THE ROLE OF SAVINGS AND CREDIT CO-OPERATIVE SOCIETIES (SACCOs) ON WOMEN EMPOWERMENT IN KENYA:
A CASE STUDY OF UNITED WOMEN SACCO

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2017
DECLARATION

This research paper is my original work and has not been presented in any university for award of a degree.

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This research paper is submitted for examination with my approval as the university supervisor:

Signature  ................................................................. Date........................................

DR. PURNA SAMANTA
DEDICATION

I dedicate this work to my loving mum Esther Koske, my brothers: Nicholas, Hillary and Leonard and my sister Winny for their immense support, love and prayers.
ACKNOWLEDGEMENT

I thank the Almighty God for His grace and the gift of life he has given to me up this moment. I appreciate Dr. Purna Samanta my supervisor for his effective guidance throughout my research period. This work would not have been possible without his assistance. My sincere appreciation also goes to all my lecturers who played a significant role by laying a solid foundation through my course work and the entire School of Economics for the overall support towards the completion of my Master of Arts in Economics. My heartfelt appreciation also goes to my family especially my loving mum for seeing me through school. Special thanks to my friends Chris, Victoria, Gideon and Kemboi, for their great friendship, prayers, encouragement and support.
ABSTRACT

Access and control over economic and financial resources is necessary for realizing gender equality and women empowerment for the long-term sustainability of economic growth as well as development. This study was set out to investigate the role of savings and credit co-operative societies (Saccos) on women empowerment in Kenya. The first objective was to measure the status of empowerment of women in the Sacco. The members of the group were found to have benefited through improvement in savings, the ability to access credit/loans necessary for expansion, financial advisory, add capital to investment by members, starting businesses and other benefits.

The second objective was to ascertain the factors related to empowerment of female gender. Logit model was employed to determine factors that played an important and significant role on affecting the indicators of women empowerment. Finally, this study sought to determine relationship between SACCOs services/benefits and women empowerment. The benefits of the SACCOs and impact have a positive significant relationship between Saccos and the three indicators of women empowerment.

This study relied on primary cross sectional data collected from 42 current members of the United Women Sacco in Nairobi County.

This study gave recommendations on the policy implication of the study findings and how they could be applied towards empowering women. In conclusion, the study suggested a further research on the role of institutions and geographical settings towards women economic empowerment.
# TABLE OF CONTENTS

DECLARATION ................................................................................................................. II
DEDICATION ....................................................................................................................... III
ACKNOWLEDGEMENT ...................................................................................................... IV
ABSTRACT .......................................................................................................................... V

TABLE OF CONTENTS ................................................................................................. VI
LIST OF FIGURES ............................................................................................................ IX
LIST OF TABLES ................................................................................................................ X
LIST OF ABBREVIATIONS ............................................................................................... XI

CHAPTER ONE .................................................................................................................. 1

INTRODUCTION .............................................................................................................. 1

1.1 Background .............................................................................................................. 1

1.2 Statement of the Problem ....................................................................................... 4

1.3 Research Questions ............................................................................................... 5

1.4 Objective of the Study ........................................................................................... 5

1.5 Specific Objectives ............................................................................................... 5

1.6 Significance of the Study ..................................................................................... 6

1.7 Scope of the Study ............................................................................................... 7

CHAPTER TWO ................................................................................................................. 8

LITERATURE REVIEW .................................................................................................. 8

2.1 Introduction ............................................................................................................ 8

2.2 Theoretical Review ............................................................................................. 8

2.2.1 Financial Deepening ....................................................................................... 8

2.2.2 The Collective Household Model ................................................................. 9

2.2.3 Empowerment ............................................................................................... 10

2.3 Empirical Literature ......................................................................................... 11

2.4 Overview of Literature ..................................................................................... 17
5.5 Further Areas of Research .............................................................................................................. 42
REFERENCES ........................................................................................................................................ 43
APPENDIX ............................................................................................................................................. 48
LIST OF FIGURES

Figure 1 Conceptual Framework ....................................................................................... 20
LIST OF TABLES

Table 1 Definition of Dependent Variables ................................................................. 24
Table 2 Definition of Explanatory variables, measurement and expected signs........... 25
Table 3 Descriptive Statistics ...................................................................................... 30
Table 4 Summary of Frequencies ................................................................................ 31
Table 5: Normality test ............................................................................................... 32
Table 6 Multicollinearity Test ..................................................................................... 33
Table 7 Empirical model results .................................................................................. 34
<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Full Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>SACCO</td>
<td>Savings and Credit Co-operative Society</td>
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<td>ICA</td>
<td>International Co-operative Alliance</td>
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<td>ILO</td>
<td>International Labour Organisation</td>
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<td>GDP</td>
<td>Gross Domestic Product</td>
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<td>UWSCC</td>
<td>United Women Savings and Credit Co-operative Societies</td>
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<td>KNBS</td>
<td>Kenya National Bureau of Statistics</td>
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<td>UN</td>
<td>United Nations</td>
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<td>BRAC</td>
<td>Bangladesh Rural Advancement Committee</td>
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<td>MFI</td>
<td>Micro-Finance Institutions</td>
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<td>AIM</td>
<td>Amanah Ikhtiar Malaysia</td>
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<td>BRDB-RD12</td>
<td>Bangladesh Rural Development Board-Rural Development Project 12</td>
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<td>OCDC</td>
<td>Overseas Co-operative Development Council</td>
</tr>
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</table>
CHAPTER ONE

INTRODUCTION

1.1 Background

Women empowerment has been a development agenda in recent decades at both national and global levels. The heightened discourses are attributed to the women’s statuses, particularly since 1995 when Women’s Conference was held in Beijing (Anderson and Eswaran 2005). In developing countries, women have been disadvantaged in both social and economic context. Women empowerment plays a vital role in reducing gender inequality and attaining an overall goal of reducing poverty. By financially empowering women, we strengthen their bargaining power and voices within their homes, the surrounding community and the nation at large. If a woman is empowered, the family and the whole nation have been empowered.

Empowerment has been described differently by many scholars and by judging on the similarities and dissimilarities contained in the many concepts of empowerment, at least five fundamental elements in relation to the empowerment of women emerge. The first one is that it is related to the ‘enhancement of ability.’ The sense of the transformation of the un-empowered groups from their stage of weakness to that of strength may be perceived through the implementation of this element. The second one is concerned with ‘influence’ whereby sense and application of exertion can be utilized. In the third one, ‘strategic choices of life’ and attainment of those have been considered. Attainment of some positive outcomes by the application of the capability to make strategic choices of life – rather than the choices themselves – is given the priority. The fourth element, which coherently takes the other elements along in fulfilling the objective of empowerment, is that it is a ‘process.’ The sense of continuity enshrined in it expresses the urgency of progressing from the state of gender inequality to that of gender
equality. The fifth one is the active participation of the recipients of the fruits of empowerment, and this fundamental element is often ascribed the term ‘agency.’ Active involvement of the beneficiaries in the transition process is emphasized. In fact, consideration of this element envisages negation of empowerment, even if indicators of empowerment project otherwise, in situations where beneficiaries act as the mere recipients rather than being significant actors in the process of empowerment.

“A Cooperative is a group of individuals of limited means who voluntarily unite to achieve common predetermined objectives. The goals are pursued through the democratically agreed organization and contribution to attaining the needed capital base. Each of the SACCO members assumes a fair share of the risks that are imminent in the business”, (Sharma, 2004).

According to Anderson and Eswaran (2005), debates on how women can be empowered have cantered on the right to access financial assets and involvement in economic activities. In the recent past, most countries in the emerging markets have introduced credit programs that aim at empowering women (Swain et al 2008, Pitt et al. 2003). Existing studies show that micro-credit products, which target women, bring about financial multiplier effects, through the increased productive engagements, in addition to contribution in making major decision processes both at the household and communal stages (Li et al. 2011).

The ability of women to access and equitably have control over economic and financial resources is necessary for realizing gender equality and women empowerment for the long-term sustainability of economic growth as well as development. These resources have significant implications for women’s economic roles in satisfying household livelihoods, in labour markets, and simultaneously in the economy at large (UN, 2009)
According to Richard J.P (2001), the two core roles of the SACCO societies are financial needs harmonization and eventual rise in investment activities. Intermediation involves bringing savers and borrowers to the same table for the former to pool resources and the later to invest resources in the profitable ventures. Interests that are earned in the savings products are used to reward the savers, and the borrowers, on the other hand, get rewards in the form of profits that are earned by the funded enterprises. Another important function of a Sacco is the investment. To facilitate members to form businesses that assumes the inevitable bearable risks to earn reasonable profits. 

