

**INFLUENCE OF MOTIVATION AND DEMOTIVATION FACTORS ON
SUSTAINABILITY OF GROUP SAVING & LOAN (GS&L) ASSOCIATIONS IN
NYANDO SUB COUNTY**

BY

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DECLARATION

I hereby declare that this is my original work and has not been submitted or published for examination in this University or elsewhere for an award of any other degree or diploma.

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To all who contributed significantly to this study but have not been acknowledged individually, take it from me that I highly appreciate your contributions. God bless you all.

DEDICATION

This thesis report is dedicated to an amazing woman, my wife, Emma Awino. Her love, kindness, generosity and strength of faith inspire not only me and our family but also countless others within our church and neighborhood. I love her dearly and I'm honored to call her my wife.

ABSTRACT

Group Savings and Loan (GS&L) associations have attracted much interest because of their promise to attain outreach to very poor and rural people better than microfinance institutions. Current trends have however, indicated low sustainability of most Group Saving and Loan (GS&L) groups beyond donor funding cycle thereby constraining group members' access to basic financial services. Although previous studies have attempted to understand and demonstrate sustainability of GS&L programs, some of these studies have relied on bivariate analysis depicting methodological gaps in showing linkage and contribution of motivational, demotivational and socio-demographic factors to GS&L sustainability. The purpose of this study was to develop a model that demonstrates influencers of sustainability of GS&L groups in Nyando Sub County. It pursued this through 4 specific objectives namely: determine the level of sustainability of GS&L groups; establish the relationship between motivating factors and level of sustainability of GS&L groups; establish the relationship between demotivating factors and level of sustainability of GS&L groups; develop a predictive model showing the link between level of sustainability, motivating and demotivating factors among GS&L groups in Nyando Sub County. Conceptually, level of sustainability was influenced by 3 major blocks of factors which included motivating, demotivating and socio demographic factors. The study adopted cross sectional design and using Fisher's formula, a sample size of 255 saving group members out of a population sample frame of 775 were selected through Proportionate to size random sampling and interviewed using structured questionnaire. Quantitative data analysis entailed use of descriptive and inferential statistics as well as principal axis factoring followed by linear regression. The study has revealed that motivational and demotivational factors were the important predictors of GS&L sustainability. In particular, members' confidence in themselves and in their groups (representing motivational block) and personal conflicts (representing demotivational block) were the strongest determinant of long term existence of saving groups. Greater sustainability of saving groups is possible when motivating factors are enhanced as demotivating factors are suppressed. As implementers (including development organizations and government institutions) of GS&L methodology concentrate their efforts in enhancing members' confidence in themselves and in their groups to build attitude of success, detrimental effects of personal conflicts should be simultaneously repressed so that this does not compromise group's longevity. Exposing new saving groups to learn from more experienced and successful groups operating in similar contexts and supporting establishment of strong leadership structures that guide participation of members are likely to guarantee continuous operation and existence of saving groups beyond the funding cycle of donor projects.

TABLE OF CONTENTS

DECLARATION	ii
ACKNOWLEDGEMENTS	iii
DEDICATION	iv
ABSTRACT.....	v
TABLE OF CONTENTS	vi
LIST OF ABBREVIATIONS AND ACRONYMS	viii
OPERATIONAL DEFINITION OF TERMS.....	x
LIST OF TABLES	xii
LIST OF FIGURES	xii
CHAPTER ONE: INTRODUCTION.....	1
1.1 Background to the study	1
1.2 Problem statement.....	4
1.3 Study Objectives	6
1.4 Research Questions	6
1.5 Justification of the study	7
1.6 Scope and limits of the study	8
CHAPTER TWO: LITERATURE REVIEW.....	9
2.1 Level of sustainability of savings groups.....	9
2.2 Motivation factors to saving groups sustainability	11
2.3 Demotivation factors to saving groups sustainability	15
2.4 The links between motivation, demotivation and level of sustainability	16
2.5 Summary of gaps	17
2.6 Conceptual Framework.....	19
CHAPTER THREE: METHODOLOGY	21
3.1 Study design.....	21
3.2 Study Area	21
3.3 Study population	23
3.4 Sampling	24
3.5 Data collection instrument and Measurement.....	26
3.6 Data collection procedure	27

3.7 Data analysis	28
3.8 Ethical considerations	29
CHAPTER FOUR: RESULTS AND DISCUSSIONS.....	31
4.1 Socio-Demographic characteristics of saving group members	31
4.2 Membership to other groups	32
4.3 Level of sustainability of GS&L groups	33
4.4 Motivation factors to sustainability of GS&L groups.....	36
4.5 Demotivation factors to sustainability of GS&L groups.....	40
4.6 Predictive model linking Level of Sustainability, motivation and demotivation factors.....	43
CHAPTER FIVE: SUMMARY, CONCLUSIONS AND RECOMMENDATIONS.....	48
5.1 Summary	48
5.2 Conclusions.....	52
5.3 Recommendations.....	53
5.4 Suggestion for further studies	55
REFERENCES.....	56
APPENDICES	62
Appendix A: GS&L Member Questionnaire	62
Appendix B: Research Authorization	65
Appendix C: Sample Size breakdown	67

LIST OF ABBREVIATIONS AND ACRONYMS

AKF	Aga Khan Foundation
BIRD	Bankers Institute of Rural Development
CGAP	Consultative Group to Assist the Poor
COSALO	Community Savings and Loans
COSAMO	Community Savings Mobilization
CRS	Catholic Relief Services
DFID	Department for International Development
FFH	Freedom from Hunger
FSD	Financial Sector Deepening in Kenya
GS&L	Group Savings and Loans Associations/groups
INGO	International Non-Governmental Organization
MIS	Management of Information System
NGO	Non-Governmental Organization
Pact	Private Agencies Cooperating Together
PSP	Private Service Provider
ROSCA	Rotating Savings and Credit Association
SCC	Savings and Credit Cooperatives
SFC	Saving For Change
SEEP	Small Enterprise Education and Promotion
SHG	Self Help Group
SHP	Self Help Promoting institutions
SG	Saving Group

SILC	Savings Internal Lending Communities
SKDRDP	Sri KshethraDharmasthala Rural Development Project
SRFS	Sanghamithra Rural financial services
OXFAM	Oxford Committee for Famine Relief
VSLA	Village Savings and Loaning Association

OPERATIONAL DEFINITION OF TERMS

1. **Sustainability:** A group is considered sustainable when it is able to provide “core financial services” without external support for a period long enough for the group to “regenerate itself” at least twice. This study assumes that “core financial services” include savings, loans and share outs, and that the term “regenerate itself twice” refers to continuing operations after two annual share outs or liquidations.
2. **Implementing/Facilitating agency:** Most savings group (SG) programs are implemented by non-governmental agencies (NGOs). We use the term “facilitating/implementing agency” (FA) to describe agencies that are responsible for creating savings groups, either directly or through partners.
3. **Village agent:** Community-based trainers are referred to as “village agents” by CARE, Plan, and AKF; “private service providers” by CRS; and “replicator agents” by Oxfam.
4. **Attendance rate** measures $\text{Number of members attending meeting} / \text{Number of active members} \times 100$. Trend: A stable or increasing attendance rate is positive and indicates short-term value of services and appropriateness of methodology.
5. **Retention rate** measures the total number of dropouts as a percentage of the current membership. $\text{Retention rate} = (\text{Number of active members} - \text{Number of dropouts}) / \text{Number of active members}$. Trend: A stable or increasing retention rate is positive and indicates long-term value of services and appropriateness of the methodology.
6. **Membership growth rate:** This shows how many more members have been attracted to all of the savings groups than were present, in aggregate, at the first meeting. $\text{Membership growth rate} = (\text{No. of active members} - \text{No. of members at start}) / \text{Number of members at start}$. Trend: An increasing growth rate is positive and indicates long-term value of services and appropriateness of the methodology

7. **Portfolio at risk** measures Value of loans past due/Value of loans outstanding. Trend: An increasing portfolio at risk is negative. Portfolio at risk is a key indicator of portfolio health in standard microfinance projects. As a rule of thumb a PAR in excess of 5% indicates the need for decisive remedial action to prevent unacceptable loan losses.
8. **Return on Savings (ROS)** measures Profit/Amount paid in potential loan fund. It is a measure that allows for comparison of the efficiency with which different saving groups generate profits.
9. **Loan fund utilization rate** measures the Number of borrowers/number of registered members. It indicates degree to which loan access is equitable
10. **VSLA/GS&L:** Village Saving and Loan Association is a conventional synonym for saving groups which has been localized by CARE Kenya to GS&L groups. Both terms have been used interchangeably to mean one and the same thing.

LIST OF TABLES

Table 3.1: Breakdown of the study population	33
Table: 4.1 Socio-demographic characteristics of respondents	38
Table 4.2: Distribution of members according to membership to other groups and age of their GS&L group	39
Table 4.3: Descriptive statistics of level of sustainability indicators	40
Table 4.4: Possible factors depicting sustainability levels	41
Table 4.5: Rotated Factor Matrix for possible levels of sustainability category.....	41
Table 4.6: Descriptive statistics of Motivation factors to sustainability of GS&L groups	43
Table 4.7: Possible factors depicting Motivation to sustainability of GS&L groups.....	44
Table 4.8: Rotated Factor Matrix for possible Motivation to sustainability category.....	45
Table 4.9: Descriptive statistics on Demotivation factors to sustainability of GS&L groups.....	47
Table 4.10: Total variance explained by Demotivation factors.....	48
Table 4.11: Rotated Factor Matrix for Demotivation factors to sustainability of GS&L.....	48
Table 4.12: Level of sustainability predictive model by motivational, demotivation and socio-demographic factors	50
Table 4.13: T-test results of individual item predictability.....	51

LIST OF FIGURES

Figure 2.1: Conceptual framework showing factors affecting level of sustainability	30
Figure 3.2: Location Map of the Study Area.....	34

CHAPTER ONE

INTRODUCTION

1.1 Background to the study

For the last 30 years, the microfinance industry has been responsible for a massive growth in pro-poor financial services and is estimated to reach more than 150 million people worldwide by 2020 (Allen & Panetta, 2010). In the last few years, there has been renewed interest by development organizations in searching for financial models that can be used to deliver sustainable financial services to the rural poor in Africa (Grant & Allen, 2002; Allen & Panetta, 2010). This quest has been motivated by the failure of formal or centralized microfinance institutions (MFIs) to reach remote and rural areas which are predominantly inhabited by the poor (Anyango, Esipisu, Opoku, Johnson, Malkamaki, & Musoke 2007). A few institutions have succeeded in sustainably delivering financial services to this population segment (Grant & Allen, 2002).

According to Financial Sector Deepening Kenya (2013) only 66.7% of adults have access to financial services from any type of formal financial provider. The report further says, over a quarter (25.4%) of Kenyans population lack access to any form of financial services, majority of these comprise the poor. Group Saving & Loan (GS&L) model has become the answer to financial inclusion based on a revised conception of institutional roles that are able to provide the rural and the urban poor with financial services that are delivered cost effectively (Allen, 2006).

The Village Savings and Loan Associations (VSLA) modeled on CARE's project in Niger and centred on small amounts of member savings with no outside capital investment has grown in shape and membership. The current outreach of VSLA in Africa stands at over 3.3 million with

Kenya contributing close to a third of this population (Allen, 2006). Previous studies have shown that due to the simple nature of the GS&L model, a number of saving groups have continued functioning well and independently following initial support from implementing organization (Financial Sector Deepening Updates, 2009). However, due to internal or external factors some saving groups have disintegrated immediately the external support (which has mainly been used to provide training) is terminated, bringing to fore the problem of low sustainability. Such groups have not been sustainable enough to independently operate and provide financial services to their members (Rippey & Odell, 2011).

In an attempt to measure the level of sustainability of savings groups, Bankers Institute of Rural Development (2009) used institutional, financial and overall sustainability indices as basis of assessment. Saving groups' sustainability was thus assessed based on three parameters of managerial, financial and overall sustainability within the range of low, medium and high. The main shortcoming of this study was that sustainability of saving groups was investigated purely from the institutional and financial perspectives alone.

