

FACTORS INFLUENCING UPTAKE OF BANKING SERVICES IN RURAL CENTERS FOR  
AGRICULTURAL DEVELOPMENT: THE CASE OF IMENTI NORTH SUB COUNTY,  
MERU COUNTY, KENYA.

BY

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2015

**DECLARATION**

I declare that this research project report is my original work and has not been presented in any other university or institution of higher learning for an award of a degree.

Signature

Date

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This research project report has been submitted for examination with my approval as University Supervisor.

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## **DEDICATION**

I dedicate this work to my family, my loving wife Irene Wamaitha and our son Liam Maina. You were and are my inspiration in life. This journey has been long and tough, thank you for your love, sacrifice and continued support; I will always love and treasure you.

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## **ABBREVIATIONS AND ACRONYMS**

<b>IBEAC</b>	Imperial British East Africa Company.
<b>IFPRI</b>	International Food Policy Research Institute
<b>KNBI</b>	Kenya National Bank of India.
<b>L.P.O</b>	Local Purchase Order
<b>RRBs</b>	Regional Rural Banks
<b>SACCO</b>	Savings and Credit Cooperative Organization
<b>SPSS</b>	Statistical Package for Social Sciences

## ABSTRACT

More than 60% of the population in Africa resides in rural centers; despite this numbers financial access is at 43.7% in the urban centers and 21.3% in rural centers. The rural centers have shown tremendous economic growth with most of the raw materials needed in the urban centers coming from the rural centers. It has been reiterated by the Kenya Government that the backbone of our nation is agriculture. Our Gross Domestic Product has seen growth with records showing that Agriculture is a major contributor. Our rural centers are home to Horticultural farming, Floricultural farming, Animal farming, Agroforestry, fish farming, cash crops farming, subsistence farming and the all new agro-tourism. The stimulus for growth for this agricultural development is finance and in this case credit. Therefore financial inclusion of rural areas through banks is important to the economy. The banking sector in Kenya offers a number of products which include bank loans, bank accounts and payment services. Banking has seen the entry of savings societies which have transitioned to deposit- taking institutions and finally banks. This study sought to understand the factors influencing the uptake of banking services for agricultural development in rural centers, the case of Imenti North Sub County, in Meru County, Kenya. The objectives included: To determine the influence of availability of collateral, level of education, availability of agricultural investment opportunities and Government policy in the uptake of banking services for agricultural development in rural centers. The study adopted a descriptive survey research design and a stratified sampling technique was used to get the sample frame of the respondents; the research instruments used were open and close ended questionnaires and personal interviews. The findings of the study showed that more than 58.% of the respondents did not have collateral which is essential for the uptake of credit facilities, they had a high level of education which constituted more than 77% and more than 68% agreed that agricultural investment opportunities are available in the region; the study also shows that availability of collateral, level of education and availability of agricultural investment opportunities influence the uptake of banking services for agricultural development in rural centers. The study recommends that banking institutions should develop bank services that are sensitive to the lack of collateral or rather registered collateral in the rural centers, they should recognize agriculture as a source of income and appraise farmers with that in mind and they should invest in awareness for their products like payment services so that the public in the rural areas can use these services for agricultural development. The County and national Governments should provide alternative sources of credit for agriculture and they should provide training on other forms of agricultural investments like fishery, floriculture and agroforestry, so as to increase the agricultural investment opportunities in the rural centers up from the traditional ones.

## **CHAPTER ONE**

### **INTRODUCTION**

#### **1.1. Background to the Study**

Banking traces its origin from way back in the 17<sup>th</sup> century; City merchants, other wealthy people and English goldsmiths provided the model for contemporary banking. Gold stored with these artisans for safekeeping was expected to be returned to the owners on demand. The goldsmiths soon discovered that the amount of gold actually removed by owners was only a fraction of the total stored. Thus, they could temporarily lend out some of this gold to others, obtaining a promissory note for principal and interest. In time, paper certificates redeemable in gold coin were circulated instead of gold. The first modern banks were established in the 17<sup>th</sup> century, notably the Riksbank in Sweden (1656) and the Bank of England (1694) by a group of wealthy London merchants. The first formal banking in Africa was back in 1837 in South Africa; the first bank in Kenya was National Bank of India (KNBI) in the late 19<sup>th</sup> century after the establishment of the Imperial British East Africa Company (IBEAC).

Most of these banks operated on a one branch network for a while until in later ages with the first recorded growth of a branch network by the Standard Bank in South Africa; it merged with other local banks to form a branch network. In Kenya the National Bank of India opened its first branch in Nairobi in 1904, making it the first and only bank in Kenya to have a branch network. This development was in the urban center of Nairobi. All these banks had not opened banking to Africans in Kenya until 1910; only the Post Office Bank offered services to Africans. On the other hand all banks were mainly located in Mombasa and Nairobi; there were other business centers considered to be rural Kenya that did not have banking services. The Bank of Baroda back in 1960 started an innovative way of reaching out to these pockets that they called 'Banking on Wheels'; from history rural penetration by banks has been slow.

