FACTORS HINDERINGSUSTAINABLE FINANCIAL INCLUSION OF RURAL WOMEN IN KENYA, A CASE OF GARISSA COUNTY, KENYA

BY

CHRISTINE MWANGI

MASTERS OF SCIENCE IN COMMERCE (FINANCE AND ACCOUNTING)

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CHRISTINE MWANGI

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DECLARATION

I declare that this dissertation is my original work and has not been previously published or submitted elsewhere for award of a degree. I also declare that this contains no material written or published by other people except where due reference is made and author duly acknowledged.

Student Name: ____________________ Reg. No. __________

Sign: ____________________ Date: _________________

I do hereby confirm that I have examined the master's dissertation of

CHRISTINE M. MWANGI

And have certified that all revisions that the dissertation panel and examiners recommended have been adequately addressed.

Sign: ___________________ Date: __________________

Dr. Brigitte Okonga Wabuyabo

Dissertation Supervisor

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ABSTRACT

Despite women constituting slightly more than half of the Kenyan population, rural women aredenied the opportunity to participate in making influential business decisions that could help them grow their income generating activities as opposed to men. Studies have established that there exists large gaps in financial inclusion between men and women at large, where rural women face difficulties in accessing formal financial services for their business or other pursuits. Although, addressing these barriers in Kenya could generate significant economic growth for the country, the studies reviewed failed to comprehensively bring out factors hindering sustainable financial inclusion of rural women Thus there was a knowledge gap that motivated the need to conduct the present study to determine the collective hindering factors. The objective of the present study was to identify and assess the factors hindering sustainable financial inclusion of rural women in Kenya. This study used descriptive survey in soliciting information in the area of research of barriers hindering rural women in financial inclusion in Kenya. The target population was 7,820 women in Dadaab sub County of Garissa County. The study collected data from primary sources using a structured questionnaire. Data analysis was achieved using descriptive statistics and then multiple regression analysis.The study revealed that sustainable financial inclusion of rural Kenyan women is either low or not present. The study concludes that financial education moderately and negatively affects the sustainable financial inclusion of rural Kenyan women; access to finance highly and positively influences the sustainable financial inclusion of rural Kenyan women and that participation of rural women in decisions making highly and positively influences the sustainable financial inclusion of rural Kenyan women at.05significance level.The study recommends that the Kenyan government and other stakeholders in the financial sector should create opportunities for rural women to gain exposure on awareness of financial information, and should provide a platform for conducive financing environment for rural women to access finance freely, easily and comfortably.

Keywords: Access to finance, Collateral, Decision making, Financial educationand Sustainable financial inclusion,

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DEDICATION

This research study is dedicated to my mum Jane Gathu who has been not only my role model but my everyday strength and inspiration.

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ACRONYMS AND ABBREVIATIONS

AfDB	African Development Bank
ANOVA	Analysis of Variance
CRA	Commission on Revenue Allocation
DFID	Department for International Development
DV	Dependent Variable
FY	Fiscal Year
ICPAK	Institute of Certified Public Accountants of Kenya
IV	Independent Variable
NYDCA	New York City Department of Consumer Affairs

OPERATIONAL TERMS AND DEFINITION

Access to financial information is the knowledge that relates to financial service provided to women entrepreneurs (Otieno*et al*., 2010).

Access to financial services is defined by the supply of the same and is a necessary condition for financial inclusion (Camara & Tuesta, 2014).

Collateral requirements are the main reasons that make them not seek for credit from financial institutions. It is a security in terms of property or other assets that a borrower offers a lender to secure a loan. It is also defined as an asset required by the lender from a borrower to secure the loan(Gatakaa, 2012).

Collateral is defined as the process by which access to and the use of formal financial services are maximized (Camara & Tuesta, 2014).

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

There is continuing interest globally on the benefits to economic growth and social stability as a result of increased access to formal financial sector by a country's population. The benefits cannot be understated especially in developing nations. Kenya as a nation has not been left behind and in the development blue print, Vision 2030, it has set out the financial sector priority goals which include financial inclusion.Policy makers are thus interested in establishing the key drivers hindering financial inclusionespecially for different segments of the population so that these can be addressed towards the achievement of Vision 2030.

Financial empowerment of women is linked to empowerment of communities and thus the study would seek to give answers that would be beneficial to policy makers seeking to bring more women into the formal financial sector for economic growth of the country. In Kenya, according to the 2016 FinAccess household survey, access to formal prudential financial services has risen from 15% in 2006 to 42.3% in 2016 with the completely excluded decreasing from 41.3% to 17.4% in the same period. This shows a positive trend for the country; however when looking at financial inclusion in rural vs urban (59.9% vs 32.1%) and men vs women (50.4% vs 34.6%) the numbers show more needs to be done to ensure inclusion especially of rural women.

According to Richardson (2013), women make up slightly more than half of the Kenyan population, where a majority of them reside in the rural areas providing farm labour. The participation of majority of these rural Kenyan women in financial related contribution is

minimal as compared to their male counterparts. This renders the rural women as the least contributors in thefinancial sector (Ellis *et al*., 2007). In fact, they are made to seemas if they should continually be reliant on men in most areas includingfinancial contributions, participation and decision making (Institute Of Economic Affairs – Kenya, 2008). From this point of view,financial roles conferred to men in Kenya appear more superior than those given to women (Hassan, & Mugambi, 2013; Athanne, 2011), and they areperceived as being accorded certain privileges.

These privileges create an opportunity for men to be the main beneficiaries of financial inclusion and they usually migrate to urban areas, leaving most women responsible for the running of the affairs at their rural homes and also making women most financially excluded. Considering that women are slightly more than half the number of men, then women financial exclusion trickles down to increased poverty and denies them opportunities for empowerment and this becomes a recipe to retarded economy (Gweyi *et al.*, 2013). However, eliminating this disparity through women financial inclusion would spur economic growthinreducing poverty and decreasing unemployment thereby destabilisingthis status quo (Mwobobia, 2012).

Although rural women can be active and very productive business owners, they remain disadvantaged as far as their ability to access finance and exercise control over their own business income is concerned rendering them a vulnerable group. However, ruralwomen have been denied theopportunity of exposure to financial inclusionas compared to theirmale counterparts. This is pegged on the traditional belief that men are supposed to hold primary or exclusive responsibility of financial decision-making (Ainul, 2013).

Further, majority of rural women lack basic education, which negatively impact their financial inclusion (Hassan & Mugambi, 2013). Hassan & Mugambi, 2013) specifically indicates that morerural women lackeducation and exposure to financeas comparedmen, a major barrier to their ability to actively participate in financial sector. This further widens gap in financial inclusion of rural women. A study by Camara and Tuesta (2014) lists education as one of the main factors defining financial inclusion of rural women. Thus, the poor financial literacy limits women's capacity to exploit financial opportunities, ability to make informed financial choices and take effective action intended to improve their financial capacity (Cull, Demirguc-Kunt &Murdoch, 2013).

1.1.1 Garissa County

Garissa County, which is in the North Eastern region of Kenya, covers an area of 44,174 Km^2. The county borders the Republic of Somalia to the East, Lamu County to the South, Tana River County to the West, Isiolo County to the North West and Wajir County to the North (Garissa County integrated development plan, 2014).

The main economic activities in the county are livestock rearing and small scale farming along Tana River. Livestock rearing is the backbone of the County's economy as the county only has 894 Km^2 of arable land. The main livestock breeds are Cattle (boran), Goats (Galla), Camel (dromedary one humped) and sheep (black headed Persian). The main livestock products are meat, milk, hides and skins. Main crops grown are: water melons, mangoes, tomatoes, paw paws, bananas, beans, vegetables, cowpeas, simsim, maize and green grams. These crops are usually produced on a small scale under irrigation along the Tana River. Fish farming is also done on a small scale using fish ponds. The County has five fish ponds along Tana River with a total area

of 1,200 m2. The main types of fish produced are bonefish, mudfish, catfish, tilapia and eel. (Garissa County integrated development plan, 2014).

The rationale of choosing Garissa County is because the county is regarded as among the counties suffering the most social challenges in Kenya and thereby classified as marginalized county and with rural poverty at 64% (published list by Commission on Revenue Allocation (CRA) on marginalized counties). According to the 2016 FinAccess household survey, formal prudential access in the country has risen to 42.3% in 2016 with Nairobi having the highest and North – Eastern the lowest at 70% and 5.2% respectively. Garissa was the capital of North – Eastern in the former provinces in Kenya and thus was selected for this study.The county also has only 1% of household income contributed by rural self-employment. Secondly, the data from a financial source (Institute of Certified Public Accountants of Kenya [ICPAK], 2014) had shown that Garissa County is among the counties with the highest deficit in revenue collection in the 2013/2014 FY (Office of Controller of Budget implementation Report, 2014).

1.1.2 Rural Women in Kenya

The rural society perceives women different from men, where this different perceive status of men sheds light on why there are different role expectations for both men and women in the society they belong. This leaves men to manage and take care of the economic aspects of the family to the point that the economic growth of the women is determined by the economic position and status of their husbands (Hassan & Mugambi, 2013). This leaves women with minimal or no control over the family or their own resources. The situation worsens when the woman is the head of the household such as single mothers, widows or singleladies (Wasike, 2013). These women struggle to engage actively in economic activity which would enable them

to provide and support themselves and their families (Garba, 2011). The participation of women in entrepreneurship would in consequence empower them economically, create independence in them and give them control over resources.

Empowered women are able to participate in decision making, nation building and even have more influence in the society. Further, much of the earnings by women are used by their families and communities as opposed to earnings by men (Mwobobia, 2012). Higher female earnings and bargaining power translate into greater investment in children's education, health and nutrition, which leads to economic growth in the long-term. Increasing the role of women in the economy is part of the solution to the financial and economic crises and is critical for economic resilience and growth Camara & Tuesta, 2014). The Department for International Development (DFID) stated that financial inclusion advances growth and reduces poverty however access rates are low especially for women citing that in Kenya, 40% of small scale farms are run by women yet only 1% receive agricultural credit. (DFID, 2012)

1.1.3 Concept of Financial Inclusion

Financial inclusion has been discussed in several forums and various definitions proffered on what it involves. For example DFID (2012) defined financial inclusion as universal access by enterprises and households to appropriate range of financial services at a reasonable cost. For this study financial inclusion is taken in regards to rural women and associated with having rural women access and use affordable financial services. This access will mean that women have control over their financial affairs and this will mean greater choices, opportunity and security. Kirwood (2009) indicates that the financial inclusion of womencontributes immensely in

empowering them. This provides both social and economic empowerment to women which make them contribute in the economy of the country. In fact, to achieve sustainable development, alleviate poverty, a country should ensure financial inclusion of women leading to their empowerment. This financial inclusion, which is simply an economic empowerment, allows the women enjoy their rights and ensure equitable sharing of wealth in the society. Economic empowerment gives equal capacity to both women and men to participate in economic growth in that country, thus allowing for fair distribution of wealth. It increases women's access to economic resources and opportunities including jobs, financial services, property and other productive assets, and skills development. This eventually enables women to gain and have control over their lives.

The study by Hassan and Mugambi (2013) indicated that although many women in Garissa town actively engaged in businessso as to provide for their families, they were greatly constrained by barriers; gender based biasness (cultural and discriminative societal norms),financial illiteracy; lack of access to credit; inadequate financial resources, and weak networks among others. The study also found out that government and stakeholders provide some financial support and training to women groups but individual women entrepreneurs struggle on their own. According to Hassan and Mugambi (2013), financial resources, entrepreneurial skills, improving financial literacy, networking, gender balanced participation in business, and responsive policies are important ingredients in growth and expansion of women entrepreneurship.

Allen *et al*. (2012) found a positive association between greater financial inclusion and better access to formal financial services (for a total of 123 countries) in the form of lower banking costs, greater proximity to bank branches and less paperwork. In terms of individual

characteristics, the groups most vulnerable to financial exclusion are those with lower incomes and those living in country areas.

1.2 Statement of the Problem

Despite women constituting slightly more than half of the Kenyan population, they have been made to experience a gender based financial exclusion that favours men to their detriment as far as access to finances for their empowerment is concerned (Gatakaa, 2012). Specifically, rural women are denied the opportunity to contributein making of business decisions that would help them nurture income generating activitieswhereas men are left to make thefinancial decisions and income generating choices in the household (Witbooi & Ukpere, 2011).Denying rural women financial inclusion has rendered them to turn to do casual or seasonal employment, where they are providing 60-80% of the farm labour (Wasike, 2013). This has turned rural women into the "slaves" of the society instead of equal contributors towards the economic development of the country, through financial participation. Certain factors such as; illiteracy, lackof involvement in decision making, access to finance, and lack of orinadequate collateral, have emerged as the real hindrance to women financial inclusion.

Unfortunately,majority of rural women are illiterate and a most believe that they do not qualify to obtaincredit facilities that could aid or enhance their businesses. They perceive the financial practice as complicated and this disheartens mostof whom are illiterate, thereby creating a financial inclusion gap. Also, most rural women lack adequate financial skills necessary to manage their business ventures (Mwobobia, 2012). Taylor and Boubakri (2013) examined the financial inclusion status of women and women owned businesses in Africa and noted that women are less likely to use financial services because they are less educated, have

lower incomes and mainly operate in the informal sector. Their study identified demographic characteristics of groups particularly excluded from the financial system and these were noted to be those living in rural areas, the poor, women and the less educated. Rural women are thus noted to more likely be excluded from the financial system.Additionally, mostrural women in Kenya lack sufficient start-up capital for their business, a situation tied to the nature of business activities they run (Otieno *et al*. 2010), which widens the financial inclusion gap.

