others."

2.4.1.2 The socio-economic status of members after joining SCAs

Nakaye (2011) carried out a study on the impact of savings and credit co-operatives on savings and investment culture. The researcher found that individual' savings culture was influenced by social economic factors, namely economic stability, interest rates offered, ensured security and market return. The author also demonstrated that sensitization on the importance of savings was a pre-requisite for improving and cultivating a positive saving culture because even poor people are capable of making small savings when they are aware of its importance.

Anyango (2005) in his assessment of CARE's Village Savings and Loan Association (VSLA) within five Traditional Authorities in Malawi, focusing on economic and livelihood improvements as well as socio-economic and gender-related well-being confirmed that VSLA serve as a model for most other financial institutions. Therefore, different characteristics which include: age, gender, religion, marital status, employment and education, may affect positively or otherwise the welfare of the SCA members before or after joining savings programmes.

Loans are invariably put to use, ranging from investment in business, start up its

2.4.2 Use of loans by SCA members

(*ibid*.).

expansion, purchase of properties, payment for services like education, health and so on. SCA members also do the same at varying degrees. Beck (2012) in her study presents the ASCAs as an adequate and reliable tool to balance cash flows and accumulate at least small lump sums for the purchase of assets. Most caregivers invest part of the funds that are made available to them through the ASCA in their children's well-being. Her study reveals a positive impact on nutrition, an overall improvement in school enrolment rates and ASCAs help to meet a wide range of needs in the household. In addition, Beck goes on to show how ASCAs help industrious and innovative entrepreneurs to expand their business activities through credits and possible move to next 'step of the ladder' by opening access to formal MFI and banks. Also, ASCAs provide a secure way of saving for more traditional and risk averse farmers who merely seek to accumulate large lump sum to cover their needs or build economic resilience

Inter-American Development Bank (2014) found that the amount of money issued in SCA is usually linked to a member's prior savings contributions; and the group does not

exactly function like an insurance policy, but more like a savings account to cover emergencies or other specific needs. Also, Nunez *et al.* (2008) in their research on the uses of loans have provided a positive assessment of the uses of these loans. Most of the borrowers considered the loan as contributing to the wellbeing of all the household members. They also saw the positive effects of loans as these have enabled them to meet family obligations, perform celebrations and cover basic needs such as food and transport.

Aghion and Durlauf (2005) stated that, mobilization/pooling is the costly process of agglomerating capital from disparate savers for investment. Mobilizing savings involves (a) overcoming the transaction costs associated with collecting savings from different individuals and (b) overcoming the informational asymmetries associated with making savers feel comfortable in relinquishing control of their savings. According to Brannen (2010), participation in the savings program has an overall positive impact on various indicators of household and individual welfare, including asset expenditure levels, the development of income-generating activities (IGAs), education expenses, access to health services, nutritional levels and quality of housing.

Benda (2013) conducted a research on Pro-poor Community Rotating Savings and Credit Associations as an agent of well-being from Northern Rwanda and found that membership generally involves relatively small payments while contributing to positive subjective perception and fostering further human well-being. She added that, ROSCAs therefore, warrant appraisal beyond the immediate financial opportunities they generate, because of their production and reproduction of values such as democracy, reciprocity and solidarity (*ibid.*).

2.4.3 Challenges facing SCA members in loan repayment

Kofi (2012) carried out a study on the causes and impact of non- performing loans in Ghana, and found out that they result from a poor management. The empirical study of Njangiru *et al.* (2014) focused on the analysis of loan repayment and sustainability issues of government micro-credit initiatives in Kenya. The author found that, problems of high risk and high cost of borrowing, uncertainty of repayment capacity on the rural borrower has been reported as a result of irregular income streams.

Rutherford (2008) in his research findings showed that poor people urgently need financial services, but they have smaller, irregular, and often unreliable incomes. The great loans unpackaged of which may be spent as soon as it is received on food, that is, "from hand to mouth." As a result, whenever they want to buy something else or to pay back their loans, they realise that they have no money. From the aforementioned studies, that of Benda (2012) is closest to the present study. She examined the potential of ROSCAs as an agent of pro-poor community development and wellbeing in the northern province of Rwanda. However, Benda concentrated her focus on ROSCAs which constitute one model of SCAs that will be covered in the present study.

The Gap: there is no empirical study that has taken into account socio-economic issues as contributing factors to SCA members' welfare in the southern part of Rwanda. To reduce this gap, the researcher is going to assess the accessibility of financial resources which lead to asset growth and social capital among SCAs members as potential determinants of SCAs' contribution.

2.5 Conceptual Framework

This study intended to show the existing relationship between SCA members' borrowing and the contribution to members' welfare. The independent variables demonstrated the opportunity and services offered by SCAs that had bearing on members' welfare. These include SCAs services to the members in terms of savings, accumulated capital, loans provision and trainings. The dependent variables in this study were members' welfare. Members' welfare was acquired through acquisition of income generating activities such as assets possession, entrepreneurial skills, health condition, adequate shelter, food security and access to education and getting social capital were taken as dependent variables. The intervening variables were education level of the SCAs members, national policy relating to SCAs and savings culture of Rwandese.

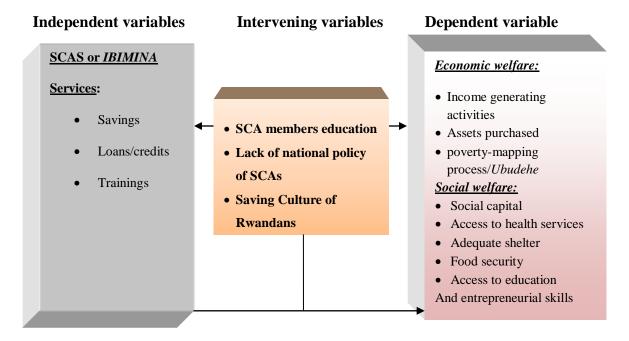


Figure 1: Conceptual framework relating SCAs' services on members' welfare

CHAPTER THREE

3.0 RESEARCH METHODOLOGY

3.1 Overview

This chapter discusses the methodological issues in conducting this study on the assessment of the contribution of savings and credits associations to the members' welfare. It explains the research design, description of the study area, population, sample and sampling techniques, data and data collection methods, ethical consideration, results dissemination and data collection table matrix.

3.2 Research Design

The study employed a cross sectional research design. This type of design was used because data were obtained at a single point in time. The use of this design was helpful in studying the status of SCA members as they appeared at the time of this study and provided a snapshot of the existing situation. It is also quick, easy, and cheap to perform since it is based on a questionnaire survey (Sedgwick, 2014). Furthermore, this design allowed the collection of both quantitative and qualitative data gathered from a subset of the population sampled. Hence, through descriptive statistics which consists of the collection, organization, summarization and presentation of data (Bluman, 2013), a good picture and control of the level of influence of SCAs were obtained on the improvement made on members' welfare.

3.3 Description of the Study Area

The study was conducted in Ngoma Sector which is one of the fourteen sectors of Huye District (*see the map in appendix 6*). It is located in the Southern Province of Rwanda. Ngoma Sector has four cells (*Utugari*) which are Butare, Ngoma, Matyazo and Kaburemera; comprising twenty-nine (29) villages. Butare and Ngoma cells are urban

areas while Matyazo and Kaburemera are located in the rural areas. The population of Ngoma Sector is 27 705 (Ngoma Sector Statistics, 2016) the majority of who are involved in subsistence farming. Employment and income rates are low, resulting in limited access to sufficient farm lands and financial services which lead to inability to acquire basic needs such as food, clothing, health and education (Alesina and La Ferrara, 2000).

The reason for choosing Ngoma Sector was that, it was ranked the lowest in social development and farming land shortage (NISR, 2010). The major subsistence activity is farming. Besides, Ngoma Sector is in Huye District that is overpopulated with 548 inhabitants per square kilometer (DDP-Huye, 2013). The population is classified into extremely poor and the poor are the majority where 25% are extremely poor and 21% are poor (NISR, *ibid*).

3.4 Population, Sample Size and Sampling Techniques

3.4.1 Population

This study involved 1 230 members from 45 SCAs in Ngoma Sector that had been active for the previous four years and above. The researcher presumed that those members would have been well established to provide the required information. Eight (8) non-SCA members from different cells of Ngoma Sector were involved in the study to provide comparison in terms of their socio-economic welfare.

3.4.2 Sample size

Using Granular Formula (Israel, 2009) of sample size calculation, 100 members of Savings and Credit Associations in Ngoma Sector were sampled from 1 230 members. Granular formula reads as follows:

$$\frac{N}{1 + N(e)^2}$$
 Therefore, $n = \frac{1230}{1 + 1230 (0.1)^2}$

 $\mathbf{n} = 99.91 \approx 100 \text{ respondents}$

Where, $\mathbf{n} = \text{sample size}$; $\mathbf{N} = \text{the population and } \mathbf{e} = \text{the precision error which is}$ assumed to be 10% (0.1) in this case; 100 respondents were selected from different SCAs spread in Ngoma sector.

3.4.3 Sampling techniques

Purposive sampling strategy was employed to select three cells of Ngoma sector to be involved in the study. Also, stratified sampling was used to get the SCAs and systematic random sampling was used in selecting respondents from the SCAs. This was done by the help of a list of members in each SCA selected.

3.5 Data and Data Collection Methods

3.5.1 Sources of data

The study used both qualitative and quantitative data extracted from primary and secondary data. The primary data was collected through the administration of a questionnaire to SCA members and it was supplemented by interviews of cell leaders, SCA coordinators and SCA facilitators who are considered to be experts in that domain. Also, interviews of non-SCA members were done and focus group discussions of 12 SCA members in total were conducted. The Secondary data was obtained from books, journals, magazines, dissertations, SCA registers and reports. The reason for using secondary data was to get the list of SCA members or to supplement the discussions.

3.5.2 Data collection methods and tools

Four tools of data collection ranging from questionnaire, interview guide for interviews, check list for focus group discussions and documentary reviews were used to collect data.

Questionnaire or survey: questionnaire is a tool that consists of set of questions to which the subject used to answer research questions. In this study, one hundred (100) semi-structured questionnaire copies were used to collect information about sociodemographic characteristics, household assets, consumption attitudes or cost behaviour, saving and lending culture, perceptions, and opinions from members of SCAs.

Interviews: Key informant interviews were carried out to supplement the individual surveys where, 7 key informants (4 cell leaders, 1 SCA coordinator and 2 SCA facilitators) and 8 non SCA members of both sexes from different cells of Ngoma Sector were interviewed. These informants were obtained through consultation with local authorities in the field in order to understand how people perceive the contribution of SCAs program to their members.

Focus groups discussion (**FGD**): one FGD at each cell level was conducted by using four SCAs members from different SCAs. The aim was to get the collective opinions of how SCAs contributed to the welfare of their members.

Documentary review: This was done to collect secondary data. This method was selected in order to get access to already gathered information by the SCAs. The documents reviewed related to SCA members, date of creation, their internal regulations, their saving records and other relevant information.

3.6 Data Validity and Reliability

Validity and reliability are important concepts as they are used for enhancing the accuracy of the tool and consistence of research findings (Tavakol and Dennick, 2011 and Gibbs, 2007 cited in Creswell, 2014). In this study, validity of the questionnaire was tested for internal consistency using Cronbach's alpha. After a pilot study of 10 respondents carried out, then analysed a Cronbach's alpha scale of 0.80 (80%) was obtained by using ten variables indicating an acceptable reliability measure for the questionnaire. It was also practical to test both content and face validity. The former was assured by means of a comprehensive literature review.

Also, to ensure the correctness of the information, the tools were written and conducted in Kinyarwanda to easy communication with the respondents. The data had later been translated into English.

3.7 Data Analysis

Qualitative and quantitative data were collected from SCA members, key informants and focus group discussants. Qualitative data were analysed by using content analysis. McNemar's test was used to make consistency in responses across two variables, that is "yes" and "no" for comparing "before" and "after." Descriptive statistics helped in describing quantitative data which was summarized in a meaningful way. This method did not, however, allow the researcher to make conclusions beyond the data analysed. That is why inferential statistics method was used where by paired samples t-test was used so as to allow this study to use the samples to make generalizations and conclusions. Data entry, cleaning and analysis were done by using Statistical Package for Social Science (SPSS) version 16 Microsoft windows. The research questions were

answered through the use of graphs, percentages and frequencies of different categories of responses from the SCA members.

3.8 Ethical Consideration

Before field work was done, a clearance letter (see appendix 1) was issued from Moshi Co-operative University (MoCU). Then, the approval to conduct field research in Ngoma Sector boundaries was requested and obtained from the Executive Secretary of Ngoma Sector. The respondents were requested to read and sign a key informant agreement letter (see appendix 2) in order to make a choice for participating in this research. Thus, a privacy and confidentiality of research information was also maintained.

3.9 Dissemination of Results

After the study is done, presented and accepted at MoCU academic forum, the findings and recommendations will be shared with the SCAs and the coordinators of SCAs in all Cells of Ngoma Sector as well as with the Department of Co-operative Development and Management of MoCU. The findings will also be made available to the MoCU library, UEM, and Anglican Church of Rwanda/ Butare Diocese.