The rural centers have shown tremendous economic growth with most of the raw materials needed in the urban centers coming from the rural centers. It has been reiterated by the Kenya Government that the backbone of our nation is agriculture. Our Gross Domestic Product has seen a constant growth with records showing that Agriculture is a major contributor. Our rural centers are home to Horticultural farming, Floricultural farming, Animal farming, Agroforestry, fish farming, cash crops farming, subsistence farming and the all new agro-tourism. The stimulus for growth with these ventures is finance and in this case credit. Therefore financial inclusion of

these areas is important to the economy. At least 65% of the Kenyan population resides in the rural areas; financial access is at 43.7% in the urban centers and 21.3% in rural centers (Financial Sector Deepening Kenya et al. 2013). This shows that many Kenyans and especially those in the rural centers do not use banking services.

Imenti North Sub County is in Meru County and it covers 1540.7 km<sup>2</sup> (Kenya National Bureau of Statistics 2013); it houses the administrative offices of the Meru County Government. It is also the administrative headquarters for the central Government for the Meru County. Imenti North Sub County is the banking hub for the greater Meru County, with most banks based here and doing their operations from here. Even with all the banks located here, a good percent of the population in the area do not use bank services. The county strategic plan has an Economic pillar; one of the greatest drivers of the economy according to World Bank is the financial institutions and Banks control a great share of provision of this financial services. The involvement of this sector in the growth of the Meru economy which is mainly an agriculturally driven economy is key; the region is home to horticultural and floricultural farms in Timau, cash crops like tea and coffee in Githongo area, agro-tourism in Mikumbuni and Subuiga and miraa farming in Maua.

## **1.2. Statement of the Problem**

According to the United Nations, 2.7 billion people around the world do not have access to formal financial services like savings accounts, credit, insurance, and payment services. Although this problem is universal, the financially excluded person is more often than not the average citizen in a developing country. Research further confirms that more than 80 percent of households in most of Africa are financially excluded. In Sub-Saharan Africa 80 percent of the adult population, 325 million people, remains financially excluded. Even for those with access, the distribution to the services varies with some having marginal financial services encompassing merely a bank account. The people who lack access to financial services are frequently also excluded in other ways, and financial exclusion often reinforces other aspects of social exclusion (Josiah A. et al. 2012). More than 60% of the population resides in rural Africa. The rural centers have shown tremendous economic growth with most of the raw materials needed in the urban centers coming from the rural centers. It has been reiterated by the Kenya Government that the backbone of our nation is agriculture. Our Gross Domestic Product has seen growth with records

showing that Agriculture is a major contributor. Our rural centers are home to Horticultural farming, Floricultural farming, livestock farming, fish farming, cash crops farming, subsistence farming and the all new agro-tourism. The stimulus for growth for agricultural development is finance and in this case credit. Therefore financial inclusion of the rural areas is important to the economy.

The banking sector in Kenya offers a number of products which include bank loans, bank accounts and payment services. The banking sector in Kenya has constantly grown with a recorded market penetration growth of between 12.1% - 19.5% in the year 2006 – 2009; a branch network growth from 534 branches to 887 branches a 60% growth from 2005 – 2008. A growth was recorded to 40% access of banking services in urban areas and 17% access of banking services in rural centers in 2009. Even with all the celebration in the tremendous growth in the banking sector, only 43.7% access to banking services was recorded in the urban centers and 21.3% access to the rural centers in 2013. (Financial Sector Deepening Kenya et al. 2013). It is therefore evident that there is a gap in the provision of banking services to the rural Kenya.

The study sought to explore the factors influencing the uptake of banking services in rural centers for Agricultural Development, with specific emphasis to Imenti North Sub County, in Meru County, Kenya.

### **1.3. Purpose of the Study**

The purpose of the study was to investigate the factors influencing uptake of banking services in rural centers for Agricultural Development, the case of Imenti North Sub County, in Meru County, in Kenya.

### **1.4. Research Objectives**

The study was based on the following objectives:

1. To determine the influence of availability of collateral on uptake of banking services for agricultural development in Imenti North sub county, in Meru County, Kenya.
2. To determine the influence of level of education of would be customers on uptake of banking services for agricultural development in Imenti North Sub County, in Meru County, Kenya.

3. To assess the influence of availability of agricultural investment opportunities on uptake of banking services for agricultural development in Imenti North sub county, in Meru County, Kenya.

### **1.5. Research Questions**

The research sought to answer the following questions:

1. How does availability of collateral influence uptake of banking services for agricultural development in Imenti North Sub County, in Meru County, Kenya?
2. How does the level of education influence uptake of banking services for agricultural development in Imenti North Sub County, in Meru County, Kenya?
3. To what extent do agricultural investment opportunities influence the uptake of banking services for agricultural development in Imenti North Sub County, in Meru County, Kenya?