The financial inclusion gap is further widened by the collateral requirement by credit lending institutions for access to debt finance, which is too stringent for the rural women to provide (Magri, 2009). More precisely, most rural women lack adequate collateral to satisfy the requirement to access debt finance from lending institutions. They are not able to raise the minimum collaterals demanded by lending institutions as a condition to access credit finance (Siwadi *et al.* 2011; Kimathi, 2009). Although, addressing the factors reviewed could significantly accelerate the economic growth for the country, Kenya is unlikely to meet its economic growth targets. This is with regards that the key to economic growth in Kenya can only be achieved by empowering women financially through removing the said hurdles (Ondoro& Omena, 2012). Thus, financial inclusion is a critical factor for greater wellbeing of the country's economic development and achievement of vision 2030.

Studies have established that there exist large gaps in financial inclusion between men and women at large, where rural women face difficulties in accessing formal financial services (Demirguc-Kunt *et al.*, 2015). For instance, Finnegan (2015) study indicates that collateral are necessary to provide guarantee for securing loans from lending institutions. However gender differences in property ownership and assets highly hinders rural women's ability to access

credit finance. Rural women usually find it very challenging to provide the required collateral since they might not possess adequate properties and assets (Sagwe, Gicharu & Mahea, 2011).

Other studies have been conducted on financial inclusion of rural women in Kenya and outside. A study by Mwobobia (2012) revealed that Kenyan women lack the capacity to access to finance as Adesua-Lincoln (2011) found that educated business women can comfortably access finances for their business. Another study by Otieno *et al.* (2010) had earlier established that lack of financial knowledge (skills, education), adequate collaterals barred women from accessing finance, rendering them financially excluded.

However, the studies reviewed failed to significantlyand clearly expose factors jointly hindering sustainable financial inclusion as financial education (financial illiteracy), the access to finance by rural women (such assources of funds and lack of collaterals) and lack of or inadequate involvement in decision making.So, there was a knowledge gap that; financial illiteracy, the access to finance by rural women, and lack of or inadequateinvolvement in decision making jointly hinder financial inclusion by Kenyan rural women whichinspired the need to conduct this study to fill the knowledge gap.

1.3 Objectives of the Study

The purpose of the study was to identify and assess the factors hindering sustainable financial inclusion rural women in Kenya.The general objective of the study was to assess the factors hindering sustainable financial inclusion rural women in Kenya. The specific objectives of the study were:

1. To establish the effect of financial educationonsustainable financial inclusion of Kenyan rural women.

2. To determinethe effect of access to finance on sustainablefinancial inclusion of Kenyan rural women.

3. To determine the effect of involvement in decision making on sustainable financial inclusion of Kenyan rural women.

1.4 Research questions

The study answered the following questions;

1. What are the effects of financial education onsustainable financial inclusion of Kenyan rural women?

2. What is the influence of access to finance on sustainable financial inclusion of Kenyan rural women?

3. What are the effects of involvement in decision making on sustainable financial inclusion of Kenyan rural women?

1.5 Significance of the Study

The study would benefit various stakeholders; government in Kenya, policy makers, rural women, academicians, and scientists. Firstly, the Kenyan National and County governments would find the study findings and recommendations very relevant in championing forregulations that promote business of rural women to sustainable performance. This might be a means of creating an avenue for sustainable growth and development characterized by; more job

opportunities, poverty eradication and growth economic acceleration thus building the national and county economy.The study provided information on ways of addressing the financial inclusion of rural women in Kenya, which would significantly spur the economic growth for the country as it improve rural women's financial inclusion.

Secondly the findings and recommendations of this study might be important to the policy makers in the formulation of policies governing the women business sector. The study provided recommendations and findings to help the policy makers in the Kenyan National and County governments and international agencies like donors in making informed decisions for entry and sustainability of women business in the local and regional market as well as the international market. Thirdly the study would be important to women in broadening their understanding of their rights of participating in the financial sector. The study would inform rural women on; their right to financial education as well as education; how they could access finance in poverty eradication; and their rights to property ownership. They might therefore hold the keys to their financial inclusion.

The study contributed to adding new knowledge to enhance sustainable financial inclusion of rural women, making the study beneficial to academicians and scholars. Lastly, the study provided an avenue for more research in financial inclusion of rural women. This made the study useful to researchers and scientists in this area.

1.6 Scope of the Study

The study aims was to assess the factors hindering the women financial inclusion in Garissa County. This study collected data about women from Garissa County. Although the literature identifies many factors that affect sustainable financial inclusion, this study focused on the

impact of financial education (financial illiteracy), the access to finance by rural women (such as sources of funds and lack of collaterals) and lack of or inadequate involvement in decision making on sustainable financial inclusion of rural women.

The target population for this study wasrural womenof Daadab of Garissa County, Kenya. This population consistedrural women aged above 20 years regardless of marital statusin Daadab Garissa County and its environs. This population was chosen because it represents different categories of rural women. They therefore provided a workable base to gather a representative sample of the different categories.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

The aim of this chapter is to provide a review of the related literature with regards to sustainable financial inclusion.It contains a review of literature by various authors, which was found beneficial to the present study.In this chapter, the study reviewed theories and empirical studies that explain the relationship between factors that relate to sustainable financial inclusion of rural women. This chapter reviewed various theories related to the present study and explains how these theories support the current study. The theories so reviewed wereuseful in developing the study's conceptual framework. The chapter also reviewed empirical studies which were found related to the study.It critically analysed the empirical studies useful in identifying the research gaps.

2.2 Theoretical Review

This study considered certain theories very useful in explaining the financial inclusion of rural women. Such theories would help the present study in identify the appropriate factors that explain the financial inclusion of rural women. The theories found very useful in explaining financial inclusion in terms of financial education (financial illiteracy), the access to finance by rural women and involvement in decision making includes the; Capabilities Theory, Theory of Asymmetric Information, and Theory of Active or Supply Leading Financial Development, which are reviewed hereafter.

2.2.1 Capabilities Theory

The Capabilities Theory by Amartya Sen (1985) cited by Kuriakose, & Iyer (2014)considers that all people should be respected and should therefore be empoweredequally avoiding any discrimination that may promote unjustifiable human inequalities, such as financial exclusion. The theory proposes that allnations are developing in which case they strive toward ensuring better living conditions for its people. As the nations develop they should strive to; eliminateinequality, ensure justice for all and lives worthy of human dignity for all its citizens. According to the theory all countries shouldconfront the problem of human development and provide adequate quality of life through minimal justice.

The Capabilities Theory proposes that sustainability, referred to as capability security, is the most important aspect governing the wellbeing of the life of a person. The argument is that impoverished life could not be adequately deprived by securing minimal income. In other words, achievement of a good state of existence or better conditions of living is not attained by acquiring minimum income but sustaining that income (Kuriakose, & Iyer, 2014). This is to say that sustainability of adequate income is the solution to adequate quality of life. The theory was found very useful in the present study in that it argues out that merely providing for minimal income to rural women may not facilitate sustainable financial inclusion since other vital disabilities would be crippling their chances to be financially included. The Capabilities Theory brings the point of financial inclusion of rural women closer to reality as it regards the; provision of sufficient financial education (information), access to finance and lending institutions allowing women friendly collateral requirements its key concerns. This helps the present study regards these factors; financial education (financial illiteracy), and access to finance as independent variables and sustainable financial inclusion as the dependent variable.

2.2.2 The Theory of Asymmetric Information

The Theory of Asymmetric Information proposes that the main reason for financial exclusion is the lack of correct financial information (Bera, 2009). So, provision of adequate financial information to rural women would on of the accelerators of the financial inclusion of this group of business owners. In this case, the financial information becomes asymmetric or imperfect when men in the rural areas more financial information than the rural women. When these conditions persist, many problems come into surface. These problems may adversely hinderaccess to financial products and can lead to the denial of financial products to rural women business owners. In addition, sometimes it is likely that the potential rural women business owners may misinform the financial lending institutions about their credit worthiness. The ultimate results are; increasingloan default rate, creating avenue for escalation of financial crisis, and making the financial institutions to be more vigilant in lending. This extra vigilance will finally end up with the exclusion of more rural women business owners, who would otherwise be included in the financial network (Gilberto, 1989).

The Theory of Asymmetric Information proposes that the absence of or minimal information of the financial products offered by the lending institutions as well low transaction cost makes the lending operation cost-effective. Thus, perfect or near to perfect information is the key to the successful and sustainable operation of a financial system (Bank, 2008). This necessitates the identity and the intentions of the rural women business owners, who would be buyers of financial products critical to the likelihood of the repayment. So, when information pertaining to the rural women business owners is partially or not fully disclosed to the lending institutions, the lending environment is tampered with. If the rural women business owners fail to honor the borrowing agreement of making regular repayments, then definitely the lending

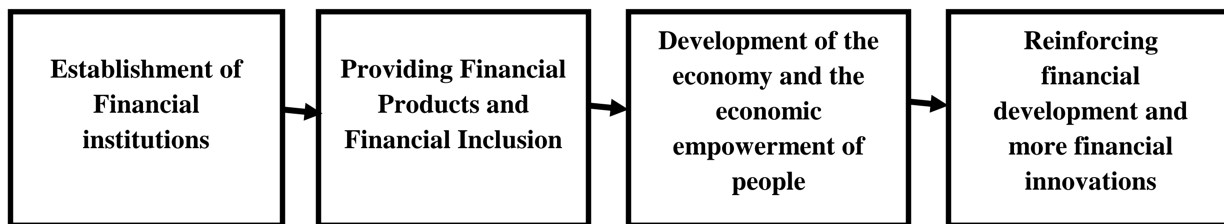
institutions cease to lend further to these women culminating into financial exclusion. The emphasis on usefulness of financial information was helpful to the present study in regarding it as an independent variable.

2.2.3 The Theory of Active or Supply Leading Financial Development

The proposition by theory of active or supply leading financial development is that financial inclusion is achieved when all people are equally and indiscriminately equipped with all apparatus of financial instruments (Bera, 2009) through equitably accessing finance. The theory argues out that when there is adequate access to finance by all groups of people then their financial needs are legitimately met by thefinancial institutions. When the financial needs of the rural women business owners are met then their financial empowerment is attained, which in course reinforces financial development. In other words, sustainablefinancial inclusion of all groups of people is a product of access to finance using strategies based on this theory as illustrated in figure 1.

FIGURE 1

Illustration of the Theory of Active Financial Development



Source: Shodhganga (2014: pp 62)

Applying the theory of active financial development to the present study, then sustainable financial inclusion of rural women business owners would be subject to access to finance. When

all the necessary strategy are effectively employed, then the rural women would be financially empowered and will contribute to the country's economy equally as men. The theory proposes access to finance as the basis of sustainable financial inclusion, which helped the present study to consider the effect of access to finance on sustainable financial inclusion.

2.3 Empirical Review

This study reviewed various global, regional, and local past studies found useful to it. The review of these studies was based on the study objectives and was under the classifications; financial education and sustainable financial inclusion, access to finance and sustainable financial inclusion, decision making and sustainable financial inclusion and collaterals and sustainable financial inclusion

2.3.1 Financial Education and Sustainable Financial Inclusion

Mishi, Vacu and Chipote (2014) study concludes that financial inclusion is positively influenced by financial education such that increases by improvement in literacy levels increase financial inclusion. Financial literacy training makes individuals appreciate the essence of using banks as well as the benefits achieved thereof. With increased financial inclusion, the rural women would be able to avoid and volatile capital inflows sourced to supplement low domestic savings and are therefore able to achieve stability within the economy. Also trust can be improved by education, making individuals more comfortable to use the services.

A study by Gardeva(2011) notes full financial inclusion requires the clients of the financial services to be financially literate and that financial education is one of the best ways to

empower the working poor to take control over their financial lives, which has a ripple effect to all areas of their lives.

New York City Department of Consumer Affairs [NYDCA] (2012) notes that that a common solution to financial exclusion would be to provide education and access to products simultaneously. It is important to highlighting appropriate products during the financial education programme as well as encouraging participants to gain access, which motivates them to do so. This is especially important when large numbers are financially excluded, thus potentially reducing the pressure on other resources.

According to Barcellos *et al*. (2012) there is need to address language barriers and low levels of literacy that create challenges when developing financial education initiatives for the financially excluded. Lack of financial education renders rural women buying inappropriate products or getting into difficulties with credit, when seeking to access it (GAO, 2010).

A study by Bowen *et al.* (2009) reveals that usually women have lower education levels than men, which puts rural women business owners in Kenya at a disadvantaged position as opposed to men. This social isolation of rural women in academics traverses from primary education to secondary and all through to tertiary education levels. Such a social isolation barrier creates a major barrier to women accessing training and other entrepreneurial services in terms of access, necessity, or availability. Later, Otieno *et al*, (2010) study established that women encountered financial education challenges such as; enterprise management skills and education, lack of knowledge, collaterals and expensive loans.

Elsewhere, a study by Adesua-Lincoln (2011) found that women education and established networks played a very crucial role in attaining their finance or capital for their

businesses. The study found out that women were not able to diversify or innovate their business even when opportunities arose due to low level of financial information. The study by Gatakaa (2012) found that the female entrepreneurs faced various challenges and hindrances in their quest to access finance soas to supporttheir businesses. The main hindrances were; accessing of credit particularly for starting an enterprise; lack of information or know how on how to access this financial aid; lack of tangible security; and high interest rates charged by the lenders.

Camara *et al*. (2014) in their study found out that education and gender were the main factors relevant to financial inclusion of women as Hoyos*et al*. (2014) study singled out education as one of the most important determinants in explaining financial inclusion. Being an educatedwoman was therefore found to be important in increasing the probability of sustainable financial inclusion.From this literature review the present study finds that relevant training or education in financial matters significantly influencessustainable financial inclusion of rural women and therefore regards financial education as an independent variable.

2.3.2 Access to Finance andSustainable Financial Inclusion

A study by Kipnis (2013) established that women owned business were smaller businesses and were perceived to be more risk averse than their male counterparts to the extent that their ability to access debt financing was limited. This implies that women tended to own and operate smaller businesses in the domestic trade sector which were less capital intensive, hence financially excluded. Women in Ethiopia tended to borrow only what they required and they were less likely to seek external financing. The study recommended that technical assistance in the form of training was necessary to instil greater confidence among those women to seek for external financing from lending institutions. This would make women to seek an advisory relationship

with a financial institution, thereby increasing their own confidence and lending institutions' willingness to lend.