CHAPTER FOUR

4.0 FINDINGS AND DISCUSSION

4.1 Overview

The chapter deals with the findings and discussions of the study on the contribution of savings and credit associations on the members' welfare. The first part of the presentation focuses on the social demographic characteristics of the respondents such as age, sex, marital status, educational level, the experience in the SCA activities and SCA models used. The second section is based on socio-economic status of the respondents before joining the SCAs. The third section concerns the socio-economic status of the respondents after they joined the SCAs. This is followed by the use of loans obtained from SCAs by the borrowers and finally, the challenges faced the SCA members in loan repayment.

4.2 Social Demographic Characteristics of the Respondents

The respondents of this study were the SCAs members who have been involved in SCAs activities from four years and above. The social status of SCAs members were analyzed in order to assess how it has positively affected or otherwise their welfare. For the purpose of this study, it was useful to identify some of the basic socio-demographic features of respondents. The following section describes this in terms of age, sex, marital status, educational levels, the experience and models used of SCA members in SCA activities and the findings are combined and presented in the Table 1.

4.2.1 Age of respondents

About 47% of respondents were between the age of 36 and 50 years, 26% of respondents were between the age of 21 and 35 years and 25% were between 51 and 65

years. These were the most active age groups in economic activities and more productive compared to other range groups of age. The SCA members from of 66 years and above represent 2% of respondents. In Rwanda, retirement starts at 65 years. It is also normal to find out few people among them who are interested in SCA activities; some of them had already built their lives at their early adulthood.

Therefore, the demographic distribution of SCA members in terms of age allowed the sustainability of the SCAs as the study revealed that, these have a wide range of age groups as shown above to make it sustainable. However, the younger generations below 21 years were missing in this study and it can be understood because most of them are still in school. In view of this, there is a need to sensitize them to join SCAs. The study assessed also the participation of both males and females in SCAs activities.

4.2.2 Respondents' sex composition

The study assessed the participation of men and women in SCAs activities with the aim of showing who were more engaged in SCAs. The findings indicated that, the majority of respondents were female (65%) as compared to males (35%). This means, more women were participating in SCAs activities than their male counterparts. This could be due to the role played by women in socio-economic activities in Rwanda. Due to the 1994 genocide, there were more women than men in the country and most of the former were the bread winners of their households; hence participating in SCA activities. We can also recall in 1.2 that SCAs reached its goals to cover people who are less privileged. In Rwanda and elsewhere in the world, SCAs were initiated to alleviate poverty and empower less privileged categories of people including women, the youth and vulnerable people. Then, the predominance of women participation in SCAs can be

interpreted as a normal phenomenon. The study also looked into the marital status of the respondents since it could have effect on the contribution of SCAs to their members.

4.2.3 Marital status

The findings showed that 75% of the respondents were married, 16% were widowed; 4 % were singles, 3% were separated and 2% were divorced. From the findings, a big number of SCA members were married which had implication on socio-economic contribution at the household level. Married and widowed people were dominant; this can be because the majority of members ranged from 21 to 65 years old. The accepted age of getting married in Rwanda is 21 years for girls and 25 years for boys. Also, the study assessed the educational level of the respondents since education has a direct influence on the contribution of SCAs to their members.

4.2.4 Highest educational level of respondents

Economic activity performance is better gorged through education spectrum. As shown in the Table 1, 60% of the respondents had primary level of education, 16% had university level (bachelor and above), 12% of respondents had no formal education, 5% of respondents had nine years basic education, 4% had vocational trainings while 3% had advanced level. The findings indicated that both educated and non-educated people participated in SCA activities. The level of education is not a barrier in exercising SCA activities even those who have informal education were able to join and play their role in SCA activities. The capability of SCA member and its level of integrity in the village count rather than knowing how to read and write.

Thus, all categories of people had their representative in SCAs as Benda, (2012) in Ntamazeze, (2013) said that, "The ones that are excluded from ROSCAs groups are the ones who can also be excluded from the community due to their behaviour." This

means that, the SCAs are inclusive. Apart from lacking integrity and good reputation, those who agreed to fulfill all obligations are welcomed to be part of any SCAs. In general, this inclusivity can bring about a positive change to the SCA members' welfare in particular and on socio-economic situation of Rwanda. The following assessment is about the experience accumulated by members in exercising SCAs activities.

4.2.5 The experience of members in SCA activities

The experience of the respondents in SCA activities was taken into account because members who have been active for more than four years were sampled and fitted into the selection criteria. It was presumed that these members would have been well established to provide the information concerning the SCAs. The findings showed that 57% of the respondents have been SCA members from four to five years while 43% have been SCA members for six years and above. The reason why there is a big number of members who have been active for five years and below may be due to the fact that the oldest SCA has been in operation for only 11 years; the first having started in 2006. The model used by the SCAs members was also a concern of this study.

4.2.6 The models used in SCA activities

The findings showed that 13% of the respondents were using ROSCA as their model of saving and credits while 87% of the respondents were using ASCA as their model. This is in line with what Benda (2012) reported that, "ASCAs as a savings-based microfinance instrument fit for the African context. ASCAs provide an opportunity to accumulate savings together, share experiences, and take small flexible loans from the group's funds for investment, consumption, or emergencies." Also, this study found a positive influence of ASCA participation on income and on the funds available to the household leading to greater spending and ownership of household assets than in

ROCSAs used like a lottery. Unfortunately, the third method called Accumulating Savings Associations (ASA) was not found in the sampled population. Normally, ASA is used by those who are in the foundation stage and want to save for Community based health insurance only. Those who are in fruition stage (mature) have big goals to achieve; that is why ASA was not found among sampled SCAs in this study. The multiple findings on socio-demographic characteristics of the respondents are shown in Table 1.

Table 1 : Socio-Demographic Characteristics of respondents

Socio-demographic		Frequency	Percent
Age groups	21- 35	26	26.0
3 3 1	36 - 50	47	47.0
	51- 65	25	25.0
	66 and above	2	2.0
Sex of respondents	Male	35	35.0
•	Female	65	65.0
Marital status	Married	75	75.0
	Widow/widowed	16	16.0
	Divorced	2	2.0
	Separated	3	3.0
	Single	4	4.0
Educational levels	No formal education	12	12.0
	Primary	60	60.0
	Nine basic education	5	5.0
	Advanced level	3	3.0
	Higher level	16	16.0
	Vocational training	4	4.0
Time spent in	4 to 5 years	57	57.0
SCAs	•		
	6 years and above	43	43.0
Model used	ROSCA	13	13.0
	ASCA	87	87.0

The following section is about the socio-economic status of the respondents before joining SCAs. The principal motive of this objective was to analyse the status of respondents before joining the SCAs so as to compare with the new status after joining the SCAs. The objective was to establish what SCAs have contributed to members in terms of socio-economic aspects.

4.3 The Socio-Economic Status of Respondents before and after Joining SCAs

4.3.1 Social status of members before joining SCAs

The socio-economic context of Rwanda was profoundly affected by the political issues and civil war of the early 1990s and genocide against Tutsi of 1994 and people continue to deal with the consequences. These events bankrupted Rwandans and increased their vulnerability, particularly among the widows and orphans. Table 1 had shown a significant number of widows 16% of the respondents confirming a deplorable and vulnerability status of population in Ngoma Sector. Also, a high density of population in Ngoma sector led to a lack of farming land and Ngoma Sector has big cells of rural areas such as Matyazo and Kaburemera. In these areas, people have small farms; making many of them unable to provide adequately for their households. During focus group discussions, a number of pertinent issues were revealed including respondents' status before becoming SCA members. Box 1 provides such a revelation.

Box 1 : Social status of one of the interviewees.

Before joining SCA, I felt lonely. After I lost my husband, I felt the world was huge. Life was a big mountain in my thinking. Unfortunately, we were living in a rented house. I couldn't imagine how a widow like me could run business without support from a husband. I made a decision to change my mindset and worked hard so as to be able to feed and provide education to my seven (7) children. Finally, I got information about Ibimina from my neighbour. I accepted to join them in a group of 20 members in 2010 where each had to contribute Rwf 500 per week. Soon after, I took a loan of Rwf 20,000 for starting a small business selling fruits. Today, I can take a big loan of Rwf 500,000 from my SCA because my dream has changed into reality. Now, I have my own house, all children have grown up and succeed well with their studies. My feelings of rejection by the community have been replaced by social security and friendship. For me, Ikimina is a rich family (SCA leader, 20 April, 2017)

The social interactions were an issue in the lives of people based on the testimony cited in box 1. This box reflects some social aspects of which the respondent was facing prior to and what happed after joining SCAs.

4.3.1.1 Social capital before members joined SCAs

The information recorded from FGDs and different interviews of members revealed that, the context of exclusion and marginalisation by community members was alimented by the genocide against the Tutsi of 1994 in Rwanda and its consequences where people lost their relatives during these hardship events hence, a place to meet and socialize was limited. In the same view, to renew the relationships, friendships, and networks were not an easy issue. That is why, some people including the one cited in the box one felt lonely and less integrated at both sides; the survivals of genocide and those who belonged to the family of perpetrators. Also the context of conflicts and mistrust among them were based on identity groups where unity and reconciliation were needed to put an end to that situation.

Furthermore, the context of social insecurity was noticed where people were facing challenges including safety needs; the spirit of fear and dependence syndrome which weighted to majority of respondents. This implied to rebuild confidence, trust and self reliance among community members through a trusted way. It was in that regards, where the SCA members in their majority (94%) testified that SCA programme was seen as a way to solve these challenges and restore social status in the community. The study also inquired on the social facilities including health insurance, electricity and tapped water for respondents before they joined these institutions.

4.3.1.2 Social facilities in the household before joining SCAs

The findings indicated that 33% of respondents represent the SCA members who had access to power/electricity in the house, 21% had access to tapped water, while 80 % of respondents had access to health insurance especially community based health insurance (commonly known as mituelle de santé). This type of insurance is commonly used by the mojority of the Rwandese who are engaged in subsistence farming and other activities of which it might not generate monthly salary. The findings on these facilities are shown in the Figure 2:

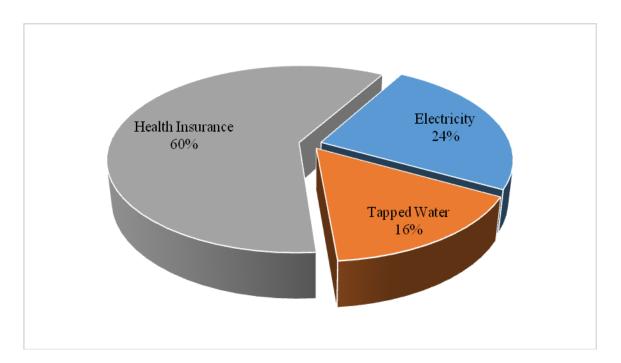


Figure 2: The social facilities: health insurance, electricity and tapped water before joining the SCAs

The following section is about the economic status of SCA members before joining the SCAs.

4.3.2 The economic status before members joined the SCAs

4.3.2.1 Income generating activities as measurement of economic status of members

Table 2 indicates that 78% of the respondents were mainly engaged in agriculture and livestock keeping before joining the SCAs, 8% were in business sector; 6% were engaged in the public sector (government employees) and 6% were in private sector (civil society) whereas 2% were engaged in the other activities such as house-keepers and tailors. This is in line with what was reported in 2013 that, "Agriculture has been the most important economic activity in Ngoma where around 85% of Huye residents depend on subsistence agriculture." (Huye District, 2013). However, the Government of Rwanda has implemented several programmes to increase the productivity with the vision 2020 and to contribute towards this target as well as the creation of off-farm jobs (*ibid*). This demonstrates poor capacity of earning sufficient income, the capability to access education, to improve housing conditions, access tapped water, food security and other services as well as assets growth. Table 2 shows the findings of the study.

Table 2: Income generating activity of respondents before joining the SCAs

	Frequency	Percent
Farming and livestock keeping	78	78.0
Business	8	8.0
Government employment	6	6.0
Private sector employment	6	6.0
Other	2	2.0
Total	100	100.0

The other aspect that may be taken into account and reflects on socio-economic status of respondents is categorization of people in the Rwandan context. Whereby, all population in Rwanda was classified into six categories by using "*Ubudehe* programme" means "people categorization".

4.3.2.2 *Ubudehe* programme as a measurement of economic status of members

In 2015, Ubudehe system was revised and divided into four categories. Ubudehe incorporates what is essentially a "poverty-mapping process", which has a systematic methodology and allocates each household to one of four ordinal income and poverty related categories differentiated by well-defined qualitative criteria. Therefore, the maps have become the basis for community decision-making under VUP programme (Vision 2020 Umurenge/Sector Programme) as it was reported in Government annual report (2009) about income support; subsidies in cash or in kind, that is health insurance (mutuelle de santé), scholarship for their children, Gira inka means "get a cow" to poorest households from government and non-governmental organizations. However, the criteria used in *Ubudehe* to identify and rank population targeted according to four different poverty levels using proxy indicators such as lack of bread winners in the household; a disabled person or mentally sick; a big number of dependents on household, head with no sufficient source of income. The range is from destitute (landless, no livestock, no adequate shelter, begging to survive) to lack of food and small amount of money gained per month. This process seems to be complex because it is not easy to identify possible candidates to fit into these criteria. Therefore, in the Rwandan context, the *Ubudehe* categories, as said above, might have been becoming an important aspect which is showing the social status and economic situation of people.