According to Small Enterprise Education and Promotion Network (SEEP Network, 2009), saving groups performance and level of sustainability has been considered in terms of financial ratios covering member satisfaction, financial performance, operating efficiency of the group and operating efficiency of the implementing agency. These ratios which have since been adopted by most implementing agencies of saving groups focus on group level performance but not individual members' rating and perception on performance and sustainability of their groups. Apart from being applied at group level, the financial ratios have been used purely by people external to

savings groups namely implementing agencies and donors to understand performance and sustainability of groups without allowing any input from the saving groups' members. In order to understand the variations in the level of sustainability, two critical factors including motivational and demotivational factors were important to investigate. Understanding the role of motivational and demotivational factors was important in providing a holistic perspective on their influence on level of sustainability of saving groups.

Several studies have provided insights on the motivating factors of savings groups' sustainability. Some of the factors identified by these prior studies include client ownership and participation (Hassan, 2002), members' savings (Bennett *et al.*, 1996), gender (Bankers Institute of Rural Development, 2009), presence of federations (Reddy and Prakash, 2003 and Nair, 2005), committed leadership, transparent and accountable governing systems, frequent transactions, values that promote success, age of the group, trust among the members, consensus on decision and cooperation (Mathews, 2009). Other studies have mentioned the level of education (Anyango *et al.*, 2007), internal loan monitoring and enforcement mechanism and members' savings (Gingrich, 2004); women's confidence in themselves and in the group, and their willingness to make things work (Bermudez & Matuszeski, 2010) and the pre-existence of the group in form of some entity (Odell & Rippey, 2011) as the key determinants of sustainability. Although these studies explored the sustainability and permanence of the Saving Groups after the assistance from implementing agency had stopped, they failed to explicitly highlight the influence of the factors behind the practices of Saving Groups and their members in so far as sustainability was concerned. Furthermore these studies had the shortcoming of not delving into the effects of other factors (especially negative ones) on sustainability of the saving groups.

In addition, limited studies have investigated demotivating factors towards sustainability of savings groups. Mathews (2009) in his study on governing oral institutions identified 4 factors as the sources of failure for most village financial institutions (savings groups). The factors included elite capture, failure to respect rules, poor or irregular book keeping and the promise of external credit. The other factors mentioned include lack of business to support loan repayment, too high savings rate, lack of cohesion and personal conflicts (Valley Research group and Mayoux, 2008). The few studies that have been done on how demotivating factors affected sustainability provide an opportunity for further research into this important subject. These studies suffer from methodological weakness as exhibited in the limited analysis of the key factors that influence GS&L sustainability including motivational, hindering and other factors. Bivariate analysis which was adopted by most of these studies (Bankers Institute of Rural Development, 2009; Emerging Markets Consulting 2012; Valley Research group and Mayoux, 2008; Gingrich, 2004) was limiting since it did not help in demonstrating the linkage and contribution of the two categories of factors (motivation and demotivation) to level of sustainability.

Based on the existing gaps on motivating and demotivating factors and how they are linked to the level of sustainability of group savings and loans, this study explored this relationship so as to come up with an integrated group savings and loans sustainability model which could clearly demonstrate the relationship between motivational and demotivational factors.

1.2 Problem statement

Every year many millions of dollars are invested by national governments and international donor agencies in community project implementation. Despite ever increasing attempts to tackle the

problem of low sustainability, many fail to maintain the flow of expected benefits after termination of external support. Although there are few, systematic studies of this problem, many development practitioners estimate that at any given moment a significant proportion of community projects in developing countries may be inoperable or abandoned completely. In Kenya, several studies have shown that most of Group Saving and Loan (GS&L) groups initiated by implementing agencies experience low sustainability. A number of these groups function well as long as the implementing agency or donor is around but eventually break up when left on their own and thereby constrain group members' access to basic financial services. Low access to financial services by poor households within rural and urban informal settlements has adversely affected government efforts of poverty alleviation within these regions. The problem of low sustainability of GS&L groups has been exacerbated by poor understanding and measurement of the concept. Some of the factors that may influence the variations in level of sustainability of saving groups were found to include motivational and demotivational factors.

The limited research on sustainability has hindered effective scale up of the group saving and loaning (GS&L) model into new areas thereby limiting the impoverished population access to basic financial services. Sometimes where expansion of the initiative has been attempted it has not been based on evidence. This study therefore sought to assess the factors that influence sustainability of GS&L model by developing a predictive model showing the link between level of sustainability, motivating and demotivating factors.

1.3 Study Objectives

The purpose of this study was to develop a model that demonstrates influencers of sustainability of GS&L groups in Nyando Sub County.

Specific Objectives

1. To determine the level of sustainability of GS&L groups in Nyando Sub County;
2. To establish the relationship between motivating factors and level of sustainability of GS&L groups in Nyando Sub County;
3. To establish the relationship between demotivating factors and level of sustainability of GS&L groups in Nyando Sub County;
4. To develop a predictive model showing the link between level of sustainability, motivating and demotivating factors among GS&L groups in Nyando Sub County.

1.4 Research Questions

1. What is the level of sustainability of GS&L groups in Nyando Sub County?
2. What is the relationship between motivating factors and level of sustainability of GS&L groups in Nyando Sub County?
3. What is the relationship between demotivating factors and level of sustainability of GS&L groups in Nyando Sub County?
4. What is the nature of the predictive model showing the link between level of sustainability, motivating and demotivating factors among GS&L groups in Nyando Sub County?

1.5 Justification of the study

The justification of this study was rooted on the need for evidenced based information on effective implementation, up scaling and replication of a sustainable GS&L model. As no rigorous studies have been done to understand the factors (both motivating and demotivating) behind sustainability of GS&L groups in Nyando Sub County, this study takes the initiative that will later stimulate further specialized researches to produce more concrete data on this thematic area. Given this initiative, the justification of this study lies in its nature, implications for policy, theory and research, and contribution to the body of knowledge on sustainability of community based microfinance programs.

Without knowledge on factors that motivate people to continue enjoying financial services and also without evaluation of the model to determine its attractiveness on the basis of sustainability – the model is being implemented without a proper course, and without making reference to evidence based results. Furthermore, the comprehensive analysis of sustainability of saving groups will support the documentation of best practices that would have wider application in poverty reduction strategies of governments as advocated by the World Bank (Roe, 2008) and the achievement of the Sustainable Development Goals (SDGs). The study is significant to the extent of informing implementers (including development organizations and government institutions) of GS&L projects on intervention strategies and approaches that would guarantee sustainability of these projects. In addition this study employed a more rigorous methodological procedure entailing multivariate analysis to enhance understanding of GS&L sustainability. All these aimed at overcoming the low sustainability challenges experienced within most GS&L groups.

1.6 Scope and limits of the study

This study was confined within the framework of motivational and demotivational factors in the evaluation of GS&L sustainability. There could be other determinants of GS&L sustainability including but not limited to economic and socio-cultural factors. These two dimensions of factors and others not highlighted in this study that could have possible influence on GS&L sustainability have been recommended for further study.

In terms of limitations, the study depended on self-reported information which could have been liable to respondents' biases. However, pre-testing helped establish validity and reliability by checking whether or not the wording of the questionnaire was clear, all the questions were interpreted in the same way by respondents, what response was provoked and if there was any research bias.

CHAPTER TWO

LITERATURE REVIEW

This chapter has highlighted the major aspects of the literature reviewed by the researcher that were relevant to the study. The study discussed literature under the following topical themes: Level of sustainability of savings groups; Motivation factors to sustainability; Demotivation factors to sustainability; Links between motivation, demotivation factors and GS&L sustainability; Summary of gaps; and Conceptual framework.

2.1 Level of sustainability of savings groups

Bankers Institute of Rural Development (2009) has examined the sustainability of the savings groups (Self Help Groups/ SHGs) in Karnataka, India. To do so, it conducted a primary survey of 106 SHGs in ten sample villages (two taluks) of two MFIs (SKDRDP and SRFS) projects areas. To measure the sustainability of the savings groups the institutional, financial and overall sustainability index was developed. The results were presented in terms of high, medium and low institutional, financial and overall sustainability across MFIs, villages, age and size of the group, level of savings and credit accessibility and timely repayment of loan. The results showed that age of the group, savings and credit access and timely repayment of credit had a direct relationship with various levels of institutional, financial and overall sustainability of the savings groups.

In measuring the sustainability of the savings groups, Bankers Institute of Rural Development (2009) contributed in identifying various indicators and variables for the measurement of sustainability. In any microfinance group, two important aspects – institutional or managerial and financial – need to be studied. Sustainable impact of the microfinance programme on the poor will

be possible only when there are sustainable savings groups. This research further established that, the groups of SKDRDP had attained a higher-level of sustainability as compared to the groups linked to SRFS. The basic reason for this was that, the SHGs of SKDRDP were institutionally and financially more graduated than those of SRFS. The SRFS did not have complete managerial control over its (credit-linked) groups. The Self Help Groups (SHG) in this category were formed and trained by other SHPIs. The SHGs that were formed by the government – *Stree Shakti* and *Swayamsidda* lacked sufficient managerial skills and knowledge of microfinance. The study merely examined sustainability in an integrated way, it did not separate motivation and demotivation factors in the analysis and so it was not possible to determine how the interaction of the two classes of factors affected the different levels of sustainability.

The Small Enterprise Education and Promotion (SEEP) network (2009) spearheaded the publication of financial ratio analysis of community managed microfinance institutions in 1995. The purpose of the ratios was to enable implementing organizations better understand how field operations are proceeding, particularly with respect to member satisfaction, member benefit and saving group sustainability and operating efficiency. The ratios which has since been adopted by most of the implementing agencies, focused mainly on group performance rather individual rating and perception on performance and sustainability. Some of the most popularly used SEEP ratios include attendance rate, retention rate, membership growth rate, portfolio at risk, loan fund utilization rate and return on savings (Small Enterprise Education and Promotion Network 2009). Apart from being applied at group level, the financial ratios have been used purely by people external to savings groups namely implementing agencies and donors to understand performance and sustainability of groups without allowing any input from the saving groups' members.

A study conducted by Emerging Markets Consulting (2012) assessed characteristics of active and dissolved groups with reference to the SEEP financial ratios across three organizations and discovered that a higher percentage of active groups were found to have made changes to their groups' procedures than the dissolved groups. The findings established that adjustments to some of the GS&L group rules such as meeting frequency and longer cycle period before share-out were making the groups become more adaptive to the needs of the members and eventually become more sustainable.

2.2 Motivation factors to saving groups sustainability

In his analysis of Savings and credit cooperatives (SCCs) providing a variety of microfinance services to households in three of Nepal's distinct regions, Gingrich (2004) identified three factors that contributed to financial sustainability of saving groups. First, nearly all Nepali SCCs depend on member savings. Savings create incentives for member participation in SCC activities and decisions. Similarly, because funds are generated within the local community, borrowers are motivated to repay loans, and managers to control costs (Bennett, Goldberg & Hunte (1996). Second, because the SCCs are community-based organizations, there are internal loan-monitoring and enforcement mechanisms. Third, many Nepali SCCs operated for years as informal savings groups before obtaining formal cooperative status. Hence, members are familiar with the principles and challenges of group savings programs (Gingrich, 2004).

There is also a growing awareness that client ownership and participation greatly affect MFI performance and sustainability (Hassan 2002). Bennett *et al.* (1996) cite evidence from five South

Asian MFIs to show how reliance on member savings improves loan repayment and compels management to control costs. Ashe and Parrott (2002) find that women's groups in Nepal's Terai are sustainable because they are completely financed using member savings. Matthews and Ali (2002) report similar results for remote communities in Bangladesh using savings-led microfinance schemes.

Gender is another potential factor affecting MFI sustainability. Among the challenges for women's MFIs are that women generally grow more subsistence crops than men and operate smaller businesses with low profit margins (Holt & Ribe, 1991). On the other hand, women's groups in Grameen type programs typically show superior loan repayment and are more efficient (Hassan, 2002; Hassan & Tufte, 2001).