### **1.6. Significance of the Study**

The findings in this report will be useful to the following:

The policy makers in the Treasury and the County Government, in developing policy that will stimulate economic development in the rural areas in Kenya. Bankers may use this study to develop services that enable the rural people in Kenya access their services. Since not much has been written on the uptake of banking services in rural Kenya, the study will add to the available body of knowledge.

### **1.7. Delimitation of the Study**

The study was limited to Imenti North Sub County, in Meru County and was in the Meru town environs and Timau, where there is banking coverage. The study sought to get the perspective of the public.

### **1.8. Limitations of the Study**

Financial matters is sensitive to many people and especially those in the rural areas, therefore getting information from the public on financial issues was a limitation; the researcher endeavored to build the trust of the respondents so as to get responses that are truthful. Time and



financial constraints was a major limitation; the researcher- sought for extra finances and worked longer hours in order to achieve the results.

### **1.9. Assumptions of the Study**

The study assumed that the respondents would be available and willing to answer the questions freely and truthfully. The respondents were very cooperative with an excellent questionnaire return rate of 92.8% as found in section 4.2.

### **1.10. Definitions of Significant Terms**

The following are the significant terms of the study:

#### **Availability of Collateral**

This is the availability of security in form of legal documents for land, building and vehicles, given by a borrower to a lender, which (in the event of default or as otherwise agreed) is used by the lender to recover the amount borrowed by selling it off for the proceeds. These include title deeds for land, buildings and car logbooks.

#### **Agricultural investment opportunities**

are tangible or intangible opportunities, that are offered for sale or traded based wholly or partly on representation, with the intention of generating income or appreciate in the future and to be sold at a profit. This include: horticulture, floriculture, fishery business, livestock rearing and cash crop farming.

#### **Level of Education**

is the progression from very elementary to more complicated learning experience, embracing all fields and program groups that

may occur at that particular stage of the progression. These are primary, secondary and tertiary education.

**Uptake of banking services for agricultural development** is the use of services provided by a bank which include; bank loans {asset finance, term loans (below 5 years), overdrafts, mortgages, unsecured loans}, bank accounts (current accounts, fixed deposit accounts and savings accounts) and payment services (bankers cheques, standing orders and bank drafts) for agricultural development.

### **1.11. Organization of the study**

This research project report is organized in five chapters.

Chapter One covers the background of the study, statement of the problem, purpose of the study, objectives and research questions. It also covers the significance of the study, delimitation, limitations of the study, assumptions of the study, definitions of the significant terms as well as the organization of the study.

Chapter Two covers literature review explaining the factors influencing the uptake of banking services, theoretical framework and conceptual framework, the relationship between the factors on the conceptual framework as well as the summary of the literature review.

Chapter Three outlines the research methodology which includes research design, target population, sample size, sampling technique, research instruments reliability and validity and procedures for data collection and analysis techniques.

Chapter Four contains the data analysis, presentation, interpretation of the research findings.

Chapter Five contains the summary of research findings, discussions, conclusion, recommendations and suggestion for future studies.

## **CHAPTER TWO**

### **LITERATURE REVIEW**

#### **2.1. Introduction**

This chapter reviews the related literature on the uptake of banking services in rural areas from the global, African and local perspectives. It also presents both theoretical and conceptual frameworks on which the study is based.

#### **2.2 Uptake of banking services for Agricultural Development in rural centers**

Many people view banks to be financial institutions and financial institutions to be banks. Financial institutions are quarters that create and trade financial instruments and otherwise facilitate the flows of resources among market participants. Financial instruments are documentary evidences of obligation underlying the exchange of resources among contracting parties; this include bank deposits, debt securities and share of stock issued by corporations (Kerry et al. 1983). These financial institutions include and are not limited to savings and loan associations SACCOs, Commercial banks, property and casualty Insurance firms, Investment banks, credit unions, Microfinance institutions, Mobile money organizations and mutual funds. According to the Banking Act of 2010 CAP 488, a bank is a company which carries on, or proposes to carry on, banking business in Kenya; banking business is accepting from members of the public of money on deposit repayable on demand or at the expiry of a fixed period or after notice, the accepting from members of the public of money on current account and payment on and acceptance of cheques and the employing of money held on deposit or on current account, or any part of the money, by lending, investment or in any other manner for the account and at the risk of the person so employing the money. Banking services include and are not limited to: current accounts, savings accounts, fixed deposit accounts, credit, trade finance, securities and bonds and safe custody.

In the global arena the uptake of banking services in rural areas varies from developed countries and developing countries. The World Bank and the United Nations use different terminology to define “developing countries,” also known as “less-developed countries.” The latter organization also uses “least developed countries,” “small island developing states,” and “landlocked developing countries.” The World Bank’s main criteria for classifying economies is gross national income (GNI) per capita, previously referred to as gross national product, or GNP. The

United Nations has stated that: “There is no commonly agreed definition of developing countries.” (Library of Congress Collections Policy Statements 2008). Kenya is classified as a developing country and the study will focus on similar trends in such countries like India and Brasil.