The findings reveal that, the largest category (66%) is three; for those who get monthly salaries from their employment or businesses. For them, the government subsidizes 50% of their children's education up to university level. Category one and two (3% and 30%) of respondents get government subsidies such as CBHI, school fees and some are also given a cow in *Girinka* (get a cow) programme while one (1%) represent category

four. This category is considered as the rich people in the community such as big business men/women, the government employees in high position, the private sector employees in high position. They do not receive any subsidies from the government. Briefly, there are still 33% of people in category one and two who need different supports and capital injection from the government and other donors. However, the most effective means to 'empower' the poor and support the poor is to increase household productivity, getting market for their produces and to diversify their source of income than giving them subsidies. The Rwandan system of socio-economic categorization is shown by the Figure 3:

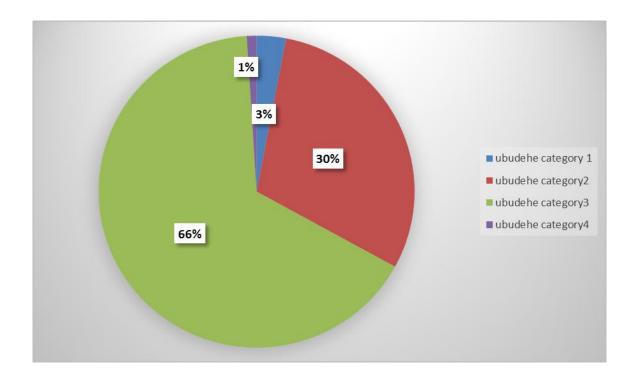


Figure 3: *Ubudehe* categorisation

4.3.2.3 Assets acquired in the households of respondents as measurement of economic status of SCAs members

The people's economic and social status is reflected by what they own. Members' status before and after joining SCAs, is shown in figure 4, hence before members joined the

SCAs, they owned 174 (24%) beds, 153 (21%) mattresses 107 (15%) other domestic animals such as goats, pigs and chicken, 78 (11%) members owned shelters, 55 (8%) radios, 55 (7%) of cows, 49 (7%) cell phones, 24 (3%) bicycles, 15 (2%) televisions, 13 (2%) computers, and no motorcycle. The study used the assets which had a meaningful role in the life of people in Rwandan context. For instance, if someone owns a cow or a shelter that shows a significant of wealthily while if someone owns television or computer that is a sign of being educated. Figure 4 provides the details on tangible properties SCA members owned before and after becoming members of SCAs:

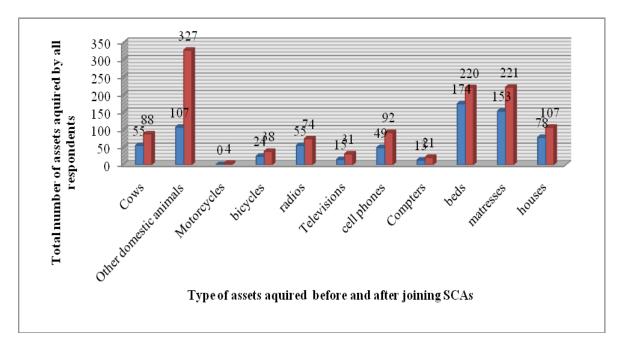


Figure 4: Assets acquired in the household of respondents before and after joining the SCAs.

4.3.3 The socio-economic status after joining the SCAs

The findings indicated that there was a clear difference in the socio-economic status of members as a result of joining SCAs. The following section dealt with the social benefits of SCAs to their members.

4.3.3.1 Growth of social capital as a result of joining SCAs

The study assessed if there was any significant social change resulting from joining SCAs. The findings revealed that all members 100% testified positively on social capital growth. The testimony recorded during FGD (see 4.3.1) supports the findings. This was also in line with the Social Wealth Theory which was used as a guide to this study. The theory consists of features of social organization such as networks, norms and social trust that facilitate coordination and cooperation for mutual benefit. The study on the growth of social capital was also in line with what Woolcockin (2000) reported that, "social capital helps the poor to manage risk and vulnerability". Thus, the growth or high level of social capital was associated with a high level of altruism among individuals; this makes it possible to take into consideration the welfare of other members of the group. Also, the presence of social capital always has a positive effect on a community's well-being as a whole. In addition, the information given from SCA coordinator supplemented also the findings which said that:

"SCAs are likely to be a good channel in promoting social integration, the members socialize, support each other especially during the hardship and family celebrations" (SCA Coordinator, 3 May, 2017).

This means, in the SCAs, none was rejected or isolated in the community. They did support each other. This is supported by one SCA facilitator at Matyazo Cell, who pointed out some social benefits of SCAs by saying that:

"Through regular meetings, SCAs helped their members on social interactions where they socialize by sharing daily experiences, they share information, create friendship as well as creating networks among themselves" (One of Facilitators, March, 2017).

In the weekly meetings, *Tuzamurane* members sit around a cycle, sharing the Word of God before starting their saving activities and share the news from their respective families. It was really enjoyable to hear from them. Plate 1 shows such proceedings.



Plate 1 : SCA *Tuzamurane* in its weekly meeting

4.3.3.2 Peer learning approach

SCAs are becoming a forum for a creation of community learning where each SCA member tries to learn from others. "*Ikimina ni ishuri*" means "SCA is a school". Some SCA members attend evening classes for adult education "*amasomero*" where they learn how to read and write. The religious and local government institutions play a big role in providing buildings/classrooms for those SCA members. For instance, at Matyazo cell, SCA members are allowed to use either Cell's hall or Matyazo Pentecostal Church hall in their regular meetings, trainings or learning. The Facilitator mentioned also that:

"Few SCA groups meet by rotation in their respective households." (One of Facilitators, 23 March, 2017)

This happened in the urban area of Butare cell where SCA members incorporated spiritual activities in their SCA groups and meet during the evening hours after their ordinal activities. For example, the members of "*Ikimina Hope A*" meet every Tuesday from 5:30 pm to 8:30 pm. By rotation, members took these opportunities to visit each other. SCAs also help members in addressing their social conflicts or other social problems which can hinder the growth of social capital among members.

4.3.3.3 Unity and reconciliation promotion and other social benefits

The Rwanda society was characterised by the conflict between people based on group identity. During the study, the SCA members were given an open question to describe other benefits from SCAs beside of tangible things. The aim was to assess social benefits on how they work together without conflicts bearing in mind the historical background and on how the SCAs improved unity and reconciliation among members.

The findings revealed that, 68% of the respondents testified on unity and reconciliation, 13% created friendships and networks among them, 10% of the respondents furthered their business skills and other 9% indicated mutual support from SCA members. This is confirmed by what Staub (2014) also reported that:

"Differences in power and privilege were one of the central sources of conflict between group identity (as Hutu, Tutsi or Twa) in Rwanda, and that conflict led to genocide. This did not allow people to have a smooth open and honest engagement due to wound of the past. Hence, the government introduced socio-economic reforms to eliminate an official discrimination based on that long standing hostility between the groups. It has

focused on, and being very successful in, promoting economic development where it is likely to make equal access a reality."

Therefore, SCAs become a channel through which the unity and reconciliation, mutual supports, business skills and friendship among members were promoted. This means that, SCAs cleaned and transformed the sad history of the Rwandans into a greater one where everyone including the political leaders does not hesitate to use them as a trusted channel for any opinion. Additional information, SCAs have proved to be a good channel of political aspiration in creating a good citizenship. The interview recorded from one cell leader said that:

"When there is any information from the local or centre government, it is very simple to communicate to the one person who is SCA leader; promptly the information will be shared to the whole community members than using social Medias" (One of cell leaders, 2 May, 2017).

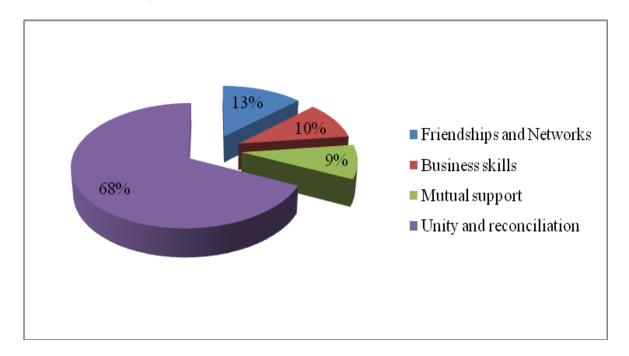


Figure 5: Social benefits from SCAs

4.3.3.4 Access to health care

(i) Health insurance and other house conditions as result of joining SCAs

Comparing living conditions of SCA members before and their living conditions after they joined the SCAs, there showed improvements in terms of access to health care and house conditions. The findings revealed that 80% of the members had health insurance before joining the SCAs while after joining the SCAs the percentage of members having health insurance increased to 99%. On the other hand, before joining the SCAs, only 33% had electricity in their homes but after joining SCAs, the number increased to 50%. However, SCAs had not significantly influenced members to access tapped water. After getting a picture on how household facilities were presented by using descriptive statistics, the scientific method called McNemar t-test statistics was used in order to make a generalisation of findings. The findings are shown in the Table 3:

Table 3: The social facilities in the households of respondents before and after joining the SCAs

McNemar Test	Electricity in the house before joining SCA & electricity in the house after joining SCA	Tapped water in the household before joining SCA & water in the house after joining SCA	Health insurance before joining SCA & health insurance after joining SCA
n	100	100	100
Exact Sig. (2-tailed)	.000 ^b	.125 ^b	.000 ^b

The findings showed that electricity in the house before and after joining SCAs its p-value is 0.000 which is less than 0.05. This implies that electricity in the household had a statistically significant difference in the proportion of who had electricity in the house

before and after joining SCAs. This means that, joining the SCAs improved in having electricity in the household of respondents.

For tapped water before and after joining SCAs, the findings revealed that a p-value of 0.125 was obtained which is greater than 0.05. This implied that, for tapped water there was no statistically significant different in the proportion of who had water in the house before joining SCAs. This meant that SCAs had no influence to respondents in accessing tapped water in their households.

The findings on health insurance before and after joining SCAs revealed that a p-value of 0.000 was obtained which is less than 0.05. This confirmed that the health insurance had a statistically significant difference in the proportion of who had health insurance before joining SCAs. This implies that, SCAs were helpful to members in accessing health insurance after joining the SCAs. The following section is about the type of health insurance used by the respondents:

(ii) Types of health insurance used to access health services

The study also assessed the types of insurance used by SCA members in accessing health services. The findings revealed that 82% were using community based health, 6% used RAMA (Rwandaise d'Assurance Maladie) for all public workers, 4% used Mituelle de Santê Universtaire du Rwanda (MSUR) for all workers in the National University, 3% used indigenous based health insurance. The other 3% were using Societê Rwandaise d'Assurance (SORAS) or Mediplan for all commercial and private sector workers and the remaining 2% were Military Medical Insurance (MMI) for all military services.

To obtain health insurance is not a choice; it is an obligation confirmed by Article no 33 of the Law no 62/2007. This is in line with what Ministry of Health (2010) said that:

"Since January 2007 it has become an order for all Rwandans resident in Rwanda to get a health insurance. The community based health insurance (CBHI) scheme will be scaled up even further to ideally ensure coverage for everyone, while looking for more sophisticated and diverse mechanisms to subsidize the premiums for the poor."

It was also linked to WHO (2008) which stated that:

"Better health is central to human happiness and wellbeing because it also makes an important contribution to economic progress, as healthy populations live longer, are more productive, and save more."

Most of the developing countries are lagging behind in their health systems and this has negatively impacted on the quality of lives of many people.

However, in Rwanda, the findings showed an excellent improvement in terms of access to health care. Everyone is concerned; each type of health insurance links with the social status, *Ubudehe* category and the economic activity of the users. For instance, when it comes to Community Based Health Insurance (CBHI), commonly known as *Mituelle de Santé* it is a non-profit mechanism based upon solidarity among members. Actually, each member has to contribute Rwf 3 000 (equivalent to 7 950 Tshs) per year. The CBHI scheme operates in rural areas and its members are relatively poor. SCAs then, play a big role in mobilization of funds for CBHI. While, Indigenous based health

insurance is a support in kind for the poorest households classified in *Ubudehe* category 1 and 2. Household members receive subsidies for health insurance services from the government and other sponsors. Figure 8 shows the findings on type of health insurance used by the SCA members:

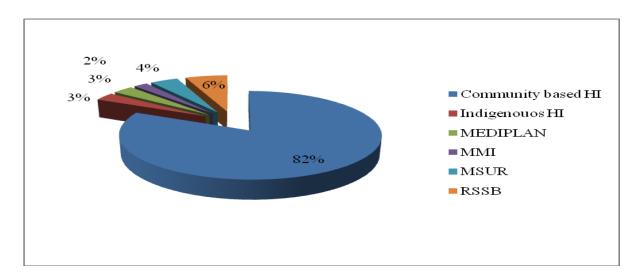


Figure 6: Types of health insurance used by the respondents

Closer to the type of health insurances, SCAs promote adequate shelter among their members. This is indicated by looking at ownership of the house as one of the indicators in improvements of quality of life.