Studies by Reddy and Prakash (2003) and Nair (2005) have linked the question of sustainability of SHGs (saving groups) to federations of groups (superstructures). These studies have analyzed the functions of superstructures (SHG federations) in designing and providing support services to SHGs, including capacity building, performance monitoring, and helping to access bank credit (Consultative Group to Assist the Poor, 2007). Mathews (2009) identified a number of factors as the major causes of success in savings groups including competent and committed Leadership, transparent and accountable governing systems, frequent transactions, values that promote success. In his study, Mwaisaka (2012) highlighted good leadership, quality training in VSLA methodology, discipline and trust among members as important contributors to sustained participation in the savings groups. Parker, Kednel, Olbeg, Cela & Karen (2016) concluded that groups' sense of ownership of their capital and of the Saving Internal Lending Communities

(SILC) methodology were the main factors contributing to sustainability of these groups. According to Catholic Relief Services (2015), the Private Service Provider (PSP) model promoted spontaneous replication of savings groups in the community. The PSPs formed and trained new groups which in turn promoted sustainability through community empowerment.

A study by Anyango *et al* (2007) sought to examine the performance of VSLA groups in Zanzibar after several years of operations independent of CARE and other NGOs. Specifically the study aimed at understanding the outreach of the programme including reaching poorer members of the community, and its ability to provide useful services and produce change in the lives of users. The study chose to focus on the 73 groups that were at least two years old in order to understand their sustainability over time. The study found out that membership of the VSLAs was relatively well-off and well educated, with over half of members having been educated at secondary level. This is likely to be an important reason why the growth had been impressive and ongoing financial performance strong, especially in the context of weak training and support.

A study conducted by Odell and Rippey (2011) of savings groups under CARE's Community Savings Mobilization (COSAMO) Project examined the use of Savings Groups (SGs) as platforms for other development activities as well as the linkages of Saving Groups to other programs or agencies as a way of increasing their impact or outreach. The study also sought to shed light on the question of how well the groups survived after they were left two years later to operate autonomously by the promoting agency. The study findings revealed that all except one of the original groups had survived. Although the question of the prior existence of groups as entities before they received GS&L training has not been documented in other studies, this study

speculated that the prior existence of these saving groups may have been a factor in their higher rate of survival compared to COSAMO groups in other sub-counties.

A study spearheaded by the Valley Research Group which was conducted to evaluate the WORTH program in Nepal sought to determine if any of the 1,500 Village Banks still existed despite the civil war and the collapse of national governance, and, if so, how they were faring as community banks and as vehicles of change. The study was also to determine how WORTH, which was initially known as the Women's Empowerment Program (WEP), affected women's ability to create wealth, generate new incomes, and tackle broader issues such as domestic abuse and community development. The study reported significant findings on a wide range of issues that were investigated. On sustainability it was established that approximately two-thirds (64 percent) of the original 1,536 Village Banks were still active eight and a half years after the program began and five to six years after all WORTH-related support ended. That means there were nearly 1,000 surviving groups with approximately 25,000 members. When asked the factors that accounted for survival of so many village banks, the groups attributed sustainability to strong group dynamics: trust among the members, reliance on consensus to make decisions, and a sense of cooperation (Valley Research Group and Mayoux 2008).

A major gap cutting across the studies reviewed was lack of clarity on motivating factors and how they related to sustainability, in most cases the supportive (motivating) and constraining (demotivating) factors were never separated to consider their individual and direct effect on level of sustainability.

2.3 Demotivation factors to saving groups sustainability

Very few studies have been undertaken to understand the influence of demotivation factors on sustainability of savings groups. In his study on governing oral institution, Mathews (2009) identified major causes of savings groups' failures including elite capture, failure to respect the rules, poor or irregular book-keeping and the promise of external credit. In the Valley Research Group study (Valley Research Group *et al* 2008), explanations were sought why some village banks (savings groups) had dissolved since the departure of the implementing agency (Pact), the women who had dropped out mentioned lack of interest, discontinuation of support from Pact, lack of unity and trust as the key factors leading to the dissolution of their village banks.

In their study of 99 saving groups supported by CARE, Oxfam and Pact, Emerging Markets Consulting (2012), identified two factors that had hindered sustainability of most of these groups. Their findings showed that a significant number of dissolved groups were supported by a volunteer more often than active groups. As such, support from a volunteer was considered to have a negative impact on a group's sustainability. In most cases where the functioning of the group (especially on financial record keeping) rested on the volunteer instead of the management committee of the group, when the support was abruptly terminated, it undermined the structure and integrity of the group, which in turn affected its ability to function. The other hindering factor was migration of members. Although both active and dissolved groups were found to have members that had migrated, the migration duration seemed to be more intense for dissolved groups. As such, long-term and frequent migration of members was considered to have a negative impact on the long-term sustainability of the savings groups. Members noted that, when a number of individuals in their group migrated to other areas in search of work for long periods of time, it negatively affected

the functionality of the group, since members are not able to join meetings or make savings installments. The migration of members of the committee was also seen to have a large effect on the ability of the group to function.

According to Markku (2009), the reasons for some members abandoning VSLA were; because of not having money left to save in the groups; theft of group money/lack of trust; and high changes in the savings group methodology. In analyzing the aforementioned studies, most of the factors highlighted relate more to causes of saving groups failures and therefore lack direct link with sustainability. Causes of GS&L failures were not necessarily equivalent to barriers to sustainability.

2.4 The links between motivation, demotivation and level of sustainability

None of the existing studies have explored the relationship that exists between motivation and demotivation factors on one hand and level of sustainability on the other hand (Gingrich, 2004; Mwaisaka, 2012 and Bankers Institute of Rural Development, 2009). Mathews (2009) looked at the major causes of success and failures in savings groups, without exploring the integrated effects of the two types of causes and how they affected saving group sustainability. BIRD (2009) examined the sustainability of the savings groups without separating the two categories of factors. The focus was on institutional, financial and overall sustainability of the saving groups. In their study on sustainability of saving groups, Emerging Markets Consulting (2012), identified factors (including inhibitors and promoters) affecting sustainability of the groups in a non-comparative way. The study examined 99 savings groups that were part of savings-led microfinance interventions ex-post the implementing agency phased-out support within the three models of:

CARE's Village Savings and Loan Associations' (VSLA) methodology, implemented through Farmer Livelihood Development (FLD); Oxfam's saving for Change project, implemented through the Center for Study and Development in Agriculture (CEDAC); and Pact's WORTH program. These studies did not explore how the interaction of motivation and demotivation factors affected different levels of sustainability.

2.5 Summary of gaps

The study by Bankers Institute of Rural Development (2009) on level of sustainability of saving groups provided comprehensive and integrated tools to measure the institutional and financial sustainability of savings groups. This study made an attempt to provide the indicators and variables that will help in measuring and determining the sustainability of savings groups. Although the study examined sustainability in an integrated way, it did not separate motivation and demotivation factors in the analysis. It was therefore not easy to determine how the interaction of the two classes of factors affected sustainability of groups. The SEEP ratios have provided useful analytical tools for understanding saving group performance and sustainability; however their group level focus is a limitation that this study wants to address so that individual members of savings groups have a say on what constitute their group's performance and sustainability.

A key limitation of the studies on motivation factors to sustainability was the limited clarity in the assessment of the factors behind the practices of savings groups and their members in so far as sustainability was concerned. Most of the studies were not originally designed to explicitly explore the motivation factors towards sustainability thereby resulting to lack of clarity and detailed discussion.

The studies on demotivating factors did not explicitly explore the factors that constrained sustainability of savings groups. Causes of failures and drop out from saving groups are not necessarily equivalent to demotivation factors to sustainability. Although the studies offered useful insights in understanding some of the challenges relating to groups' survival, they failed to explore the demotivating factors to sustainability.

In terms of methodological gaps, Emerging Markets Consulting (2012) employed sequential mixed method design where inferential analysis was used to identify the relationships between each of the factors examined and the sustainability of the saving groups. In-depth qualitative analysis was then conducted around the quantitative findings in order to provide depth and meaning to the results. Although using qualitative findings to triangulate quantitative results was a strength in this study, bivariate analysis was limiting since it did not help in demonstrating the linkage and contribution of the two categories of factors (motivation and demotivation) to level of sustainability.

In their study of microfinance groups' sustainability, Bankers Institute of Rural Development (2009) used twelve major indicators drawn from the field study to measure the sustainability of the saving groups. These were further divided into two groups – managerial and financial indicators. Each of the indicators was determined (integrated) by a set of variables. Twelve individual indices were constructed. By using individual indices, the institutional sustainability index and financial sustainability indices were prepared and accordingly, an integrated overall Sustainability Index was computed. Saving groups' sustainability was then assessed based on three parameters of managerial, financial and overall sustainability within the range of low, medium and

high. The main shortcoming of this study was that sustainability of saving groups was investigated purely from the institutional and financial perspectives alone.

2.6 Conceptual Framework

Based on literature review a conceptual framework has been deduced. In this framework, level of sustainability (dependent variable) which is measured in terms of the attendance rate, retention rate, membership growth rate, portfolio at risk, loan fund utilization and return on savings (Small Enterprise Education and Promotion Network 2009; Bankers Institute of Rural Development 2009) can be influenced by 3 major blocks of factors which include motivating factors block/independent variable (Mathews, 2009; Anyango et al., 2007; Bermudez & Matuszeski, 2010; Odell and Rippey, 2011; Hassan 2002), demotivating factors block/independent variable (Mathews, 2009; Valley Research group and Mayoux, 2008), and socio demographic factors block /intervening variable (Anyango et al., 2007; Mathews, 2009). The focus of this study was to determine how motivating and demotivating factors influence the level of sustainability while controlling for any effect of socio-demographic factors in the conceptual model as shown below in figure 2.1. The import of this framework was hinged on the fact that whereas previous studies (Bankers Institute of Rural Development 2009; Mathews 2009; and Valley Research Group et al 2008) employed bivariate analysis, this study used multivariate analysis where multiple relations between multiple variables (including intervening factors) were examined for the purpose of determining the empirical relationship.

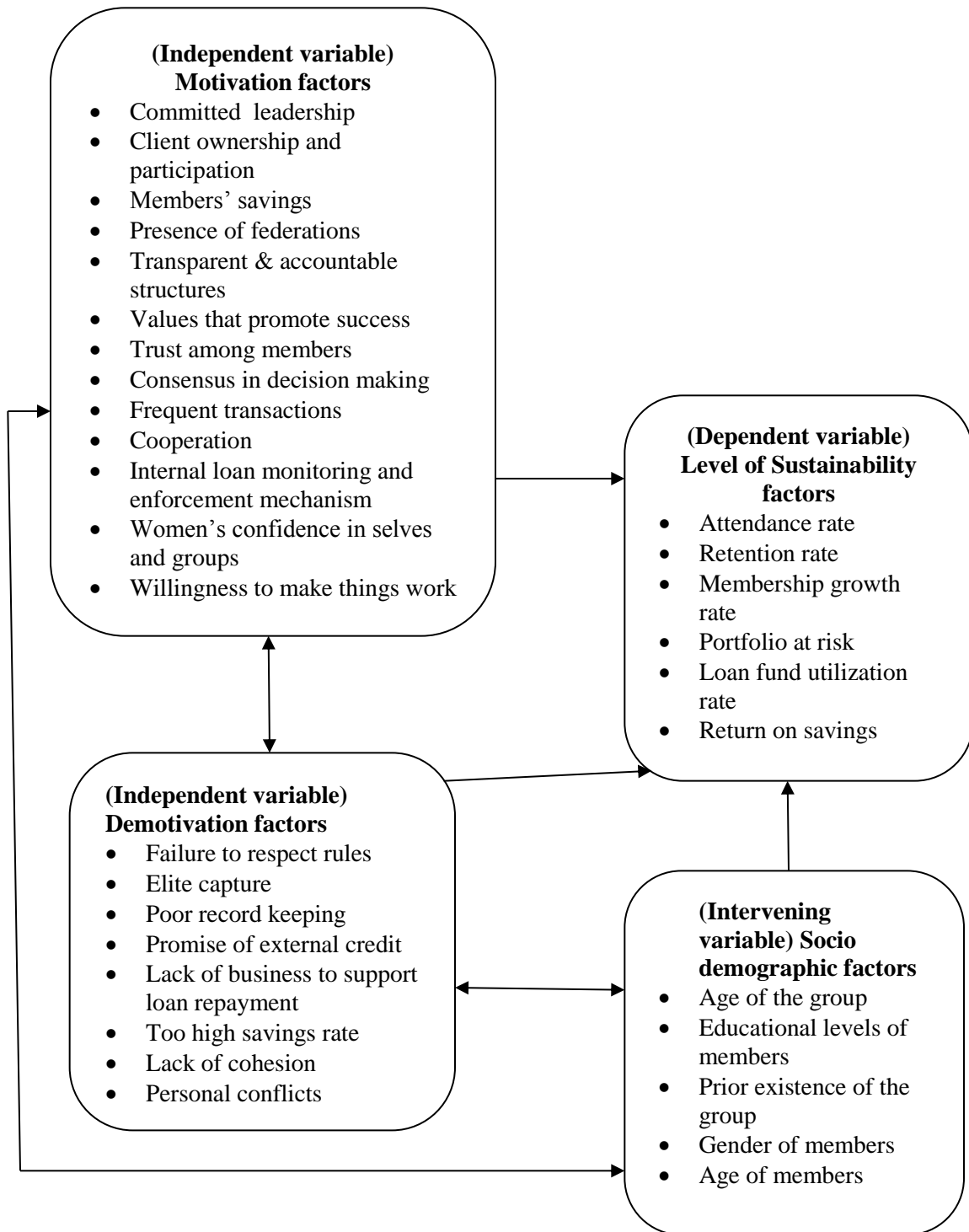


Figure 2.1: Conceptual framework showing factors affecting level of sustainability

CHAPTER THREE

METHODOLOGY

This section consists of the methods or steps that the research used to accomplish the study objectives. Included in this section are study design, study area, study population, sample size and sampling procedures, research instruments, data collection procedures, measurements of variables, data analysis, pilot study, and ethical consideration.