Galbraith (1983) sought to classify three types of power: compensatory power in which submission is bought, condign power in which submission is won by making the alternative sufficiently painful, and conditioned power in which submission is gained by persuasion. In short he meant money, force and ideology. He emphasized that the exercising of power, the submission of some people to other people’s will is a social inevitability and nothing could be done without it. The concept of empowerment derives from power, an understanding that involves the capacity of people and organizations in terms of personality or wealth to control others or events (Galbraith, 1983)

Half of the Kenyan population consist of women (KNBS, 2009).Therefore they can make an enormous contribution to the economic advancement of a nation. However, due to prevailing gender inequality, they have often been denied the chance to recognize their full potentials as citizens. Women are being discriminated by the norms and practices at every societal context. These and so many other factors have pushed women to be at the back of the development course.

Foundation for sustainable development on gender equity issues in Kenya have noted that women have always been suppressed by enormous responsibilities that do not match the
available magnitude of support. For example, agriculture has created over 80 percent jobs and 60 percent income in Kenya economy. Women are the ones who do the majority of agricultural farm work, as well as finding markets to sell their produce. They own a small percentage of assets and receive only a portion of the income generated. Less than 30 percent of the female gender is engaged in the formal employment sectors, leaving a whopping 70 percent proportion of the gender to fend themselves. The situation has, of course, brought about severe economic effects, considering that nearly 40 percent of households are run solely by women. Because of lack of fair income, nearly all these homes are languishing in poverty.

Johnson (1999) notes that product plan in microfinance occasionally gives a solution to gender-specific aspects of the utilization of financial services. In spite of the continual principle that microfinance helps women, few programs have developed substantial ways to meet the varied women demands for saving services.

1.2 Statement of the Problem

Though most SACCOs have provided saving and credit services to women, the credit service, has not yet solved their financial problem as expected by them. Many times women members have presented complaints to the respective cooperative desk that the loan provided to them is not adequate and delays in loan processing thus not available at the right time.

As a result, this situation has had a negative effect on membership as well as the repayment of the loan. Some of the cooperatives members have left while others members are dormant.

Studies on SACCOs role in women empowerment has always dwelt on the extent that the concerned institutions have provided loan facilities to the vulnerable social group (Kessy and Urio, 2006). The outcome of SACCOs services and strategies used by the SACCOs, as well as
their investment opportunities are not clearly elaborated in the existing pieces of literature. In addition, the status of empowerment, factors related to empowerment of the female gender have also not been clearly shown in the existing literature. Important to note is that, knowledge about the outcome of micro-credit initiatives among households remains only partial and contestable. Therefore, this study examined the extent that the SACCO organizations have contributed towards women empowerment.

1.3 Research Questions

I. What is the status of empowerment of women in the Sacco?

II. What are the factors related to empowerment of the female gender?

III. What is the relationship between SACCOs services/benefits and women empowerment?

1.4 Objective of the Study

The study sought to explore and establish the role of Savings and Credit Cooperative Societies on women empowerment.

1.5 Specific Objectives

Specifically, the study aimed at achieving the following specific objectives

I. To measure the status of empowerment of women in the Sacco

II. To ascertain the factors related to empowerment of female gender

III. To determine relationship between SACCOs services/benefits and women empowerment
1.6 Significance of the Study

Kenya's development plan, Vision 2030 highlights on empowering women. SACCOs have the potential to reduce poverty, contribute considerably to economic growth through employment, and increase in production.

The output of any research contributes to the improvement of credit supply system of savings and credit cooperatives and hence motivates women to increase their saving amount (Wageningen, 2008).

Government; this study is of great significance to the Government since it helps in formulating policies and strategies to improve cooperative societies. The commitment of the government is sought, to establish SACCO law and regulation, put into practice international performance values and begin regulation of SACCOs with the exclusive aim of providing the inducement for improvement.

Management team; by understanding the challenges facing SACCO development and growth helps the management team to employ counter tactics to such problems/challenges.

Policymakers; the study findings can be used by policymakers like business executives and top managers in formulating policies that incorporate women empowerment that lead to improvement and sustained growth of Kenyan economy.

Customers; the study is crucial to the public/members by giving them confidence in SACCO investment as their money is secured properly

Public and scholars; the findings add to the existing pool of knowledge in women empowerment and a resource material to scholars who wish to undertake further study in this field in that
inspires other scholars to undertake a study in it and other financial institutions such as commercial banks.

1.7 Scope of the Study

The study was conducted to establish the role of Savings and Credit Cooperative Societies on women empowerment. The respondents of the study were the United Women Sacco members in Nairobi. United Women Sacco was registered on March 19, 2001. Their main objective is to serve their clients who have the desire to improve themselves, their businesses and/or build assets that give them economic power. The Sacco promotes a culture of saving by providing members with an opportunity to accumulate deposits from which loans are made available at attractive rates of interest.
CHAPTER TWO
LITERATURE REVIEW

2.1 Introduction

This section provides a review of theoretical and empirical literature and finally gives an overview of literature.

2.2 Theoretical Review

2.2.1 Financial Deepening

Financial deepening means increasing the provision of financial services measured by the ratio of money supply to GDP in the economy (Shaw, 1973). The higher the liquidity of an economy, the more opportunities that arise for continued growth. It reduces risk and vulnerability for disadvantaged groups, increasing the ability of individuals across gender and households to access financial and basic amenities, thus affecting directly on the economic development. The range of financial assets for cooperatives include borrowed money, monies due from non-bank financial assets, tradable treasury bills, insurance policies, the value of shares, and the monies available in the market fund. Financial deepening is achieved through financial harmonization of needs, and liquidity in an economic system (Shaw, 1973). Financial sector deepening ought to bring about financial development, which in turn results in efficient investment and increased mobilization of resources.

Lyrels (1995) showed that development of the financial sector improves investment allocation thereby lifting economic performance. The amount of investment is argued to be positively correlated to financial sector development, a situation that is only realizable by expanding the
communities’ involvement in the financial affairs (Thakor, 2007). Monetary institutions mobilize funds from the entities that have excess to on-lend to those in need of those financial resources.

2.2.2 The Collective Household Model.

Expanding women’s credit access capabilities through SACCOs enhances their participation in the collective economic growth. This leads to economic empowerment resulting in the overall bargaining position both in the household and communal contexts. Khandker et al. (2003) used the collective household model to argue for the cooperative association; a narrative, which has inspired the favourable shift in gender relations that is attained through the women, has intensified access to credit. Shared roles in the familial levels allow for maximized utility that factors the utility of each partner. Every household unit maximizes a weighted value contribution of the following equation:

\[ \Omega = \theta u^1(x) + (1 - \theta) u^2(x), \]

With \( \theta \in (0, 1) \), representing the comparative influence of a woman to that of a man when making decisions at the household level;

\( u^1(x) \), carrying the woman’s aspirations over a basket of consumables; \( x, \) and

\( u^2(x) \) being the man’s needs over the same basket of consumables.

The weight \( \theta \) represents the allotment of power in a household situation.

With \( \theta = 0 \) is the non-consideration of the female’s needs. Therefore, the household combined utility purpose is synonymous to that of a man.

\( \theta \) indicates the point that the female's needs are captured in the domestic decision-making processes. The influence of the values in the above contexts is the determinants upon which the
decisions regarding the distribution of resources are premised. It therefore, denotes that the estimated element 'θ' is an assumption, reflecting the females' bargaining positions when all the domains are indexed in the same value 'θ'.

2.2.3 Empowerment

Empowerment mirrors the individual's set of abilities that depend on an array of aspects, like individuals’ traits and social order, among others. It is the ability to utilize the existing capability as opposed to the mere choice to do so (Sen, 1993). He further states that focus should be on certain commonly valued functioning, involving the core aspects of survival and well-being irrespective of the prevalent situations.