4.3.3.5 Access to decent shelter

Adequate and decent shelter is human right. Table 4 indicates that 80% of the respondents acquired their own house after joining the SCAs, 12% were capable to rent a house, 6% were still living in their parents' house, while 2% shared house with others. After the phasing out of "Nyakatsi" (thatched houses) by the government between 2009 and 2011 as reported by MINALOC (2011), the SCAs were also involved in the campaign in which it was a part of community development and social welfare programmes. That campaign aimed at allowing all Rwandans to access decent homes, thus enabling the Government to reorganize the rural settlement for social and economic

transformation. This programme preserved the community network of every family. Most of the time, a collective rehousing was proposed to restore village environment. Therefore, "Bye Bye Nyakatsi programme" was mostly coordinated with "Imidugudu"/villages projects, a rural planning to bring together isolated families and scattered settlements into villages. This collective transformation was a key for rationalizing all necessary infrastructures (electricity, water, waste management) and for developing community public utilities (markets, schools, medical centers).

From the success stories recorded during the FGD, some SCA members testified positively efforts made by their memberships in making bricks to rebuild new shelters for themselves and for their neighbors in need.

Table 4: Ownership of the house

Shelter for the SCA members	Frequency	Percent
Parents	6	6.0
Rented	12	12.0
Shared	2	2.0
Yours	80	80.0
Total	100	100.0

Food security among SCA members was also assessed in this study in order to measure how far the SCA members improved and satisfy their physical need. The following section shows the findings:

4.3.3.6 Food security

Food, in both quantity and quality is a basic human need and right. Table 5 reveals that 75% of the respondents testified that their diet was improved since they joined SCAs while 21% their diet stayed the same, 3% their diet worsened and only 1% had no idea of the situation of his/her diet status. Food shortage was a big challenge in Rwanda from 2015 up to now, few households are still struggling. This is in line with what World

Food Programme (2016) reported that: "A half of all households in Rwanda had food access problems since 2015 and poorer households owning fewer assets and with more unstable sources of income are more likely to have experienced food shortages and shocks." SCA members faced the same challenges but, the majority of SCA members testified positively contrary to the WFP report; due to the loans taken from SCAs which helped them to buy food even if the market price was very high. Hence, a significant number of SCA members of about 75% made a greater improvement on food security since they joined SCAs. Also, the findings showed 99% of the respondents were aware of what was going on in their households concerning food. Awareness will help them in addressing that issue.

Table 5 : SCA members' diet improvement

Diet improvements	Frequency	Percent
Improved	75	75.0
Stayed the same	21	21.0
Worsened	3	3.0
I don't know	1	1.0
Total	100	100.0

SCAs played a role in providing human capital to their members so as to attain human development through education and trainings such as skills development and know-how. The following section presents the findings on SCA member's access to education.

4.3.3.7 Access to education

Some SCA members invest in their children s' education or in their own education; this will be discussed on section 4.5 where the table 9 presents the findings on the use of loans specifically 21% of the respondents obtained loans for education; whether for them or for their household members. Also, the information gathered from the FGD

shows that, SCAs members played a role in "amasomero" means adult literacy where the SCA leaders head and facilitated lessons as teachers of illiterate members. Therefore, SCAs contributed to their members' education. There was a behaviour change at individual level as a result of learning. Normally once a person is educated, one also is empowered and an empowered person can claim his/her rights in the society. Also, education sustains and accelerates people s' development as it was reported by Alhas (2005) that, "education endows those who are educated to fight poverty and other related socio-economic problems." This idea therefore puts it clear that an educated person is also qualified for good job and consequently that can easily bring about improvements in the economy.

4.3.3.8 SCAs provide trainings to their members

The SCAs facilitate trainings to their members so as to build their capacity to perform different social and economic activities. In this regard, the information given by the SCA facilitators confirms that their role was to train SCA members and to play as intermediary between SCA members and other institutions interested in SCA activities. This is supported by what Mugisha (2013) reported that, "Different NGOs in supplementing SCAs (for instance Hope International), focused on trainings and building the capacity of partner leaders at different levels, program volunteers as well as savings group leaders on saving models." In addition, through trainings, SCA members acquired technical knowledge; their mind set has changed and became more productive to their households in particular and to the community in general. Trainings helped to create job or create self-employment and become self-reliance. The following is the success story recorded during the FGD at cell Matyazo where a young woman called Jacqueline Mukamabano benefited from trainings on investment in small generating

income projects and she became an ample proof on how SCA member can acquire an entrepreneurial skill by starting with small capital.

4.3.3.9 SCAs provide entrepreneurship skills

Plate 2 shows Jacqueline Mukamabano a farmer and entrepreneur of 32 year, mother of four children, member of SCA *Dukundumurimo* supported by Hope International through Pentecostal Church – Matyazo Parish. Since she joined the SCA in 2012, there were 22 members contributing Rwf 250 from each member. One year later, the contribution was doubled to Rwf 500 each. At the moment, they were contributing Rwf 2 000 per week. Hence, Jacqueline started acquiring loans in order to build her financial independency. She took several loans but, firstly, she took Rwf 20 000 for buying one pig and her intention was to become livestock keeping especially for pigs. She has 30 pigs and employed two people to help her feeding the pigs. In 2015, she expanded her investment to banana plantation using manure from pigs. Since September 2016, she has started harvesting big bananas. She had generated Rwf 300 000 (equivalent to Tshs 750 000 per month) from selling bananas and pigs. She said that:

"Through SCA to become rich is not a dream. It is a reality" (Jacqueline, 5 May, 2017).

As result of the SCA training, she managed to use her earnings wisely by investing back into businesses.



Plate 2 : Entrepreneurship skills: Jacqueline shows her piggery and banana plantation projects

The assessment was also done on the economic status of SCA members after joining the SCAs carried out in order to establish the relationship between the findings and the finance-growth theory which was used to guide this study. Therefore, access to financial resources was a key factor responsible for enhancing income equality and fast economic growth. Hence, the income generating activity (IGA) of the respondents was one of the sources of financial power enabling SCA members to address some of their economic needs. The following section presents the findings on economic status after members joined the SCAs.

4.3.4 Economic status after members joined the SCAs

4.3.4.1 Respondents' source of income

Among the major objectives of joining SCAs is to increase members' income. Table 6 shows that 62% of the respondents were still currently engaged in agriculture and livestock keeping but at low level when compared to the situation that existed before they joined the SCAs. The percentage of farmers and livestock keepers was at 78% and it was showing poor capability of earning sufficient income. But, the findings, demonstrate an improvement of life style where the number of the agricultural and livestock keeping has been reduced by 16% comparing to the findings presented in table 2. It also makes sense where some respondents settled in rural area and their main source of income was farming and livestock keeping comparing to SCA members who are staying in urban area. However, after they joined the SCAs they have learnt to diversify their source of income and improve agriculture practices, increasing number of cattle as well as to be involved in more valuable activities such as, for business industry (22%), government employees (8%), private sector employees (civil society) (4%) and transport industry (4%).

The transport industry has enormously changed the lives of many households in Rwanda, especially in the use of motorcycles (Taxi moto) or "Bodabodas in Tanzania and bicycles (taxi vėlo). This tertiary industry started after members joined the SCAs. This implies an increase of source of income in many households. It was also noticed that, one can be engaged in different activities at the same time but the study focused on the main activity of the respondents.

Table 6: Distribution of respondents according to the current income generating activity

	Frequency	Percent	
Farmer and livestock keeping	62	62	
Business	22	22	
Government employment	8	8	
Private sector employment	4	4	
Transport	4	4	
Total	100	100	

4.3.4.2 Source of income of SCA members spouses

The income generating activity of the spouse of the respondents was assessed in this study because it may also be another source of income; hence can contribute to the wealth or otherwise of the whole family. Figure 7 shows that 68% of the respondents spouses are engaged in agriculture and livestock; 5% in business; 14% were government employees; 8% were employees in private sector and 5% were engaged in other activities like housekeepers and tailors. The majority of the spouses were engaged in farming and livestock. It can be also understood because 63% of the respondents settled in rural areas. The number of the government employees of the spouse shows an increase of 3% compared to the number of government employees of the respondents. The assumption was that, spouses were likely to be engaged in other IGA other than farming and livestock keeping. The study on IGA however, was not exhaustive in terms of all source of income in the households of the respondents. It was limited only to the

SCA members and their spouses ignoring that in the African traditions, each family members can contribute financially to the wealth (or otherwise) of their households. The study rather focused to two persons who were decision makers for their households. The IGA of spouses were not definitely different from the IGA of the respondents when comparing both respondents and their spouses. Therefore, spouse's IGA could not be taken as a main factor to influence the welfare of the respondents.

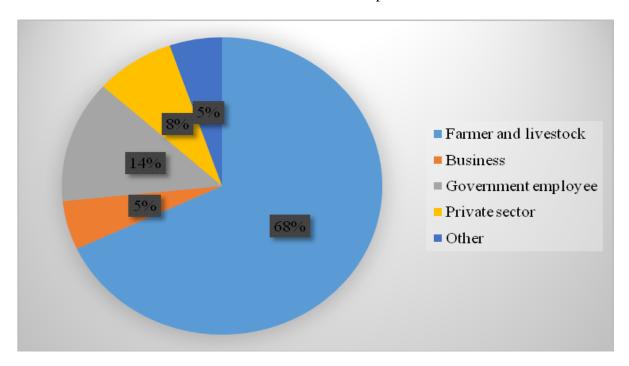


Figure 7 : IGA of the spouse

4.3.4.3 Saving services

The study further went to check on the amount saved by the SCA members so as to understand each member's current portfolio accumulation. Table 7 indicates that, 52% of the respondents saved between Rwf 100 001 to 200 000 (equivalent to 264 881 to 238 095 Tshs); 29% saved between Rwf 1 to 100 000; other 11 % saved between Rwf 400 001 to one million and 1% saved between Rwf 300 001 to 400 000. This means that, the amount saved was in the range of small, medium and high income earnings.

Savings is the main product offered by the SCAs because these are the roots which maintain the existence of SCAs. SCAs help in generating income; since money saved and borrowed generates a rate of return especially for those who are using ASCAs.

The information obtained from SCA coordinator indicated that, "the big or a small amount of SCA members may be influenced by different factors, among them:

- (i) Some SCA members end their saving cycles at the end of each year. It is normal to find the small amount at the beginning of year because they start afresh at the beginning of New Year; forgetting about the previous amount shared in their record system.
- (ii) The status of membership of the SCAs: this influence the amount of savings accumulated in the SCAs. For instance, a rich person cannot save like a poor person. The financial status or financial capability of each member can be a factor influencing the amount saved in the SCAs;
- (iii) Time SCAs were initiated to do their activities: if SCA members decided to put together their savings for long period of time without sharing their amount, their savings would be higher than those who end their saving cycle every year;
- (iv) Location of the SCA members (urban/rural): Also, this can be a contributing factor to the amount saved with SCAs. For example in rural areas the people used to harvest their crops to feed their households while in urban areas, the food is purchased from the market.

This is in line with what Gatete in Mugisha's report (2013) who said, "Savings depend on one's income; it is not about minimum or maximum but about a culture." There is no small money because people are of different age and income groups. One can start saving for his/her child from the time of birth to prepare for the future. If one starts saving early no matter how much the money is, it will accumulate and increase. It is a

culture that people should adopt. The savings culture is also supported by the government where Mugisha (2013) has reported that:

"The Government has launched an ambitious strategy that sought to promote a savings culture among Rwandans. The fundamental aim was to mobilise resources for investments in both public and private sector to enable the country to maintain a stable macroeconomic growth and saving is not for the rich only. Everyone can save as long as she/he is focused to have financial independence."

Therefore, the SCA members who save a little amount of money, also earn a little income. The amount of money saved in SCAs can be determined by the differences in the background of individuals because some of the people are still having an antisavings mentality and the Rwandese proverb explains well this "amavuta y'umugabo ni amuraye ku mubiri" means that "consuming today is more important than planning for the future". It was also noticed therefore, for members to be able to accumulate more financial resources they need trainings on how to mobilize them, on how to save for long period of time not for saving in short time.

Table 7 : SCAs savings profile

Money saved grouped	Frequency	Percent
1-100 000	29	29
100 001-200000	52	52
200 001- 300 000	7	7
300 001- 400 000	1	1
400 001 - 1 000 000	11	11
Total	100	100

This study looked at type of savings used by members before and after joining SCAs as to find out if there was any improvement.

(i) Model used in savings before members joined the SCAs

The majority of respondents did not save before joining the SCAs. About 60% saved their money using different models, while 40% had no savings at all. The findings in the Table 7 revealed that, before members joined the SCAs, 40% were not used to save, 24% used the commercial banks, 22% used to save their money at home, 11% used SACCOs, 2% used other co-operatives, and nearly 1% were using microfinance. Only 38% of respondents had used formal saving models, that is, commercial banks, co-operatives (these are other co-operatives not related to the financial institutions such as agricultural marketing, transportation co-operatives, handcraft co-operatives, coffee and rice co-operatives). In Rwanda, there are also three types of SACCOs: *Umwalimu* SACCOs (formal financial association for teachers), *Umurenge* SACCOs (formal financial institutions for peasants of each local government/sector) and *Zigama* SACCOS (formal financial institutions for military) and other microfinance models.