Magri (2009) study found that certainbarriers stood in the way of women access to finance, one of the main barriers was cost for credit finance and lack of collateralcharacterised by; high interest rates charged, limited income available from business ventures to offset the high interest rates and still make profits to plough back into the business and avoid stagnation. Mwobobia (2012) study found that most women were discouraged mostly by tales told of auctioning of defaulters propertyway before they thought of seeking debt financing and instead turned to informal savings groups.

The study by Otieno *et al*, (2010) revealed that there was poor access to non-credit services to rural smallholder women entrepreneurs as Adesua-Lincoln (2011) found women entrepreneurs ventured in service sector because they lacked adequate funding to finance more aggressive and profitable business. Another study by Garba (2011) revealed that the need for business expansion was influenced by the risk attitude and lack of capital.

According to Mwobobia (2012), naturally, women are often considered as disadvantagedas compared to male entrepreneurs, an argument in support of that of Garba (2011).Zororo (2011)study revealsthat women business owners lack enough start-up capital, making the financial access the biggest obstacles to women financial inclusion. Further, rural women business owners usually lack information about how to get a loan and most of the times face discriminatory laws or practices related to finance and credit. This is further supported by Adesua-Lincoln (2011) study which states that lack of adequate finance is the greatest hurdle for

women to attaining working capital in Africa despite the availability of various sources from which one can access credit.

Another study conducted by Ondoro and Omena (2012) found out that although there were various sources of funds to support business owners, the prospective borrowers were faced with constraints such as individual product prices, land tenure, technology, and market access. Witbooi and Ukpere (2011) study found that women business owners generated very limited earnings from their activities owing to barriers from accessing finances.

African Development Bank [AfDB] (2012) in their study recommends that there was need to review legal, regulatory and supervisory frameworks with intent to remove the pending impediments for women to access debt financing. These frameworks should provide space for innovation to allow greater financial inclusion for rural women. They should inform and build awareness when discriminatory legal provisions have been removed. Remove discriminatory legal provisions that impede women's financial inclusion, notably with regard to land ownership and property rights. According to the AfDB (2012) the lending institutions should introduce regulations allowing for alternative collateral and for leasing, overcoming women's constraints of limited asset accumulation.

The greatest barrier of,sustainable financial inclusion ofwomen, according to Mwobobia (2012), is the requirement for collaterals requested by the lending institutions. For instance property is usually used as a collateral and in Kenya only 1% of women in Kenya own property which makes it very difficult for most rural women to provide collateral requested by the lending institutions. Most women who venture into businesses in the rural areas and need finances lack the needed collateral to enable them secure credit facilities.

Caretta (2010) study established that women do not invest their money in physical assets as men tend to do and they therefore suffer from limited access to financial resources. The rural women may aim higher in terms of loan amount but usually facedhurdlessuch as lack of any ownership rights over land, buildings and cars which could be used as collaterals, which results to women not borrowing loans from the lending institutions.

Mwobobia (2012) study found that most women do not have title deeds which are the most common form of collateral for borrowing money. Most of them have little in term of possessing collateral, asset or even business track record in their entrepreneurial activity to help them to successfully secure money for their business. Based on the cited studies, the present study suggests for sustainable financial inclusion, rural women need cheaper credit and lowered collateral requirements. Therefore access to finance by rural women is considered as an independent variable.

2.3.3 Decision Making and Sustainable Financial Inclusion

A study by Chemjor (2013) found that women in leadership positions and those more involved in decision making roles were more likely take loans. This was seen to be due to the fact that such participation improved their self-confidence and encouraged them to make personal decisions on financial management.A FinAccess 2013 survey interviewing various households on financial decision maker found that of the women interviewed 46.3% made own financial decisions and 41.8% decisions were made by the husbands while when men were interviewed, 78.4% made their own financial decisions while only 7.3% had their wives make the financial decisions. These studies found that the lesser involvement by women in decision making in their households restricted financial inclusion of women(FSD, 2013).

According to Vyas (2012), the financially excluded might need even extensive support alongside information and knowledge to be able to make appropriate financial decisions and planning. Such an action encourages change of their traditional behaviour and thereby adopting the supportive financing perceptions. Behaviour change is possible with the right approach, such asreducing avoidable expenses, converting short term saving to long term savings and pensions, and buying insurance. This would be achieved by showing women the importance of planning for their future, teachingthem simple concepts such as 'avoidable' and 'unavoidable' expenses and providing tables to show thewomen exactly how their savings would grow.

Levi-D'Ancona (2014) study reveals that lack of financial literacy among borrowers is one of many factors leading to financial exclusion. This is owing to the fact that an understanding of finances is necessary to the utilization of financial services. Therefore, financial literacy training initiatives are required to train borrowers in good financial practices and to make good financial decisions may offer a remedy to the shortcomings of financial exclusion. This present study thus regards involvement of rural women as an independent variable affecting sustainable financial inclusion.

2.4 Summary and Knowledge Gaps

This chapter looked at both the theoretical and empirical reviews. In theoretical review, the study looked at the theories which lay the foundation of the study. The study reviewed on the capabilities theory, theory of asymmetric information, and theory of active or supply leading financial development. The theories explain both the financial knowledge and education as determinants of sustainable financial inclusion of rural women. In view of the analysis, the major contribution of these theories is that financial education, access to finance and decision making

act more in the interest of financial inclusion of rural women. Consequently, these factors are deemed to have impact on sustainable financial inclusion of rural women.

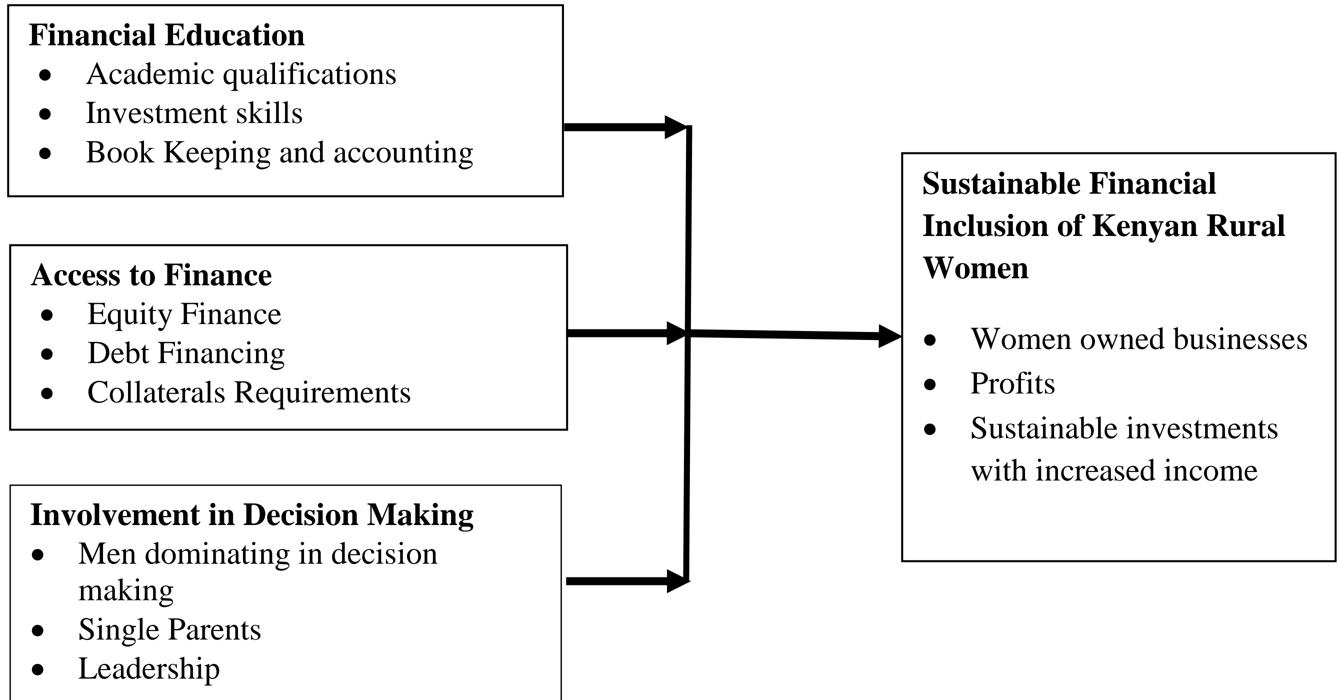
The empirical review looked at determinants of sustainable financial inclusion of Kenyan rural women in view of; financial education, access to finance and decision making. From the empirical review; the study can conclude that, there is empirical evidence of the existence of relationship between sustainable financial inclusion of rural women and these factors. Otieno *et al*, (2010), Ondoro and Omena (2012) Chemjor (2013), Camara *et al*. (2014) , and Hoyos *et al.* (2014) are among the studies that recognize the existence of a relationship between sustainable financial inclusion of rural women and financial education, access to finance and decision making. The aforementioned theoretical and empirical studies serve as a basis for further studies in the areas of sustainable financial inclusion of rural women. However most of the findings from the empirical studies reviewed do not provide evidence of the sustainable financial inclusion of rural women as being jointly influenced by financial education, access to finance, and decisions making. Therefore, this study assessed the effects of financial education, access to finance and decision making on influencing the sustainable financial inclusion of rural women.

2.5 Conceptual Framework

This study established a conceptual framework guided by the theories reviewed which proposes that factors hindering the financial inclusion of rural women in Kenya are; Lack of or inadequate financial education or information, restricted or inadequate access to finance and stringent collateral requirements and lack of or inadequate involvement in decision making.

FIGURE 2

Conceptual Framework



2.6 Operationalization of study variables

The operationalization of the study variables was captured in table 1.

TABLE 1

Operational Framework

Variable	Orientation	Objectives	Indicators	Scale of Measurement	Tool of Analysis
Sustainable Financial Inclusion of Kenyan Rural Women	Dependent Variable		- Increase in number of women owned businesses - Increased profits from women run businesses - High income from sustainable investment activities.	Ordinal using 5 point Likert Scale	Descriptive Regression Analysis
Financial Education	Independent Variable	To establish the effects of financial education on sustainable financial inclusion of Kenyan rural women.	- Academic qualifications - Knowledge of financial information - Budgeting skills - Investment skills - Book Keeping and accounting skills	Ordinal using 5 point Likert Scale	Descriptive Regression Analysis
Access to Finance	Independent Variable	To find out the influence of access to finance on sustainable financial inclusion of Kenyan rural women.	- Equity Finance - Debt Financing - Lending terms - Interest Rates - Banks Requirements - Property Ownership - Availability of collaterals - Value of the collaterals - Women friendliness	Ordinal using 5 point Likert Scale	Descriptive Regression Analysis
Decision Making	Independent Variable	To determine the effect of involvement in decision making on sustainable financial inclusion of Kenyan rural women	- Men dominating in decision making - Women being household heads - Women being involved in leadership positions	Ordinal using 5 point Likert Scale	Descriptive Regression Analysis

Source: Researcher (2016)

2.7 Study Hypothesis

Hypothesis 1

H_o: Financial education does not significantlyinfluencesustainable financial inclusion of Kenyan rural women.

Hypothesis 2

H_o: Access to finance does not significantly influencesustainable financial inclusion of Kenyan rural women.

Hypothesis 3

H_o: Involvement in decision makingdoes not significantly influence sustainable financial inclusion of Kenyan rural women.

CHAPTER THREE

METHODOLOGY

3.1 Introduction

In this chapter, the study explains the research methodology used in terms of; research design, population studied, sample size and sampling techniques, data collection tools and procedures, and data analysis including regression model specification used to test the study hypotheses in chapter two. Also included are the study tool pilot tests used to measurethe validity and reliability of the research instrument.

3.2 Research Design

A research design is a plan action used to obtain answers to research questions asked. This study used a descriptive survey (describing the characteristics of existing phenomenon) in obtaining information in the area of research of factors influencing financial inclusionof rural women in Kenya. Descriptive survey design was found useful since it significantly describes the variables of interest by analyzing their relationships and it provided valuable and accurate answers to the following questions; who, what, when, and how (Kombo & Tromp, 2006). A descriptive study wastherefore deemed as the most suitable in gathering information on factors hindering financial inclusion of rural women in Kenya. This study gathered information on financial education, access to finance and decision making variables that jointly act as barriers to financial inclusion.

3.3 Population and Sample

Target population is the entire group of individuals or objects to which a study is interested in generalizing the results and has observable same characteristics (Mugenda & Mugenda, 2003). It is the number of a real or hypothetical set of people, events or study which a study wishes to generalize on. The study usedthe 7,820 (Nthiana, Mwangi & Kibet, 2015) women who were aged 18 years and above and who had lived in Dadaab sub county of Garissa County, Kenya for a period not less than 10 years regardless of marital status. Garissa County was selected as the source of the target population due to the status of financial inclusion being the lowest in North Eastern of which Garissa was the former administrative capital. North-eastern region has formal prudential inclusion of 5.2% as compared to a national average of 42.3% and a high of 70% in Nairobi region(CBK, KNBS & FSD Kenya, 2016).The study chose women aged above 20 years because these are the ones in the labor productive age. So the target populationwas7,820 women in Dadaab sub County of Garissa County, who had limited employment opportunities and therefore are in a position to create employment through establishment of small-scale business.

3.4 Sample Size and Sampling Procedure

The study determined the sample size using the Saunders, Lewis &Thornhill (2012) and guided by *Appendix I*to establish the sample size. The sample population from the target population of 7,820 was obtained through interpolation as explained hereunder;

From *Appendix I*, the sample population size of 5,000 is 357 and that of 10,000 is 370 for 5% level of significance, then the sample size for 7820 would lie between 357 and 370. First obtain the difference between 10,000 and 5,000 which is 5,000 and the difference between 370 and 357, which is 13. Next obtain the difference between 7820 and 5.000, which is 2820. From

this information, it is noticed that every unit subject between 5,000 and 10,000 is represented by a sample size of 13/5,000. So, 2820 subjects are represented by (13/5,000) X 2,820 = 7.33≈8. To obtain the sample population 7820, then add 8 to 357 to get 365.So, the sample size will be 365 respondents.