Regional Rural Banks have been in existence for around 36 years in the Indian financial scene. The institution of Regional Rural Banks (RRBs) was created to meet the excess demand for institutional credit in the rural areas, particularly among the economically and socially marginalized sections. The Banking Commission (1972) recommended establishment of an alternative institution for rural credit and ultimately Government of India established Regional Rural Banks as a separate institution basically for rural credit on the basis of the recommendations of the Working Group under the Chairmanship of M. Narashimham. In order to provide access to low-cost banking facilities to the poor, the Narashimham Working Group (1975) proposed the establishment of a new set of banks, as institutions which “combine the local feel and the familiarity with rural problems which the cooperatives possess and the degree of business organization, ability to mobilize deposits, access to central money markets and modernized outlook which the commercial banks have”. Subsequently, the Regional Rural Banks were setup through the promulgation of RRB Act of 1976. The RRBs Act, 1976 succinctly sums up this overall vision to sub-serve both the developmental and the redistributive objectives.

The RRBs were established “with a view to developing the rural economy by providing, for the purpose of development of agriculture, trade, commerce, industry and other productive activities in the rural areas, credit and other facilities, particularly to small and marginal farmers, agricultural laborers, artisans and small entrepreneurs, and for matters connected therewith and incidental thereto”. Their equity is held by the Central Government, Concerned State Government and the Sponsor Bank in the proportion of 50:15:35 respectively. The mandates of these rural financial institutions were: to take banking to the doorsteps of the rural masses, particularly in areas without banking facilities, to make available cheaper institutional credit to the weaker sections of society, who were to be the only clients of these banks, to mobilize rural savings and canalize them for supporting productive activities in the rural areas, to generate employment opportunities in the rural areas and to bring down the cost of providing credit in

rural areas (Anil et al. 2013). There were several performance indicators identified to check the results of this initiative in India.

**Table 2.1. Key Performance Indicators of RRBs in India.**

	<b>INDICATOR</b>	<b>RESULTS</b>
a)	<b>Deposits</b>	Deposits of RRBs increased from 145035 crore to 166232.34 crore during the year registering growth rate of 14.60%. Gurgaon GB reported the highest deposit growth rate of 37%. There are Sixteen (16) RRBs having deposits of more than 3000 crore each.
b)	<b>Borrowings</b>	Borrowings of RRBs increased from 18770 crore as on 31 March 2010 to 26490.81 crore as on 31 March 2011 registering an increase of 41.10%. Borrowings viz-a-viz the gross loan outstanding constituted 26.8% as against 22.7% in the previous year.
c)	<b>Investments</b>	The investment of RRBs increased from 79379.16 crore as on 31 March 2010 to 86510.44 crore as on 31 March 2011 registering an increase of 8.98%. SLR investments amounted to 45022 crore where as non-SLR investments stood at 41488 crore. The investment Deposit Ratio (IDR) of RRBs progressively declined over the years from 72% as on 31.3.2001 to 52.04 % as on 31 March 2011.
d)	<b>Loans &amp; Advances</b>	During the year the loans outstanding increased by 16098.33 crore to 98917.43 crore as on 31 March 2011 registering a growth rate of 19.4% over the previous year. Meghalaya Rural Bank recorded the highest growth rate of 35% during the year 2010-11.
e)	<b>Loans Issued</b>	Total loans issued by RRBs during the year increased to 71724.19 crore from 56079.24 crore during the previous year registering a growth of 27.90%. Samastipur KGB reported highest growth rate of 123% during 2010-11 followed by Andhra Pradesh GVB at 112%.

Source: Anil et al. (2013).

Table 2.1 shows uptake of the banking services in India; this shows that this initiative was beneficial but the response was not good.

Many people in the vast rural areas of Africa lack access to financial services, and most commercial banks are not interested in moving into these areas due to their low income levels, lack of scale economies, and poor infrastructure. Also, few banks actually understand the most common economic activity in rural areas is agriculture. Consequently, the absence of financial institutions in rural Africa has often enticed governments to step in, particularly with state dominated banks focused on agriculture. Many of these initiatives have failed, however, because they were too bureaucratic, too policy oriented, too concentrated on risk to only one segment of the population, or too weak in customer focus. In addition, clients considered this Government sponsored institutions to be instruments that provided grants; hence, the banks suffered from poor loan-recovery rates. While microfinance institutions have made some inroads into rural Africa with the financial backing of international nongovernmental organizations and other sponsors, their sustainability is questionable. They tend to lack banking licenses and therefore have a very limited product range, and they cannot afford modern technology-based distribution systems (Van et al. 2010).