(ii) Model used in savings after members joined the SCAs

After members joined the SCAs, there is a tremendous improvement on model used. All the respondents were now using the safe and trusted savings models.

Table 8 revealed that 28% of the respondents were now using different banks as their saving facility, 2% use co-operatives, 16% use the SACCOs and 54% use SCAs as their saving facility. However, some members used to save their money before they joined the SCAs but after joining the SCAs, those who used to save in their homes, shifted from these unsafe environments to SCAs. From the information obtained from focus group discussions, the reason for having many people in SCAs is that, there are no complications for saving services, no queue, and no wasting time in SCAs. The SCAs' savings and credit facilities or services are geared toward members' economic activities

like faming, livestock keeping and business. This is in line with what FinScope (2012) reported that:

"The goal of financial sector development and increased financial inclusion in Rwanda is to improve the lives of Rwandans. Especially, the accessibility to secure savings facilities and other financial services will better enable the poor to build financial security, manage financial shocks and to invest in business opportunities."

The government does not encourage only the poor people to join SCAs. Savings and credit services are as well for all engaged in the farming, public and private sector jobs. But, salaried jobs or people who generate monthly wages were likely to be using the trusted saving model such as commercial banks and SACCOs.

Table 8: Type of saving used by the members before and after joining the SCAs

Type of Savings	Before SCAs		After SCAs	
	Frequency	Percent	Frequency	Percent
Home	22	22	0	0
Commercial banks	24	24	28	28
co-operatives	2	2	2	2
SACCOs	11	11	16	16
other microfinance	1	1	0	0
SCAs	0	0	54	54
No savings	40	40	0	0
	100	100	100	100

The following section covers the uses of loans obtained from SCAs by the borrowers.

4.4 The Use of Loans by SCA Members

Universally, people's reaction concerning money is that, it is never enough. In economics, it is said "needs always exceed the income". However, the success in

financial management is not determined by the amount of money one has. The success in the use of financial resources implies the mechanisms or principles of resources management for example investing to make more money, changing consumption attitude and mindset. After obtaining loan from SCA, it is the responsibility of each member to know where to allocate these financial resources.

4.4.1 Credit services offered to SCA members

By design and nature, SCA provides credit services to its members. Table 9 indicates credit services offered to SCA members. The findings showed that, nearly 69% had obtained between 1 to Rwf 100 000 as loan, 13% had taken Rwf 400 001 to one million, 9% borrowed Rwf 200 001 to 300 000, 6% obtained between Rwf 100 001 to 200 000 as loan, 3% borrowed 300 001 to 400 000 Rwf. Only 1% of respondents had not taken a loan from SCAs. Thus, a significant number of respondents used credit services from SCAs by borrowing a small amount of money between Rwf 1 to 100 000. This implies either there is liquidity problem among members and financial capabilities of the SCAs to offer a big amount of credit, or credits are tailored to their needs. On the other hand, it depends on different circumstances such as having a good level of education or the geographical location settlement of the respondents (rural/urban). Also, credit services go hand in hand with the savings as it was discussed. If there is a little saving money in the basket, it will affect credits offered to members. There is no small money; it depends on the tailored pattern of the borrowers.

Table 9: The Amount of the last loan taken by SCAs members

Last loan grouped	Frequency	Percent
1-100 000	68	68
100 001- 200 000	6	6
200 001- 300 000	9	9
300 001- 400 000	3	3
400 001- 1million	13	13
Total	99	99
Missing (who didn't take a loan)	1	1
Total	100	100

The following section gives the details on main purposes of the use of these financial resources borrowed from SCAs.

4.4.2 The purposes of loans borrowed by the SCA members

All borrowed money is for an intended purpose to the borrower. Table 10 shows that 42% of the respondents mentioned that credits obtained from SCAs were directed to investment in their businesses; about 21% used their loans in education; 12% have used it for adding and purchasing various assets for their households such as television, cell phones and others; 10% of the respondents used their loans for medical expenses; 7% used their loans to purchase groceries; 6% used it for paying off debts; while, 1% used their loans for other expenses such as family celebrations like weddings. Only one respondent has not taken loan because he is still studying.

The majority of respondents invested their loans in their business which means that loans from SCAs provide a start-up funding for consolidating their business. Availability of funds, low interest rates and a smooth cash flow motivated them since local banks cannot solve such issue because of their exorbitant interest rates, collaterals and other bank regulations. This is supported by what Kedir *et al.* (2012) reported that, "ROSCAs are rationalised as responses to the failure of formal financial markets" and the study done by Khan (2012) in Pakistan where many policy initiatives have been

introduced to widen the formal funding opportunities for small firms but it was clear that the problem continued. Moreover, 21% preferred to invest in education either for themselves or their household members. It is assumed that an educated person is employable and can have good standard of living and relatively able to earn higher income and therefore, minimise poverty. The World Bank cited by Alhas (2005) suggested that:

"Education gives people a base of knowledge, attitudes, values and skills, which equip people with potential to learn, use and present new opportunities related to socioeconomic problems."

Table 10: Purposes of loans taken from SCAs

Purposes of loans	Frequency	Percent
Food	7	7.0
Paid off debts	6	6.0
School fees	21	21.0
Medical expenses	10	10.0
Business investment	42	42.0
Household assets	12	12.0
Others	1	1.0
Total	99	99.0
Missing System	1	1.0
Total	100	100.0

4.4.3 SCAs promote consumption attitude

The study assessment also focused on the consumption attitude of SCA members with the aim of getting the views from the 'outbox" persons. One of interviewee said in Kinyarwanda that:

"Iyo barashe ku ntego simbona yose bayamarira mu kabari? Kubw'iyo mpamvu sinshobora gutakaza igihe n'amafaranga byanjye mu Kimina" means that, "I cannot waste my time and money in the saving group, because I saw some members misusing their yearly savings in bar in a day soon after ending up their saving cycle." (One of non SCA members, 27 April, 2017)

It is a normal reaction for someone who is not interested in the SCA activities. It also happened to few SCA members especially during Christmas and New Year festivals. But, it cannot be an excuse for someone not to join the SCAs because the SCAs promote a wise use of financial resources and the success stories prove the reality. However, few deviations in management of financial resources can occur everywhere not only among the SCA members. This is in line with what Terlau and Hirsch (2016) reported that, "responsible consumption implies the satisfaction of personal needs today without jeopardising consumption of potential needs for the future generations." For instance, when SCA members end their savings cycle, they normally end during Christmas and New Year events; some members use their share drinking beer or buying their wants such as barbecues, expensive clothes for these events instead of investing in project generating income. The following section discusses on size of households of the respondents.

4.4.3.1 Respondents' household size

The study assessed also the number of dependents of each household that is, number of biological children and dependents in charge of SCA members. The aim was to identify the responsibilities of SCA members which can influence them to a certain number of the expenses to physical needs only. Figure 8 revealed that the average of biological children in the family of SCA member is four (4) with a maximum of 8 biological children for each. Also, the SCA dependents range from 1 to 12. A minimum of one dependent, a mean of 6 and a maximum of 12 dependents in each household was recorded. Therefore, to ensure good management of financial resources with a big number of dependents, SCA members, need to adopt and involve the major strategies to earn more income and to reduce unnecessary expenses. Even the SCA members who

are still single have almost one person in their charge. This confirms large population discussed in the previous section of this study.

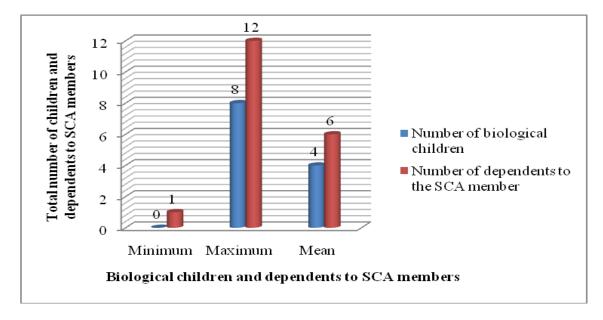


Figure 8: Number of dependents to the SCA member

4.4.3.2 The Relationship between dependents and respondents

Respondents' household is comprised of nuclear family members and dependents. This is a normal scenario in traditional African households. Figure 8 indicates the findings where 66% represent the spouses. This is contradictory to the findings presented in the Table 1 concerning the marital status where 75% were married. May be, this can be due to the fact that some men or women with spouses were in prison due to the crimes of genocide but they still consider themselves as married. The reality is that some households in Rwanda are headed by the women and children due to the consequences of genocide. Also, few married people might work far from their household because the work place can be another reason for this variability in statistics. The other 25% are other relatives to the respondents such as parents, sisters or brothers, and so on. 9% represent other persons with no direct relationship to the SCA members. Those were the orphans adopted, the housekeepers, or other dependents that had no direct relationship

to the respondents. The reason why SCA members have a big number of dependents is that, after 1994 genocide against the Tutsi, many children lost their parents. For this reason, their relatives and other good hearted people adopted some of the orphans and took care of them. However, taking care of someone requires means and responsibilities and can affect the consumption pattern of the whole family. Table 11 gives details in the relationship between SCA members and their dependents.

Table 11: Relationship to the SCA members

Relationship to member	Frequency	Percent
Spouse	66	66.0
Other relation	25	25.0
No relation	9	9.0
Total	100	100.0

Besides minor deviations in consumption attitude found with SCA members as discussed, the following section focuses on improvements made by SCA members toward their assets.

4.4.4 Improvements made by SCA members through tangible assets growth

Through SCAs, members are encouraged in accumulating tangible assets as to improve upon their socio-economic status. Figure 10 shows the findings on assets acquired by members after joining SCAs. They owned 27% of other domestic animals (goats, pigs and chicken), 7% of cows, 18% beds, 18% mattresses, 9% members owned houses, 7% cell phones, 6% radios, 3% televisions, 3% bicycles, 2% computers, and 1% for motorcycles. The tremendous improvements in terms of assets were made at each category of asset compared to existed situation before members joined the SCAs (Figure 4). For instance, a cow in Rwanda context is a symbol of richness. So that is why the government adopted a programme called "Girinka" means "Have a Cow" to the poor as to improve their quality of life through milk product and manure for

fertilising their farms. When someone owns his/her adequate house in the Rwandan society, it adds value to that person. It means that she/he cannot be counted among the poorest based on *Ubudehe* programme. Therefore, SCAs have shown to be of great importance in ensuring their members' assets through which they fight poverty and improve members' welfare.

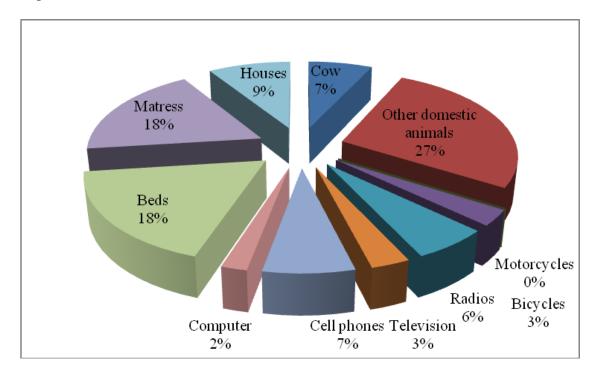


Figure 9: Assets acquired in the household of respondent after joining the SCAs

The Inferential analysis (*see explanations in appendix 8*) was used where by paired samples t-test was helpful to test if joining the SCAs helped members in acquiring more assets so as to generalise the findings to all population. Table 12 was drawn with the aim of making the differences between Figure 4 (assets acquired before joining the SCAs) and figure 10 (assets acquired after joining SCAs) in order to show the improvements made by members in assets possession after they joined the SCAs. The findings revealed that cows after and before joining SCAs with confidence level of 95%, there were between 0.192 (lower) to 0.468 (upper) with paired sample t-test with degree of freedom of 99 equal to 4.734 where P-value was equal to 0.000 which was

less than 0.05. The assumption of the mean number of assets in terms of cows *was not improved after joining SCAs*" was rejected because it was not confirmed by the findings. Contrary, there was a statistically significant difference in means of cows after members joined SCAs. Therefore, SCAs proved to be a great instrument in acquiring cows.

The difference between other domestic animals after and before joining SCA at 95% of confidence interval; the mean difference is between 1.368 and 3.032 and t(99) was equal to 5.245 and p-value was equal to 0.000 which is less than 0.05. In this case, the assumption saying that the mean number of assets in terms of other domestic animals was not improved after joining SCAs" was rejected because it was not confirmed by the findings. Contrary, the number of other domestic animals after joining SCAs was a statistically significant difference in means. This is implied that, SCAs influenced on other domestic animals after members joined SCAs hence, SCAs played a big role in encrease of other domestic animals comparing to existed situation.

The third pair is the difference between motorcycle owned after and before joining SCA at 95% confidence interval mean difference is between 0.001and 0.079 and t(99) was equal to 2.031and p-value is equal to 0.045 which is less than 0.05. In this case, the assumption saying that "the mean number of assets in terms of motorcycles *was not improved after joining SCAs*" was rejected because the findings showed that, the mean of motorcycle owned before and after joining SCA is zero. Therefore, there was a statistically significant difference in means of motorcycle owned before and after joining SCAs. This implied that members who joined SCAs their mean number of motorcycle owned have increased after joining SCAs.