3.1 Study design

The study adopted across sectional quantitative approach design, where data was collected once for a period of one month and analyzed before being used to develop the report. Cross-sectional research studies are based on observations that take place in different groups at one time. This means there is no experimental procedure, so no variables are manipulated by the researcher (Roundy 2014). Other than being suitable for estimating the prevalence of a behavior in a population, cross sectional studies are generally quick, easy, and cheap to perform (Sedgwick 2014). So this design was the most appropriate to investigate the existing situation of the saving groups on the ground within the unique population.

3.2 Study Area

Nyando Sub County is located within Kisumu County in the Western part of Kenya. It neighbors Nyakach, Muhoroni, Kisumu Town East constituencies and Kericho County. The Sub-County was named after the famous River Nyando, which flows from the Nandi Hills in the Rift Valley region and empties its waters into Lake Victoria. CARE Kenya through COSALO Project has been

implementing Group Savings and Loans methodology since April 2011 in a number of sub-counties within Nyanza region.

Nyando has been one of the sub-counties of coverage where CARE Kenya has worked with various delivery channels including faith based organizations, community based organizations and franchisees in deepening GS&L outreach. Its selection as a study area was informed by the need to investigate the sustainability levels of existing saving groups whose training were facilitated by CARE. No study on sustainability of saving groups has targeted this region, despite hosting hundreds of saving groups which have exhibited independent operation after the termination of CARE support. To date CARE through the 4 delivery channels in Nyando has managed to reach 1433 saving groups with the GS&L model. Compared to other regions that implement GS&L, Nyando has shown high potential of uptake of group savings and loans activities. CARE has had a fairly long period of existence within this community implementing various livelihood projects integrated with Group Savings and Loaning interventions. It is based on this background that Nyando Sub-County was selected as the study area.

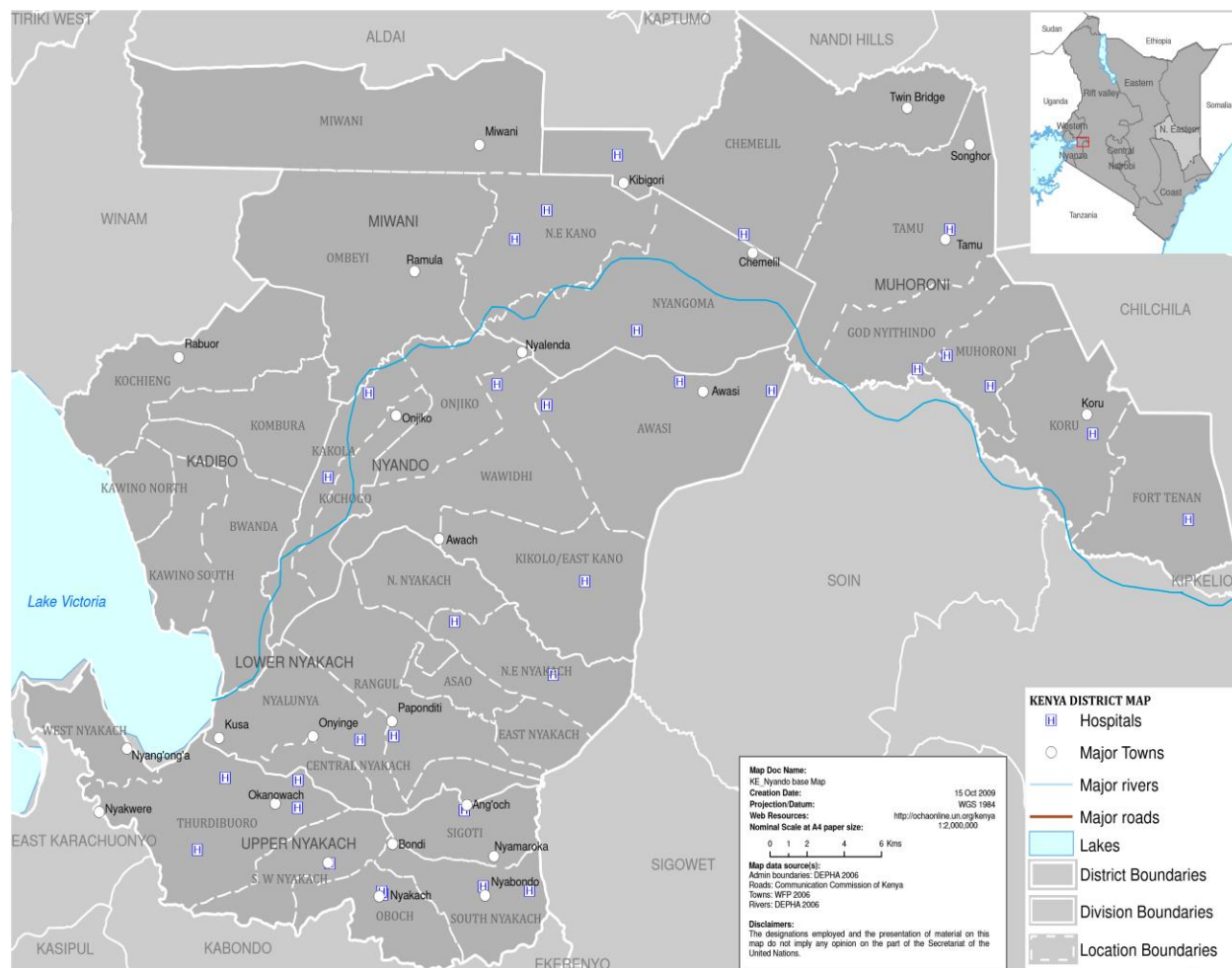


Figure 3.2: Location Map of the Study Area

3.3 Study population

Out of the 1433 saving groups formed between the years 2014 and 2016 in the Sub County, this study only considered saving groups that have been in existence for at least two years as its study population. Only groups that are two years and above old have gone through the initial 1 year of capacity building support by CARE Kenya and at least an additional year of independent operation. Thus the inclusion criteria was that only saving groups aged 2 years and above were considered in the study population. While the exclusion criteria was that all eligible saving group members belonging to more than 2 groups or those that declined to participate in the study. Using the

inclusion criteria, only 37 groups with a total membership of 775 participants were purposively selected. These groups were selected from three partners including Bolo Nyakach CBO, Pheobe Oyaro and Maurice Awasi. The breakdown of the study population is given in the table below:

Table 3.1: Breakdown of the study population

Local institutions	Institution type	Population of groups per local institution	No. of saving groups meeting the inclusion criteria	Sampling frame
Bolo Nyakach	CBO	42	2	39
Rulidep	CBO	411	Nil	-
PheobeOyaro	Franchisee	93	15	308
Maurice Awasi	Franchisee	887	20	428
Total		1433	37	775

Source: COSALO MIS Report 2016

3.4 Sampling

The sample size was determined according to Fisher *et al* (1991), using the formula;

$$n = \frac{Z^2 (pq)}{d^2}$$

Where:

n = minimum sample size (for population >10,000) required.

Z = the standard normal deviate at the required confidence level, (set at 1.96 corresponding to 95%, Confidence level adopted for this study).

p = population proportion estimated to have a particular characteristic. (Where there is no reasonable estimate a default of 50% or 0.5 was acceptable).

$$q = 1-p$$

d = the degree of accuracy required (will be set at 0.05 if the proportion measured at the first survey is not known otherwise the actual prevalence/statistic will be used).

Therefore, on substitution: $n = \frac{1.96^2 \times 0.5 \times (1-0.5)}{0.05^2} = 384.16 \approx 385$

However, should the targeted population fall below 10,000 the final sample size (nf) was to be adjusted as follows:

$$n f = n \div \{1 + (n/N)\}$$

Where; n f= desired sample size (when target population is less than 10,000)

n = desired sample size (when target population is greater than 10,000)

N = the desired sample size (target population)

Since our population was less than 10,000 (our population is 775):

On substitution: $nf=385 \div \{1 + (385/775)\} = 254.38 \approx 255$ plus 5 percent=268

From the 775 study population, 268 sample size was proposed using the above explained formula. However, the final sample size who eventually participated in the study was 255 saving group members.

Sampling procedure at the group level (involving the 37 groups) was done based on proportionate and simple random technique. This meant that groups with more members were likely to provide more respondents to the study than those with few members, although this was not the case always as some group members were not available at the time of interview. All eligible saving group members were given equal chance of being selected. The saving group members became the unit of analysis in this study. Refer to Appendix C for a breakdown of the members interviewed from each selected group.

3.5 Data collection instrument and Measurement

The researcher used one set of instrument namely structured questionnaire to collect quantitative data required for the study. The structured questionnaires were based on closed ended questions which produced data that could be analyzed quantitatively. The structured questionnaire was appropriate for this study as it is typically efficient, economic and practical when fairly large samples are used (Kumar 2011). The questionnaire was designed in such a manner to include the following sections: socio-demographic profile/moderating factors (age of the group, educational levels of members, prior existence of the group, gender of the members, and age of the members); level of sustainability factors (attendance rate, retention rate, membership growth rate, portfolio at risk, loan fund utilization rate and return on savings); motivation factors to sustainability (committed leadership, client ownership and participation, members' savings, presence of federations, transparent & accountable structures, values that promote success, trust among members, consensus in decision making, frequent transactions, cooperation, internal loan monitoring and enforcement mechanism, women's confidence in selves and groups, and willingness to make things work); and demotivation factors to sustainability (failure to respect rules, elite capture, poor record keeping, promise of external credit, lack of business to support loan repayment, too high savings rate, lack of cohesion, personal conflicts). Each of these factors had a set of indicator measures as indicated in the conceptual framework (figure 2.1).

For each of the items on key factors influencing sustainability, a five point likert scale was used to measure the strength of individual group's perception based on a scale that ranges from strongly disagree to strongly agree as indicated in the Appendix A (GS&L member questionnaire).

3.6 Data collection procedure

Prior to data collection, a pilot study was carried out using ten percent of a similar population as recommended by Mugenda & Mugenda (2003). Pre-testing helped establish validity and reliability check whether or not the wording was clear, all the questions were interpreted in the same way by respondents, what response was provoked and if there was any research bias. Reliability was assessed by use of internal consistency check based on Cronbach alpha. The overall result for all indicators in the questionnaire for each domain was $\alpha > 0.65$ for level of sustainability, $\alpha > 0.883$ for demotivational factors and $\alpha > 0.61$ for motivational factors. A reliability coefficient of 0.60 or higher is considered acceptable in most social science research situations (Bruin, 2006). The questionnaires were also assessed for word order and grammatical errors and amount of time taken for interview. Validity was assessed based on construct approach using principal component analysis where all indicators meet the minimum variance of 40 percent threshold.