Garikipati (2006) intimates that the desired shift of a woman's circumstances as considered by outer virtues, like the familial prominence, health condition, and level of education, as well as the experiential knowledge and the inner qualities, like self-awareness and assurance. Other change features in females’ lives as regarded by various researchers include the ability to remain mobile, financial security, means to make both modest and significant acquisitions, and participation in substantive in-house resolutions. Further arguments include comparative independence from a control within the familial, socio-political and legal settings (Hashemi et al. 1996); women’s directives over the use of borrowed funds (Goetz and Gupta 1996); and substance, insight, and interrelatedness (Chen and Mahmud 1995). These scholastic views represent comprehensive women empowerment thoughts.

Kabeer (1999) argues that women empowerment is centered on the processes that deny the group the chances to make strategic decisions, regarding their lives. According to her, it is essential to view the empowerment as a continuous process as opposed to merely branding it as an
instrument of advocacy. The scholar emphasizes that the women’s abilities to make choices integrate three unified variables, including wealth, representation, and accomplishment.

Empowerment can also be argued as the constant intrinsic transition (Mayoux 1998), which improves the capacity to engage in sound decision-making processes. It entails constant change, unlimited choice, and the unceasing power. In the feminist school of thought, the term is not limited to the commonplace economic advancement and gender welfare (Bali-Swain 2006). The term empowerment takes both the individual and collective shapes, which are intrinsically linked by their inevitable dependence on one another (Sen 1990).

2.3 Empirical Literature

Credit programs increase the women abilities to acquire monetary and other economic resources, as well as augment their chances of inclusion in the household resolution tables. In addition, they get greater freedom of mobility and increase their social networks (Pitt et al. 2003). Hashemi (1996) in his study concluded that the improved accessibility to the loan facilities avails the necessary economic means, which consequently positions women to negotiate against the gender barriers, to attain appropriate control over the issues in their lives, as well as augment their relative in-house positions.

Concisely, the inclusion of the females in both the household and communal resolution tables has been perceived to be among the inspirations for advancing their involvement in the cooperative movement. Kabeer (2004) and Malhotra, (2002) use the term ‘representation’ or ‘agency’ to refer to the amount of influence within, which consist of individual’s proactive trait to devise strategies for controlling resources and convincing others regarding vital life consequences.
Pitt and Khandker (1995) studied the influence of men and women subscription to the credit programs, namely Grameen Bank, BRAC and BRDB-RD12 to determine the extent to which gender affiliation of the borrowers' affected the outcomes. 1538, out of 1798 domestic units were utilizing loan facilities of one of the organizations, with 260 family units not consuming any credit facilities. The research guarded against the probable subjective choice in certain villages and the type of persons that were expected to seek for credit facilities. It was learned that loans resulted in the substantial effects in women than in their men counterparts. The Duo concluded that the females in the households receiving credit were the greatest contributors to the betterment of the achieved familial advancement. These are backed by the hypothesis that a disproportionately greater value was being allotted to the female’s aspirations in the resolution tables. Concisely, credit to women improved their bargaining positions in the in-house contexts.

Hashemi et al. (1996) evaluated the outcomes that are associated with individuals' access to loan facilities. The author focussed on the assumed changes that are attributable to the popular gender affiliation constraints, which are viewed as the primary factors for the women inferior positions in the Bangladesh context, as opposed to applying the traditional welfare indicators. 1300 females living with their spouses, including borrowers from BRAC and Grameen, were interviewed. The evaluation group of suitable Grameen women, who had not taken a loan, and a similar group without the loan were studied. The findings pointed to the women’s abilities to obtain credit facilities significantly influenced their empowerment probabilities.

Hoque and Itohara (2009) sought to understand the relatedness between the empowerment of the Bangladesh women and the existent microcredit facilities. The study revealed that just over 20 percentage-proportions of the interviewed individual’s experienced favourable shifts in their live’s situations, leaving a whopping proportion in the same positions. However, up to 69
percentage-proportions of the empowered females were found to be active members of at least one cooperative program. The study also revealed that exposure to the media tools, as well as the land holding circumstances as the vital elements for achieving the necessary empowerment of the female folks. Own utilization of monetary resources, coupled with the patronage by the concerned micro-finance are indicated to be among the main determinants for pursuing the desired women empowerment. They, therefore, recommended that women be put on patronage and monitoring programs as opposed to exposing them to the unforeseen, avoidable environmental risks. Despite the indicated poor state of empowerment, the study pointed to the strong relatedness of empowerment and loan facilities. This is backed by the realization that the relative empowerment of individuals in active cooperative engagements was superior to that of the women that remained in the conventional homemakers’ roles. Therefore, the lives of the Bangladesh rural women were, to a great extent, influenced favourably by the existent loan facilities.

Rao J. A (2009) in his article - "Rural women empowerment through microfinance," discusses the business sense that is attained through the provision of the small loans. The micro-credit provided to women helps them in income generation and enhance their confidence level thus helping them in fulfilling their financial needs.

Bhup (2012) on his study on the role of savings and credit co-operative on women empowerment in Nepal noted that SACCOs have resulted in a situation where women were provided equal opportunity in the selection of occupation, education, training and various other social activities. It is evident that women's role and status has been increased positively after the establishment of Savings and Co-operative Society. The level of increase is slow and gradual but has proved to be significant regarding in-house resolutions and economic productivity. The household decision-
making power and authority of women has been significantly improved and reached after the establishment of a SACCO.

Another study by Hashemi et.al (1996) scrutinized the extent of the female gender empowerment that arises in the uncontrolled managerial contexts. The findings suggest the increase in asset holding and utilization of bargaining power, as well as politico-legal awareness as the obvious resultant features in the unrestricted funding programs to women. They also found that the access to credit allowed more movement, politico-legal involvement, and increased contribution in the decision-making forums.

Hoque & Itohara (2009) described how the availability of credit facilities is largely responsible for increased economic participation that is simultaneous to the women’s contribution in the decision tables; a situation that was unheard of in the suppressed traditional settings. Availability of loans is argued to carry probable means for women to expand their resource holdings. It is evidenced that micro-credit accessibility augments the women’s income generation engagements, as well as accumulate the necessary assets to be able to bargain for equitable roles in the socio-economic and politico-legal circles. Mayoux (2000) states that the SACCO products and services allow for the women’s establishment and ownership of economic ventures, investment in the existing projects, and the acquisition of assets that raise their status in the households contexts.

Sultana and Hassan (2010) on their study used three economic indicators to measure economic empowerment of rural women, i.e. own revenues, savings attitudes, and resources ownership. The indicators that were analyzed in a sample t-test was controlled to assess the influence of loan facilities micro-credit on women’s long-term financial viability. The research pointed out that the availability of credit not only intensified the income generating activities but also
nurtured the culture of savings among the women folks. Enhanced productive resources, like livestock and non-productive possessions, like electronics, jewels, and vehicles, among other household items are reported to intensify with the women’s ease of acquiring credit services. The assets are acquired with the wealth that is accumulated in the business enterprises. The study further pointed towards noteworthy variation among the BRAC and non-BRAC women. The women groups in the organized schemes, in all cases, were empowered, vis-a-vis their counterparts in the non-organized schemes.

Khan & Rahman (2007) have extensively demonstrated the advanced stage that the Bangladesh economy has attained relative to its counterparts in the global map. The duo has noted that the saving and credit cooperative societies in the country has not only helped the individuals to develop their material capital but has also enhanced the development of human capital by guaranteeing access health, education, and the efficient utilization of the disposable resources.

The World Bank (2008), reports that microfinance institutions have justified the possibility of reducing poverty, by providing efficient credit services to customers in the lower economic classes. The SACCOs have come in to bridge the existent gap through the provision of tailor-made products to address the unique funding requirements of the poor market niches.

Hanna S. (2003) stated that microfinance empowers women through the following: by intensifying their economic role, heightening their earning potential, and increasing their employment and productivity, among others. Through the microfinance programs, women are also able to nurture the much-needed self-confidence to for the long term success in the public sphere. Essentially, the empowerment entails the expansion of the women's economic autonomy through the provision of separate income channels for reducing dependency and structural poverty.
Sayed (2016), using a quasi-experimental method, conducted a cross-sectional survey of 500 old and new clients. Informal, non-controlled interviews were conducted in the present clients, who had benefitted from the microcredit in the two-year period preceding the research. The findings indicated that the loan facilities empowered the women in the diverse ways, as well as enhanced the gender equities in the communities. The women were enabled to acquire the rare capital to finance the projects. As a result, the women gradually positioned themselves in the positions that they could add to their familial breadbaskets. Despite the partiality of the empowerment that is achieved through microcredit, the bargaining power of making own resolutions and directing the use of resources augmented the female gender’s self-esteem in the households and societal levels.