The fourth pair is the difference between bicycle owned after and before joining SCA at 95% confidence interval mean difference is between 0.071and 0.209 where t(99) is equal to 4.015 and p-value is equal to 0.000 which is less than 0.05. The null hypothesis was rejected; which stated that mean of bicycle owned before and after joining SCA was not increased. Therefore, there was a statistically significant difference in means of bicycle owned before and after joining SCAs then the study proved that, SCAs are a greater tool in bicycles growth. The fifth pair is the difference between radio owned after and before joining SCA at 95% confidence interval; mean difference is between 0.107 and 0.273 where t (99) is equal to 4.533 and p-value is equal to 0.000 which is less than 0.05. In this case the assumption stated that, there is no improvement on mean of radio owned after joining SCAs was rejected. Contrary, there was a statistically significant difference in means of radio owned before and after joining SCAs which meant that SCAs played a big role to increase radios of their members acquired after joining the SCAs.

The sixth pair is the difference between television owned after and before joining SCAs. With 95% of confidence interval; a mean difference is between 0.087 and 0.233 where t (99) is equal to 4.342 and p-value is equal to 0.000 which is less than 0.05. For assets growth in terms of television, there was a statistically significant difference in means of television owned before and after joining SCAs. The study therefore showed that, the mean number of television owned had increased since members joined the SCAs.

The seventh pair is the difference between cell phones owned after and before joining SCAs with 95% confidence interval. The mean difference was between 0.303 and 0.557 and t(99) was equal to 6.722 and p-value was equal to 0.000 which was less than 0.05. In this case the null hypothesis was rejected which stated that, the mean of cell phones

owned had not improved after joining SCAs. Therefore, the findings showed that, the mean number of cell phones owned had increased after members joined SCAs. There was a statistically significant difference in means of cell phones owned before and after joining SCAs.

The eighth pair is the difference between computer owned after and before joining SCAs with 95% confidence interval, the mean difference was between 0.019 and 0.141 where t(99) was equal to 2.602 and p-value was 0.011which was less than 0.05. In this case the assumption which stated that mean of computer owned after joining SCA was not increased. However, the findings proved the contrary where there was a statistically significant difference in means of computer owned before and after joining SCAs. Hence, SCAs influenced their members in acquiring computers.

The ninth pair is the difference between bed owned after and before joining SCAs with 95% confidence interval, the mean difference was between 0.268 and 0.652 and t(99) was equal to 4.75 and p-value was equal to 0.000 which is less than 0.05. In this regards the null hypothesis saying that, there was no increase of bed after members joined the SCAs was rejected because there was a statistically significant difference in means of bed owned before and after joining SCAs. The study showed that, SCAs played a big role in assets growth in terms of beds

The tenth pair is the difference between mattresses owned after and before joining SCAs with 95% of confidence interval, the mean difference was between 0.5 and 0.86 where t (99) was equal to 7.483 and p-value was equal to 0.000 which is less than 0.05. The assumption saying that, there was no increase in mattresses was rejected because the findings proved that, there was a statistically significant difference in means of mattresses owned before and after joining SCAs. Therefore, the findings confirmed

greater improvements in terms of the mean number of mattresses owned after members joined the SCAs.

The eleventh pair was the difference between houses owned after and before joining SCAs where 95% was taken as confidence interval. The findings revealed that, the mean difference is between 0.187 and 0.393 with t(99) which was equal to 5.596, the p-value was equal to 0.000 and it was less than 0.05. This implied that, the assumption was rejected. This stated that, mean of houses owned after joining SCAs was not increased therefore there was a statistically significant difference in means of house owned before and after joining SCAs then, the study had proved that, the mean number of houses owned after joining SCAs have been increased.

From the aforementioned paired samples t- test, it was obvious that after members joined the SCAs, their assets possession were improved as it was statistically significant. The study therefore, proved the welfare of SCA members in terms of all assets tested compared to the existed situation before joining SCAs. The findings are shown in Table 12.

Table 12: Improvements made by members in assets possession after they joined the SCAs

Assets acquired after and before Joining the SCAs	Mean	Std.	Std. Error	95% Confide of the Dif		t	df	Sig. (2- tailed)
		Deviation	Mean					
				Lower	Upper			
Cow after SCA - cow before SCA	0.33	0.697	0.07	0.192	0.468	4.734	99	0.000
Other domestic animals after SCA - other domestic animals before	2.2	4.195	0.419	1.368	3.032	5.245	99	0.000
SCA								
Motorcycle owned after joining SCA - motorcycle owned before	0.04	0.197	0.02	0.001	0.079	2.031	99	0.045
joining SCA								
Bicycle owned after joining SCA - bicycle owned before joining SCA	0.14	0.349	0.035	0.071	0.209	4.015	99	0.000
Radio owned after joining SCA - radio owned before joining SCA	0.19	0.419	0.042	0.107	0.273	4.533	99	0.000
Television owned after joining SCA - television owned before joining	0.16	0.368	0.037	0.087	0.233	4.342	99	0.000
SCA								
Cell phone owned after joining SCA - cell phone owned before	0.43	0.64	0.064	0.303	0.557	6.722	99	0.000
joining SCA								
Computer owned after joining SCA - computer owned before joining	0.08	0.307	0.031	0.019	0.141	2.602	99	0.011
SCA								
Bed owned after joining SCA - bed owned before joining SCA	0.46	0.968	0.097	0.268	0.652	4.75	99	0.000
Mattress owned after joining SCA - mattress owned before joining	0.68	0.909	0.091	0.5	0.86	7.483	99	0.000
SCA								
House owned after joining SCA - house owned before joining SCA	0.29	0.518	0.052	0.187	0.393	5.596	99	0.000

4.4.5 Respondents' testified socio-economic improvements during the previous twelve months

Figure 12 indicates that 94 % of the respondents testified that improvements were made during the past twelve months while 6 % did not find any improvements in the past twelve months. This was understood in the context where people experienced hunger caused by droughts. However, the respondents acknowledged that SCAs contributed to their socio-economic improved situations. As it was discussed, the role of SCAs range from helping the members to generate an income towards improving the quality of life using services provided by SCAs. This is supported with what Executive Secretary of Ngoma cell pointed out that:

"There are many things SCAs have contributed to their members on socio-economic aspects such as empowering women to become bread winners in their households just like men because their mindsets have changed. Economically, the improvement on their income is seen in tangible assets they own; houses, domestic animals, businesses, and so on." (One Cell Leader, 7 May, 2017)

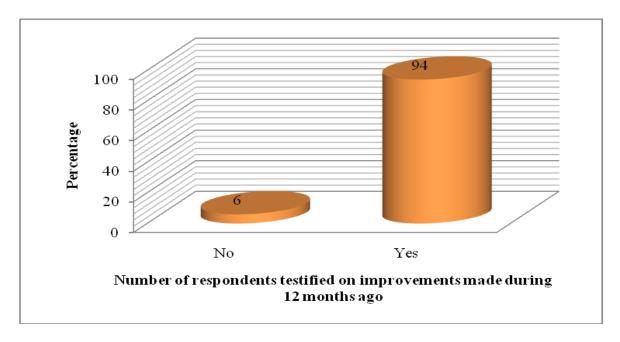


Figure 10: Improvements made by the SCA members during 12 months

Statistically, by using T-test one sample test, the findings showed that, after members joined SCAs with confidence level of 95%, there were between 0.89 (lower) to 0.99 (upper) with one sample t-test with degree of freedom of 99 equal to 39.393 where P-value was equal to 0.000 which was less than 0.05. The assumption of the mean number of no improvements made during past twelve months was rejected because it was not confirmed by the findings. Contrary, there was a statistically significant difference in means of improvements made by the members after members joined SCAs. Therefore, SCAs proved to be a great tool in contributing to positive changes of SCA members. The table 13 shows the findings.

Table 13: Improvements tested by using T-test one sample test

One sample test					95% Confidence Interval of the Difference	
	t	df	Sig. (2- tailed)	Mean Difference	Lower	Upper
household improvement in past 12 months	39.383	99	.000	.940	.89	.99

The following section discusses various challenges SCA members faced to repay the loans. The aim was to identify the challenges based on loans repayment since many SCAs were collapsing mainly due to non loan repayment.

4.5 Challenges Based on Loan Repayment

About 93% repay their loans, while 7% had different reasons showing why they did not repay the loans taken from SCAs. The different reasons given by the respondents are as shown below:

(i)Long period of sickness

Some borrowers gave the reason that they were sick soon after taking a loan. This situation affected members in repayment of their loans. It is in line with what Medibank (2011) has reported that, "illness has a direct effect on both the quality and quantity of work undertaken." Therefore, a long period of absence also can lower self-confidence and reduce the efficiency of the business. The information given by one SCA Facilitator supported this where he had to say,

"When a SCA member with a loan is sick for a long period, it is very difficult for him/her to pay back that loan; some prefer to drop out from their group." (One of Facilitator, 27 March, 2017)

It is understandable that the sickness costs a lot of money for medical expenses. However, it cannot be a reason to drop out from the group. For a person with integrity, may ask a favour to his/her SCA for an extra time of repayment. Otherwise, dropping out from the group with loan it is another issue on both sides; to the borrower and to the financial institution.

(ii) Poor project management performance

Some of SCA members are not knowledgeable and take loans with poorly planned projects especially those who use ROSCAs as their model of savings. This model is used like a lottery and in this logic none can guess who will pick the right number. As Truman (2017) stated that:

"Project management is a set of principles, the application of knowledge, skills, tools, and techniques to project activities to meet project requirements through an integration of the project management processes. These include: initiating, planning, executing, monitoring and controlling and closing."

Thus, all these principles and processes are in general unknown to SCA members since most of them have no skills about project. Once a person gets an idea about what to do, she/he immediately takes a loan from ROSCAs which can be easily misused for different purposes forgetting that it was a loan to be repaid later. In the end, single non repayment of loan may affect all SCA members and end up by failing the SCAs' operations.

(iii)The presence of defaulters

Freedom from solid internal regulations allows SCA's greater flexibility because they rely on trust and forget about sanction and mechanisms to reduce the risk of lending. This implies that some SCA members called "babihemu" means "defaulters" join SCAs just to take loans and soon after that they disappear from the group. This is in line with what Keitany (2011) reported that, failure to pay loans poses the greatest risk to stability of the multi-billion shillings savings and credit co-operative societies (SACCOs). This is why the issue of defaulting in SCAs becomes a big issue because into the collapsing

of SCAs due to the lack of funds for guarantee like in formal financial institutions. In addition, the information given from FGD and interviews showed that, many SCAs collapsed because of different challenges faced in loan repayment. Some of the non-SCA members who were interviewed highlighted these challenges as their main reason of dropping out of these SCAs.

(iv) Gender issues/decision-maker in the household

During this study, the interviewees pointed out few SCA members face some challenges of misunderstanding between husbands and wives. It often happens that when the wives take loans from SCAs, their husband may misuse the money since they consider themselves to be decision makers. As it was defined by Khamati-Njenga (2002) Gender is "a concept which refers to a system of socially defined roles, privileges, attributes and relationships between men and women which are learned and not biologically determined." Therefore, gender roles shape an identity to the person, that is, determines how people perceive, how they are expected to think and act as female or male. Other researcher emphasizes this point by arguing that, "Roscas represent an empowering tool, especially for marginal and vulnerable people. The funds women receive are used in solving household problems and reduces dependence to their husbands" (Benda (2012). Therefore, the loans obtained from SCAs might be well managed by both sides (husbands and wives). This is in line with what another researcher who has reported that, "It is helpful for borrowers to remember that a loan is not an asset: it is a liability that must be repaid, and when it is taken out a period of time must elapse before a return is generated." (Allen, 2002) This means that, a loan can increase risks to livelihoods of the borrowers when it is badly managed. Normally, before anyone takes out a loan, he/she may calculate the probability of being able to pay it back; but the higher the probability, the higher the risks are elevated. When the SCA members were asked

about their loan repayment status, the majority (93%) testified that the loan is properly paid. Figure 13 shows the findings.

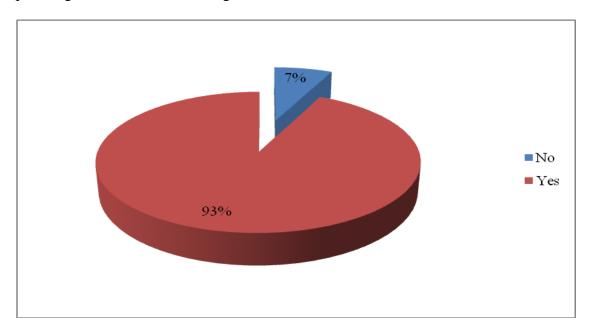


Figure 11: Repayment of loan taken from SCAs

Additional information about the challenges of loan repayment was also highlighted by one of the Cell leaders as he had to say the words summarized in box 2:

Box 2: Information about loan repayment from Butare Cell leader

In general, SCA members repaid well their loans but the problem was still in the management of SCAs. There is a misbehaviour of few SCA leaders who take advantage of the ignorance of their members and misuse their savings. Some SCA members take loans without a sustainable project or a well-planned income generating project, other SCA members participate in different SCAs; hence they take that opportunity to obtain multi loans from different sources and their repayment becomes a challenge. Also, the SCA members should build trustworthiness among themselves before creating savings groups. This means that they should know each other and create solid internal regulations before taking any action because there is no particular government policy covering SCA members and their savings." (One cell leader, 25April, 2017)

Generally, SCAs mobilize relatively small funds while contributing to positive subjective perception as well, thus fostering further members' welfare because of their production and reproduction of values. They also have a say on social aspects such as friendship, networks, mutual support and entrepreneurial skills development and thus have significant contribution to members in particular and to the community development at the large.