The study used proportionate stratified sampling to establish the sample size for each category of rural women at Daadab, which wasdetermined as ratio of number of women in the category to the total number of women multiplied by the sample size. Then simple random technique was used to select the respondents for each category. For each category, a sampling interval was developed, depending on the number of respondents required in that category. The sampling interval was obtained by dividing the total number women in that category with the number of respondents required from that category. Thereafter, a random starting point was determined and the respondents then selected based on the predetermined sampling intervals.

3.5 Reliability and Validity Testing

The study conducted a pilot test of the study instrument before administering it .The pilot study was conducted on ten (10) different respondents who did not participate in the data collection. Pilot testing was conducted in an attempt to test the reliability and practicability of the research tool. The research tool was administered to the respondents by the researcher.

Reliability was conducted to a measure of the degree to which research instruments yield consistent results over time (Mugenda and Mugenda, 2003; Cooper & Schindler, 2008). The data for reliability tests wascollected data from ten (10) respondents for Garissa town, who were notallowed to participate in data collection. The study applied the internal consistency test, using

Cronbach alpha to test for reliability, where scores obtained from one item was correlated with scores obtained from other items in the tool to obtain a coefficient of correlation, r (known as Cronbach alpha). The coefficient (Cronbach alpha) varies from an absolute value of 0 to 1 and a value of 0.7 or less generally indicates unsatisfactory internal consistency reliability (Nunaly, 1971). In the social sciences, acceptable reliability estimates Cronbach alpha of0.70 or greater than 0.70 (Kothari, 2010). That is Cronbach alpha value indicates higher consistency for a given scale if the alpha value is greater than 0.7, then it will be accepted.

Validity of instrument which is the accuracy and meaningfulness of inferences was measured using content validity test. Content validity measures the degree to which data collected using a particular instrument represents a specific domain of indicators or content of particular concept. The assessment of content validity of a measure is carried by two professional experts. This study assessed the content validity by using experts from finance and a research consultant. The finance experts determined whether the sets of items can accurately measure the financial inclusion. The consultant, who is the project supervisor, assessed the tools to establish what concept the instrument is trying to measure.

3.6 Data Collection

The studycollected data from primary sources, using a structured questionnaire to collect primary data from the selected respondents. *See questionnaire on Appendix III.* The questionnaire was distributed to the respondents at their places of work or homes by the researcher and researchassistant so as to ensure that researcher gave guidance where any respondent needed it.The researcher first sought for permission from the Garissa County government to carry out research in the selected sub county. Thereafter, the researcher then made preliminary visits to the

respondents to verbally explain the purpose of the study and make arrangements for the administration of the questionnaires and data collection. The questionnaires were distributed to the respondents and the researcher or the research assistants assisted the respondents to fill the questionnaire and request the respondent to confirm any issues arising out of the data given (Kombo & Tromp, 2006).

3.7 Data Analysis

The analysis of the data collected involved a pre-analysis before fitting the regression model and a post-analysis after fitting the model. The data collected was analyzed, with respect to the study objectives, using both descriptive and inferential statistics. In the pre-analysis the collected data after codingwas first checked for errors of omission and commission and any inconsistencies with assumptions. The assumptions are normality-where variables are symmetrically distributed and linear relationship among variables. Checking for these assumptions in the data allowed the study to have unbiased estimates for the estimated co-efficients in our regression model. This analysis was achieved using SPSS by use of summary descriptive statistics which is the evaluation of central tendency by use of mean, mode and median, and of spread by use of standard deviation to find if there are any inconsistencies. A box plot was then be used to check for any outliers and a scatter plot checked for linearity. Any extreme outliers in the data weredropped.

The study used descriptive statistics to analyze the data to establish trends, patterns and relationships. The various representation of information included: figures, tables, and narratives. In the analysis of the descriptive statistics, frequencies, the mean, standard deviation values were used to analyze the trends of the data. Thereafter, regression was carried out to estimate a model to explain sustainable financial inclusion of rural women in terms of; financial

education, access to financial service and decision making. The study used a multiple regression analysis to establish the relationship between the independent variables (predictor) and dependent variable (response) and measure the strength of the relationship based on the regression model below.

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \varepsilon \quad \text{...(i)}$$

Where:

β_0 - is a constant, which is the value of dependent variable when all the independent variables are 0

β_1, to β_3 = Regression coefficients of independent variables or change induced by X_1, X_2, and X_3

ε = Error of prediction

Y = sustainable financial inclusion of Kenyanrural women

X_1 =Financial Education

X_2 = Access to Financial service

X_3= Decision Making

Next, the study checked formulticollinearity (high correlation between independent variables). The study will use variance inflation factors (VIF) and tolerance to test for multicollinearity, where VIF of greater than 10 a tolerance of less than 0.10 indicates multicollinearity. The variables chosen for our study were not highly correlated but if any two

variables displayed multicollinearity, one variable would have been dropped. The study used the mean of means by first obtaining the mean for each variable using the means of theindicators of each variable. The study obtained mean for the dependent variables (sustainable financial inclusion of Kenyanrural women) as well as for each independent variable (Financial education, access to financial serviceand decision making). These means were used to estimate the study model through multiple regression.

During the estimation of the model to the study tested for the general hypothesis using Analysis of Variance (ANOVA), using the 5% significance level (i.e α =0.05, level of significance). Various interpretations were also be made based on regression results to establish the significance of the independent variables in determining the dependent variable and using the study hypotheses.

3.8 Ethical Issues

The study ensured that the research is conducted ethically. First the researcherobtained a letter from KCA University as consent to conductthe study. The study made sure that the data gathered from the respondents was maintained confidentially and securely. The respondents were allowed to fill the questionnaire anonymously to avoid exposing confidential information. A letter of request to participate in the study was also addressed to the respondents. This wasto ensure informed consent for participation in the study.

CHAPTER FOUR

RESEARCH FINDINGS

4.1 Introduction

This chapter contains the results from analysis of data collected from the field using the research instrument as well as the presentation of these results pictorially, using of tables and figures for ease of understanding. The information contained in the results is interpreted thereunder using a narrative. These results are from data analyzed using quantitative analysis with assistance of SPSS Version 22.0software. The results are presented in the order; pilot testing, response rate, descriptive and inferential statistics. The response rate simply shows the number of respondents who participated with respect to the sample population. In the descriptive analysis the results are arranged in the order of the dependent variable and then the study objectives. The inferential statistics derives the study model.

4.2 Pilot Testing

The study tested the data collection tool for reliability and validity before administration of the tool. When all the tests were successfully done then tool was administered.

4.2.1 Testing for Reliability

The study tested the research instrument (questionnaire) for reliability, using the Cronbach Alpha method an internal consistency technique. The data from the pilot test respondents was collected for a period of two weeks, which gave the study a bearing on the average length of time the

actual data collection would have taken. The results obtained from the pilot testing and used for tests for reliability were captured in Table 2.

TABLE 2

Reliability Statistics

ItemTotal Statistics

Item	Cronbach's Alpha if Item Deleted
Marital Status	.704
Highest Education Level Attained	.696
Period in Business	.689
Age Bracket	.667
Access to financial services for rural Kenyan women in our county ensures increasing financial inclusion of these women	.668
Women in business in the county are increasing every year due to the enabling financial environment	.690
Women businesses in the county are making huge profits because of the space provided for by financial inclusion	.686
The financial inclusion space allows women entrepreneurs in the county to attain high income from their businesses	.702
Highest Academic qualifications of business women	.696
Level of Knowledge in financial matters by women	.701
Level of Budgeting skills attained by women	.657
Nature of Investment skills that women have	.694
Level of Book Keeping and accounting acquired by women	.680
Amount of Equity Finance (own capital) provided by women entrepreneurs	.702
Availability of Debt Financing available to women entrepreneurs	.690
Retained earnings that is reinvested by women entrepreneurs	.664
Support by family members and donors to women entrepreneurs	.677
Requirements for loan access	.668
Property ownership by women entrepreneurs	.711
Availability of collaterals to women entrepreneurs	.648
Value of the collaterals that women can provide	.690
Women friendliness lending requirements	.704
Men dominating in decision making	.708
Women being household heads	.689
Women being involved in leadership positions	.743
Women being single parents	.731
Cronbach Alpha = .700, N = 26	

Source: Research Data (2016)

The results showed that the Cronbach'sAlpha coefficient was .7, which was meeting the recommended threshold of the 0.7 in social science (Nunnaly, 1978). The index shows high consistency between the items of the tool. Although the removal of the item "Women being involved in leadership positions" would have increased the consistency to .743, the study considered that such an increase would not have had a significant effect. Since the tool was already consistent, the study found no need to remove this item in that it was adding value to what it measured.

4.2.2 Validity Tests.

The validity tests were conducted using content analysis by two experts, who evaluated the tool and made recommendations accordingly. They both concurred that the research instruments (Questionnaire) would measure the desired objective and could be used in the finance. However, a few changes were suggested to be incorporated in the questionnaire, which were doneaccordingly. The questionnaire was reviewed through restructuring and reduction of the questions. Various changes were made on the research tool after the content analysis by professionals. The questionnaire was reviewed accordingly and made available for administration.

4.3 Response Rate

The response rate shows a comparison of the respondents who participated in the study with respect to the total sampled population.Since the study categorised the respondents into categories, the results also show the rate of response per category. The analysis is shown in Table 3.

TABLE 3

Analysis by Response Rate

Category of Business Women	Sample Population	Response Rate	Percent
Cloth and Dress sellers	93	85	91.40
Shop Owners	75	72	96.00
Household good businesses	21	18	85.71
Vegetable and Fruits Sellers	64	53	82.81
Beauty Products	52	49	94.23
Stationery	12	10	83.33
Not involved in business	48	37	77.08
Total	365	324	88.77

Source: Research Data (2016)

The data was collected by the researcher assisted by research assistants in a period of two (2) weeks. The study chose to collect data from 365 rural women business owners in Garissa County as shown in table 3, which means the sample population was 365 respondents. However, only 324respondedshowing that 88.77% of the sample population responded. The remaining 11.23% did not consent to participate and the researcher chose to respect their decision. This response rate of 88.77% was considered very good and very useful to the study since according to Mugenda and Mugenda (2003), a response rate is of above 69% should be rated as very high and would produce credible results. Based on the assertion of such an authority in research, it was therefore wise for study to proceed with data analysis because there was enough evidence that the response rate was very good and the results would be credible.

All those who responded to the study data collection, answered all the questions in the questionnaire quite well, providing adequate information that would assist in analysis. The

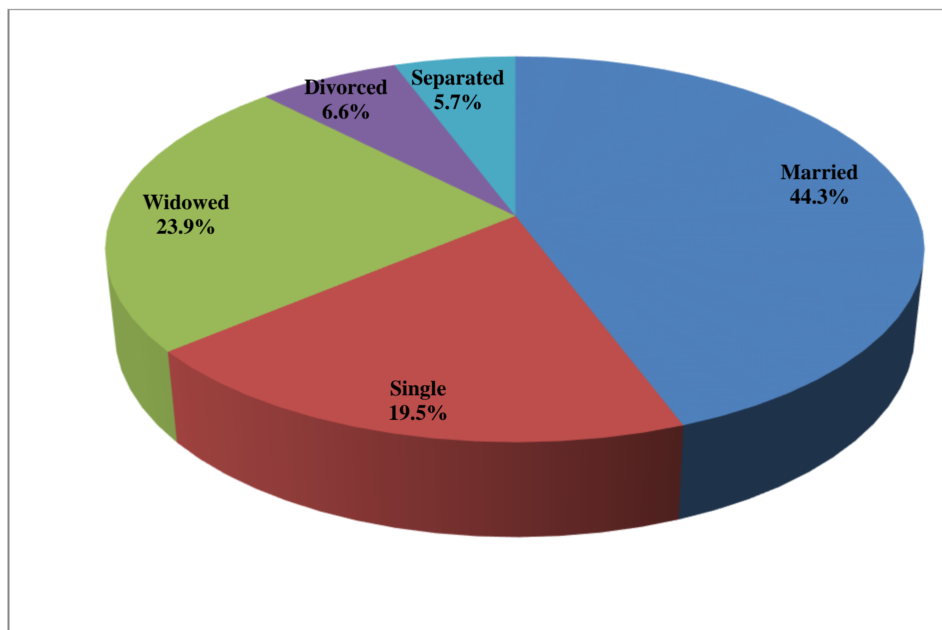
answers were given by the right source and were accurate except in a few occasions where there was missing data due to oversight error (but these were very few instances).

4.4 Background Information

The study sought to obtain generalrespondents' background information based on; marital status, highest education level attained, period in business, and age bracket. The results obtained on marital status were captured in figure 3.