Once the pilot study was completed, the researcher sought permission from CARE Kenya-Kisumu Sub Office to interview their clients. Prior to field work, 9 research assistants were taken through intensive training on interview methods, how to administer questionnaire, sampling procedures and research ethics. This training was meant to equip the research assistants with the requisite data collection skills. After training, data collection commenced and this was organized with the three partners in such a way that they began with the saving groups under Bolo Nyakach, proceeded to groups under Pheobe Oyaro and eventually finished with groups under Maurice Awasi. In every region of the Sub-County where the interviews were carried out, a standard interview protocol was followed that included: locating the partner, meeting and notifying the local provincial administrator, partner locating and introducing research team to the saving groups under his/her

jurisdiction, sampling of members from the selected saving groups, introducing purpose of the study to respondents, seeking permission to conduct interview and administering questionnaire.

The questionnaires were administered by the research assistants through face to face interviews for a duration not exceeding 50 minutes. When conducting the interviews, the research team made concerted effort to ask each of the questions in the same way to ensure uniformity across the data. When respondents had difficulty understanding particular questions, the research assistants took time to explain their meaning carefully. The research team also used probing techniques to dig deeper into respondents' answers in order to get more information and ensure clarity in the responses.

3.7 Data analysis

Quantitative data was entered into Statistical Package for Social Sciences (SPSS) data spread sheet prior to analysis. Both descriptive and inferential statistics were employed in the data analysis of all the variables in objectives 1 to 3. In order to establish a model showing the link between saving group sustainability, motivating and demotivating factors under objective 4, descriptive analysis was followed by hierarchical regression. This means the principal axis factoring was used followed by linear regression. The principal axis factoring for each objective was performed at 2 levels. The first level was descriptive statistics to assess indicators under each block and possibly drop those factors that didn't meet the normality criteria. The second level was to load factors and identify those loaded beyond 40% variance threshold at Eigen value greater than 1.

A normality test was used to determine whether sample data had been drawn from a normally distributed population (within some tolerance). Since this study involved parametric tests (including t-test and regression) it required a normally distributed sample population and this was confirmed when the mean for all the measures/indicators fell within $-2 \leq \mu \leq 2$ range, which implied a normal distribution curve. Kaiser-Meyer-Olkin (KMO) and Bartlett's test of sphericity tests on the other hand indicate the suitability of the data for structure detection. Kaiser-Meyer-Olkin (KMO) Test was used as a measure of how suited the data was for Factor Analysis. The test measured sampling adequacy for each variable in the model and for the complete model. A rule of thumb for interpreting the statistic was that KMO values between 0.5 and 1 indicated the sampling is adequate. Bartlett's test of sphericity tested the hypothesis that the correlation matrix was an identity matrix, which would indicate that the variables are unrelated and therefore unsuitable for structure detection. Small values (less than 0.05) of the significance level indicated that a factor analysis will be possible with the data (Bruin, 2006). Concerning the level of sustainability, a decision rule was made such that only factors whose values were greater than 10% were considered as valid measure of sustainability.

3.8 Ethical considerations

While the study endeavored to collect as much information as possible from the sampled respondents, it strived to respect their rights, values and dignity. The study participants' right to privacy, the right to anonymity and confidentiality and the right to be informed about the research were observed. Equally important, the research participants were given the right to participate voluntarily and without coercion, the right to withdraw from the research at any time, the right not to be harmed and the right to be treated with dignity and respect (Kumar 2011). An informed

consent was sought from all participating saving group members before inclusion into the study. The aims and purposes of the study were verbally explained in detail to interviewees before they were engaged in the research. All participating members were requested to sign an informed consent form. The process of data storage and protection entailed keeping the data both soft version and hard copies under lock and key until the period of the research elapses when these data can be eventually destroyed. Authorization to collect data for the study was granted by Maseno University School of Graduate Studies while ethical clearance was sought from Maseno University Ethical Review Board, as attached in Appendix B.

CHAPTER FOUR

RESULTS AND DISCUSSIONS

4.1 Socio-Demographic characteristics of saving group members

Over 55% of the GS&L members interviewed were aged 40 years and below, with the lowest age cohort 20-30 years accounting for 26% of the respondents. Members aged above 51 years represented 17.1% of those interviewed. Majority of the GS&L members were women accounting for 86.7% of the membership while men accounted for 13.3% of the members in these groups. The results showed that majority of the GS&L members were married (75.2%). The second highest category was the widows who accounted for 19.3%. The rest were either single (3.9%), separated (1.2%) or divorced (0.4%). On the highest level of education attained, majority of the GS&L members have some level of education except 10.6% who reported not to have acquired any education. Slightly over half of the respondents (58.9%) have attained primary education; those with secondary education accounted for 25.1% while the rest have either achieved college (5%) or university education (0.4%).

Table: 4.1 Socio-demographic characteristics of respondents

Indicator	Frequency	Valid Percent	Cumulative Percent
Age of GS&L members			
20-30 Years	66	26.0	26.0
31-40 Years	74	29.1	55.1
41-50 Years	71	27.8	82.7
Above 51 Years	44	17.1	100.0
Gender of GS&L members			
Male	34	13.3	13.3
Female	221	86.7	100.0
Marital status			
Single	10	3.9	3.9
Married	192	75.2	79.1
Separated	3	1.2	80.3
Divorced	1	0.4	80.7
Widowed	49	19.3	100.0
The highest level of education attained			
None	27	10.6	10.6

Primary	150	58.9	69.5
Secondary	64	25.1	94.6
College	13	5	99.6
University	1	.4	100.0

The socio-demographic factors were not considered as critical predictors of level of sustainability but were ruled out as potential confounders in the relationship established by the model that explained the relationship between motivational and demotivational factors and level of sustainability.

4.2 Membership to other groups

Slightly over half of the respondents (53.3%) were members of some groups (namely self-help group, merry go round etc) before joining their current GS&L group. The rest of the members indicated that they had not joined any group prior to being members to their current group. When asked the age of their GS&L groups, majority of the respondents (94.1%) indicated that their groups had been in existence for 4 years and above. The rest reported that the ages of their groups were between 2-3 years (3.2%). However, a few respondents (2.7%) did not know the age of their groups.

Table 4.2: Distribution of members according to membership to other groups and age of their GS&L group

Indicator	Frequency	Valid Percent	Cumulative Percent
Membership to other groups			
Yes	136	53.3	53.3
No	119	46.7	100.0
Age of the GS&L group			
2-3 Years	8	3.2	3.2
4 Years and above	240	94.1	97.3
Don't Know	7	2.7	100.0
Total	255	100.0	

4.3 Level of sustainability of GS&L groups

Objective 1 sought to determine the level of sustainability of GS&L groups in Nyando Sub County.

This study adopted the SEEP ratios which included attendance rate, retention rate, membership growth rate, portfolio at risk, loan fund utilization rate and return on savings as the appropriate measures/indicators of level of sustainability (Small Enterprise Education and Promotion Network, 2009). After factor analysis, the best factor to be selected (from the six ratios) for use in the subsequent analysis was identified based on decision rule that only factors whose values were greater than 10% were considered as valid measure of level of sustainability.

Table 4.3 shows that all items measured were subjected to normality test as a requirement which precedes factor analysis. And the result revealed that the mean for all the measures fell within $-2 \leq \mu \leq 2$ range, implying a normal distribution curve. The measures were then subjected to sample size adequacy to justify representativeness of the sample for causal relationships authenticity. All the indicators were subjected to Kaiser Meyer Olkin (KMO) measure of sampling adequacy and Battlet test of sphericity and the results revealed good sample size adequacy (KMO=0.549; $\alpha^2=51$; df=15; $p<0.05$).

Table 4.3: Descriptive statistics of level of sustainability indicators

Level of Sustainability indicator	N	Minimum	Maximum	Mean	Std.		Std. Error
					Deviation	Skewness	
Loan fund utilization rate	254	1.00	5.00	4.0472	.87439	-.736	.153
Attendance rate	251	1.00	5.00	3.9641	1.15356	-1.127	.154
Retention rate	251	1.00	5.00	1.9442	1.34346	1.280	.154
Membership growth rate	252	1.00	5.00	2.5317	1.01138	.344	.153
Portfolio at risk	249	1.00	5.00	2.3253	.97685	.591	.154
Return on savings	249	1.00	5.00	4.5181	.70187	-1.969	.154

Table 4.4 below shows the number of possible item measures that could be extracted from the level of sustainability indicators based on principal factor analysis with Eigen values set at one (1).

There were 6 possible factor loadings that could be extracted, however, only three factor clusters emerged from the loading. The overall variance for the level of sustainability indicators for the three factor loadings accounted for 22.8%. This shows that the three loadings could only explain up to 22.8% of level of sustainability showing that the remaining percentage could be due to other factor measures. Further, this percentage was significantly higher than the expected frequency of 16.6% ($z=2.62$, $CI=0.12-0.21$, $p=0.0088$). This implies that the level of sustainability was high. Specifically, factor 1 registered the highest variance (13.6%) indicating that it was the best measure for the level of sustainability indicators followed by factor 2 (5.5 %) and factor 3 (3.5%) in that order.

Table 4.4: Possible factors depicting sustainability levels

Factor	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	1.482	24.705	24.705	.819	13.652	13.652
2	1.162	19.362	44.066	.331	5.513	19.165
3	1.037	17.286	61.353	.216	3.596	22.761
4	.835	13.915	75.268			
5	.827	13.790	89.058			
6	.657	10.942	100.000			

Further analysis displayed the factors in a rotated factor matrix revealing the three factor clusters as presented in table 4.5. The result in this table shows that Factor 1 was made up of attendance and retention rates. This cluster of level of sustainability indicators depicted “member satisfaction” in the level of sustainability domain. Factor 2 consisted of return on savings. This factor depicted “financial performance” within the level of sustainability of the saving groups. And factor 3 was made up of membership growth rate represented by long-term relevance.

Table 4.5: Rotated Factor Matrix for possible levels of sustainability category

	Factor		
	1	2	3
Loan fund utilization rate			
Attendance rate	.511		
Retention rate	.469		
Membership growth rate			.403
Portfolio at risk			
Return on savings		.572	
Variance explained	13.652	5.513	3.596

From the factor analysis results (tables 4.4 and 4.5), 3 factors were identified with the overall variance for the level of sustainability measures accounting for 22.8%. Factor 1 was made up of attendance and retention rates, while factor 2 consisted of return on savings, and factor 3 was made up of membership growth rate.

Small Enterprise Education and Promotion (SEEP) took a lead in 1995 to come up with the Financial Ratio Analysis of Micro Finance Institutions which have since been adopted for saving groups by NGOs implementing VSLA. No empirical studies have been done on these ratios. Although Small Enterprise Education and Promotion Network (2009) identified the 6 SEEP ratios (attendance rate, retention rate, membership growth rate, port-folio at risk, loan fund utilization rate and return on savings) to help in understanding performance and sustainability of VSLA groups, this study has selected the 4 most important ratios (namely attendance and retention rates, return on savings and membership growth rate) likely to influence level of sustainability of saving groups. Out of the 4 ratios/factors identified, member satisfaction (made up of attendance and retention rates) demonstrated the highest influence on level of sustainability, denoting its importance. Further, port-folio at risk and loan fund utilization rate have been identified as non-critical ratios in accounting for level of sustainability of groups thereby disputing the position

promoted by the Small Enterprise Education and Promotion (SEEP) network. In the subsequent levels of analysis, only factor 1 was used based on decision rule that only factors whose values were greater than 10% were considered as valid measure of level of sustainability.

4.4 Motivation factors to sustainability of GS&L groups

The second objective sought to establish the relationship between motivating factors and level of sustainability of GS&L groups in Nyando Sub County. Table 4.6 shows that all items measured were subjected to normality test as a requirement which precedes factor analysis. The analysis showed that all the factors measuring motivation met the normality criteria of $-2 < \mu < 2$ except committed leadership (skew=-3.56). Therefore committed leadership was dropped during the subsequent stage of principle axis factoring. This implied that all the remaining factors were then carried forward to the principle axis factoring. All the measures were then subjected to sample size adequacy to justify representativeness of the sample for causal relationships authenticity. To achieve this, the indicators were subjected to Kaiser Meyer Olkin (KMO) measure of sampling adequacy and Battlet test of sphericity and the results revealed good sample size adequacy (KMO=0.664; $\alpha^2=321.44$; $df=66$; $p<0.05$).