One of the most prominent gaps in developing banking services for rural Africa is poor infrastructure, for example: bad roads, erratic electricity provision, and lack of communications systems, which impedes effective outreach to customers. The legal environment in these rural areas is also suspect. Insecure property rights especially land titles in rural areas, limit any bank's collateral options; combined with poor contract enforcement opportunities, this takes away a bank's incentive to provide credit, especially for long-term loans. Proper land registration and enforceable mortgage systems are important issues for rural development. The inefficiency of markets is also a barrier to developing rural financial services. Agricultural value chains are often poorly organized, lacking in transparent pricing, and fragmented in primary production, all of which results in high transaction costs. In many cases, the banking environment is distorted by stakeholders including donors, governments, and development banks, who do not always regard agriculture as an economic activity, but rather as a social problem. These stakeholders provide subsidized funding to farmers or cooperatives, which mean private banks often, lack a level

playing field. Poor financial literacy rates, especially among small farmers, and a limited understanding of banking requirements also pose a problem (Van et al. 2010).

Contrary to popular belief, agricultural production in Africa has increased steadily: its value has almost tripled (+160%), and is almost identical to that of South America, and below but comparable to growth in Asia. However, there has been very little improvement in production factors (labor and land). Agricultural growth in Africa is generally achieved by cultivating more land and by mobilizing a larger agricultural labor force, which produces very little improvement in yields. On average, cereal yields are less than half those obtained in Asia. This agricultural growth occurred in an unprecedented demographic context. In the last 30 years, Africa's population has doubled overall and tripled in urban areas. The most direct consequence of this exponential population growth is that the continent now has more mouths to feed. Yet cereal production has been unable to keep pace with population growth, since it has only increased by a factor of 1.8. This gap is even wider for processed products and meat, which are increasingly called for by a larger and larger urban population. From being self-sufficient in the 1960's Africa has become a net importer of cereals. Africa imports products that compete with its own: meat, dairy products, cereals and oils. Imports account for 1.7 times the value of exports. As a result, African agricultural exports have fallen by half since the mid-1990s.

The farming sector needs a wide range of institutions: financial institutions to provide access to credit, insurance companies to cover risks, scientific research institutions to improve crop varieties and identify new production and processing techniques, partners able to offer economic and technical support, information systems to assist in positioning in markets, and so forth. Such mechanisms existed prior to the 1980s and 1990s. Often designed to manage the activities of smallholder farmers, these mechanisms were not always particularly efficient and have been swept away by rounds of structural adjustments. The vast majorities of producers are isolated and suffer from a total lack of public policies to support them during growing seasons and to assist them in the modernization of their farms. For a minority of producers, project structures or producer organizations — which are ill-prepared for implementing and managing services — fill the role previously played by public institutions. In either case, rarely is the support they deliver sustainable in the long term, ceasing once external funding dries up. These support services are too costly for small-scale producers to be able to pay the full amount. Credit and risk coverage: the alpha and the omega, absence of production loans is the biggest hurdle. Other links in the

chain are equally deficient: input distribution networks, storage, processing plants, marketing, etc. Farm banks have often been restructured or dismantled. Where they do still provide finance to producers, they tend to favor structured sectors (usually for export) in order to be sure of repayment, with harvests used as collateral. Commercial farmers are able to access stock market financial products either directly or via their cooperatives. As a rule, the interest rates applied to the farm sector are very high (over 15% annually), and are incompatible with the sector's profitability levels.

Microfinance systems have been established in many countries, but their ability to fund investment spending and growing seasons is limited, and microcredit remains costly owing to the close supervision of beneficiaries that such systems require. The use of payment systems that rely on mobile telephone networks is developing considerably, cutting the cost of access to finance, but without addressing the issue of creditworthiness. Farmers operate in a very uncertain economic environment with high price volatility. Risk is one of the main barriers to investing in agriculture: farmers avoid innovating and reduce their reliance on inputs, and financial institutions will not offer credit without insurance cover. Insurance for harvests and insurance against livestock deaths have met with little success. Multiple innovations, but scaling up is difficult to achieve. New approaches are emerging, combining access to credit with insurance or collateral. Some of these are promising, such as systems of inventory credit (warehouse receipts) for coffee and cereals, index-based weather insurance and, for large-scale farmers, access to the futures market (South African Futures Exchange). However, many obstacles remain, preventing one-off initiatives from becoming available to the majority of producers.

The absence of a policy for financing agriculture aside from ad hoc fertilizer subsidies, combined with episodic development aid actions are the two main barriers to scaling up, i.e. building sustainable institutions and delivering technical and financial services adapted to suit the diversity of the agricultural sector as a whole. Two palliatives are proposed to remedy this situation: i) policies to provide subsidies for equipment, fertilizers and seed; states are often not prepared to provide the requisite financial backing even in the face of demonstrable impacts and profitability; ii) involvement by states acting as economic agents and the establishment of activities supported artificially by donors, thereby disrupting the construction of a true factor market based on the private sector (United Nations 2013).