Ackerly (1995) in her findings noted the introduction of credits to the Bangladesh women resulted in dependable achievement of the overall familial welfare. The women were found to be the better managers of the little resources, which brought about more multiplier effects through the better nutrition, increased school-going children, improved health position in the family, besides the increased involvement in the major decision-making processes. The author used different parameters to gauge the extent of the women empowerment in the communities. For instance, the reports on the increase in inputs costs indicated the empowerment of the individual that incurred those costs as it means investments for better yields in the future. The productivity is achieved by the direct labour that is employed by the women in the loan-funded projects, the sale of own produce, and the possession of bank accounts that brought the far-reaching effects of empowerment in the women.
From the existing literature it is worth noting that the role of Sacco’s on women empowerment is progressive. Women have benefitted from the services and products offered by the Sacco according to different authors as described in the literature above.

2.4 Overview of Literature

The underlying literature has shown some empirical incongruity among studies that have sought to look into the cooperative organizations’ roles the quest to empower the female gender. The empirical studies reviewed have used different methodologies. Most of the studies have use descriptive, and others have used multiple linear regression models to gain better insights on the somewhat complex topic. The results of these studies have been different in various ways. The findings in these studies are diverse based on the environment examined, country considered and the technique adopted. The empirical studies have also shown that there are many indicators for measuring empowerment. From these studies, women empowerment depends on their contribution to the resolution tables, economic security, mobility, means to acquire diverse items, and proactive input in the socio-economic and politico-legal matters (Ackerly 1995, Hashemi et al. 1996). While other studies have noted that empowerment does not need to be accurately measured but indicators must indicate the direction of change (Kabeer, 2001). The study extended the literature by examining the role that Sacco’s plays on women empowerment by using three indicators that is contribution to household income, women’s control over income and savings and participation in family decision. The study further made the use of a quantitative method that is logit model to measure the status of empowerment of women in the Sacco, to ascertain the factors related to empowerment of female gender and to determine relationship between SACCOs services/benefits and women empowerment in an urban setting.
CHAPTER THREE

METHODOLOGY

3.1 Introduction

This chapter carries the design of the study, empirical model, target population, size of the sample, data collection and procedure, reliability and validity, data analysis and presentation for the study.

3.2 Theoretical framework

This study was hypothesized considering three important measurements of women’s empowerment (UNICEF, 1994) that identifies five principles on which empowerment are achieved. The framework indicates that women’s progress can be seen in five levels of equality and of which empowerment is a necessary element at each stage.

The first principle is welfare; this addresses only the basic needs of women, without attempting to solve the underlying structural causes that demand delivery of welfare services. Women are perceived to be passive beneficiaries of welfare benefits. The second principle is access; equality of access to resources such as educational opportunities, land and credit is important for women to make significant progress. The path of empowerment is initiated when women realise that lack of access to resources is a barrier to their growth and overall well-being and take action to address it. The third principle is awareness raising; in order for women to take the correct action to address gender gaps, there must be acknowledgment that their problems stems from inherent structural and institutional discrimination. They must also understand the role that they themselves often play in reinforcing the system that restricts their growth. The fourth principle is participation; women take decisions equally alongside men. Mobilisation is necessary in order to
reach this level. Women will be empowered to gain increased representation, by organising themselves and working collectively, which will lead to increased empowerment and ultimately greater control. The fifth principle is control; the ultimate level of equality and empowerment, where there is a balance of power between women and men and neither has dominance. Women are able to make decisions concerning their lives and the lives of their children and equally play an active role in development. The contributions of women are fully recognised and rewarded. (UNICEF, 1994)

3.3 Conceptual Framework

The conceptual framework interlinks independent and dependent variables. The independent variable analysed the role of savings and credit co-operative societies, and dependent variable was women empowerment.

There are three types of variables in this study; Background, independent and dependent variables. The independent variable is the ones that are being manipulated while the dependent variable is the value or output of the function. Background variable are ones that can affect other variables but cannot be affected by them. The dependent variable is women economic empowerment. The relationship between dependent and independent variables are summarized below. Roles of Saccos are independent variables while variables that influence women economic empowerment are the dependent variable.
SACCOs are autonomous associations with integral engagements, whose aspirations include advancing the members’ wellbeing and living conditions. Even so, the outlined SACCOs’ quests are heavily reliant on the members’ savings and investment activities. Notable is that the cooperative organizations offer financial products to induce the savings and credit uptake, which would, in turn, lead to accumulation of resources for sustainable women empowerment.

3.4 Empirical Model

Hosmer and Lemshew (1989) pointed out that a logistic regression has got advantage over others in the analysis of dichotomous outcome variables. Therefore, binary logistic regression model is used to study the status of empowerment of the sampled women. In this study, the dependent variable “Empowerment” has two possible outcomes - probabilities of a woman to be...
empowered and probability of women to be not empowered. Such variables are characterized as dichotomous and outcomes are coded as 1 and 0 respectively.

The equation for simple linear regression from the equation of straight line is:

\[ Y_i = \alpha_0 + \beta_1 X_{1i} + \epsilon_i \]  \[ 1 \]

Where \( \alpha_0 \) is the constant, and \( \beta \) is the coefficient and \( X \) is the independent variable and \( \epsilon \) is a residual term.

The logistic regression is the, “prediction of the probability of \( Y \) occurring given known values of \( X \)’s” (Field, 2009). The logistic model equation with \( P(Y) \) the probability of \( Y \) occurring, \( e \) the base of natural logarithms, \( \beta \), regression coefficient of variable \( X_n \) is:

\[ P(Y) = \frac{1}{1 + e^{-(\alpha_0 + \beta_1 X_{1i} + \beta_2 X_{2i} + \ldots + \beta_n X_{ni})}} \]  \[ 2 \]

The dependent variable women empowerment is taken as binary variables where women empowerment takes value of 1 and the value is 0 for otherwise. Therefore the unobserved variable \( Y \) in case of binary logistic regression is:

\[ Y = \begin{cases} 1 & \text{if } Y > 0 \\ 0 & \text{if } Y \leq 0 \end{cases} \]  \[ 3 \]

Where \( Y \) is the probability of a woman to be empowered through Saccos services. It is equal to 1 if one is empowered and 0 if otherwise.
Binary logistic regression makes no assumption about the distribution of the independent variables. The relationship between the predictor and response variables is not a linear function in logistic regression; instead, the logistic regression function is used, which is the logit transformation of p:

This study uses logit model to test the dependent variables measured whether socio-economic wellbeing of the respondent’s household improved or otherwise, after receiving loans from the Sacco. As adopted from Hoque et al (2011) and Tranmer and Elliot (n.d), the logit model is written as follows:

\[ \text{Logit} (P) = \log \left( \frac{P_i}{1-P_i} \right) \] .................................4

Where the term within the square brackets is the odds of an event occurring, i.e. odd of a Sacco borrower to perceive the impacts from using loans

Let: \( P_i = \Pr(Y = 1|X = x_i) \) .................................................................5

Then we can write the model:

\[ \log \left( \frac{P_i}{1-P_i} \right) = \text{Logit} (P) = \beta + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 \ldots \ldots \beta_4 X_4 + e \] ..............6

Here \( \alpha \) is the "intercept" and \( \beta_1, \beta_2, \beta_3 \), and so on, are the "regression coefficients" of \( X_1, X_2, \ldots \) respectively.

The odds of some event happening is defined as the ratio of the probability that the event will occur to the probability that the event will not occur. That is, the odd of an event is given by:

\[ \text{Odd}(E) = \frac{P(E)}{P(\text{not } E)} = \frac{P(E)}{P(1-E)} \] .................................................................7
The odds ratio, which is $Exp(\beta)$, is the factor by which odds (event) changes for a one-unit change in $X$. The odds ratio is a measure of effect size, describing the strength of association or non-independence between two binary data values. It is used as a descriptive statistic, and plays an important role in logistic regression. The estimated odds are simply the ratio of the estimated proportions for the two possible outcomes. If $P$ is the proportion for one outcome, then $1-P$ is the proportion for the second outcome:

$$ODDS = \frac{P}{1-P}$$

This is the ratio of the probability of occurrence of an event to the probability of non-occurrence of the event. Since logistic regression calculates the probability of success over the probability of failure, the results of the analysis are in the form of odds ratio. Logistic regression also provides knowledge of the relationships and strengths among the variables. The relationship between women empowerment and the factors that affect it was depicted as a functional form as follows:

Women Empowerment = f (Age, Education level, Employment status, Marital status, Savings, Loans, Education by UWS, Investment opportunities, Impact of UWS, Benefits from UWS)

Using the above function, the relationship may be associated or not associated; predictor variables are either quantitative in nature or exist in qualitative form, enabling the researcher to examine the influence of one element in the presence or absence of other elements (Cohen et al., 2003).