Table 4.6: Descriptive statistics of Motivation factors to sustainability of GS&L groups

	Descriptive Statistics						
	N	Minimum	Maximum	Mean	Std. Deviation	Skewness	
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error
Committed leadership	255	1.00	5.00	4.7608	.59660	-3.562	.153
Client ownership and participation	254	1.00	5.00	4.4843	.60771	-1.271	.153
Members' savings	252	1.00	5.00	4.4048	.65812	-1.588	.153
Presence of federations/clusters	253	1.00	5.00	3.0593	1.41717	-.173	.153
Transparent & accountable structures	254	1.00	5.00	4.5709	.61027	-1.641	.153

Values that promote success	253	2.00	5.00	4.2451	.59364	-.478	.153
Trust among members	255	3.00	5.00	4.5373	.54483	-.590	.153
Consensus in decision making	253	2.00	5.00	4.3281	.66000	-.723	.153
Frequent transactions	253	1.00	5.00	4.2530	.87244	-1.528	.153
Cooperation among members	251	2.00	5.00	4.2948	.65172	-.471	.154
Internal loan monitoring and enforcement mechanism	254	1.00	5.00	3.5709	1.12152	-.602	.153
Member's confidence in selves and groups	252	2.00	5.00	4.0317	.79777	-.769	.153
Willingness to make things work	254	1.00	5.00	4.0906	.80737	-1.029	.153

Further analysis was therefore performed to establish the level of sustainability based on the Principle axis factoring technique (as shown in table 4.7). Twelve out of the thirteen measures/indicators (after dropping committed leadership) were used at this stage. From the 12 motivation indicators of sustainability (factor loadings), only 4 factors depicting 4 types of motivations were extracted from the loading after meeting Eigen value threshold above 1 accounting for 31.7% overall variance as indicated in table 4.7 below. This shows that the 4 loadings could only explain up to 31.7% influence of motivation factors with the remaining percentage likely to be due to other factors. Further, this percentage was significantly higher than the expected frequency of 8.3% ($z=12.559$; $CI=0.11-0.04$; $P<0.0001$). The result showed that the motivation factors had a fair influence on the level of sustainability of GS&L groups, with factor 1 accounting for 14.9% and representing the best measure for motivation factors. Factor 2 was second at 7.7%, followed by factor 3 at 5.3% and factor 4 at 3.5%.

Table 4.7: Possible factors depicting Motivation to sustainability of GS&L groups

Factor	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	2.403	20.024	20.024	1.798	14.982	14.982
2	1.628	13.565	33.589	.935	7.788	22.771
3	1.283	10.693	44.282	.647	5.390	28.160
4	1.057	8.809	53.091	.426	3.552	31.712

5	.910	7.582	60.674
6	.847	7.055	67.729
7	.827	6.888	74.616
8	.743	6.190	80.806
9	.671	5.590	86.396
10	.626	5.220	91.616
11	.542	4.518	96.134
12	.464	3.866	100.000

The results as indicated in the table 4.8 below shows that Factor 1 was made up of trust and cooperation among members depicting “group cohesion”. Factor 2 was represented by members’ confidence in themselves and in their groups depicting group confidence; Factor 3 was represented by presence of federations/clusters, frequent transactions and internal loan monitoring and enforcement mechanism depicting operation efficiency; and Factor 4 was made up of client ownership and participation representing membership role.

Table 4.8: Rotated Factor Matrix for possible Motivation to sustainability category

	Factor			
	1	2	3	4
Client ownership and participation				.647
Members’ savings	-	-		
Presence of federations/clusters	-		-.414	
Transparent & accountable structures	-	-		
Values that promote success				
Trust among members	.432			
Consensus in decision making	-			
Frequent transactions	-		.507	
Cooperation among members	.709			
Internal loan monitoring and enforcement mechanism			-.446	
Member’s confidence in themselves and groups		.699		
Willingness to make things work				
Variance explained	14.982	7.788	5.390	3.552

Out of the 12 motivational measures of sustainability, only 4 factors were extracted accounting for 31.4% overall variance. Factor 1 was made up of trust and cooperation among members depicting “group cohesion”; Factor 2 was represented by members’ confidence in themselves and in their

groups depicting group confidence; Factor 3 was represented by presence of federations/clusters, frequent transactions and Internal loan monitoring and enforcement mechanism depicting operation efficiency; and Factor 4 was made up of client ownership and participation representing membership role as shown in tables 4.7 and 4.8.

The results of the study concurs with the findings of Mayoux and Valley Research group (2008), Mwaisaka (2012), Emerging Markets Consulting (2012) and Markku (2009) that showed sustainability of village banks/saving groups was due to strong group dynamics including trust and cooperation among members. These two indicators clustered as group cohesion accounted for the highest variance (14.9%) and represented the best measure for motivation factors. Reliance on consensus for decision making was however, the only indicator in this category that the study found not to be important. The study also concurred with Hassan (2002) on client ownership and participation as well as Ashe and Parrott's (2002) members' confidence in themselves and in their groups as significant motivation factors towards sustainability of groups.

From this study, only one motivation factor out of the three identified by Gingrich (2004) proved to have some influence on sustainability of saving groups. Internal loan-monitoring and enforcement mechanisms clustered together with 2 other factors (presence of federations/clusters and frequent transactions) under operation efficiency emerged as the only important factor from Gingrich's list. Previous studies by Reddy & Prakash (2003) and Nair (2005) had linked the question of sustainability of SHGs (saving groups) to federations of groups (superstructures/clusters) which this study has confirmed. From Mathews (2009) list of motivation factors, only frequent transaction was confirmed to have some influence on sustainability of

groups. The other motivational factors including competent and committed leadership, transparent and accountable governing systems and values that promote success were ruled out by this study indicating their limited influence in contributing to sustainability of saving groups. The study further ruled out members' savings as an important motivation factor towards sustainability of GS&L groups as promoted by Hassan 2002, Bennett *et al.* 1996, and Ashe & Parrott (2002).

Strong group dynamics which has been depicted as group cohesion in this study is important in fostering the sustainability of saving groups especially between members and their management committee members. Specifically, trust is needed among members as a whole or, at the very least, between individual members and the management committee. Without trust, members will be less inclined to contribute savings to the group since the perceived risk is higher.

4.5 Demotivation factors to sustainability of GS&L groups

Under objective 3 the study sought to establish the relationship between demotivating factors and level of sustainability of GS&L groups in Nyando Sub County. Statistical analysis was conducted to identify the demotivation factors that affected sustainability of GS&L groups. All the 8 item measures for demotivation perspectives were first tested for sample size adequacy using Kaiser Meyer Olkins (KMO) and Bartlett's test of sphericity. The results indicated that the sample size was adequate for each item (KMO=0.803; $\alpha^2=629.58$; $df=21$; $p<0.05$) allowing progress into factor analysis. Normality test also revealed that all the items except failure to respect rules (skew=-2.46) had normal distribution range with $-2<skew<+2$. Table 4.9 below provides the full details.

Table 4.9: Descriptive statistics on Demotivation factors to sustainability of GS&L groups

Demotivation factors	N	Minimum	Maximum	Mean	Std.		
					Deviation	Skewness	Std. Error
Failure to respect rules	255	1.00	5.00	4.5255	1.20626	-2.468	.153
Elite capture	254	1.00	5.00	3.6339	1.39586	-.494	.153
Poor record keeping	251	1.00	5.00	4.3347	1.28668	-1.929	.154
Promise of external credit	252	1.00	5.00	3.2143	1.32765	-.225	.153
Lack of business to support loan repayment	251	1.00	5.00	3.9084	1.18134	-1.142	.154
Too high savings rate	252	1.00	5.00	3.2302	1.43470	-.247	.153
Lack of cohesion	251	1.00	5.00	3.7012	1.11819	-.929	.154
Personal conflicts	252	1.00	5.00	3.7024	1.24759	-.810	.153

In the subsequent analysis, only 7 factors/items were used after dropping “failure to respect rules”.

Table 4.10 below shows the number of possible item measures that could be extracted from the demotivation factors. There were 7 possible factor loadings that could be extracted. However, based on the standard Eigen values set at one (1), only two factors clusters were extracted. The overall variance for the demotivation factors accounted for was 53.8%. This clearly demonstrated that the demotivation factors could explain up to 53.8% of level of sustainability of GS&L groups, with the remaining percentage being accounted for by other factor measures. Further, this percentage was significantly higher than the expected frequency of 14.2% ($z=17.01$; $CI=0.18-0.09$; $p<0.0001$). This implies that the level of sustainability was high. Factor 1 registered the highest variance (41%) indicating that it was the best measure for the demotivation factors followed by Factor 2 (12.78 %).

Table 4.10: Total variance explained by Demotivation factors

Factor	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3.284	46.920	46.920	2.871	41.021	41.021
2	1.389	19.841	66.761	.895	12.784	53.804
3	.655	9.360	76.121			
4	.549	7.839	83.960			
5	.524	7.488	91.447			
6	.340	4.854	96.301			
7	.259	3.699	100.000			

Further analysis displayed the factors in a rotated factor matrix revealing the two factor clusters as presented in table 4.11. The results in this table shows that Factor 1 was made up of poor record keeping, lack of business to support loan repayment, lack of cohesion, and personal conflicts. This cluster of demotivation factors depicted “*financial literacy and group harmony challenges*” in the sustainability domain. Factor 2 consisted of elite capture, promise of external credit and too high saving rates. This category of cluster depicted “*external influence and transparency challenges*” within the sustainability of the saving groups.

Table 4.11: Rotated Factor Matrix for Demotivation factors to sustainability of GS&L

Demotivation factors	Factor	
	1	2
Elite capture		.603
Poor record keeping	.722	
Promise of external credit		.682
Lack of business to support loan repayment	.577	
Too high savings rate		.572
Lack of cohesion	.828	
Personal conflicts	.847	
Variance explained	41.021	12.784

From the analysis (as shown in tables 4.10 and 4.11) only two factors were extracted. Factor 1 registered the highest variance (41%) indicating that it was the best measure for the demotivation factors followed by Factor 2 (12.78 %). Factor 1 was made up of poor record keeping, lack of business to support loan repayment, lack of cohesion, and personal conflicts, while factor 2 consisted of elite capture, promise of external credit and too high saving rates.

In his study on governing oral institution, Mathews (2009) identified major causes of savings groups’ failures including elite capture, failure to respect the rules, poor or irregular book-keeping and the promise of external credit. This study has confirmed the contribution of all the Mathew’s

factors except one as important influencers of sustainability. Failure to respect the rules was ruled out as a critical demotivational factor due to its low influence.

All the factors mentioned (lack of interest, discontinuation of support from Pact, lack of unity and trust) in the Valley Research Group study (Valley Research Group *et al* 2008) except two were dismissed by the study. Lack of cohesion and personal conflict were the only measures reported in the said study that were identified to be important, the rest were insignificant demotivational factors towards sustainability of saving groups.

The study has shown that by addressing “financial literacy and group harmony challenges” (factor1) sustainability of GS&L groups can certainly be achieved. Financial literacy is important for sustainability of GS&L because group members are able to fully understand financial products and services being offered so they can assess the appropriateness and implications of any transactions in which they engage within their groups. Furthermore, financial literacy help group members to make informed decision on the loans that are accessed through the groups and hence reduce loan default. Furthermore, to enhance stability of saving groups, lack of cohesion and personal conflicts must be suppressed to minimize chances of group disintegration.

4.6 Predictive model linking Level of Sustainability, motivation and demotivation factors

Under objective 4, the study sought to develop a predictive model showing the link between level of sustainability, motivating and demotivating factors among GS&L groups in Nyando Sub County. Both motivational and demotivational factors were subjected into a linear equation as independent blocks. A perfect isolation of the two factors could only be reached with inclusion of possible confounders labeled as socio-demographic characteristics.