### 2.2.1 Lessons from Kenya

Access to basic banking services in Sub-Saharan Africa remains limited, and lags far behind even other parts of the developing world. Combine a number of data sources to estimate that only about 20% of households in Sub-Saharan Africa were banked in the early 2000s:

- a) While there has been some progress in recent years, obtain similar results using more recent data. While developing countries have only 28% as many bank accounts per adult as do developed countries, the figure in Sub-Saharan Africa is far lower (only 16%). Lack of access is particularly acute in rural areas: representative household survey data that was collected between 2009 and 2011 suggest that only between 15% and 21% of households are banked in rural areas of Kenya, Malawi, and Uganda, respectively.
- b) Such limited access could potentially have important repercussions on people's lives. If lacking a formal bank account makes it more difficult for people to save, they will be unlikely to have enough saved up to cope with unexpected emergencies such as household illness. When such shocks occur, rather than withdraw money or take a loan from the bank, people might have to take much costlier actions.
- c) Lack of banking access might also make it difficult for people to save up large sums or obtain credit for lumpy purchases such as start-up costs for a business, agricultural inputs, or even preventative health products like anti-malarial bed nets.

Given this, expanding access to even very basic savings and credit services could have large effects. The existing evidence on this issue is somewhat mixed, however. Recent studies suggest that expanding access to microloans alone has only modest effects on most outcomes. In contrast, studies of programs that increased access to both credit and savings services have found important welfare impacts. Expansion of saving services alone also appears to have the potential to be beneficial. In an earlier experimental study in Kenya, small-scale entrepreneurs were provided access to accounts in a local Village Bank, and found large effects on business investment and income among a subsample of the study population (market vendors, who are mostly female). In a similar experiment in Nepal, also finds large impacts of expanding access to savings accounts for women.

From a policy standpoint, in addition to understanding the impact of financial inclusion, a critical question is how to achieve it. This is an area that has seen a lot of innovation in the last five years. These recent innovations ultimately amount to either reducing barriers to access to

existing financial institutions (e.g., reducing fees); or bringing banking options geographically closer to people. For example, a number of countries have adopted “correspondent” or “agent” banking in which people can deposit into and withdraw money from their bank account using a non-bank agent (for example, a retail store). A closely related option which has received a substantial amount of recent attention is “mobile money,” in which people can transfer, deposit, and withdraw money using their cell phone. A third approach is a “bank on wheels” in which a vehicle visits a town at a regular interval for people to make transactions. A less glamorous approach would be to simply build more ATMs or bank branches (as Equity Bank has done in Kenya with great success). While much attention has recently been paid to these various strategies to expand access, comparatively little attention has been paid to the quality of financial services in very rural areas. If people are not banked because they do not trust banks or banking agents, because they find services to be unreliable, or because account maintenance or withdrawal fees are prohibitive, then expanding such flawed services is unlikely to be appealing. On the demand side, little attention has been paid to understanding reasons other than access for why people may choose to stay out of the formal banking system (Dupas et al. 2011).

It is clear that Government policy is present globally and its implementation pushes for financial inclusion for the rural population; like a giant, the Governments rarely focus on the small steps that are required to achieve their objective. Passing of only policy does not guarantee the achievement of the set objectives. It is therefore important to examine other factors that the uptake of banking services so as to bridge the gap. This then motivated the need to do this study in order to understand the factors influencing the uptake of bank services.

### **2.3 Availability of collateral**

Credit has been called the lifeblood of a modern economy, as it is crucial in the growth of enterprises, and enterprise growth is essential to the growth of employment and the overall economy. In many developing countries, including Kenya, bank lending is a prime source of credit to enterprises. However, the credit relationship between banks and enterprises is inherently risky, and in order to mitigate these risks, banks all over the world use collateral. Collateral is the security given by a borrower to a lender, which (in the event of default or as otherwise agreed) is used by the lender to recover the amount borrowed by selling it off for the proceeds. Collateral is a principle of sound banking practice and is one of the criteria for assessing risk under prudential

guidelines. Collateralization is the process by which this security given by the borrower is created and/or formalized in favor of the lender. In most advanced economies, both collateralization and realization of security are quick, predictable and efficient processes (Jose, et al. 2009). Examples of collateral used by banks in Kenya are fixed and movable assets, which include and not limited to: Land, building, car, chattels, financial securities, inventory, insurance products, cash and local purchase order (L.P.O.).

Agriculture is a prime mover of the Philippine economy. Rapid agricultural growth is a key to achieving the country's developmental and social goals but the Philippine agricultural sector has been growing erratically since the early 1980's, and its growth is well below potential and required rates. The performance of the agricultural sector is also important in the country's food security and poverty alleviation efforts since a large majority of the poor are located in the rural areas and depend directly on agriculture-related economic activities for their major source of livelihood. About 60% of the country's population is rural and two thirds of these depend on farming for their livelihood.