Using the functional form relationship, the following specified equation was used for empirical analysis of the relationships:
\[ Y_i = \beta_0 + \beta_1 \text{Age} + \beta_2 \text{Edu} + \beta_3 \text{EMPL} + \beta_4 \text{MARITAL} + \beta_5 \text{SAV} + \beta_6 \text{LOANS} + \]
\[ \beta_7 \text{UWS_EDU} + \beta_8 \text{INVEST} + \beta_9 \text{IMPACT} + \beta_{10} \text{BENEFITS} + \epsilon_i \]

3.5 Definition and Measurement of Variables

3.5.1 Dependent variables

**Status of empowerment:** This is a binary variable (1 or 0) and is measured based on three important indicators relating to gender. These are: (i) Contribution to household income, (ii) Control over savings and income and (iii) Participation in family decision making process. Contribution to household income of a respondent woman is regarded to be positive if she provides financial support in the household income from her income and is assigned score 1, if she does not have any financial contribution in the household income, it is considered negative and is assigned score 0. However, control over savings and income was measured based on scoring (a 3-point rating scale) of the selected five (05) issues. The score ranged between 0-10. If a woman has a score of 5 or above, regarding control over savings and income she is assigned score 1, or 0 otherwise. Similarly, participation in family decision of a woman was also measured based on scoring of seven (7) selected issues. Women having a score of 7 and above was treated as a woman’s have participation in family decision making and was assigned score 1, or 0 otherwise.

The table below is a summary of dependent variables.

**Table 1 Definition of Dependent Variables**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Description</th>
<th>Categories</th>
<th>Coding</th>
</tr>
</thead>
<tbody>
<tr>
<td>Control over savings and income</td>
<td>Who makes the following decisions? How much to save Control of economic activity</td>
<td>a) Complete control of husband=0 b) Control of husband but wife is also involved=1 c) Total control of</td>
<td>5 and above=1 (Has control over savings and income) 0-4=0 (Otherwise)</td>
</tr>
</tbody>
</table>
### How to use your income
- How to use your profit
- Control of loan

### Decision making
- Who takes the decision on?
- What food to buy and consume
- Children education
- Buying household assets
- Household expenditure
- Transfer of property to a relative or any other person
- Ownership of land and major assets e.g. house, car
- Decisions regarding the purchase, sale, or transfer of land and major assets

<table>
<thead>
<tr>
<th>Decision making</th>
<th>Measurement</th>
<th>Expected Sign</th>
</tr>
</thead>
<tbody>
<tr>
<td>Who takes the decision on?</td>
<td>a) Complete control of husband=0</td>
<td>7 and above =1</td>
</tr>
<tr>
<td></td>
<td>b) Control of husband but wife is also involved=1</td>
<td>(contributes significantly in household decision making)</td>
</tr>
<tr>
<td></td>
<td>c) Total control of wife=2</td>
<td>0-6=0 (Otherwise)</td>
</tr>
</tbody>
</table>

### Contribution to Household income
- Do you contribute financially in the household income from your personal income?

<table>
<thead>
<tr>
<th>Contribution to Household income</th>
<th>Measurement</th>
<th>Expected Sign</th>
</tr>
</thead>
<tbody>
<tr>
<td>Do you contribute financially in the household income from your personal income?</td>
<td>1-Yes</td>
<td>0-No</td>
</tr>
</tbody>
</table>

#### 3.5.2 Explanatory variables

The table below gives a summary of the explanatory variables and their expected signs

**Table 2 Definition of Explanatory variables, measurement and expected signs**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Measurement</th>
<th>Expected Sign</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>Age of the woman in complete years</td>
<td>We expect a positive sign</td>
</tr>
<tr>
<td>Education Level</td>
<td>No education=0</td>
<td>Positive for those who have some level of education especially those</td>
</tr>
<tr>
<td></td>
<td>Primary=1</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Secondary=2</td>
<td></td>
</tr>
<tr>
<td>Category</td>
<td>Description</td>
<td>Significance</td>
</tr>
<tr>
<td>--------------------------</td>
<td>-----------------------------------------------------------------------------</td>
<td>------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Education</td>
<td>Has education day assisted you to learn about different aspects of financial empowerment and Sacco products? 1- Yes 0- Otherwise</td>
<td>Positive sign as education enlightens the women on financial empowerment. Beneficiaries with financial skills are in a better position to achieve women empowerment.</td>
</tr>
<tr>
<td>Employment for cash</td>
<td>Employed=1 Otherwise=0</td>
<td>Positive sign for those who are employed. More empowerment for those who are employed.</td>
</tr>
<tr>
<td>Loan taken</td>
<td>Those who have taken a loan=1 Otherwise=0</td>
<td>Positive sign for those who have taken a loan and use it in productive purpose.</td>
</tr>
<tr>
<td>Savings</td>
<td>Has savings in the Sacco helped you to be more independent? 1-Yes 0- Otherwise</td>
<td>Positive sign.</td>
</tr>
</tbody>
</table>
Investment Opportunities | Has investment opportunities offered by the Sacco assisted you to be financially empowered? |
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1-Yes 0-Otherwise</td>
</tr>
<tr>
<td></td>
<td>Positive sign</td>
</tr>
</tbody>
</table>

### 3.6 Target Population

Cooper & Shindler (2005) define a population as the total collection of elements about which the researcher wishes to make some inferences. The study targeted a population of 1200 female members as indicated by United Women Sacco.

### 3.7 Sample Size

Representative or Sample size is a figure derived from a populace by employing the scientifically accepted techniques; the main reason for sampling is to select some of the elements in a population to glean certain ideas of the entire population. Sample size was arrived at using Kothari (2004) formula given as below.

\[ n = \frac{Z^2 pq N}{e^2 (N-1) + Z^2 pq} \] (Kothari, 2004)

Whereby;

\( n \) = Sample Size

\( N \) = Population Size

\( p \) = Population reliability or frequency estimated for a sample size where the value of \( p = 0.5 \) which is taken for all developing countries population and \( p+q=1 \)

\( e \) = margin of error (15% for this study)

\( Z_{\alpha/2} \) = Normal reduced variable at 0.05 level of significance, \( Z = 1.96 \)
Using the above formula, the calculated size of sample for this study was given as follows:

\[(1.96)^2 \times 0.5 \times 0.5 / 0.15^2 = 42\]

3.8 Data Collection and Procedure

The researcher used well-structured questionnaires with close-ended questionnaire format to gather data from the sample population. A questionnaire was preferred for this study as it is easy to analyse, easier to administer, economical to use. It also enabled the researcher to get views from a large number of respondents in the shortest time possible. The respondents had time to go through the question at own pace to think over their response. Prior to the data collection, the management of the firm was notified of the intention to carry out the study and intended data required.

Administration of questionnaires was carried out over a period of two weeks to accord the respondents ample time to fill the questionnaires. The researcher assured the management and members as well, that information provided was to be used for the purpose of the study, and confidentiality was upheld.

3.9 Reliability and Validity

Reliability determines the appropriateness of the research instruments of this study. The dependability and weight of research conclusion are mainly observed through accurate and convincing verdict (Yin 2003) rather than adopting incomplete generalization. Validity is a vital criterion, indicating the extent that a measurement tool gives what it ought to gauge (Kothari, 2009). A test is valid if it indicates its intended quests (Hart, 2005); Validation was essential since it assisted the researcher to concretize the extent to which each item shall elicit appropriate
responses for the research intents. The applicability of the findings was ensured through content analysis and consultations in addition to expert judgment at every stage.

3.10 Data Analysis and Presentation

The data was collected in raw form thus the researcher assembled, coded and then keyed into the computer. The numerical codes were derived from the raw data; the codes represented the attributes and measurements of variables that permit quantitative analysis (Mugenda and Mugenda, 2003).