FIGURE 3

Analysis by Respondents Marital Status



Source: Research Data (2016)

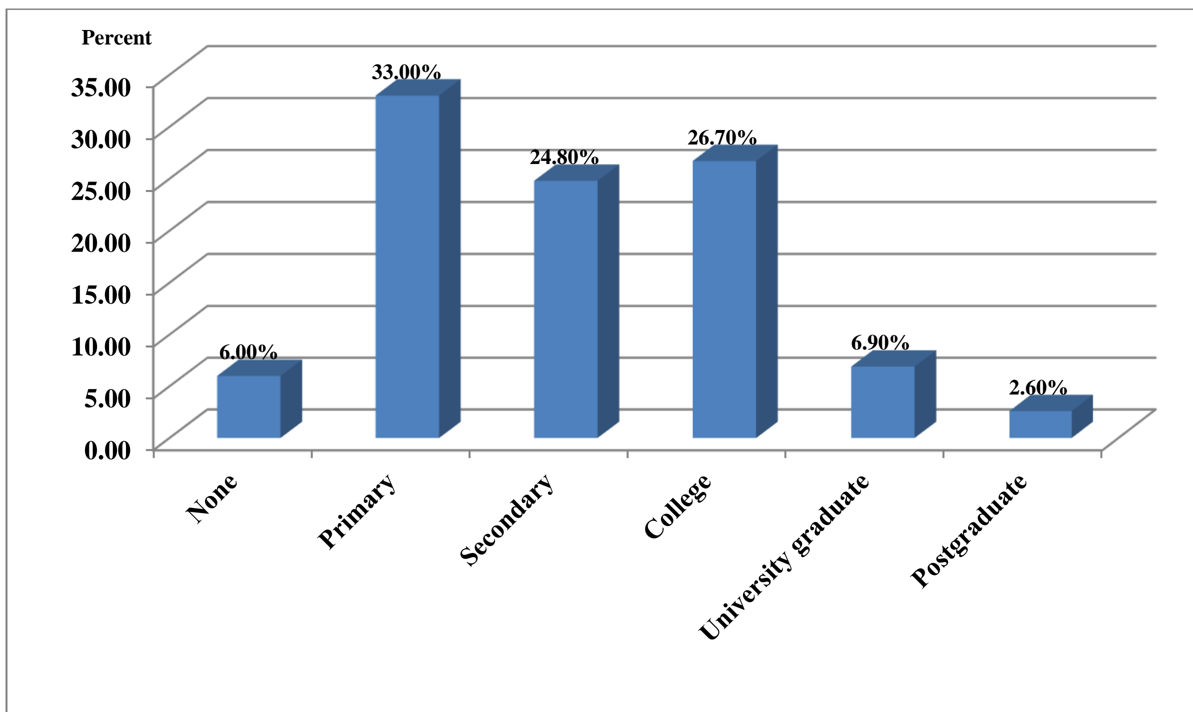
From the resuilts in figure 4.3, it was found most of the respondents, who formed 44.30% were married ladies. They were followed by those who indicated that they were widowed and these formed 23.90%. Those who showed that they were single formed 19.50% of the total

resposne rate and those who indicated that they were divorced form 6.60%. The rest were those who showed that they were separated and these formed 5.70%

The study sought to establish the highest level of academic qualifactions of each respondents. These were classifed as; None, Primary, Secondary, College, University graduate, and Postgraduate.. The results on academic qualifications was captured on figure 4.

FIGURE 4

Analysis by Highest Academic Qualification



Source: Research Data (2016)

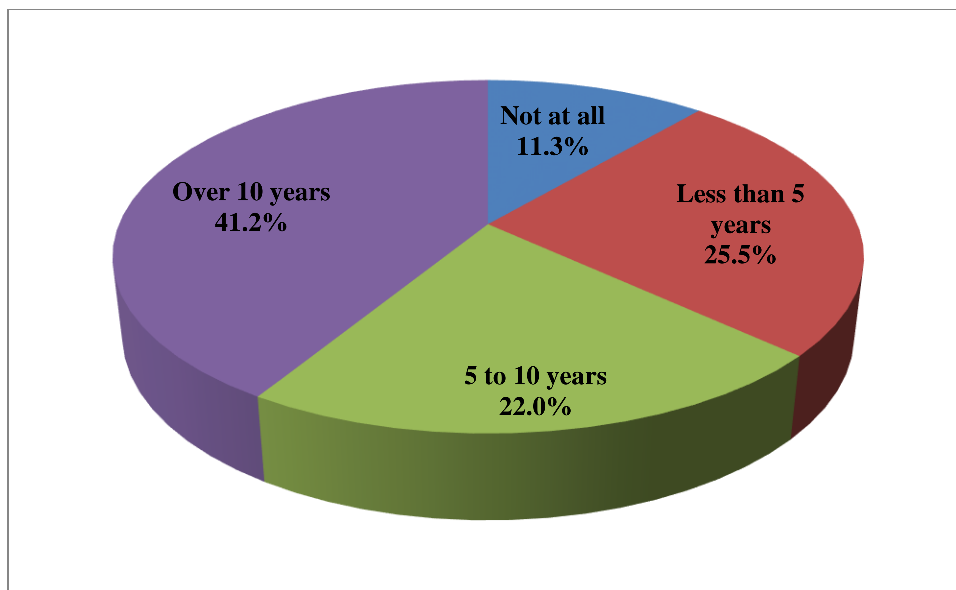
The results in figure 4 showed that most of respodents indicated that they were primary school drop outs (33.00%). They were followed by those who showed that they has obtained a certificate or a diploma certificate (26.70%). Then there were those who indicated that they were secondary school leavers (24.80%). As 6.90% showed that they were university undergraduates,

6.00% showed that they did not have any academic qualifactions and 2.60% showed that they were postgraduates.

As regards respondents other demographics, the respondents were requested to specify the time they had been in business and the period was classifed as ; Not at all, Less than 5 years, 5 to 10 years, and Over 10 years. The results were represented in figure 5.

FIGURE 5

Number of years engaged in business



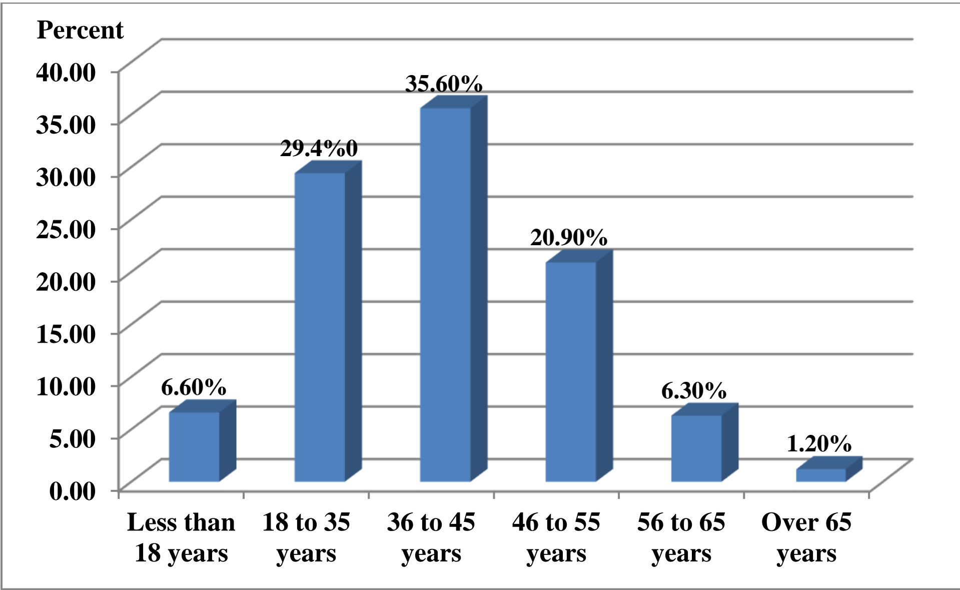
Source: Research data (2016).

The results in figure 5 show that most of the respondents (41.20%) indicated that they had been in business for over 10 years. As 25.50% showed that they had been in business for less than five (5) years, 22.0% showed that they have been in business for between 5 and 10 years. However, 11.30% showed that they had not been in business.

The study sought to obtain information on the respondents age brackets, which were classified in the following categories; Less than 18 years, 18 to 35 years, 36 to 45 years, 46 to 55 years,56 to 65 years, and over 65 years. The results obtained were captured in figure 6.

FIGURE 6

Analysis by Respondents' Age Bracket



Source: Research Data (2016)

From the results in figure 6, it was indicated that most of the respondents, who formed 35.60%,showed that wereof the ages between 35 and 45 years, followed by 29.40%, who showed that they were between 18 and 35 years and 20.90% who showed that they were beween 46 and 55 years. Those who showed that they were less than 18 years were 6.60% and 6.30% showed that they were between 56 and 65 years and 1.30% showed they were above 65 years.

4.5 Descriptive Analysis

This section contains results which explain the study variables in terms of dependent variable and the objectives. The analysis was done using descriptive statistics to describe the study variables and therefore helped to establish the status of the financial inclusion of these women and the effects of the independent variables (IV) on the dependent variable (DV). The study analysed the data fromthe questionnaire, where had questions measured on a 5 point Likert Scale (1, 2, 3, 4 and 5). The study obtained the mean for each indicator and thereafter a mean for the indicators representing the DV or each IV. This is to say that for each study variable a mean was obtained for eachindicator and then another mean was obtained for all the means of indicators representing that variable.

4.5.1 Assessment of Sustainable Financial Inclusion of Rural Kenyan Women

The study sought to assess the sustainable financial inclusion of rural women (the dependent variable), using results obtained from the data collected on the 5 point Likert scale (1= Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree and 5 = Strongly Agree).Since the mean contained fraction, the study moderated the mean of these results using the Statistics; 1 to 1.8 to represent "Strongly Disagree"; above 1.8 – 2.6 to represent "Disagree", above 2.6 to 3.4to represent "Neutral"; above 3.4 – 4.2to represent "Agree" and above 4.2 – 5.0to represent "Strongly Agree". The results obtained were captured in table 4.

TABLE 4

Analysis by Status of financial inclusion

Sustainable Financial Inclusion	Strongly Disagree %	Disagree %	Neutral %	Agree %	Strongly Agree %	Mean	Std. Dev,
Access to financial services for rural Kenyan women in our county ensures increasing financial inclusion of these women	12.20	29.50	27.60	22.60	8.20	2.85	1.15
Women in business in the county are increasing every year due to the enabling financial environment	17.20	29.80	28.20	14.40	10.30	2.71	1.21
Women businesses in the county are making huge profits because of the space provided for by financial inclusion	14.40	27.50	37.50	12.80	7.80	2.72	1.10
The financial inclusion space allows women entrepreneurs in the county to attain high income from their businesses	5.90	40.00	35.60	9.70	8.80	2.75	1.01
Overall Sustainable Financial Inclusion	**12.43**	**31.70**	**32.23**	**14.88**	**8.78**	**2.76**	**1.12**

Source: Research Data (2016)

From the results in table 4,it was shown that most of the respondents (29.50%) indicated that there was no increasing access to financial servicesfor financial inclusion of rural women. This was when 27.60% showed that sometimes there was increasing access to financial servicesfor financial inclusion of these women as 22.60% indicated that there was access to financial servicesfor increasing financial inclusion of rural women and 12.20% totally disagreed showing that there was no access to financial servicesfor increasing financial inclusion of these women at all. A smaller 8.20% strongly showed that there was access to financial services for increasing financial inclusion of these women, the mean obtained was 2.85, which translates to moderate access to financial services.

It was shown in table 4 that most of the respondents (29.80%), indicated that women in businesswere not increasing every year due to the financial environment as 28.20% showed that women in business increased moderately every year due to the enabling financial environment. Some 17.20% strongly showed that women in business were not increasingat all due to the

financial environment and 14.40% indicated that women in business in the county were increasing every year due to the enabling financial environment. However, 10.30% strongly showed that women in business in the county were always increasing every year due to the enabling financial environment. The mean obtained was 2.71, which represents neutral to show that they indicated that women in business increased moderately every year due to the enabling financial environment.

The results also show that most of the respondents (37.50%) indicated that women businesses were sometimes making huge profits and other times not making huge profits because of the space provided for by financial inclusion. 27.50% showed that women businesses were not making huge profits because of the space provided for by financial inclusion as 14.40 strongly showed that women businesses were not making huge profits at all because of the space provided for by financial inclusion and 12.80% showed that women businesses were making huge profits because of the space provided for by financial inclusion. The same results showed that 7.80% strongly indicated that they were sure that women businesses were making huge profits because of the space provided for by financial inclusion. The mean for this variable was 2.72 an indication that sometimes women businesses were making huge profits and other times they were not making huge profits because of the space provided for by financial inclusion.

The results in table 4 showed that most of the respondents (40.00%)indicated that financial inclusion space did not allow women entrepreneurs in the county to attain high income from their businesses. From these results 35.60% were neutral on the statement “The financial inclusion space allows women entrepreneurs in the county to attain high income from their businesses”. As 9.70 indicated that the financial inclusion space allowed women entrepreneurs in the county to attain high income from their businesses and 8.80% strongly indicated that the

financial inclusion space allowed women entrepreneurs in the county to attain high income from their businesses, 5.90% strongly showed that the financial inclusion space never allowed women entrepreneurs in the county to attain high income from their businesses. The mean for the variables was 2.75, an indication that the financial inclusion space moderately allowed women entrepreneurs in the county to attain high income from their businesses. Overall, 32.23% were neutral and 31.5% disagreed showing that most were not financially includedand did not agree that they had experienced any financial inclusion which had benefited their businesses.

4.5.2 Financial Education and Sustainable Financial Inclusion

The study sought to assess objective 1, to establish the effect of financial education on sustainable financial inclusion of Kenyan rural women and the results obtained were captured in table 5. The study analyzed results from question based on 5 point Likert Scale (1 = Not at All; 2 = Low, 3= Moderate; 4= High and 5 = Very High).Since the mean had fraction, the study moderated the mean of these results to obtain the Statistics; 1 to 1.8 to represent “Not at All”; above 1.8 – 2.6 to represent “Low”, above 2.6 to 3.4to represent “Moderate”; above 3.4 – 4.2to represent “High” and above 4.2 – 5.0to represent “Very High”.