It is believed that expansion of credit programs will have beneficial effects on agricultural production of smallholders and rural incomes because credit could facilitate the purchase of costly inputs and the adoption of alternative crops. Small farmers need production capital, a scarce resource, to improve their production. The provision of credit can encourage the farmers to use modern technologies, and procure inputs for farm use, thus bringing them to a higher level of productivity and increasing their incomes. As such, increases in household incomes are much needed for improving food security and eventually will come from the gains in agricultural productivity through better technology and more productive crops. Therefore, farm households' access to financial markets is important in influencing farm production and income. Credit plays an important role in agricultural development. It is also a key to poverty alleviation, livelihood diversification and increasing the business skills of small farmers. However, most small farmers in the Philippines depend upon informal sources of credit. Considering the problem of accessibility of credit by small farmers in the rural areas of the Philippines, there is a need to examine further the reasons why they do not access credit from the formal institutions, and to investigate their preferences and perceptions regarding credit in order that their access can be improved and their needs for credit can be more effectively met.

About 90% of the people in developing countries lack access to financial services. A large proportion of the rural population is denied access to formal financial institutions for reasons like incomplete information about rural access and the viability of the credit service. Also, there is a problem of limited influence by poor households who require credit, but who are unable to communicate their demands to the formal credit markets or meet their collateral requirements. So the services are not provided. From his report those farmers who are share tenants, which was about half of the 28 farmers borrowers who obtained credit from informal sources, they said that they cannot obtain a loan if collateral is required because they do not own assets for collateral. The assets for collateral that most farmer respondents have in the study area were as follows: agricultural land they are tilling; motorcycle used as mode of transportation in the area and as source of income; and tractors and threshers. This shows that availability of collateral is a major factor influencing the uptake of banking services in rural Philippines (Lolita, et al. 2006).

In South Africa, it is estimated that the majority of the rural population most of whom rely on agriculture for their livelihood, still has no access to formal credit. Furthermore, unemployment and poverty among rural South Africans have been on the rise. The specific circumstances of smallholder farmers with respect to financial support services are believed to be deteriorating. The agricultural sector is a very important sector to the South African economy, contributing about 3% to Gross Domestic Product (GDP). Smallholder farmers have been observed to offer the highest employment prospects mainly to rural South Africans. However, their full potential has not been realized due to lack of access to credit required for the purchase farm inputs and capital equipment. The problem has been exacerbated by inadequate credit distribution channels. Previous studies have indicated a decline of commercial bank branches in rural areas. The main reason often cited by banks for not lending to smallholder farmers is high default risk, uncertainty and risk inherent in agricultural production and marketing. Other reasons cited are the high cost of lending to small farmers, lack of collateral, the low rate of interest on agricultural loans, and the long-term nature of agricultural loans which is not compatible with bank lending, particularly in situations of high risk. A negligible number of rural borrowers obtain credit from institutional sources.

In developing economies, a large share of the population typically depends, for its livelihood on the informal economy. Most of their income comes from subsistence farming or from operating

small unincorporated enterprises. Access to financial services has been recognized as an important element of development, and more emphasis is being given to extending financial services to low-income households. The search for an explanation of an optimal structure of rural financial markets in developing countries has for decades been elusive. Empirical evidence shows that there is great variability in the interest rate charged by lenders for superficially similar loan transactions within the same economy. In Nepal, it was observed that two factors cause segmentation in the rural financial markets. First, regulated interest rates in the formal sector lead to credit rationing that favors farm households with collateral. Borrowers without collateral are excluded and therefore have to resort to the informal credit market (Joseph, 2014).

**Table 2.2: Determinants of demand for credit**

	<b>DETERMINANTS OF DEMAND FOR CREDIT</b>	<b>RATE OF THOSE INTERVIEWED (%)</b>
A.	Bad customer service	8.7
B.	Lack of collateral	11
C.	Distance to the bank	13
D.	Fear of application being turned down	24
E.	Might lose assets pledged as security	38.2
F.	High interest rates	62.7

Source: Author calculations based on survey data Joseph (2014).

Positive impacts from initiatives to formalize land tenure in other parts of the world contrast with evidence from Africa where such efforts have often ended in failure or irrelevance. One reason for this is that expectations of credit effects were often exaggerated: in the absence of relatively complete and well-functioning land registries providing information about all rights to a land parcel and rules to make foreclosure threats credible, credit market effects from land registration are unlikely to materialize. In situations where most land is unregistered, land tenure regularization is more likely to affect perceived tenure security, land-related investment, and allocation of land rights among individuals within households, but not the credit supply. A second reason is that efforts to systematically register land in African countries tend to be derailed by three factors, namely (i) ignorance of distributional and political economy issues; (ii)

failure to recognize a diversity of approaches and build on existing systems; and (iii) use of approaches too costly to be sustained.

First, although interventions to recognize land rights can make everyone better off in principle, they easily degenerate into a zero-sum game whereby powerful and well-informed individuals use privileged access to information to regularize land that does not actually belong to them or to speculatively acquire land in strategic locations at low prices. While publicity and transparent processes can help address this at an operational level, gaps in the legal and institutional framework which often result from the inability to reconcile conflicting interests by different stakeholder groups, have in many cases undermined the scope for quick implementation or, formalization-induced loss of land by secondary right holders such as migrants or women in informal or polygamous unions.