Stata was utilized to analyse data and provide answers to the research problem. The analysis and presentation of the data took the form of descriptive statistical methods in tables. Descriptive statistics made use of central tendencies such as mean, standard deviation, and variance to present the characteristics of independent variables and dependent variables.
CHAPTER FOUR
ANALYSIS OF DATA AND DISCUSSION OF RESULTS

4.1 Introduction

The section presents the study results from the empirical analysis and discusses their economic interpretation. It begins with the description of all variables used in our model followed by diagnostic tests of a cross-sectional data and finally a logit model regression and a discussion of results.

4.2 Descriptive statistics

Descriptive statistics was mainly carried out in this study to ascertain the statistical characteristics of the data used in the model. This study used a primary cross sectional data collected from 42 current members of the United Women Sacco in Nairobi County. Its main aim was to establish the role of the United Women Sacco in the member’s empowerment process. The descriptive statistics is in terms of number of observation, the mean, the standard deviation, maximum and minimum values. The summary was given in the Table 3 below

Table 3 Descriptive Statistics

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean</th>
<th>Standard Dev</th>
<th>Minimum</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Control of Savings &amp; Income</td>
<td>0.8095238</td>
<td>0.3974366</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Decision Making</td>
<td>0.7857143</td>
<td>0.4152997</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Income Contribution</td>
<td>0.7857143</td>
<td>0.4152997</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Age</td>
<td>2.738095</td>
<td>0.4967958</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>Marital Status</td>
<td>2.02381</td>
<td>0.2694253</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Education Level</td>
<td>2.357143</td>
<td>0.7908448</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>Employment Status</td>
<td>1.690476</td>
<td>0.4679011</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Savings mobilization</td>
<td>3.52381</td>
<td>0.7726450</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td>Loan opportunities</td>
<td>2.875</td>
<td>0.6479751</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>Investment opportunities</td>
<td>1.119048</td>
<td>0.3277701</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Co-operative Education</td>
<td>1.166667</td>
<td>0.3771955</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Impact of UWS</td>
<td>1.166667</td>
<td>0.3771955</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Benefits of UWS</td>
<td>2.214286</td>
<td>0.9508844</td>
<td>1</td>
<td>5</td>
</tr>
</tbody>
</table>
From table 3, the total number of observation under study was 42 women from United Women Sacco. The average number of UWS members who had a direct control of savings and income in the household was 0.8095238 while the standard deviation was 0.3974366. Equally, those members who had a direct control on household decision making had a respective mean and standard deviation of 0.7857143 and 0.4152997.

**Table 4 Summary of Frequencies**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Yes (%)</th>
<th>No (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Control of Savings &amp; Income</td>
<td>80.95</td>
<td>19.05</td>
</tr>
<tr>
<td>Decision Making</td>
<td>78.57</td>
<td>21.43</td>
</tr>
<tr>
<td>Income Contribution</td>
<td>78.57</td>
<td>21.43</td>
</tr>
<tr>
<td>Access to information</td>
<td>73.81</td>
<td>26.19</td>
</tr>
<tr>
<td>Marital Status</td>
<td>92.86</td>
<td>7.14</td>
</tr>
<tr>
<td>Employment Status</td>
<td>69.05</td>
<td>31.95</td>
</tr>
<tr>
<td>Co-operative Education</td>
<td>83.33</td>
<td>16.67</td>
</tr>
</tbody>
</table>

Most of the members interviewed were married (at 92.86%) and fell the cohort of between 31-40 years. The study also revealed that out of the members of UWS who were interviewed, 69.05% of them were employed for cash and that 73.81% of them had access to information through TV or radios.

The UWS had played a great role in boosting the saving culture among its members with statistic revealing that 6% of the members had savings less than Ksh.5000 while 57.14% had savings of Ksh. 51,000 to 200,000 over a period of one year. Further our analysis shows that over 97% of the members had accessed loans from the Sacco with large chunk of the loan being utilized to buy assets (55%) or expanding businesses (40%).
4.3 Diagnostic tests

4.3.1 Normality test

This study uses the Shapiro-Wilk test to determine normality of variables. A variable is normal if the mean, median and mode are equal (that is normally skewed). The Shapiro-Wilk test gives four options, a W, V, Z and P-value. We use the P-value to make an inference of normality. If our calculated P-value exceeds the critical value of 0.05 then our conclusion is that the variable is normal. But if the calculated p-value is smaller than the critical value, then a variable will be non-normal.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Obs</th>
<th>W</th>
<th>V</th>
<th>Z</th>
<th>Prob&gt;</th>
<th>z</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>42</td>
<td>0.89915</td>
<td>4.140</td>
<td>2.998</td>
<td>0.00136</td>
<td></td>
</tr>
<tr>
<td>Marital Status</td>
<td>42</td>
<td>0.77605</td>
<td>9.192</td>
<td>4.682</td>
<td>0.00000</td>
<td></td>
</tr>
<tr>
<td>Education Level</td>
<td>42</td>
<td>0.99126</td>
<td>0.359</td>
<td>-2.164</td>
<td>0.98475</td>
<td></td>
</tr>
<tr>
<td>Employment Status</td>
<td>42</td>
<td>0.96546</td>
<td>1.418</td>
<td>0.736</td>
<td>0.23073</td>
<td></td>
</tr>
<tr>
<td>Savings mobilization</td>
<td>42</td>
<td>0.96265</td>
<td>1.533</td>
<td>0.902</td>
<td>0.18357</td>
<td></td>
</tr>
<tr>
<td>Loan opportunities</td>
<td>40</td>
<td>0.98850</td>
<td>0.455</td>
<td>-1.658</td>
<td>0.95139</td>
<td></td>
</tr>
<tr>
<td>Investment opportunities</td>
<td>42</td>
<td>0.76104</td>
<td>9.808</td>
<td>4.819</td>
<td>0.00000</td>
<td></td>
</tr>
<tr>
<td>Co-operative Education</td>
<td>42</td>
<td>0.84656</td>
<td>6.298</td>
<td>3.884</td>
<td>0.00005</td>
<td></td>
</tr>
<tr>
<td>Impact of UWS</td>
<td>42</td>
<td>0.84656</td>
<td>6.298</td>
<td>3.884</td>
<td>0.00005</td>
<td></td>
</tr>
<tr>
<td>Benefits of UWS</td>
<td>42</td>
<td>0.87386</td>
<td>5.177</td>
<td>3.470</td>
<td>0.00026</td>
<td></td>
</tr>
</tbody>
</table>

From the table 5 above, education level, employment status, savings mobilization and loan opportunities variables are normally distributed while others variables measuring the age, marital status, investment opportunities, co-operative education, impact of UWS and benefits of UWS are not normally distributed. This is because their probability is less than 0.05 hence rejecting the null hypothesis of normal distribution.
4.3.2 Multicollinearity test

In testing for multicollinearity, variance inflation factor (VIF) test was used. The test computes a VIF for each variable and for the overall regression. Generally there is no hard and fast rule about acceptable VIF’s. However, if a predictor variable has a VIF in excess of about 10, then it may be collinear with another predictor. Furthermore if the average VIF across all predictors is “substantially higher” than 1 (perhaps 5 or higher), then there is multicollinearity across all the predictors. The results of the test are presented in the Table 6 below.