The results highlighted in table 4.12 below revealed that motivational factors as a block could account for 14% of variance on level of sustainability ($R=0.14$, $f=6.772$, $p<0.05$). Demotivational factors as a block accounted for 17% of variance of level of sustainability ($R=0.17$, $f=4.355$, $p<0.05$). Interestingly, the suspected confounders in this equation mix labeled socio-demographic characteristics also had a valid share of accountability towards level of sustainability, predicting up to 16.9% of variance of level of sustainability ($R=0.169$, $f=3.273$, $p<0.05$). This implied that the greatest prediction model for level of sustainability at preliminary level was the demotivational factors, followed by socio-demographic factors and then lastly motivational factors.

Table 4.12. A test of model competitiveness between key predictors of level of sustainability

Model	R	R Square	Adjusted R Square	F	Sig.
Motivational factors	.405 ^a	.164	.140	6.772	.000 ^b
Demotivational factors	.470 ^b	.221	.170	4.355	.000 ^c
Socio-demographic characteristics (Control)	.493 ^c	.243	.169	3.273	.000 ^d

However further analysis was conducted to discriminate on individual items predictability at moderated levels across all the blocks with a hope to isolate the critical areas of focus as predictors of level of sustainability on single item model basis. The results based on t-test highlighted in table 4.13 below revealed that both motivational and demotivational blocks had some share of accountability of level of sustainability at this stage. Socio-demographic factors did not matter going by each indicator under each block since none of its factors significantly predicted level of sustainability.

The results in table 4.13 below further showed that only one factor “members confidence in themselves and groups” significantly predicted level of sustainability at 20.5% ($\beta=0.205$, $t=2.6$,

p<0.05), other items under this block of motivational category insignificantly contributed. Similarly, only one factor “personal conflicts” under demotivational block significantly predicted level of sustainability at 26.6% ($\beta=0.266$, $t=2.5$, $p<0.05$), other items under this block insignificantly contributed to the level of sustainability.

On overall, the single predictor of demotivational block (26.6%) accounted for a 6.1% more change on the level of sustainability than the predictor from motivational block (20.5%), implying that demotivational factors could be of great importance.

Table 4.13: Level of sustainability predictive model by motivational, demotivational and socio-demographic factors

		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
(Constant)		-4.424	2.075		-2.13	.034
<i>Motivation factors</i>						
Trust among members	M ₁	.336	.222	.110	1.518	.131
Cooperation among members	M ₂	.322	.188	.125	1.708	.089
Member’s confidence in selves and groups*	M ₃	.457	.175	.205	2.610	.010
Frequent transactions	M ₄	-.193	.140	-.096	-1.38	.169
Internal loan monitoring and enforcement mechanism	M ₅	.017	.110	.011	.151	.880
Presence of federations/clusters	M ₆	.003	.096	.003	.032	.975
<i>De-motivation factors</i>						
Poor record keeping	D ₁	-.015	.157	-.011	-.094	.925
Lack of business to support loan repayment	D ₂	.051	.126	.034	.405	.686
Lack of cohesion	D ₃	-.112	.175	-.072	-.641	.522
Personal conflicts*	D ₄	.367	.146	.266	2.520	.013
Elite capture	D ₅	-.085	.090	-.071	-.937	.350
Promise of external credit	D ₆	-.045	.106	-.035	-.422	.674
Too high savings rate	D ₇	-.053	.089	-.045	-.592	.555
<i>Socio-demographic characteristics</i>						
Age	SD ₁	.153	.116	.096	1.321	.188
Gender	SD ₂	.086	.309	.019	.279	.780
Marital status	SD ₃	-.114	.101	-.083	-1.13	.261
Highest level of education	SD ₄	.126	.164	.055	.769	.443
Previous membership of a group	SD ₅	-.384	.223	-.115	-1.72	.087
Age of your GS&L group	SD ₆	-.001	.438	.000	-.002	.999

From the initial analysis, the results revealed that motivational factors as a block could account for 14% of variance on level of sustainability, demotivational factors accounted for 17% of the variance while socio-demographic factors predicted up to 16.9% of variance of level of sustainability as indicated in table 4.12 (under Adjusted R square column). These results indicated that the greatest prediction model for level of sustainability was the demotivational factors, followed by socio-demographic factors and then lastly motivational factors. However, further results based on t-test (table 4.13) revealed that only motivational and demotivational blocks had some share of accountability of level of sustainability. This relationship therefore leads to a mathematical regression equation as follows:

$$L_s = -4.4 (\text{constant}) + 0.34M_1 + 0.32M_2 + 0.46M_3 - 0.19M_4 + 0.1M_5 - 0.01D_1 + 0.05D_2 - 0.11D_3 + 0.37D_4 - 0.08D_5 - 0.04D_6 - 0.05D_7 + 0.15SD_1 + 0.86SD_2 - 0.11SD_3 + 0.12SD_4 - 0.38SD_5$$

Where:

L_s = Level of sustainability

M_1 = Trust among members

M_2 = Cooperation among members

M_3 = Member's confidence in selves and groups*

M_4 = Frequent transactions

M_5 = Internal loan monitoring and enforcement mechanism

D_1 = Poor record keeping

D_2 = Lack of business to support loan repayment

D_3 = Lack of cohesion

D_4 = Personal conflicts*

D₅= Elite capture

D₆= Promise of external credit

D₇= Too high savings rate

SD₁= Age

SD₂= Gender

SD₃= Marital status

SD₄= Highest level of education

SD₅= Previous membership of a group

The final regression equation showed that only one demotivational factor “personal conflicts” as advanced by Valley Research group and Mayoux (2008) significantly predicted level of sustainability at 26.6%. This result implied that personal conflict was the greatest hindering factor (out of all demotivational factors) as far as sustainability of saving groups was concerned. Groups where members had constant differences and preferential treatment for some members resulting to frequent personal conflicts were likely to dissolve quickly without standing the test of time.

Similarly, the only motivational factor - “members’ confidence in themselves and groups” as proposed by Ashe and Parrott’s (2002) significantly predicted level of sustainability at 20.5%. This result meant that “members’ confidence in themselves and groups” was the most contributory factor (out of all motivational factors) to sustainability of saving groups. Groups where members had strong sense of responsibility among themselves and for the group had a high likelihood of longevity. In overall, these results confirmed that demotivational factors were the strongest predictor of level of sustainability of saving groups as per the mathematical equation shown above.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Summary

From the six measures of level of sustainability including loan fund utilization, attendance rate, retention rate, membership growth rate, portfolio at risk and return on savings, only 3 factors were extracted accounting for 22.8% overall variance, signifying a fair influence on sustainability of GS&L groups. Factor 1 which accounted for the highest overall variance of 13.6% was made up of attendance and retention rates which were clustered as member satisfaction. Factors 2 (representing return on savings) and 3 (denoting membership growth rate) which accounted for 5.5% and 3.5% overall variances respectively were ruled out on the basis that they did not measure up to the decision rule of factors whose values are greater than 10%, only factor 1 depicted as member satisfaction (attendance and retention rates) was therefore considered a valid measure of level of sustainability.

The results show that out of the six measures of level of sustainability of GS&L groups, only 4 (including attendance and retention rates, return on savings and membership growth rate) had a fair degree of influence on sustainability of these groups accounting for up to 22.8% overall variance. Further analysis on rotated factor matrix prioritized attendance and retention rates clustered as member satisfaction as the key measure of level of sustainability of saving groups.

Thirteen motivational measures were identified to be influencing level of sustainability of GS&L model. These included committed leadership, client ownership and participation, members' savings, presence of federations or clusters, transparent and accountable structures, values that

promote success, trust among members, consensus in decision making, frequent transactions, cooperation among members, internal loan monitoring and enforcement mechanism, members confidence in themselves and groups and willingness to make things work. At the preliminary phase, all the factors measuring motivation met the normality criteria of $-2 < \mu < 2$ except committed leadership which was eventually dropped.

When subjected to Rotated factor matrix only 4 factors depicting 4 types of motivations were extracted accounting for 31.4% overall variance. The motivation factors had a fair level of influence on the sustainability of GS&L groups, with factor 1 being made up of trust and cooperation among members depicting “group cohesion” accounting for 14.9% and representing the best measure for motivation factors. Factor 2 represented by members’ confidence in themselves and in their groups depicting group confidence was second at 7.7%, followed by factor 3 represented by presence of federations/clusters, frequent transactions and Internal loan monitoring and enforcement mechanism depicting operation efficiency at 5.3% and factor 4 made up of client ownership and participation representing membership role at 3.5%.

The results demonstrated that out of the 13 measures of motivation factors of GS&L sustainability, only 7 including trust among members, cooperation among members, members’ confidence in themselves and in their groups, presence of federations/clusters, frequent transactions, Internal loan monitoring and enforcement mechanism, client ownership and participation had a fair influence on sustainability of these groups accounting for up to 31.4% overall variance. In overall, trust and cooperation among members representing group cohesion stood out as the strongest motivation factors influencing sustainability of GS&L groups.

Eight demotivational measures were identified to be constraining sustainability of GS&L groups. These included failure to respect rules, elite capture, poor record keeping, promise of external credit, lack of business to support loan repayment, too high savings rate, lack of cohesion and personal conflicts. A normality test revealed that all the 8 measures except failure to respect rules had normal distribution range within $-2 < \text{skew} < +2$ and therefore was dropped at this phase.

When subjected to Rotated factor matrix only 2 factors were extracted accounting for 53.7% overall variance. This clearly demonstrates that the demotivation factors had significant influence on sustainability of GS&L groups. Factor 1 which was made up of poor record keeping, lack of business to support loan repayment, lack of cohesion and personal conflicts clustered as “financial literacy and group harmony challenges” registered the highest variance (41%) indicating that it was the best measure for the demotivation factors followed by Factor 2 which consisted of elite capture, promise of external credit and too high saving rates, depicted as “external influence and transparency challenges” accounted for 12.7%.

The results indicated that out of the 8 measures of demotivation factors of GS&L sustainability, only 7 including poor record keeping, lack of business to support loan repayment, lack of cohesion, personal conflicts, elite capture, promise of external credit and too high saving rates had influence on sustainability of these groups accounting for up to 53.7% overall variance. In overall, poor record keeping, lack of business to support loan repayment, lack of cohesion and personal conflicts clustered as “financial literacy and group harmony challenges” stood out as the strongest demotivation factors influencing sustainability of GS&L groups.

By considering motivational and demotivational factors as independent blocks while socio-demographic characteristics as a control block in a linear equation, motivational factors as a block accounted for 14% of variance on level of sustainability, demotivational factors accounted for 17% while socio-demographic factors predicted up to 16.9% of variance of level of sustainability. At preliminary phase, the greatest predictor for level of sustainability was therefore the demotivational factors, followed by socio-demographic factors and then lastly motivational factors.

Further analysis to discriminate on individual items predictability at moderated levels across all the 3 blocks based on t-test revealed that Socio-demographic factors were not critical after all going by each indicator items under each block. Only one factor “members confidence in themselves and groups” significantly predicted level of sustainability at 20.5% ($\beta=0.205$, $t=2.6$, $p<0.05$), other items under this block of motivational category insignificantly contributed. Similarly, only one factor “personal conflicts” under demotivational block significantly predicted level of sustainability at 26.6% ($\beta=0.266$, $t=2.5$, $p<0.05$), other items under this block insignificantly contributed to the level of sustainability.

On overall, the predictor of demotivational block accounted for a 6.1% (20.5%-26.6%) more change on the level of sustainability than the predictor from motivational block, implying that demotivational factors could be of great importance than the other category of factors.

5.2 Conclusions

Based on the foregoing discussions, member satisfaction was identified as an important determinant of level of sustainability of GS&L groups. In essence attendance and retention rates signified the short and long term relevance, appropriateness and value of the GS&L model to the members. Because members of GS&L groups are investors they become sufficiently satisfied with the performance of their saving group to continue their membership.

The study has showed the critical role of group dynamics especially through cohesive culture that encourages mutual trust among the members, conducting activities with group consensus, collective support and sense of cooperation as significant motivation factors towards sustainability. Essentially this is the foundation upon which other factors influencing sustainability of GS&L groups is building from.

The study showed that out of the many demotivation factors investigated, financial literacy and group harmony challenges (represented by poor record keeping, lack of business to support loan repayment, lack of cohesion and personal conflicts) stood out as the most important cluster of factors that constrained sustainability of GS&L groups, thereby limiting their long term functionality as well as denying members opportunity to meet their basic financial needs.