TABLE 5

Effects of Financial Education on Sustainable Financial Inclusion

Financial Education	Not at all %	Low %	Moderate %	High %	Very High %	Mean	Std Dev
Highest Academic qualifications of business women	**13.80**	**29.20**	**31.10**	**16.00**	**9.70**	**2.79**	**1.16**
Level of Knowledge in financial matters by women	**16.50**	**29.70**	**28.50**	**12.30**	**13.00**	**2.76**	**1.24**
Level of Budgeting skills attained by women	**13.00**	**37.00**	**24.40**	**15.80**	**9.80**	**2.72**	**1.17**
Nature of Investment skills that women have	**16.30**	**34.70**	**25.00**	**14.70**	**9.40**	**2.66**	**1.19**
Level of Book Keeping and accounting acquired by women	**11.40**	**46.70**	**20.00**	**14.60**	**7.30**	**2.60**	**1.10**
Overall Financial Education	**14.30**	**37.03**	**24.48**	**14.35**	**9.88**	**2.69**	**1.17**

Source: Research Data (2016)

From the results in table 5, it was shown that most of the respondents (31.10%) indicated that the highest academic qualifications possessed by business women had moderate effect on the sustainable financial inclusion of Kenyan rural women. This was supported by a mean of 2.79 which represent a moderate effect. It was shown that 29.70%, indicated that level of knowledge in financial matters by women had low effect on the sustainable financial inclusion of Kenyan rural women. The level of budgeting skills attained by women was shown by 37.00%, who formed the highest group, as having had low effect on the sustainable financial inclusion of Kenyan rural women.

In these results, 34.70%, who were the majority indicated that nature of investment skills that women had low effect on the sustainable financial inclusion of Kenyan rural women. Most of the respondents (46.70%) indicated that level of book keeping and accounting acquired by women had low effect on the sustainable financial inclusion of Kenyan rural women. The results on financial education, in table 5 showed that in general, the respondents had indicated that financial educationlowly affected the sustainable financial inclusion of Kenyan rural women as

shown by most respondents who formed37.03%. however, the mean was 2.69 and Std Dev. = 1.17 an indication of moderate effect but this is justified by the close gap between those who showed that there was low effect and those who showed that there was moderate effect.

4.5.3 Access to Finance and Sustainable Financial Inclusion

The study assessed objective 2, to determine the effect of access to finance on sustainable financial inclusion of Kenyan rural women and the results obtained were captured in table 6. The study analyzed results from question based on 5 point Likert Scale (1 = Not at All; 2 = Low, 3= Moderate; 4= High and 5 = Very High).Since the mean had fraction, the study moderated the mean of these results to obtain the Statistics; 1 to 1.8 to represent "Not at All"; above 1.8 – 2.6 to represent "Low", above 2.6 to 3.4to represent "Moderate"; above 3.4 – 4.2to represent "High" and above 4.2 – 5.0to represent "Very High".

TABLE 6

Influence of Access to Finance on Sustainable Financial Inclusion

Access to Finance	Not at all %	Low %	Moderate %	High %	Very High %	Mean	Std Dev
Amount of Equity Finance (own capital) provided by women entrepreneurs	0.90	8.80	15.90	36.60	37.80	4.02	0.99
Availability of Debt Financing available to women entrepreneurs	1.30	5.90	23.40	39.70	29.70	3.91	0.94
Retained earnings that is reinvested by women entrepreneurs	1.20	6.90	18.70	36.10	37.10	4.01	0.97
Support by family members and donors to women entrepreneurs	2.80	10.30	25.70	36.40	24.80	3.70	1.04
Requirements for loan access	0.30	5.10	22.80	37.00	34.80	4.01	0.90
Property ownership by women entrepreneurs	0.90	7.90	29.90	41.20	20.10	3.72	0.91
Availability of collaterals to women entrepreneurs	0.90	8.20	27.40	33.10	30.30	3.84	0.98
Value of the collaterals that women can provide	1.60	8.80	22.60	39.30	27.70	3.83	0.99
Women friendliness lending requirements	1.30	6.00	17.10	38.40	37.10	4.04	0.95
Overall Access to Finance	**1.18**	**7.73**	**24.25**	**38.00**	**28.80**	**3.86**	**0.96**

Source: Research Data (2016)

The respondents showed, according to results in table 6, that most of the respondents (37.80%)indicated that amount of equity finance (own capital) provided by women entrepreneursvery highly influenced sustainable financial inclusion of Kenyan rural women. Most of the respondents (39.70%) showed that availability of debt financing available to women entrepreneurs' highly affectssustainable financial inclusion of Kenyan rural women. In these results, most of the respondents (37.10%) indicated that retained earnings that are reinvested by women entrepreneurs very highly influenced sustainable financial inclusion of Kenyan rural women. From table 4.6, it was shown that as most of the respondents (36.40%) indicated thatsupport by family members and donors to women entrepreneurs highly influencedsustainable financial inclusion of Kenyan rural women, most of respondents (37.00%) showed that requirements for loan access also highlyinfluencedsustainable financial inclusion of Kenyan rural women. The results in table 6 also showed that most of the respondents (41.20%) indicated that property ownership by women entrepreneurs highlyinfluenced sustainable financial inclusion of Kenyan rural women as most of the respondents (33.10%) also showed that availability of collaterals to women entrepreneurs highlyinfluenced sustainable financial inclusion of Kenyan rural women.

It was also shown that most of the respondents (39.30%) indicated that value of the collaterals that women can provide highlyinfluenced sustainable financial inclusion of Kenyan rural women and most of them (38.40%) again indicated that women friendliness lending requirements highlyinfluenced sustainable financial inclusion of Kenyan rural women. The results in table 6 show that on overall access to finance was shown to highly influence sustainable financial inclusion (Mean = 3.86, Std. Dev. 0.96) by most of the respondents, who formed 38.00%.

4.5.4 Decision Making on Sustainable Financial Inclusion of Kenyan Rural Women

The study assessed objective 3, to determine the effect of involvement in decision making on sustainable financial inclusion of Kenyan rural women and the results obtained were captured in table 7. As it was in previous objectives assessment, the study analyzed results from question based on 5 point Likert Scale (1 = Not at All; 2 = Low, 3= Moderate; 4= High and 5 = Very High).Since the mean had fraction, the study moderated the mean of these results to obtain the Statistics; 1 to 1.8 to represent "Not at All"; above 1.8 – 2.6 to represent "Low", above 2.6 to 3.4to represent "Moderate"; above 3.4 – 4.2to represent "High" and above 4.2 – 5.0to represent "Very High".

TABLE 7

Effects of Decision Making on Sustainable Financial Inclusion

Decision Making	**Not at all %**	**Low %**	**Moderate %**	**High %**	**Very High %**	**Mean**	**Std Dev**
Men dominating in decision making	1.60	5.30	19.10	34.80	39.20	4.05	0.97
Women being household heads	1.60	8.10	19.70	34.10	36.60	3.96	1.02
Women being involved in leadership positions	5.90	16.60	26.60	29.70	21.30	3.44	1.17
Women being single parents	5.00	7.90	20.80	32.70	33.60	3.82	1.13
Overall Decision Making	**3.53**	**9.48**	**21.55**	**32.83**	**32.68**	**3.82**	**1.07**

Source: Research Data (2016)

From the results, most of the respondents (39.20%) showed having men dominating in decision making very highly affected the sustainable financial inclusion of Kenyan rural women as most of them (36.60%) showed that women being household heads also very highly affected the sustainable financial inclusion of Kenyan rural women. Most of the respondents (39.70%)

indicated that women being involved in leadership positions highly affected the sustainable financial inclusion of Kenyan rural women. It was also shown that most of the respondents (33.60%) indicated that women being single parents very highly affected the sustainable financial inclusion of Kenyan rural women. The results obtained in table 4.7 showed that overall decision making highly affected sustainable financial inclusion of Kenyan rural women (Mean = 1.87, Std. Dev. = 0.91) as shown by most of the respondents (32.83%).

4.6 Inferential Analysis

The study sought to establish whether the independent variables; Financial Education, Access to Finance, and Decision Making were predictors of dependent variable, sustainable financial inclusion of Kenyan rural women and therefore estimated model of DV in terms of IVs. In this exercise, the study tested for existence of significant relationship between the IVs and the DV by first carrying out correlation test and then multiple regressions to estimate a study model. In order to achieve this, the study used the mean of mean to obtain indices for all the variables. A mean of means was obtained from the indicator of each variable to get the index for that variable.

4.6.1 Diagnostic Tests on Study Variables

Before estimating the model, the study first tested for normality and linearity of the data which are properties of a regression equation that ensure a best line of fit is obtained. Linearity was tested using a scatter plot and a few extreme outliers were removed from the data set. Normality was tested using a histogram and a fitted normal curve. From the three variables namely access to finance, financial education and decision making, skewness of the data indicated approximately symmetrical distribution with a linear relationship between the dependent and the independent variables.

The study then tested for the existence of multi-collinearity in the independent variables to ensure that no variable in the model that was measuring the same relationship as was measured by another variable or group of variables. Multi-collinearity exists when Variance Inflation Factor (VIF) is greater than 10 and Tolerance is less than 0.1. The results obtained were captured in Table 8.

TABLE 8

Multi-collinearity Tests on Independent variables

Independent Variable	Tolerance	VIF
Financial Education	.974	1.026
Access to Finance	.801	1.249
Decision Making	.810	1.235

Source: Research Data (2016)

The results in table 8 showed that the tolerance for; Financial Educationwas 0. 974; Access to Finance was 0.801; and Decision Makingwas 0.810. The tolerance for all predictor variables were greater than 0.1 or 10%, so the study concluded that there was no multi-collinearity among them. So the estimators computed were considered reliable to estimate the model.

4.6.2 Regression Model

The study first carried out correlation analysis, using Pearson product method, to establish whether there exists a significant relationship between the IVs and the DV. The results were recorded in Table 9.

TABLE 9
Correlation Analysis

Correlations

		Sustainable Financial Inclusion	Financial Education	Access to Finance	Decision Making
Sustainable Financial Inclusion	Pearson Correlation	1	.699**	-.232**	-.204**
	Sig. (2-tailed)		.000	.000	.000
	N	324	324	324	324
Financial Education	Pearson Correlation	.699**	1	-.152**	-.111*
	Sig. (2-tailed)	.000		.006	.046
	N	324	324	324	324
Access to Finance	Pearson Correlation	-.232**	-.152**	1	.434**
	Sig. (2-tailed)	.000	.006		.000
	N	324	324	324	324
Decision Making	Pearson Correlation	-.204**	-.111*	.434**	1
	Sig. (2-tailed)	.000	.046	.000	
	N	324	324	324	324

**. Correlation is significant at the 0.01 level (2-tailed).
*. Correlation is significant at the 0.05 level (2-tailed).
Source: Research Data (2016)

The results in table 9 show that there exists a significant relationship between each IVs and DV and this was high because the correlation coefficient (r) for each comparison between an IV and DV was greater 0.05. The result show that financial educationhad the highest relationship (r = .699), followed by access to finance (r = .232), and lastly decision making (r = .204).The results of correlation analysis in table .9 also show that all the IV; financial education, access to finance, and decision making, were significantly related to sustainable financial inclusion of rural women in Kenya, since the p-value for each was less than 0.05. From the results; financial education (r = .609, p-value = .000), access to finance (r = .232 p =.000), and decision making (r = .204, p-

value = .000) were significantly related to sustainable financial inclusion of rural women in Kenya.

Multiple regression was therefore carried out on the IVs; financial education, access to finance, and decision making against the DV; sustainable financial inclusion of rural women in Kenya) to estimate the model, since they had shown to have a significant relationship. The IVs and DV were then regressed to estimate the study model. The analysis used the model

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \varepsilon \quad \text{(ii)}$$

Where:

β_0 - is a constant, which is the value of dependent variable when all the independent variables are 0

β_1, to β_3 = Regression coefficients of independent variables or change induced by X_1, X_2, and X_3

ε = Error of prediction

Y = sustainable financial inclusion of Kenyan rural women

X_1 =Financial Education

X_2 = Access to Financial service

X_3 = Decision Making

The study obtained an Analysis of Variance (ANOVA) and these results are captured in Table 10.

TABLE 10

Analysis of Variance (ANOVA)

ANOVA[a]

	Sum of Squares	df	Mean Square	F	Sig.
Regression	131.324	3	43.775	111.374	.000[b]
Residual	125.774	320	.393		
Total	257.097	323			

a. Dependent Variable: Sustainable Financial Inclusion
b. Predictors: (Constant), Decision Making, Financial Education, Access to Finance

Source: Research Data (2016)

In interpreting the ANOVA analysis results, the study model hypothesized that H_0: $\beta_1=\beta_2=\beta_3=0$ (i.e. the coefficient of financial education, access to finance, and decision making t respectively are all zero)

H_α: At least one $\beta_i \neq 0$

H_0 is accepted if p-value >.05 (at 5% level of significance)

H_0 is rejected if p-value <=.05 (at 5% level of significance) and H_α: is accepted

From Table 10, it can be observed that p-value = .000, since p-value <.001< .05 (F=111.374, P-value=.000), then we reject then null hypothesis and accepted the alternative hypothesis. So, at the 5% significance level (i.e. α=0.05, level of significance), there exists enough evidence to conclude that at least one of the predictors; financial education, access to finance, and decision making is useful explaining sustainable financial inclusion of rural women in Kenya.

The study analyzed the study model for the sustainable financial inclusion of rural women in Kenya in terms of financial education, access to finance, and decision makingand the results captured in table 11

TABLE 11
Model Summary

Model Summary[a]

				Change Statistics				
R	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	F Change	df1	df2	Sig. F Change
.715[a]	.511	.506	.62693	.511	111.374	3	320	.000

a. Predictors: (Constant), Decision Making, Financial Education, Access to Finance

Source: Research data (2016)

The results in table 11show that 50.60% of variation in sustainable financial inclusion of rural women in Kenya is explained by of financial education, access to finance, and decision making.

The result on multiple regression analysis were shown in Table 12.