Table 6: Multicollinearity Test

<table>
<thead>
<tr>
<th>Variable</th>
<th>VIF</th>
<th>1/VIF</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employment status</td>
<td>3.15</td>
<td>0.317480</td>
</tr>
<tr>
<td>Loan opportunities</td>
<td>2.25</td>
<td>0.444825</td>
</tr>
<tr>
<td>Impact of UWS</td>
<td>2.19</td>
<td>0.456660</td>
</tr>
<tr>
<td>Education Level</td>
<td>1.79</td>
<td>0.559598</td>
</tr>
<tr>
<td>Benefits of UWS</td>
<td>1.69</td>
<td>0.591203</td>
</tr>
<tr>
<td>Age</td>
<td>1.58</td>
<td>0.633894</td>
</tr>
<tr>
<td>Investment Opportunities</td>
<td>1.51</td>
<td>0.661826</td>
</tr>
<tr>
<td>Marital status</td>
<td>1.37</td>
<td>0.732549</td>
</tr>
<tr>
<td>Savings</td>
<td>1.34</td>
<td>0.745703</td>
</tr>
<tr>
<td>Education day</td>
<td>1.25</td>
<td>0.798962</td>
</tr>
<tr>
<td>Mean VIF</td>
<td>1.81</td>
<td></td>
</tr>
</tbody>
</table>

Source: Author’s Computation

From the test results, it was evident that multicollinearity does not exist in the variables under study. The mean VIF value is at 1.81 which shows that multicollinearity does not exist.
### 4.4 Logit Estimation Results

**Table 7: Empirical Model Results**

<table>
<thead>
<tr>
<th>Variable</th>
<th>(1) Control of Savings &amp; Income</th>
<th>(2) Decision Making</th>
<th>(3) Income Contribution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>-0.0776 (0.0458)</td>
<td>0.130* (0.0540)</td>
<td>-0.0721 (0.0692)</td>
</tr>
<tr>
<td>Marital Status</td>
<td>-0.0292 (0.0388)</td>
<td>0.0194 (0.0632)</td>
<td>0.623*** (0.0652)</td>
</tr>
<tr>
<td>Education level</td>
<td>-0.405*** (0.0426)</td>
<td>0.0392** (0.0133)</td>
<td>0.0103 (0.0287)</td>
</tr>
<tr>
<td>Employment status</td>
<td>0.311*** (0.0536)</td>
<td>0.775*** (0.0891)</td>
<td>-0.150* (0.0619)</td>
</tr>
<tr>
<td>Savings mobilization</td>
<td>-0.866*** (0.0372)</td>
<td>0.234*** (0.0257)</td>
<td>-0.134*** (0.0245)</td>
</tr>
<tr>
<td>Loan opportunities</td>
<td>-0.697*** (0.0635)</td>
<td>-0.193*** (0.0344)</td>
<td>-0.280*** (0.0301)</td>
</tr>
<tr>
<td>Investment opportunities</td>
<td>0.121*** (0.0327)</td>
<td>0.0314 (0.0649)</td>
<td>0.236*** (0.0522)</td>
</tr>
<tr>
<td>Co-operative Education</td>
<td>-0.232*** (0.0520)</td>
<td>-0.242*** (0.0523)</td>
<td>-0.408*** (0.0627)</td>
</tr>
<tr>
<td>Impact of UWS</td>
<td>0.513*** (0.0720)</td>
<td>0.774*** (0.0813)</td>
<td>-0.480*** (0.0617)</td>
</tr>
<tr>
<td>Benefits of UWS</td>
<td>-0.0000385 (0.0263)</td>
<td>0.0143 (0.0151)</td>
<td>-0.546*** (0.0468)</td>
</tr>
<tr>
<td>Constant</td>
<td>4.827*** (0.364)</td>
<td>-3.036*** (0.273)</td>
<td>1.918*** (0.258)</td>
</tr>
<tr>
<td>Observations</td>
<td>820</td>
<td>820</td>
<td>820</td>
</tr>
<tr>
<td>Adjusted R2</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Standard errors in parentheses, Asterisk (*) = Significance at 1%; (**) = Significance at 5%; (***) = Significance at 10%
The model above in Table 7 show the results for the three indicators used to measure empowerment amongst women which included control of savings and income, decision making and income contribution. The following paragraphs give and interpretation of the factors for each indicator.

The study sought to find out what role does age play on women empowerment, the results indicated that a unit increase in age significantly increased log odds of the involvement of women in decision making by 0.130 while insignificantly decreasing their log odds in controlling savings and income by 0.078 with log odds for income contribution decreasing by 0.072. This indicated that age plays a positive role in empowering women economically. On the other hand age negatively affected women empowerment by negatively influencing control of savings and income and income contribution by women. Marital status positively and significantly influences the income contribution by women because perhaps married people are deemed to be more responsible than those not married. Further, marital status positively and insignificantly increased the log odd of women getting involved in the decision making by 0.019. However, marital status reduced the log odds on the control of savings and income by 0.029 though the effect was insignificant.

Education is associated with knowledge and skills when people get transformed in the way of thinking. The study results indicated that a one increase in the level of education significantly decrease the expected log odds of women control of savings and income by 0.405. This was an implication that there is a negative relationship between women having to control savings and income and the level of education. Therefore learning does not really contribute to the people having to control savings and income. Education positively and significantly influenced decision making. A unit increase in the level of education significantly leads to the increase in the log
odds of decision making by women by 0.302. Thus getting education empowers women by enabling them to actively participate in the decision making process. Further, education empowers women by allowing them to contribute through incomes. A one increase in the level of education increases the log odds of women contributing their incomes by 0.010.

The status of being employed or not, matters a lot when it comes to women empowerment programs. Employment status positively and significantly influences through their control on savings and income and women involvement in decision making. Being employed increased the log odds of women control on savings and income by 0.311 while being educated increases significantly the log odd of women engagement in decision making by 0.0392. Since, the two are indicators of women empowerment then they indicate the critical role of employment status on women empowerment. Contrary, being employed significantly reduces the income contribution by 0.150.

Savings mobilization was also investigated to find out its role in the determination of the women empowerment. For instance, savings mobilization significantly reduces the log odds of control in savings and income by 0.866. It also reduces the women income contribution by 0.134 significantly. This is therefore shows a negative relationship relation between the two said indicators as affected by the savings mobilization. However, savings mobilization significantly increase the women decision making by 0.234. Therefore it is an indication that there is a positive relationship between the decision making and women empowerment indicated by decision making. This was in agreement with Bhup (2012) who found out that household decision-making power and authority of women has been significantly improved and reached after the establishment of a SACCO.
Access to financing through loans tested to find its role on women empowerment. The ability for women to access loans opportunities matters and was found to negatively influence the women empowerment. In particular, access to loans significantly reduced the log odds of control to savings and income, decision making by women and income contribution by 0.697, 0.193 and 0.280 respectively. This seemed to contradict the findings by Hashemi (1996) and Hoque et.al (2009) who shared their conclusions that improved accessibility to the loan facilities avails the necessary economic means, which consequently positions women to negotiate against the gender barriers, to attain appropriate control over the issues in their lives, as well as augment their relative in-house positions.

Investment opportunities are creations aimed at providing women with opportunities to invest for their economic advantage. This study also sought to determine the role of the investment opportunities on the indicators of women empowerment. The results showed that investment opportunities factor positively and significantly influenced control on savings and income and income contribution while on decision making it was positive and insignificant. Having investment opportunity significantly increased women control on savings and income and income contribution log odds by 0.121 and 0.236 respectively. Moreover, increase in investment opportunities increases decision making log odds by 0.0314. These findings clearly indicate that investment opportunities play a critical role in empowering women economically. A study by Hashemi et.al (1996) found that increase in asset holding and utilization of bargaining power, as well as politico-legal awareness as the obvious resultant features in the unrestricted funding programs to women. This confirms the findings by this study.

The study endeavoured to determine how cooperative education affected women empowerment. Interesting, cooperative education was found to negatively and significantly affect all the three
indicators of women empowerment programs. A unit increase in the cooperative education led to significant decrease in the log odds of control of savings and income on women by 0.234, decision making 0.242 and income contribution by 0.408. However, on the same the findings by Bhup (2012) on his study on the role of savings and credit co-operative on women empowerment in Nepal noted that SACCOs resulted in a situation where women were provided equal opportunity in the selection of occupation, education, training and various other social activities. Consequently, they found that women's role and status increased positively after the establishment of Savings and Co-operative Society.

The study further, went ahead to investigate the role of United Women Sacco (UWS) and how it affects women empowerment. There was a positive significant relationship between UWS and the two indicators of women empowerment. UWS led to increase in the log odds of women control on savings and income and household decision making by 0.513 and 0.774 respectively. On the same, UWS led to the decrease in the log odds of the income contribution by 0.480. Despite this, the results indicate that UWS plays an important role in affecting the women empowerment programs as indicated by the significant and positive effect of the UWS on control of savings and income as well as decision making.