While socio-demographic factors may have some degree of influence on sustainability of GS&L model, this study has revealed that motivational and demotivational factors were the important predictors of GS&L group sustainability. In particular, members' confidence in themselves and in their groups (representing motivational block) and personal conflicts (representing demotivational

block) were the strongest determinant of long term existence of saving groups. Groups where members have strong belief and attitude of success are likely to operate and serve members for long without dissolving. On the contrary, in saving groups where personal conflicts among members are not timely and adequately addressed, longevity of such groups could be greatly compromised. This is to say that sustainability of saving groups can only be achieved by promoting the motivational factor (identified by the study) as you simultaneously reduce or address the detrimental effect of the demotivational factor (identified by the study). On individual factor predictability, personal conflicts had a greater influence than members' confidence in themselves and in their groups in determining sustainability of saving groups and therefore requires greater focus.

5.3 Recommendations

Implementers of GS&L projects and programmes should therefore endeavor to enhance member satisfaction within the saving groups they work with so as to guarantee their continuous operation and existence beyond the funding cycle of projects. Intervention strategies and approaches of implementing organizations should entail strengthening attendance of GS&L transaction meetings by members and retention of membership in these saving groups.

Sustainability of GS&L groups requires strong group dynamics as a foundation upon which other essential pillars are established. Promoters of this methodology should prioritize building group cohesion (and by extension group dynamics) through initial trainings to guarantee effective functionality of the savings groups in the short and long term.

To ensure long term operation and functioning of GS&L groups, implementers of this model should proactively address financial literacy and group harmony challenges through appropriate capacity strengthening interventions. This study recommends integration of financial education into the VSLA methodology training so that GS&L members are properly equipped with these foundational skills during the first year of training. In addition, groups should be supported to have clear and working constitutions that guide their operations.

Greater sustainability of saving groups is achieved when motivating factors are enhanced as demotivating factors are suppressed. As implementers of GS&L methodology concentrate their efforts in enhancing members' confidence in themselves and in their groups to build attitude of success, detrimental effects of personal conflicts should be simultaneously repressed so that this does not compromise group's longevity. Exposing new groups to learn from more experienced and successful groups operating in similar contexts is one strategy of building members confidence in their groups' activities. In addition, groups should be encouraged to have acceptable and relevant leadership structures that guide participation of members to reduce cases of conflicts among the members.

Saving group sustainability is a function of multiple relations entailing motivation and demotivation factors. A better methodological study of this topic should therefore employ multivariate analysis rather than bivariate analysis since the former looks at relationships between variables in an overarching way and to quantify the relationship between variables and it allows for controlling association between variables.

5.4 Suggestion for further studies

Based on the scope and limitation of this study, the researcher has suggested that:

- A similar study should be undertaken in a different geographical context where GS&L groups are being promoted to understand the sustainability variations arising from differences in operation contexts

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APPENDICES

Appendix A: GS&L Member Questionnaire

Section 1: Introduction

Date of interview	
Interviewer name	
Location	
Name of respondent	
Name of your GS&L group?	

Section 2: Socio-Demographic Profile of respondent (Moderating factors)

1. What is your age?	<ol style="list-style-type: none"> 1. 20-30 Years 2. 31-40 Years 3. 41-50 Years 4. Above 51 Years
2. Gender	<ol style="list-style-type: none"> 1. Male 2. Female
3. What is your marital status?	<ol style="list-style-type: none"> 1. Single 2. Married 3. Separated 4. Divorced 5. Widowed
4. What is your highest level of education?	<ol style="list-style-type: none"> 1. None 2. Primary 3. Secondary 4. College 5. University
5. Were you a member of any group(e.g. self help group, merry go round etc) before joining GS&L	<ol style="list-style-type: none"> 1. Yes 2. No.
6. What is the age of your GS&L group?	<ol style="list-style-type: none"> 1. <1 year 2. 2-3years 3. 4 years and above 4. Don't know

Section 3: Level of sustainability (Dependent variable)

<p>Rate the performance of your group on the following indicators of level of sustainability by shading the appropriate level using the scale below?</p> <p>1-Very low; 2-Low; 3-Moderate; 4- High; 5-Very High</p>	<p>Remarks (Kindly include some comments for strong rating)</p>
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<p>1. Loan fund utilization rate: Members borrow regularly and exhaust all the available loan fund in our group</p> <ol style="list-style-type: none"> 1. <1% 2. 1-24% 3. 25-49% 4. 50-74% 5. > 75% 	<p>① ② ③ ④ ⑤</p>	
<p>2. Attendance rate: Members attend group meetings without failure</p> <ol style="list-style-type: none"> 1. <1% 2. 1-24% 3. 25-49% 4. 50-74% 5. > 75% 	<p>① ② ③ ④ ⑤</p>	
<p>3. Retention rate: Very few people drop out from our group since the beginning of the cycle</p> <ol style="list-style-type: none"> 1. <1% 2. 1-24% 3. 25-49% 4. 50-74% 5. > 75% 	<p>① ② ③ ④ ⑤</p>	
<p>4. Membership growth rate: Many new members have joined our group since the beginning of the cycle</p> <ol style="list-style-type: none"> 1. <1% 2. 1-24% 3. 25-49% 4. 50-74% 5. > 75% 	<p>① ② ③ ④ ⑤</p>	
<p>5. Port folio at risk: Very few members have loans that are passed 3 months due date</p> <ol style="list-style-type: none"> 1. <1% 2. 1-24% 3. 25-49% 4. 50-74% 5. > 75% 	<p>① ② ③ ④ ⑤</p>	
<p>6. Return on savings: The value of a share at share out is far much more than it was at the beginning of the cycle</p> <ol style="list-style-type: none"> 1. <1% 2. 1-24% 3. 25-49% 4. 50-74% 5. > 75% 	<p>① ② ③ ④ ⑤</p>	

Section 4: Motivation factors to sustainability of GS&L groups (Independent variable)

Rate your agreement or disagreement of whether these factors contribute to (motivate) sustainability of GS&L group by shading the appropriate level using the scale below? 1-Strongly disagree; 2-Disagree; 3-Neither agree nor disagree; 4- Agree; 5-Strongly agree		Remarks (Kindly include some comments for strong rating)
1. Committed leadership	① ② ③ ④ ⑤	
2. Client ownership and participation	① ② ③ ④ ⑤	
3. Members' savings	① ② ③ ④ ⑤	
4. Presence of federations/clusters	① ② ③ ④ ⑤	
5. Transparent & accountable structures	① ② ③ ④ ⑤	
6. Values that promote success	① ② ③ ④ ⑤	
7. Trust among members	① ② ③ ④ ⑤	
8. Consensus in decision making	① ② ③ ④ ⑤	
9. Frequent transactions	① ② ③ ④ ⑤	
10. Cooperation among members	① ② ③ ④ ⑤	
11. Internal loan monitoring and enforcement mechanism	① ② ③ ④ ⑤	
12. Member's confidence in selves and groups	① ② ③ ④ ⑤	
13. Willingness to make things work	① ② ③ ④ ⑤	

Section 5: Demotivation factors to sustainability of GS&L groups (Independent variable)

Rate your agreement or disagreement of whether these factors hinder (demotivate) sustainability of GS&L group by shading the appropriate level using the scale below? 1-Strongly disagree; 2-Disagree; 3-Neither agree nor disagree; 4- Agree; 5-Strongly agree		Remarks (Kindly include some comments for strong rating)
1. Failure to respect rules	① ② ③ ④ ⑤	
2. Elite capture	① ② ③ ④ ⑤	
3. Poor record keeping	① ② ③ ④ ⑤	
4. Promise of external credit	① ② ③ ④ ⑤	
5. Lack of business to support loan repayment	① ② ③ ④ ⑤	
6. Too high savings rate	① ② ③ ④ ⑤	
7. Lack of cohesion	① ② ③ ④ ⑤	
8. Personal conflicts	① ② ③ ④ ⑤	

Appendix B: Research Authorization



**MASENO UNIVERSITY
SCHOOL OF GRADUATE STUDIES**

Office of the Dean

Our Ref: EL/SPM/00220/2012

Private Bag, MASENO, KENYA
Tel:(057)351 22/351008/351011
FAX: 254-057-351153/351221
Email: sgs@maseno.ac.ke

Date: 16th September, 2016

TO WHOM IT MAY CONCERN

**RE: PROPOSAL APPROVAL FOR AYUB ODHIAMBO WERE —
EL/SPM/00220/2012**

The above named is registered in the Master of Arts in Monitoring & Evaluation programme, in the School of Planning & Architecture, Maseno University. This is to confirm that his research proposal titled “Factors Influencing Sustainability of Group Savings and Loans Model among Saving Group Members in Nyando Sub County” has been approved for conduct of research subject to obtaining all other permissions/clearances that may be required beforehand.

Prof. J.O. Agure
DEAN, SCHOOL OF GRADUATE STUDIES





MASENO UNIVERSITY ETHICS REVIEW COMMITTEE

Tel: +254 057 351 622 Ext: 3050
Fax: +254 057 351 221

Private Bag – 40105, Maseno, Kenya
Email: muerc-secretariate@maseno.ac.ke

FROM: Secretary - MUERC

DATE: 5th January, 2017

TO: Ayub Odhiambo Were
EL/SPM/00220/2012
Department of Urban Management and Regional Planning
School of Planning and Architecture
Maseno University
P.O Box Private Bag, Maseno, Kenya

REF:MSU/DRPI/MUERC/00347/16

RE: Factors Influencing Sustainability of Group Savings and Loans (GS&L) Model among Saving Group Members in Nyando Sub-County. Proposal Reference Number: MSU/DRPI/MUERC/00347/16

This is to inform you that the Maseno University Ethics Review Committee (MUERC) determined that the ethics issues raised at the initial review were adequately addressed in the revised proposal. Consequently, the study is granted approval for implementation effective this 5th day of January, 2017 for a period of one (1) year.

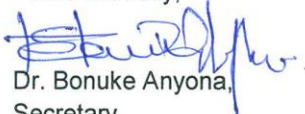
Please note that authorization to conduct this study will automatically expire on 4th January, 2018. If you plan to continue with the study beyond this date, please submit an application for continuation approval to the MUERC Secretariat by 5th December, 2017.

Approval for continuation of the study will be subject to successful submission of an annual progress report that is to reach the MUERC Secretariat by 5th December, 2017.

Please note that any unanticipated problems resulting from the conduct of this study must be reported to MUERC. You are required to submit any proposed changes to this study to MUERC for review and approval prior to initiation. Please advise MUERC when the study is completed or discontinued.

Thank you.

Yours faithfully,


Dr. Bonuke Anyona,
Secretary,

Maseno University Ethics Review Committee.



Cc: Chairman,
Maseno University Ethics Review Committee.



Appendix C: Sample Size breakdown

Groups Interviewed	Partner	No. of Respondents Interviewed	Group Membership
Arombo Yaw Pachi	Phoebe Oyare	7	18
Ber Bange A		8	20
Ka Chieng		10	25
Kalando		8	22
Kawanga Donj Ki Tang		8	25
Kel Kendi W.G.A		7	20
Mirongo In Group A		1	15
Mirongo W Group A		11	25
Mirongo W Group B		4	15
Piny Dongo		9	17
Tumaini S.H.G		11	25
Wuotho Mos Lo Reto		5	21
Yesu Nyalo A		1	20
Yesu Nyalo B		5	22
Tim Kinda Rongo Women Group		6	18
Sub-Total			101
Awasi Juakali	Maurice Orayo	9	18
Awasi Junior		5	19
Kinda E Tich A		8	31
Kinda E Tich B		7	20
Kobongo Hera A		6	15
Konyri Kendi		12	25
Maugano A		6	31
Maungano 1		4	15
Mine Nyalo		15	21
Kami		6	22
One Way		10	32
Pala Nguono A		6	18
Pump		8	25
Tang Chon Ber		5	15
Tausi		7	20
Tich E Kinda E A		1	25
Tim Kinda Rongo		6	18
Yes We Can A		7	19
Yes We Can B		8	20
Yes We Can S.H.G. C	5	19	
Sub-Total		141	428
Umbrella	Bolo Nyakach	5	15
Wedewo		8	24
Sub-Total		13	39
Grand Total		255	775