TABLE 12

Results of Regression of IVs against DV

Coefficients[a]

	Unstandardized Coefficients		Standardized Coefficients		
	B	Std. Error	Beta	t	Sig.
(Constant)	1.962	.259		7.583	.000
Financial Education	.611	.036	.675	17.036	.000
Access to Finance	-.116	.056	-.091	-2.083	.038
Decision Making	-.108	.052	-.089	-2.059	.040

a. Dependent Variable: Sustainable Financial Inclusion

Source: Research data (2016)

From table, the estimated equation as;

Y = 1.962 + 0.611X1 -0.116X2 -0.108X3 ……………………………………….. (iii)

The results had shown that there was low sustainable financial inclusion of Kenyan rural women. This can be interpreted to mean that there is lowsustainable financial inclusion or simply financial exclusion. Table 4.12shows that,in that scenario, the financial education had positive coefficient, which showed that they were directly proportional to decrease in sustainable financial inclusion of Kenyan rural women (financial exclusion). This means that an increase in financial educationleads to increase in financial exclusion of Kenyan rural women (decrease in sustainable financial inclusion of Kenyan rural women) and any decrease in financial education would lead to decrease in sustainable financial exclusion of Kenyan rural women (increase in sustainable financial inclusion of Kenyan rural women).

It was found that access to finance and decision making had negative coefficients. Since the respondent showed that they suffered from financial exclusion (low sustainable financial inclusion of Kenyan rural women), then this means an increase in any of the variable; access to finance and/or decision making would lead to decrease in financial exclusion (increasesustainable financial inclusion of Kenyan rural women) and vice versa.

The study used the following hypothesis to test for financial education;

H_o: Financial education does not significantlyinfluence sustainable financial inclusion of Kenyan rural women.

From table 11, T= 17.036 p-value= .000. Since p <.05 then the null hypothesis is rejected and the alternative hypothesis accepted. At the α = 0.05 level of significance, there exists enough evidence to conclude that the financial educationis not zero and, hence, that financial education is useful as a predictor of sustainable financial inclusion of Kenyan rural women.

The access to finance was tested using the hypothesis;

H_o: Access to finance does not significantly influence sustainable financial inclusion of Kenyan rural women.

From these results, T= -2.083 p-value= .038. Since p <.05 then the null hypothesis is rejected and the alternative hypothesis accepted. At the α = 0.05 level of significance, there exists enough evidence to conclude that the access to finance is not zero and, hence, that access to finance is useful as a predictor of sustainable financial inclusion of Kenyan rural women.

Lastly, decision makingwas tested using the hypothesis;

H_o: Involvement in decision makingdoes not significantly influence sustainable financial inclusion of Kenyan rural women.

From these results, T= -2.059, p-value= .040. Since $p < .05$ then the null hypothesis is rejected and the alternative hypothesis accepted. At the $\alpha = 0.05$ level of significance, there exists enough evidence to conclude that the decision makingis not zero and, hence, that decision makingis useful as a predictor of sustainable financial inclusion of Kenyan rural women.

The study therefore concludes that all the three IVsfinancial education, access to finance, and decision making could significantly predict the DV (sustainable financial inclusion of Kenyan rural women).

The results on hypothesis testing were summarized in table 4.13 based on the study objectives

TABLE 13

Summary of Inferential Results Related Objectives

Objective	**Results**
Objective 1 To establish the effect of financial education on sustainable financial inclusion of Kenyan rural women.	p=0.000 which is less than 0.05.
Objective 2 To determine the effect of access to finance on sustainable financial inclusion of Kenyan rural women.	p=.038 which is less than 0.05
Objective 3 To determine the effect of involvement in decision making on sustainable financial inclusion of Kenyan rural women.	p=0.040 which is less than 0.05.

Source: Research data (2016)

From Table 13 the following conclusions are made:

i. On objective 1 the study concludes that financial education significantly affects sustainable financial inclusion of Kenyan rural women.

ii. On objective 2 the study concludes that access to finance access to finance significantly affects sustainable financial inclusion of Kenyan rural women.

iii. On objective 3 the study concludes that involvement in decision making significantly affects sustainable financial inclusion of Kenyan rural women.

CHAPTER FIVE

SUMMARY, DISCUSSIONS, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This chapter contains a summary of findings, discussions on the study findings, conclusions made based on the study findings, policy recommendations based on the findings and recommendation for further study. The study identifies research gaps that were left and should be filled by further research.

5.2 Summary of Findings

The study summarized the findings using the research tools and more particularly laying emphasis on the study objective to; establish the effect of financial education on sustainable financial inclusion of Kenyan rural women, determine the effect of access to finance on sustainable financial inclusion of Kenyan rural women, and determine the effect of involvement in decision making on sustainable financial inclusion of Kenyan rural women..

5.2.1 Summary of Background Information

The study response rate was very high at 88.77% would produce credible results. The study found that most of the respondents were married ladiesand were primary school drop outs. It was found that most business women had been in business for over 10 years and many of them were of ages between 35 and 45 years.

5.2.2 Findings on Sustainable Financial Inclusion of Rural Kenyan Women

The study found that the status of sustainable financial inclusion of rural Kenyan women was moderate. This is to say their sustainable financial inclusionthrough entrepreneurship was not fully assured. Although it was found that the business environment allowed the Kenyan rural women some (moderate) space for their sustainable financial inclusion, other factors that affects the financial inclusion were visibly inactive (lowly contributed to financial inclusion). For instance, the Kenyan rural women were found to have had low access to financial servicesthat hinderedincreasing financial inclusion of these women. As a result, numbers of women involved in businesses in the county were not increasing as there was no enabling financial environment for their business.

The study found that women owned businesses in the county were not making huge profits because of financial exclusion, all in all the study found that on average women were not considerably enjoying sustainable financial inclusion. The study found that rural business women had inadequate sustainable financial inclusion despite the fact that the highest number of sampled women were in their prime ages (36% aged 36-45), had been in the business for a long time (over ten years - 42%). Further, most rural women in business were married and had families as well having basic education. This is to say there were reasons that these rural women seemed disadvantaged and were faced with challenges in achieving their sustainable financial inclusion.

5.2.3 Findings on Financial Education and Sustainable Financial Inclusion

It was found that the financial education of women business entrepreneurs had some (moderate) effect on the sustainable financial inclusion of Kenyan rural women. Most rural women were

primary school dropouts and for this reason it might have made them to perceive financial education in business as being of not value. Also, since most women were running very small businesses they might not have seen the need of specialized financial skills.

The study found that the highest academic qualifications of business women moderately affected their sustainable financial inclusion while, level of book keeping and accounting acquired by women, level of budgeting skills attained by women, nature of investment skills that women had, and level of knowledge in financial matters by women lowly affected the sustainable financial inclusion. The present study had earlier found that most rural women were primary school dropouts, which might have restricted their understanding and awareness on the usefulness of specialized financial education and are only informed on the need of basic academic qualifications.

5.2.4 Findings on Access to Finance and Sustainable Financial Inclusion

The study found that access to finance was shown to highly influence the sustainable financial inclusion of rural women in Kenya. All indicators of access to finance, except amount of equity finance, were found to highly influence sustainable financial inclusion of Kenyan rural women. Lack of sufficient amount of equity finance provided by women entrepreneurs was found to very highly influence sustainable financial inclusion of Kenyan rural women. Of the factors with highest influence, hindrance due to lack of property ownership by women entrepreneurs was the highest (41.20%) followed by barriers to availability of debt financing to women entrepreneurs (39.70%), low value of the collaterals that women could provide (39.30%) and lending requirements which were not women friendly(38.40%). Others were; stringent requirements for loan access (37.00%), lack of support by family members and donors for women entrepreneurs

(36.40%), failure to use retained earnings that should have been reinvested by women entrepreneurs (36.10%), and unavailability of collaterals to women entrepreneurs (33.10%).

5.2.5 Findings on Decision Making On Sustainable Financial Inclusion

The study results showed that decision making was found to highly influence the sustainable financial inclusion of rural women in Kenya. The study found that the women being household heads (36.60%), status of men dominating in decision making (34.80%), and women being single parents (33.60%) each very highly affected the sustainable financial inclusion of rural women in Kenya. Meanwhile, women not being involved in leadership positions highly affected the sustainable financial inclusion of rural women in Kenya, which reduced the average effect of decision making on sustainable financial inclusion from very high to high.

5.2.5 Findings Relationship between the IVs and the DV

Lastly the study found that all the three variables; financial education, access to finance, and decision making would significantly predict the sustainable financial inclusionof rural women in Kenya. In fact, 50.60% of change in sustainable financial inclusionof rural women in Kenyais explained by financial education, access to finance, and decision making. Further it was found that an increase in access to finance and decision making lead highly reduce financial exclusion and lead to an increase in sustainable financial inclusionof rural women in Kenya as financial education would moderately reduce the sustainable financial inclusionof rural women in Kenya.

5.3 Discussions of Study Findings

The study carried out discussions on the findings, based on the research objective, and relating it to the literature reviewed. The study used the empirical review to justify the findings and indicating the gaps filled.

5.3.1 Discussions on Sustainable Financial Inclusion of Rural Kenyan Women

The study found that the status of sustainable financial inclusion of rural Kenyan women was very low, translating into financial exclusion this was confirmed by the study.The status is characterized by; poor or no access to financial services for rural Kenyan women which hindered increasing financial inclusion of these women, stagnation of number of women in business due to the poor enabling financial environment, women businesses not making huge profits because of the limited space for financial inclusion. The financial inclusion space allows women entrepreneurs in the county to attain high income from their businesses. This finding confirmed the findings of Demirguc-Kunt *et al.* (2015) whose study also asserted that rural women face a lot of challenges in accessing formal financial services.

5.3.2 Discussions on Financial Education and Sustainable Financial Inclusion

The study found that although financial education was a determinant of sustainable financial inclusion of rural Kenyan women, the rural women never regarded it as a key element in this regard. That financial education was very important in sustainable financial inclusion of rural Kenyan women was a confirmation of the findings in the study by Mishi, Vacu and Chipote (2014) which concludes that financial education positively influences financial inclusion as it increases literacy levels as hence the increase financial inclusion. Financial literacy training

makes individuals appreciate the essence of how to access finance, the optimal capital structures, finance management as well as business skills that would create an avenue for sustainable financial inclusion, since the rural women will be more comfortable to use the financial services.

Thus was echoed by Camara *et al*. (2014) study which found that education and gender were the main factors relevant to financial inclusion of women.Zororo (2011) reveals that women business ownersusually lack information about how to get a loan and most of the times face discriminatory laws or practices related to finance and credit.NYDCA (2012) posit that the main solution to financial exclusion would be to provide financial education and access to products simultaneously. The present study also established that education was necessary for sustainable financial inclusion of rural Kenyan women which supports the assertion by NYDCA (2012)and Otieno *et al*, (2010) study.

The study by Otieno *et al*, (2010) established that women encountered financial education challenges such as; enterprise management skills and education, lack of knowledge, collaterals and expensive loans which eventually broke the sustainable financial inclusion of rural Kenyan women chain.The study by Gatakaa (2012) concludes that the women entrepreneurs in Kenya could not access finance particularly for starting an enterprise due to lack of information or know how on how to access this financial aid among other factors.Adesua-Lincoln (2011) study revealed that women education among other factors played a very crucial role in attaining their business capital. These women are not able to diversify or innovate their business even when opportunities arose due to low level of financial information.

That women never regarded financial information as important can be explained by their level of education. Most of these rural women were primary school drop outs and therefore

might have lack valuable exposure the financial industry structure, operations and needs. The justifies the revelations in the studies by Bowen *et al.* (2009), Adesua-Lincoln (2011),Gatakaa (2012) and Hoyos *et al*. (2014). Hoyos *et al*. (2014) study revealed that education was the most important determinants in explaining financial inclusion. Being an educated woman was therefore found to be important in increasing the probability of sustainable financial inclusion and that most of the rural women in the present study had mostly reached primary school, they would find it difficult to perceive financial information as key resource for their sustainable financial inclusion.

Gardeva (2011) study found thatsustainable financial inclusion requires the business owner to be financially literate and that involves having financial education. Now that the women in the present study were almost leaning towards semi - illiteracy then according toGardeva (2011) they might not have had enough understanding of the importance of education to their sustainable financial inclusion. Their failure to regard financial education as a key resource is also attributable to their low literacy level as concluded by Barcellos *et al*. (2012). Barcellos *et al*. (2012) establish low levels of literacy can create challenges when developing financial education initiatives for the financially excluded. Lack of financial education renders rural women buying inappropriate products or getting into difficulties with credit, when seeking to access it (GAO, 2010).

Bowen *et al.* (2009) reveals the lower education levels women have when compared to men puts rural women business owners in Kenya at a disadvantaged position. It creates a major barrier to women accessing training and other entrepreneurial services in terms of access, necessity, or availability (Levi-D'Ancona, 2014). This firms up the findings in this study where women did not consider financial education as valuable for their sustainable financial inclusion.

5.3.3 Discussions on Access to Finance and Sustainable Financial Inclusion

It was found that rural Kenyan women did not have adequate equity for sustainable financial inclusion through entrepreneurship, a point revealed by Otieno *et al*, (2010) study which concludes that there was poor access to credit and non-credit services by rural women entrepreneurs. Also Adesua-Lincoln (2011) found women entrepreneurs lacked adequate funding to finance more aggressive and profitable business as study by Garba (2011), which revealed that business expansion was influenced by lack of capital. The findings in the present study were also a confirmation of the study byZororo (2011), which reveals that women business owners lack enough start-up capital, making the financial access the biggest obstacles to women financial inclusion. Further, rural women business owners usually lack information about how to get a loan and most of the times face discriminatory laws or practices related to finance and credit.This is further supported by Adesua-Lincoln (2011) study which states that lack of adequate finance is the greatest hurdle for women to attaining finance despite the availability of various sources from which one can access credit.

They also did not have adequate access to debt financing and they rarely ploughed back their retained earnings from the profit earned into the businesses. The requirements for access to loans were found to be stringent for the rural Kenyan women to afford and the lending institutions did not provide women friendly lending terms.The greatest barrier of, sustainable financial inclusion of women, according to Mwobobia (2012), is the requirement for collaterals requested by the lending institutions. Most women who venture into businesses in the rural areas and need finances lack the needed collateral to enable them secure credit facilities.