Finally, to assess the relationship between the UWS and women empowerment programs was also carried out. It was found out that the benefits positively affected decision making by women as one of the indicators of women empowerment. A unit increase in the benefits of UWS lead to increase in the log odds of decision making by 0.0143 though insignificantly. A unit increase in the number of benefits accruing from the UWS leads to the decrease in log odds of control of savings and income by 0.0000385 insignificantly. Further, a unit increase in the benefits of the UWS significantly reduces the log odds of income contribution by 0.546. Therefore this leads to
a conclusion that the benefits of UWS positively and directly affect the engagement of women in decision making as one of the indicators of women empowerment. Similarly, Hashemi et al. (1996) findings pointed to the women’s abilities to obtain credit facilities significantly influenced their empowerment probabilities.
CHAPTER FIVE
SUMMARY AND CONCLUSIONS

5.1 Introduction

The chapter presents the summary and conclusion, policy implication, limitation of the study and conclude by suggesting research gap.

5.2 Summary and Conclusion

Women empowerment is a major concern for the world leaders in trying to give women economic advantages after long time of discrimination. Thus the main aim of this study the role of savings and credit co-operative societies (SACCOs) on women empowerment in Kenya. This was achieved by carrying out a case study of United Women Sacco. This study used a primary cross sectional data collected from 42 current members of the United Women Sacco in Nairobi County. Its main aim was to establish the role of the United Women Sacco in the member’s empowerment process through structured questionnaires administered.

The first objective of this study was to measure the status of empowerment of women in the Sacco. This was achieved by asking the respondents on how they had benefited from being members of the SACCOs. The members of the group were found to have benefited through improvement in savings, the ability to get access to credit/loans necessary for expansion, financial advisory, add capital to investment, starting businesses and other benefits. The members had acquired trainings too on how to run their various businesses. Therefore this wasindicative of the positive status of the members since their membership and involvement in the cooperative SACCOs.
Secondly, this study sought to ascertain the factors related to empowerment of female gender. This was fully answered by looking at the effects of the selected factors which included the age, marital status, education level, employment status, savings mobilization, loan opportunities, and investment opportunities and co-operative education. Three indicators were used mainly the control of savings and income, women involvement in decision making and women contribution of income. Logit model was used and the study found out that these factors played an important and significant role on affecting the indicators of women empowerment. Finally, this study was to determine relationship between SACCOs services/benefits and women empowerment. This was achieved by looking at the benefits of the SACCOs and a positive significant relationship between UWS and the two indicators of women empowerment mainly the women control on savings and income and decision making. Further, it was found that the benefits positively affected decision making by women as one of the indicators of women empowerment.

5.3 Policy Implication

The results from the analysis indicated that savings and credit co-operative societies (SACCOs) play an important role in women empowerment in Kenya. Therefore this forms the basis for policy proposition from this study. First, since the membership to the SACCOS immensely benefits women, there is need for the government to put mechanisms in place which motivate women to be members of various SACCOs in their respective regions in the country.

Secondly, this study provided the evidence on the factors that affect the women empowerment through the indicators and thus these key determinants. Consequently, age, marital status, education level, employment status, savings mobilization, loan opportunities, and investment opportunities and co-operative education which are key determinants of women empowerment programs should form basis for the policy makers towards empowering women.
The study established that the benefits of women membership in the savings and cooperative societies such as training, savings, the ability to get access to credit/loans necessary for expansion, financial advisory, adding capital to investment, starting businesses and others positively influence the economy and thus policy makers should come up with measures to ensure such is sustained in the SACCOs for posterity of development.

5.4 Limitations of the study

This study was carried out only in one SACCO in Nairobi County which may not be representative of the other Saccos in the 47 counties in the country because of social settings such as education level, attitudes etc. Further, this study cannot claim to have covered all the factors that affect women empowerment from time to time because of the dynamics in time.

5.5 Further Areas of Research

Continued attention paid on the importance of the SACCOs in Kenya towards mobilizing resources and women economic empowerment calls for much research on ways this can realized. The study proposes a further research on the role of institutions and geographical settings towards women economic empowerment.
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APPENDIX

QUESTIONNAIRE

Dear Sir/Madam,

I am a Master of Arts in Economics student at University of Nairobi. I am doing a research on the Role of Sacco’s on Women Empowerment. I am kindly requesting you to provide the information in this questionnaire for my study. The information will be kept confidential and will only be used for research purposes.

Lilly Chepkemoi
University of Nairobi

A. Personal Information

1. Name of the respondent.................................................................

2. Kindly, indicate your age? 20 Years and Below [ ] 21 – 30 Years [ ] 31 – 40 Years [ ]

41 – 50 Years [ ] Over 50 Years [ ]

3. Please indicate your marital status? Single [ ] Married [ ] Widowed [ ] Divorced [ ] Separated [ ]

4. Education Level? Primary Education [ ] Secondary education [ ] College Level/Diploma [ ] Graduate [ ] Post Graduate [ ]

5. Are you employed for cash? Yes [ ] No [ ]

6. Do you regularly watch TV or listen to radio? Yes [ ] No [ ]

B. Savings and Loan Products Offered By Sacco to the Members.

7. For how long how you been United Women Sacco customer? day [ ] Less than 6 months [ ] Between 6 months to 1 year [ ] 1 to 2 Years [ ] 2 to 5 Years [ ] More than 5 Years [ ]

8. What benefits have you derived from being a United Women Sacco member? Savings [ ] Credit/loans [ ] Financial Advisory [ ] Add capital to my investment[ ] Started a business[ ] No benefit [ ] Others, if any
9. How much have you saved at United Women Sacco?
   5,000-15,000[ ] 15,000-50,000[ ] 50,000-200,000[ ] Over 200,000[ ]
10. Before joining United Women Sacco, did you use to save in cash at home? Yes [ ] No [ ]
11. Have you ever obtained loan from United Women Sacco? Yes [ ] No [ ]
   If Yes how much was it?
   0-150,000 [ ] 150,000-300,000[ ] 300,000-450,000[ ] Over 450,000[ ]
12. Kindly indicate what you used the loan for? Starting Business [ ] Expansion of the Business [ ] Buy assets [ ] Pay school fees [ ] Household Expenses [ ] Medical bills [ ]
   Give to husband [ ] Household assets [ ] Any other? Specify.................................
   If for business has it picked up? Yes [ ] No [ ] Yet to start [ ]
13. a) Does the Sacco offer any investment opportunity? Yes[ ] No[ ]
   b) If yes, which investment opportunities are being offered? a) Shares b) Interest on deposits
   c) Does the answer in 13b improve the lives of Sacco members, increase membership and stabilize the Sacco Yes [ ] No[ ]
14. Have you attended any education day at the Sacco? Yes [ ] No[ ]
15. Did the training enlighten you on the products of the Sacco and financial empowerment?
   Yes [ ] No[ ]

C. Indicators of Women Empowerment

16. Who makes the following decisions at home?
   Complete control of husband=0 Control of husband but wife is also involved=1 Total control of wife=2
   a) How much to save [ ]
   b) Control of household income generating activity e.g. business, farming [ ]
   c) How to use your income [ ]
d) Whether the household should take out a loan, from what source, and how much to borrow [   ]
e) How to invest the money borrowed (Control of loan) [   ]

17. Who takes the decision on?

Complete control of husband=0 Control of husband but wife is also involved=1 Total control of wife=2

a) What food to buy and consume [   ]
b) Children education [   ]
c) Buying household assets [   ]
d) Household expenditure [   ]
e) Transfer of property to a relative or any other person [   ]
f) Ownership of land and major assets e. g house, car [   ]
g) Decisions regarding the purchase, sale, or transfer of land and major assets [   ]

18. Do you contribute financially in the household income from your personal income?
Yes [   ] No [   ]

19. What impact has United Women Sacco had on your living standard? A lot of positive change [ ] Moderate change [ ] No change [ ] Negative change [ ]
Kindly explain …………………………………………………………………………………………………

20. What problems are being faced by the Sacco?

Lack of entrepreneur education [   ] Lack of professional workers [   ]
Poor management [   ] Members fail to repay back the loans [   ] Small capital [   ] High interest rates [   ]

21. What should be done to improve Sacco’s performance?

Provide more capital[   ] Provide education to workers[   ] Repay loan on time[   ] Improve SACCOS management and administration[   ] Reduce interest rate[   ] I don’t know[   ]

22. What measures do you proposed that will improve women empowerment?
Reduce conditions for acquiring loan[   ] Members commitment to work hard[   ] Create more financial services[   ] Reduce interest rate[   ] Introduce alternative source of income generation[   ] Provide training[   ]

THANKYOU FOR YOUR PARTICIPATION