CHAPTER FIVE

5.0 SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Summary

The promotion of SCAs has been a cornerstone of Rwanda society and Global Communities 'assistance programmes. The aim of SCAs was to target less privileged people, and as a basis for building their capability to earn income, get education, improve housing conditions, access to tapped water, get access to health services as well as improving their asset possessions. The findings of the study revealed that, the majority of SCA members were women (65%) due to the fact that the Rwandan society is mainly composed of women. Also, the majority of SCA members' age is between 36 to 50 years which shows the active age group or productive group. Furthermore, the findings showed that, before members joined SCAs, they were mainly involved in subsistence farming and people were socially isolated. However, after they joined SCAs, their deplorable status reduced. Both, social and economic aspects jointly contributed to their welfare. Also, the findings showed that the loans which were taken from SCAs were used for different purposes including paying school fees, medical expenditures, paying off debts and purchasing food stuffs.

However, the challenges associated with loan repayments in SCAs were noticed. The respondents pointed out some major challenges which they encountered to repay their loan including bad projects designed, long period of sickness and defaulting. Even though there were challenges in loans repayment of few SCA members (7%), nevertheless, SCAs proved to be a greatest tool contributing to the welfare of their members socially and economically.

5.2 Conclusions

The main focus of the whole research process was to assess the contribution of SCAs to the welfare of their members. The study was guided by two theories which are Finance Growth Theory and the Social Wealth Theory. These two theories link with the findings of this study.

The findings revealed that the socio-economic status of SCAs members before they joined these financial institutions was very critical where the majority (78%) were merely practicing subsistence farming. This led them to inaccessibility to finance resources, to social disintegration as well as to incapability which affected their welfare. However, after members joined these SCAs, their lives improved. They managed to obtain loans for different purposes. SCA members gave testimonies on the following: earning income, getting education, improving housing conditions, food security and accessing health services as well as improving their assets possession. Although SCA members face a few challenges in loan repayment, the findings revealed that in general, SCAs are powerful instruments in bringing about welfare to their members.

5.3 Recommendations

The researcher came up with a number of recommendations:

5.3.1 Recommendations to SCAs

- (i) Awareness creation to younger generation is of a great importance. It is highly recommended that young people should be aware and allowed to become SCAs members. This will facilitate to increase SCA operations to large number of rural dwellers.
- (ii) SCAs are the best designed institutions in empowering vulnerable people like the poor and women. It is recommended to sensitise all non SCA members to

- join SCAs as to save the majority who may otherwise not be accommodated by formal financial institutions.
- (iii) SCAs are recommended to consolidate internal regulations as the guidelines of all SCA members before taking any action. This includes establishment of the report system which allows for timely monitoring and follow-up.
- (iv) It is also recommended that SCAs have to provide frequent trainings to its members before and after loan disbursement. This will prepare members for good management of these loans and also to reduce high defaulting rate.

5.3.2 Recommendations to government and other stakeholders

- (i) SCAs play an important social function such as networks, friendship, and peer learning. It is therefore recommended that the SCAs should be institutionalised as a way of mobilizing social capital among grassroots communities.
- (ii) As to reflect on the real life of the SCA members, the criteria used in *Ubudehe* programme should be reviewed so as to avoid any subjectivity in that programme.
- (iii)Also, SCAs are best education channel where people acquire knowledge, skills and values. It is therefore recommended that stakeholders should increase the availability of technical and managerial trainings for SCA members.
- (iv)The government should develop and formulate a policy that facilitates SCA operations for the sustainability of these informal financial institutions.

5.4 Areas for Further Research

A concerted effort was made during this study to the contribution of SCAs to their members' welfare on limited aspects (socio-economic). However, the individual's welfare cannot be limited on two aspects. There are several areas in which a personal satisfaction could improve the strength of the results.

Mostly, the other studies are recommended to be conducted on overall management and sustainability of SCAs in Ngoma Sector or elsewhere in Rwanda because the present study discussed only the contribution of SCAs to their members' welfare and it did not put emphasis on managerial and sustainability of these institutions.

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APPENDICES

Appendix 1: Clearance Letter

MOSHI CO-OPERATIVE UNIVERSITY (MoCU) CHUO KIKUU CHA USHIRIKA MOSHI

Sokoine Road, P.O. Box 474, Moshi, Tanzania. Tel:+255 272754401 Fax:+255 272750806 e-mail: info@mocu.ac.tz Website: www.mocu.ac.tz



DIRECTORATE OF RESEARCH AND POSTGRADUATE STUDIES P.O. Box 474, Moshi, Tanzenia. Tel: +255 27 25754403

Tel: +255 27 25754403 Fax: +255 27 25750806 E-mail:drps@mocu.ac.tz

Date: 20th February, 2017

Our Ref. No: MoCU/UGS/3/41

Your Ref. No:

Executive Secretary, Ngoma Sector in Huye District, RWANDA.

RE: RESEARCH ASSOCIATES, STAFF AND STUDENTS CHARA

The purpose of this letter is to introduce to you Ms. Annonciata Kabega who is a Student of the Moshi Cooperative University (MoCU). The person mentioned above is planning to undertake research activities in your areas as part of the requirements for his/her studies at this University.

This request is in accordance with the Government Circular No. MPEC/10/1 of 7 July, 1980 read together with Article 5(2) (e) of the Moshi Co-operative University (MoCU) Charter, which empowers the Vice Chancellor of the Moshi Co-operative University (MoCU) to issue permit(s) for undertaking research in the country to University students, staff, and research associate(s) on behalf of the Government and Commission for Science and Technology in Tanzania.

I, therefore, request that the student/visiting scientist/researcher mentioned above be given the necessary assistance so that he/she can accomplish his research undertakings. The main assistance he/she needs is permission to meet different people from your area so that he can interview them.

The main objective of the research is: "Contribution of Savings and Credit Association on Members' Welfare in Rwanda. A Case of IBIMINA in Ngonia Sector, Huye District"

The areas selected for conducting the research are:

If there are restricted areas, it is upon you to restrict the researcher from visiting them.

The expected date of commencement is 20/1/2017 up to 30/12/2017.

If there are any queries, please contact the undersigned.

Looking forward to your kind co-operation.

Sincerely yours,

Prof. Faustine K. Bee
VICE CHANCELLOR

c.c. Researcher



Vision: To become a Centre of Excellence in Co-operative Education and Practice

Centre of Excellence in Co-operative and Business Management Training of the East Africa Community (EAC)

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Appendix 2: Agreement letter for Respondents

Annonciata Kabega,

P.O BOX 225,

Butare, Huye

6th October, 2016

Dear respondent,

My name is Annonciata Kabega, a student at Moshi Co-operative University (MoCU)

in Tanzania. I am pursuing Master Degree of Arts in Co-operative and Community

Development. I am conducting the research on the Contribution of Savings and Credit

Associations (Ibimina) on the Members' Welfare and my case study being Ibimina at

Ngoma Sector in Huye District.

I kindly request your cooperation in responding to the questions incorporated in this

questionnaire as a way of helping me in the process of data collection for my proposed

research topic "CONTRIBUTION OF SAVINGS AND CREDIT ASSOCIATIONS

TO MEMBERS' WELFARE IN RWANDA: A CASE OF IBIMINA IN NGOMA

SECTOR, HUYE DISTRICT".

I assure you that the information provided during this study will be treated as highly

confidential and is collected for research purposes only. Participation in this study will

not affect one's membership or role in the SCA program.

Therefore, I ask you to feel at comfort and to provide open and honest answers without

fearing any persecution or release. Researcher is only interested in analysis of collective

feedback and not individual respondent information. Please, put a circle on the correct

answer.

Thanks in advance.

Yours sincerely,

.....

A. KABEGA

QUESTIONNARE SECTION I: BACKGROUND INFORMATION

A. GENERAL INFORMATION/ Igika cya 1: Amakuru y'ibanze

Date/ Itariki	 	
Name of SCA Group/Izina ry'ikimina		

No	Presentation/Umwirondoro	Response /Igisubizo	Code/Kode
	Province/Provinsi	South/Amajyefyo	
	District /Akarere	Huye	
	Sector/Umurenge	Ngoma	
	Cell/Akagari		
	Village/Umudugudu		

B. SOCIO-DEMOGRAPHIC CHARACTERISTICS OF RESPONDENTS/IRANGAMIMERERE Y'USUBIZA

Q.1	Gender /Igitsina	1= Male/Gabo	2= Female/Gore
Q.2	Age/Imyaka y'amavuko		
Q.3	Marital status/Irangamimerere	1= Single/Ingaragu 2=Married/Wubatse 3=Divorced/Watandukanye n'uwo bashakanye 4=Widow/widower/Umupfakazi 5=Separated/Utabana n'uwo bashakanye	
Q.4	Schooling level/Amashuri wize	1= Adult literacy/ibibeho, amasomero 2= No formal education/Sinize 3 = Primary School/amashuri abanza 4= Nine-year basic education /Amashuri atatu yisumbuye 5= Advanced level /Secondary school / uwarangije ayisumbuye 6= Higher level (Bachelor and above)/Kaminuza 7= Vocational training/Imyuga	
Q.5	Number of Children/Umubare w'abana bawe	How many Children do you have in your Household?/Ufite abana bangahe? //	
Q.6	Number of Dependent/Abo ufasha	How many dependents do you have in your house hold ?/Ufite mu rugo abantu bangahe? //	
Q.7	Relation with the household head (HHH) /Abo ufasha batari abana bawe mupfana iki?	1=Spouse /uwo mwashakanye 2= Other relation/irindi sano 3= No relation/Nta sano mufitanye	

SECTION II: SOURCE OF INCOME, THE ASSET GROWTH AND USAGE OF FINANCIAL RESOURCES/IBIREBANA N'UMUTUNGO

Q.8	What is your income generation activity (IGA)?/Ni iki ukora kikubyarira umutungo faranga	1= Agriculture and Livestock 2= Business/Umucuruzi 3= Government employee/Umukozi wa Leta 4= Private sector employee/Abakorera ibigo byigenga 5= Other (specify)/Ibindi bivuge
Q.9	What is the occupation of your spouse? Uwo mwashakanye akora iki?	1=Farmer and Livestock/Ubuhinzi n'Ubworozi 2=Business/Ubucuruzi 3=Government employee/Umukozi wa Leta 4=Private sector employee/Abakorera ibigo byigenga 5=Other (specify)
Q.10	Before you joined SCA what was your IGA? / Ni iki wakoraga mbere yo kujya mu kimina	1=Agriculture and Livestock 2=Business/Umucuruzi 3=Government employee/Umukozi wa Leta 4=Private sector employee/Abakorera ibigo byigenga 5=Other (specify)/Ibindi bivuge
Q.11	Before you joined SCA did you have any saving/mbere yo kwinjira mukimina warabitsaga	1=yes 2=no
Q.12	If yes, where were you used to put your savings?/Niba warabitsaga, ni hehe wabikaga?	1= Home /Mu rugo 2=Bank account/kuri banki 3=Co-operative/Mu ishyirahamwe 4=SACCO/ Muri SACCO 5=Microfinance/Ikigo cy'imari iciriritse 6=SCA
Q.13	After joining the SCA, do you continue to save in any other forms?/Ese wakomeje kwizigamira no muri ubu bundi buryo kuva ugeze mu ikimina?	1= Home /Mu rugo 2= Bank account/kuri banki 3= Co-operative/Mu ishyirahamwe 4= SACCO/ Muri SACCO 5= Microfinance/Ikigo cy'imari iciriritse 6= SCA
Q.14	For how long have you been a member of Ibimina /Umaze igihe kingana iki mu kimina?	1= Four to five years/Imyaka ine kugeza kuri itanu 2= Six years and above/Itandatu kuzamura
Q.15	Which type of method do you use in your SCA?/Ni ubuhe buryo mukoresha mu kimina cyanyu?	1= ROSCA/uburyo bwo gutombora no guhanahana amafaranga kugeza muhetuye 2=ASCA/Uburyo bwo kuyegeranya uyakeneye agasaba inguzanyo akazayishyurana n'inyungu 3= ASA/Uburyo bwo kubika amafaranga gusa mu gihe cy'umwaka umwe
Q.16	How much money do you have in your SCA? Umaze kwizimira amafaranga angahe mu kimina?	//

B.SOCIO-ECONOMIC CONTRIBUTION OF SCA TO ITS MEMBERS/URUHARE RW'IKIMINA MU BUKUNGU N'IMIBEREHO MYIZA Y'ABANYAMURYANGO BACYO

Q.17. How many of the following household assets do you own as a result of being a member of SCAs?/Ni ibiki mu rutonde rukurikira waba wari usanganywe cyangwa waba warungutse kuva wakwinjira mu kimina?