Further, the study found that Kenya rural women were denied property ownership rights and the availability of collaterals for credit financing to them were unaffordable. This truly the case as established by Magri (2009) study that found that lack of collateral limited access to fiancé. Mwobobia (2012) study found that most women were discouraged mostly by fear losing property after default therefore dismissing the idea of seeking debt financing. Omena (2012) found to support business owners, the prospective borrowers were faced with constraints land tenure among other factors. This is the predicament the rural women in Kenya were facing of lack of property ownership (ADB, 2012).

Worryingly, these entrepreneurs neither obtained adequate support from family nor donors for their businesses.This agrees to the studies byWitbooi and Ukpere (2011) and Caretta (2010). Witbooi and Ukpere (2011) study found that women business owners generated very limited earnings from their activities owing to barriers from accessing finances. Caretta (2010) study established that women lack physical assets as men tend to do and they therefore suffer from limited access to financial resources. The rural women usually faced hurdles such as lack of any ownership rights over land, buildings and cars which could be used as collaterals, which results to women not borrowing loans from the lending institutions. This is exactly what the present study established, that property ownership was the main hindrance to rural women accessing debt financing.

Mwobobia (2012) study found that most women do not have title deeds which are the most common form of collateral for borrowing money. Most of them have little in term of possessing collateral, asset or even business track record in their entrepreneurial activity to help them to successfully secure money for their business.

5.2.4 Discussions on Decision Making and Sustainable Financial Inclusion

The study found thatKenyan rural women were not adequately involved in decision making even in making decisions relating to their businesses. Men dominated in decision making for their households and even the women owned businesses. So, most women fully depended on the decisions made by men for their business, which highly hampered their business hence hindering sustainable financial inclusion through entrepreneurship. This study confirms findings in the study by FinAccess 2013 that various households on financial decision maker were made by the husbands. So there is lesser involvement by women in decision making in their households restricted financial inclusion of women FSD (2013).

It was also found that the Kenyan rural women have been assigned the responsibility of being the household heads to do all the chores of the home, tying them to family related issues and thereby denying them able time to commit their efforts to running their businesses. They are thus denied the golden opportunity to actively dedicate valuable time to managing business affairs. Also, most Kenyan rural women are not involved in leadership positions, a situation that has lowered their status to being second class people having no say on their business.The study by Chemjor (2013) established that women in leadership positions and those more involved in decision making roles were more likely take loans. Such participation improved their self-confidence and encouraged them to make personal decisions on financial management. This is like saying that when women are not involved in leadership participation their sustainable financial inclusion is not feasible (Vyas, 2012), which is what was found in the present study.

Some of the rural Kenyan business women are single parents, who take much of their time tending the family issues and main challenges. This situation stands on their way to running

their businesses effectively and efficiently. All these challenges and blockages are detrimental to achievingsustainable financial inclusion of rural Kenyan women.

5.3 Conclusions

The study revealed that sustainable financial inclusion of rural Kenyan women is low and inadequate. The Kenyan rural women have not been provided an opportunity to accessing formal financial services. They face various hindrances to access to financial services and only have a very small financial inclusion space. As a result rural women businesses are not increasing (there very few new women businesses started as a result of increased financial inclusion as per the study findings). The failure by women businesses to make considerable profits because of the inadequate financial accesshas also denied them their financial inclusion and thus this becomes a vicious cycle affecting living standards and economic growth at large.

The study concludes that financial education moderately and negatively affects the sustainable financial inclusion of rural Kenyan women. Most rural Kenyan women are primary school dropouts, who do not comprehend the usefulness of their attaining financial skills, budgeting skills, investment skills as well as book keeping and accounting skills. This has greatly hindered the sustainable financial inclusion of rural Kenyan women.

The study concludes that access to finance highly and positively influences the sustainable financial inclusion of rural Kenyan women. The sustainable financial inclusion of rural Kenyan women would be achieved through creating favorable opportunities for women to acquire equity financing, conducive debt financing options, retain surplus earnings from the profits obtained, receiving support from family members and donors, relaxed requirements for loan access, women having equal property rights to the men, collaterals that can be obtained by

rural women,, reducing value of the collaterals and lending institutions providing women friendly lending requirements.

The study concludes that participation of rural women in decision making highly and positively influences the sustainable financial inclusion of rural Kenyan women. When rural women are actively involved in decisionsmaking, actively contribute as men in decision making as well sharing household chore they would be more likely to achievesustainable financial inclusion.

The study concludes that sustainable financial inclusion of rural Kenyan womenis influenced by financial education, access to finance, and decision making. All thesevariables are predictors of sustainable financial inclusion of rural Kenyan women. Each p-value of; financial education, access to finance, and decision making is below .05 significance level, an indication each variable significantly predicts sustainable financial inclusion of rural Kenyan women.

5.4 Policy Recommendations

The study made policy recommendation based on the findings and study objectives. First, the main stakeholders in the government and non-governmental organizations should create opportunities for rural women to gain exposure on awareness of financial information. The county and national governments should besides availing funding for women empowerment provide avenues for informing women about the usefulness of financial information, thus putting more emphasis on disseminating financial information to the rural women and its importance. The county governments should set up structures and legal framework aimed at giving rural women the best of financial information. The study established that women were not aware of the importance of financial information and this should be done with urgency. Other

stakeholders, such as NGOs, professionals and politicians, should also take front line in educating and informing the rural women on financial matters laying more emphasis on the importance of financial information.

Secondly, the governments of Kenya should provide a platform for conducive financing environment for rural women to access finance freely, easily and comfortably. Just the way the government is encouraging other sectors to access finance through legislative interventions, the same should be done to rural women. The lending institutions should be convinced by the Kenyan governments to consider the case of women and review it accordingly. At the same time governments should design policies that favour rural women access to finance, considering the level of illiteracy in the rural areas as well as the social and cultural inequality rural women are subjected to. The lending institutions should also design women friendly lending environment. As regards the property ownership and availing collaterals, the county government should educate women of their equal rights with men and property ownership rights as enshrined in the Kenya constitution (2010). This exposure should override the cultural and social tenets that enslave women and take away their rights. The constitution should be made operational to rural women for their access to the family property and use it as collaterals.

Thirdly, therural women should be included in decision making committees and groups by the national and county governments as well as in social groups. They should occupy senior positions and their voice must be heard (their decisions must respected and heeded to). Further women should be encouraged to stand and take leadership positions in the society and should not allow men to indiscriminately interfere in their businesses or welfare groups.

5.5 Recommendations for Further Study

The present study established that although most rural women were married and has some education background as well as being in business for a considerable time, they could not access finance for reasons beyond the precincts of the present study. It was not clear what exactly created fear in the women that they could not use the available family resources to support their businesses. Therefore a study should be conducted to reveal these other factors that hindered these women from accessing finance for their empowerment hence sustainable financial inclusion.

Although the study found that financial information was very essential for sustainable financial inclusion of Kenyan rural women it revealed that these women never considered such information as that necessary. The reason behind this perception was not established by the present study. So other studies should be conducted to explain the reason behind rural women ignoring financial information as a key requirement for sustainable financial inclusion of Kenyan rural women.

It was established that 50.60% of change in sustainable financial inclusion of rural Kenyan womenis explained by financial education, access to finance, and decision making. However, this study did not explain what influences the remaining 49.40%. So another study needs to be done to explain others factors that influence the sustainable financial inclusion of rural Kenyan women.

Secondly, the study was done in Garissa County only, which represents about 1out of the 47 counties in Kenya. This does not represent the country. There is therefore a need to conduct comprehensive study all the counties in Kenya.

In the course of the study a bill capping interest rates was assented into law by the Kenyan president. Some women interviewed in the present study noted that this has caused more stringent lending requirements. Further studies should thus be done in this area to establish the effect of capping interest rates on sustainable financial inclusion.

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APPENDICES

APPENDIX I SAMPLE SIZE DETERMINATION TABLE

Population	**Margin of Error**			
	5%	**3%**	**2%**	**1%**
50	44	48	49	50
100	79	91	96	99
150	108	132	141	148
200	132	168	185	196
250	151	203	226	244
300	168	234	267	291
400	196	291	343	384
500	217	340	414	475
750	254	440	571	696
1,000	278	516	706	906
2,000	322	696	1,091	1,655
5,000	357	879	1,622	3,288
10,000	370	964	1,936	4,899
100,000	383	1,056	2,345	8,762
1,000,000	384	1,066	2,395	9,513
10,000,000	384	1,067	2,400	9,595

Source: Saunders, Lewis &Thornhill (2012)

APPENDIX II: INTRODUCTION LETTER

CHRISTINE M. MWANGI

Dear Respondent

I am a student at KCA undertaking a Masters degree in finance I have chosen you to participate in this study on factors hindering sustainable financial inclusion rural women in Kenya, a case of Garissa County, Kenya. More precisely, the researcher is making an attempt to study the factors that are hindering women from accessing financial services for empowerment in Kenya. Your responses will only be used for the purpose of the study. All information received from the respondents will be held confidentially. Kindly respond sincerely to the issues in the questionnaire. Please read and answer the questions by ticking the correct answer (choice) to the questions given. Where required, write brief answer in the spaces provided.

Thanking you in advance for your cooperation and participation.

Yours truly,

CHRISTINE M. MWANGI

Reg, No. 13/01842

KCA University

APPENDIX III: QUESTIONNAIRE

FACTORS HINDERING SUSTAINABLE FINANCIAL INCLUSION RURAL WOMEN IN KENYA, A CASE OF GARISSA COUNTY, KENYA

This Questionnaire is meant to collect data among the women at Daadab in Garissa County.Any information provided in this Questionnaire will be used for purposes of research only and will not be divulged or availed to unauthorized persons

Please take a few minutes to complete this questionnaire

Please answer the questions correctly and as accurate as possible

Tick the correct answer in the boxes provided against the questions where provided

SECTION A: BACKGROUND INFORMATION

1. What is your marital status? Please tick **(**√**)**as appropriate

   Married ( ) Single ( )Widowed ( ) divorced ( )separated ( )

2. Please indicate your highest education level attained. Tick **(**√**)**as appropriate

   None ( ) Primary ( )

   Secondary ( ) College ( )

   University graduate ( ) Post graduate ( )

   Other specify ( ) …………………..…………………………………..

3. How long have you been in business? Please tick **(**√**)**as appropriate

   Not at All ( ) Less than5 years ( )

   5 to 10 years ( ) Over 10 years ( )

4. Please indicate your Age bracket. Tick **(**√**)**as appropriate

   Less than 18 years ( ) 18 to 35 Years ( )

   36 to 45 years ( ) 46 to 55 Years ( )

   56 to 65 Years ( ) Over 65 Years ( )

SECTION B: SUSTAINABLE FINANCIAL INCLUSION OF RURAL KENYAN WOMEN

5. Please tick **(√)** one appropriate box for each statement below to indicate whether you strongly agree (4), agree (3), Neutral (2), disagree (1) or strongly disagree (0) to the following statements as regards effects of availability of sustainable financial inclusion of rural Kenyan women.

Scale: Strongly Disagree = 1: Disagree= 2: Neutral = 3: Agree = 4: Strongly Agree = 5

	Statement	**5**	**4**	**3**	**2**	**1**
(a)	Access to financial services for rural Kenyan women in our county ensures increasing financial inclusion of these women					
(b)	Women in business in the county are increasing every year due to the enabling financial environment					
(c)	Women businesses in the county are making huge profits because of the space provided for by financial inclusion					
(d)	The financial inclusion space allows women entrepreneurs in the county to attain high income from their businesses					

SECTION C: FINANCIAL EDUCATION AND SUSTAINABLE FINANCIAL INCLUSION

6. Please indicate in your own opinion on the level of influence of each the following indicators of financial education on sustainable financial inclusion of Kenyan rural women. For each indicator indicate the level of influence by ticking (√) on the space corresponding to the correct answer in each question below.

Scale: Not at All = 1; Low = 2; Moderate = 3; High = 4; Very High = 5

	Financial Information Indicator	5	4	3	2	1
(a)	Highest Academic qualifications of business women					
(b).	Level of Knowledge in financial matters by women					
(c)	Level of Budgeting skills attained by women					
(d).	Nature of Investment skills that women have					
(e)	Level of Book Keeping and accounting acquired by women					

SECTION D: ACCESS TO FINANCE AND SUSTAINABLE FINANCIAL INCLUSION

7. Please indicate in your own opinion on the level of influence of each the following indicators of access to finance on sustainablefinancial inclusion of Kenyan rural women. For each indicator indicate the level of influence by ticking (√) on the space corresponding to the correct answer in each question below.

Scale: Not at All = 1; Low = 2; Moderate = 3; High = 4; Very High = 5

	Access to Finance Indicator	5	4	3	2	1
a)	Amount of Equity Finance (own capital) provided by women entrepreneurs					
b)	Availability of Debt Financing available to women entrepreneurs					
c)	Retained earnings that is reinvested by women entrepreneurs					
d)	Support by family members and donors to women entrepreneurs					
e)	Requirements for loan access					
f)	Property ownership by women entrepreneurs					
g)	Availability of collaterals to women entrepreneurs					
h)	Value of the collaterals that women can provide					
i)	Women friendliness lending requirements					

SECTION E: DECISION MAKING ON SUSTAINABLE FINANCIAL INCLUSION OF KENYAN RURAL WOMEN

8. Please indicate in your own opinion on the level of influence of each the following indicators of decision making on sustainable financial inclusion of Kenyan rural women. For each indicator indicate the level of influence by ticking (√) on the space corresponding to the correct answer in each question below.

Scale: Not at All = 1; Low = 2; Moderate = 3; High = 4; Very High = 5

	Decision making indicator	5	4	3	2	1
(a)	Men dominating in decision making					
(b).	Women being household heads					
(c)	Women being involved in leadership positions					
(d)	Women being single parents					

Thank you for your cooperation