No	Type of Asset/Ubwako	Asset acquired before joining	Quantity	Asset acquired after joining SCAs/Ibyo wari	Quant ity/	
110	bwabyo	SCAs/Ibyo wari	Ingano	usanganywe nyuma yo	Ingan	
	bwabyo	usanganywe mbere	ingano	kwinjira mu kimina	_	
		yo kwinjira mu		Kwinjira inu kinima	О	
		kimina				
1	Livestock/Ubworozi	Killilla				
1	Cows/Inka					
	Other small domestic					
	animals					
2	Transport/Ubwikorezi			<u> </u>		
_	Motorcycle/Ipikipiki					
	Bicycle/Igare					
3	Electronics/Elegitronike					
	Radio/Radiyo					
	Television/Televiziyo					
	Cell phone/Telefoni					
	Computer/Mudasobwa					
4	House Equipment/ibikoresho byo mu rugo					
	Bed/igitanda					
	Matress/igodora					
5	Other Assets/Ibindi					
	House/inzu					
	Electricity in the					
	house/amashanyarazi mu					
	nzu					
	Water in the house/Amazi					
	mu nzu					
	Health					
0.10	insurance/Ubwishingizi					
Q.18	Others benefits, explain/ izindi nyungu wakuye mu kimina,					
	zivuge		• • • • • • • • • • • • • • • • • • • •	•••••		
	Zivage					
Q.19	What is your category given by					
	"Ubudehe" program?/Ubarirwa					
	mu kihe cyiciro cy'Ubudehe?	<u> </u>				
Q.20	Which kind of health insurance d	\mathcal{E}		nealth insurance/Mituweli y'ab	oakene	
	you use?/ Ni ubuhe bwinshingiz	_	health insur	ance/Mituweli y'abaturage		
	ukoresha	3=RSSB (RAMA) 4=MEDIPLAN/SOR	A CT			
		5=RADIANT/Radiya				
		6=MMI (Iy'abasirika		si)		

		7=FARG (Iy'abacitse ku icumu rya jenoside) 8=MS-UR/Mituweli ya Kaminuza 9=Other specify/Ubundi bwishingizi
Q.21	Do you have your own house?	1= Yes 2= No
Q.22	If no, to whom does the house you live in belong? / Inzu ubamo ni iyande?	1= Rented/Ndayikodesha 3=Rented / Iyo ukodesha 2=Shared / Murayisangira n'undi bawe 3=Rented / Iyo ukodesha 4=For your parents / Iy'ababyeyi
Q.23	Does the house have electricity? / Inzu urimo ifite amashanyarazi?	1= Yes /yego $2=$ No / oya
Q.24	Has your household made any improvements since you join SCA? / Umuryango wawe wateye imbere kuva aho ugiriye mu Kimina?	1= Yes/Yego 2= No/Oya
Q.25	Has household diet improved since joining the SCA?/Kuva wakwinjira mu kimina, ibyo kurya byariyongereye mu rugo rwanyu?	1=Improved/Byariyongereye 2=Stayed the same/Byagumye uko byari biri 3=Worsened/Byasubiye inyuma 4=I don't know/Ntabwo mbizi
Q.26	These improvements come from loans taken from SCA?/Niba warateye imbere, byaba byaratewe n'inguzanyo wakuye mu kimina?	1=Yes/yego 2= No/oya
C.	USAGE OF FINANCIAL RES	SOURCES/UKO UMUTUNGO FARANGA UKORESHWA
Q.27	Have you ever taken a loan from SCA?/ Waba warafashe inguzanyo mu Kimina	1= Yes/Yego 2= No/oya
Q.28	What was the amount (RWF) of the last loan?/Ubushize wagujije angahe?	//
Q.29	If no, why have you not take loan?/ Niba nta nguzanyo wafash	ne

loan?/ Niba nta nguzanyo wafashe byatewe n'iki? Q.30 If yes, what were the purposes of 1= Food/ibyo kurya taking loans?/Intego yo gufata 2= Paid off debts/Kuriha imyenda inguzanyo yari iyihe? 3= School fees / Amafaranga y'ishuri 4= Medical expenses/Kwivuza 5= Business/Productive investments/Igishoro cy'ubucuruzi 6= Household asset/Ibikoresho byo mu rugo 7= Other specify/Ibindi bivuge_ Q.31 How many loans taken per year?/Ni inguzanyo zingahe wafashe mu mwaka? What was the value of each of the loans during the previous savings cycle?/Buri nguzanyo yari ifite Q.32 agaciro kangana iki? 1= Value of First Loan / Agaciro k'inguzanyo ya mbere:/...../ 2= Value of Second Loan/Agaciro k'inguzanyo ya kabiri:/...../ 3= Value of Third Loan/Agaciro k'inguzanyo ya gatatu: /...../ Did you pay back your last loans Q.33 1= Yes/Yego 2= No/Oya in time?/Waba warishyuye neza inguzanyo wafashe ubushize mu kimina?

D. RECOMMENDATIONS OF RESPONDENTS TO IMPROVE THE WELFARE OF SCA MEMBERS $\,$

Q.34	Give us your advice and	
	suggestions to improve the	
	welfare of members through their	
	SCAs/ Ni izihe nama watanga	
	kugira ngo ibimina birusheho	
	kugirira umumaro	
	abanyamuryango babyo.	

Appendix 3: Check List for Focus Group Discussion

Dear participants,

You have been asked to participate in focus group Discussion. The purpose of this study is to gain a better understanding of the impacts of the SCA program, so that its efforts may be improved so as to better serve its members. You can choose whether or not to participate in this discussion because this will be recorded and your responses will remain anonymous in the report if you prefer. There are not right or wrong answers to these questions. We want to hear many different viewpoints and would like to hear from everyone. Participation in this study will not affect one's membership or role in the SCA program. Therefore, we ask you to feel at ease and to provide frank and honest answers without fearing any persecution or disclosure.

- 1. Tell me a little about your SCA and how it works?
- 2. How long has the SCA been in existence?
- 3. Tell me about your life before you joined the group and how has that changed since you became a member of the group? (Success stories or failure stories)
- 4. In what ways has your cost behavior changed since you joined the group?
- 5. What role do you play in the decision making process of your household? Has it improved since you joined the SCA?
- 6. Is there anything else you would like to say about the SCA program?
- 7. Have there been any negative consequences of joining the SCA? If so, what are they?
- 8. What are the challenges your SCA members face in the loan repayment?

THANK YOU

APPENDIX 4: INTERVIEW GUIDE FOR LEADERS/IBIBAZO BIGENEWE ABAYOBOZI B'IBIMINA

Α.	General	Inform	ation
A.	ocher ai		ıauvıı

Name of Interviewee (if accepted)/
Date of interview
Cell/village/Church.
Interest rate of the SCAs
Period of loan repayment

B. Questions

- 1. What were the living conditions of members before joining the SCAs?/Abanyamuryango b'ibimina bari babayeho bate mbere yo kwinjiramo?
- 2. How did SCA contribute to socio-economic status of their members?/Mu buryo bw'imibereho myiza n'ubukungu, ibimina byunguye iki abanyamuryango babyo?
- 3. How do SCA members pay back their loans?/Abanyamuryango b'ibimina bishyura bate inguzanyo?
- 4. Give us your advice and suggestions to improve the welfare of members through their SCAs/Tanga inama n'ibitekerezo kugira ngo ibimina birusheho kugirira umumaro abanyamuryango babyo.

THANK YOU/MURAKOZE

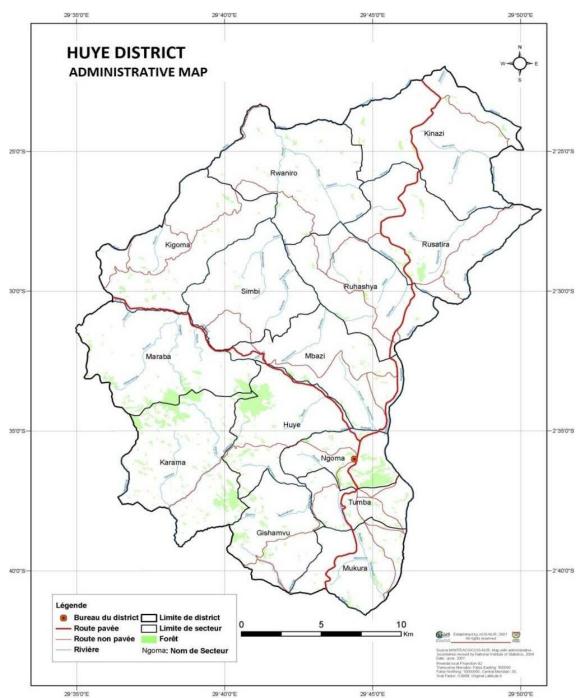
APPENDIX 5: INTERVIEW GUIDE FOR NON SCA MEMBERS

- 1. Do you have information about SCAs?
- 2. Does your village have SCAs?
- 3. Do you drop out from SCAs?
 - a. If yes, what was the reason to drop out?
 - b. If no, why do you not join SCAs?
- 4. Do you think there are contributions of SCAs on members' welfare? Or there is no contribution of SCAs on Members' welfare?
- 5. Do you have any comment about SCA members?

THANK YOU

Appendix 6: Data Collection Table Matrix

Research objectives	Research Questions	Activities done	Types of data collected	Source of data	Tools/methods for data collection
To determine the socio-economic status of members before and after joining SCAs	What is the socio-economic status of members before and after joining SCAs?	To interviewing members on their socio-economic status before they joined SCAs and on how that situation was improved after joining SCAs	Their social interactions, relationships, networks, their source of income before and after joining SCAs, SCA's services including trainings and entrepreneurial skills from SCAs so as to compare their status after to the existed one.	Non SCA members, SCAs members and Key informants	Questionnaire, Interview guide check list and documentary review
To examine whether loans are tailored to the needs and demand patterns of the borrowers.	How loans from SCAs are used by the borrowers?	To interview different SCA and non SCA members on the use of loans from SCAs by the borrowers	The purposes of taking loans from SCAs and values of these loans from SCAs as well as their consumption behavior	SCA members and key informants	Questionnaire, Interview guide check list and documentary review
To identify the challenges face SCA members in loan repayment.	What are the challenges facing SCA members in loan repayment?	To interview SCA members, non SCA members and key informants on the challenges faced members in their loan repayment.	Lack of well designed project management, long period of sickness,	Non and SCA members and key informants	Questionnaire, Interview guide check list and documentary review



Appendix 7: Huye District admnistrative map

Source: Huye District Development Plan, 2013

Appendix 8: Definition of the Terms used in Paired Samples T-Test and McNemar T-Test Analysis

- (i) Descriptive statistics is the term given to the analysis of data that helps describe, show or summarize data in a meaningful way. Descriptive statistics do not, however, allow researcher to make conclusions beyond the data she/he has analysed or reach conclusions regarding any hypotheses he/she might has made. They are simply a way to describe data. It is very important because if a researcher simply presented the raw data it would be hard to visualize what the data was showing, especially if there was a lot of it. Descriptive statistics therefore enables researchers to present the data in a more meaningful way, which allows simple interpretation of the data.
- (ii) Inferential analysis or Inferential statistics are techniques that allow the researcher to use the samples to make generalizations about the populations from which the samples were drawn. It is, therefore, important that the sample accurately represents the population. The process of achieving this is called sampling. Inferential statistics arise out of the fact that sampling naturally incurs sampling error and thus a sample is not expected to perfectly represent the population. The methods of inferential statistics are (1) the estimation of parameter(s) and (2) testing of statistical hypotheses.
- (iii) The McNemar test: is not testing for independence, but consistency in responses across two variables. Here is a table with the exact same counts, but different variables. There are comparing before and after some from Yes to No answers (qualitative data). Retrieved from <a href="http://www.

theanalysisfactor.com/difference-between-chi-square-test-and-mcnemar-test/ site visited on 3rd September, 2017

The McNemar test is used to determine if there are differences on a dichotomous dependent variable between two related groups used in qualitative data.

- (iv) Statistic is a numerical value computed from a sample (Shayib, n.d.)
- (v) **Parameter** is a numerical value associated with a population (Shayib, n.d.)
- (vi) Confidence interval (CI) is an interval of numbers believed to contain the parameter value (Shayib, n.d.) The probability method produces an interval that contains the parameter is called the **confidence level.** Most studies use a confidence level close to 1, such as 0.90,0.95 or 0.99, we used 0.95 (Shayib, n.d.)
- (vii) Level of significance (α), where a probability below which the null hypothesis should be rejected. Common values are 5% and 1%, in this research the significance level is equal to 5% (Shayib, n.d.)
- (viii) P-value. This is the probability, under the null hypothesis, of sampling test statistic at least as extreme as that which was observed.

In this study, the formula used its confidence interval was equal to sample mean + or - standard error mean times confidence interval = $(x\pm 1.96*(\frac{\sigma}{\sqrt{n}})$ (Seltman, 2014)

Rules of rejection:

Reject H_0 , in favour of H_1 if and only if the p-value is less than the significance level The hypotheses to be tested are:

 H_o : μ_d = 0 mean number, there were no improvements in assets after joining SCAs