Second, Africa is characterized by legal pluralism and coexistence of different types of customary tenure and statutory law, each of which builds on a large system of norms. Expectations of a linear progression between these or a wholesale replacement of traditional by modern ones are highly unrealistic. Failure to appreciate variation across space or to build on well-functioning elements in existing systems has often contributed to the emergence of parallel systems, the maintenance of which is complex and costly. As long as customary systems offer advantages such as low cost and flexibility which formal legal equivalents find difficult to match, this has frequently resulted in abandonment of the latter.

Finally, efforts to register land or keep registries up to date will be socially desirable only if benefits, e.g., from investment, efficiency-enhancing transfers, and conflict avoidance exceed the cost. Beyond routine registry operation, a critical component of the cost of recording land rights relates to boundary demarcation. As many observers mistakenly equate high-precision boundary surveys with greater security of rights, interventions often spend large sums in this area. This can easily render land registration uneconomical, as in Madagascar where benefits from titling, while significant and positive, were well below the cost of acquiring documentation in an inefficient system (Daniel, et al. 2013). This goes to show that there is no proper formal land ownership; the banks or in this case commercial banks are supply credit to individuals with formal or registered land as collateral. There is a continuum relationship from informal land rights to formal land rights with notable areas as: perceived tenure approaches, customary, occupancy, anti-evections, adverse possession, group tenure, leases and registered freehold (UN- HABITAT., 2008). These

shows the direction land formalization is taking; most of rural Africa is at the perceived tenure and customary land rights. Areas like Turkana occupied Isiolo, Maua and the greater North (Marsabit and the rest) are still at the perceived tenure and Customary; this makes it difficult for this people to use land as collateral for credit.

### **2.3.1 Lessons from rural Kenya**

Despite increased attention and investment to spur agricultural growth and development, relatively little progress has been made in increasing access to finance for smallholder farmers. Today, the availability and accessibility of financial services in rural areas and in agricultural value chains is still grossly inadequate to meet demand. This lack of access to reliable and affordable finance is a major constraint for millions of smallholder farmers who depend on agriculture for both food and income. Historically, commercial banks and other formal financial institutions have avoided or failed to offer adequate financial services to smallholder farmers in rural areas. The Initiative for Smallholder Finance recently estimated that local banks meet less than 3 percent of overall demand. In the absence of commercial banks, informal community-based organizations, such as village-based savings and credit groups, serve as an important gateway through which rural farming communities can access much-needed capital. From the perspective of smallholder farmers, poor financial literacy, lack of credit history and limited collateral are among the most common hurdles to accessing finance. Yet even if farmers were able to access credit on a regular basis, the average cost of capital often remains prohibitively high. Without access to financial services, as well as accompanying technical assistance and capacity building, smallholders are unable to invest in their land, purchase necessary inputs, expand production and increase their incomes. Their livelihoods remain constrained by low productivity and poor farming practices and their opportunities for growth are stifled.

Over the course of two years, though, only 187 of approximately 2,000 Ugandan passion fruit farmers obtained a loan from Centenary Bank, while only 208 of approximately 6,000 passion fruit farmers in Kenya received credit from Equity Bank. Total disbursements in both countries reached \$145,920, falling short of expectations. Farmers reported that collateral requirements for Centenary and Equity were simply too onerous, and the banks did not offer a grace period prior to the start of loan repayments. Women were at a particular disadvantage when attempting to access credit due to their lack of property rights that would otherwise be used as collateral.

Because of this, most farmers bypassed partner banks entirely and instead viewed local SACCOs as more convenient sources of capital; although these informal institutions did not require any collateral, annual interest rates were often higher (TechnoServe, 2014).

Collateral is one of the factors that influence the uptake of banking services in rural areas. Credit like early mentioned is a stimuli for economic growth and hence important to the growth of our rural areas and in turn our country. It is therefore necessary to study the availability of collateral in rural areas and what can be done to improve the access to credit in these areas.

## **2.4 Level of Education**

In Kenya there are three main level of education namely: Primary level, Secondary and Tertiary level. The level of education has been seen to have a relationship to the uptake of banking services; this is because the level of education gets a person to a level of understanding the product and communicating their needs and also perhaps higher levels of income.

Research from around the world on financial literacy raises serious concerns about the ability of individuals to secure their financial well-being. There is evidence that individual's under-save, fails to invest wisely and is often indebted. Past studies have documented low levels of financial literacy in general among different socio-demographic groups. Literacy levels are particularly low among women, and among people with lower levels of family income and education (Prof. Sobhesh, et al.2014).

### **2.4.1 Financial literacy**

Financial literacy has been defined as the ability to make informed judgments and to make effective decisions regarding the use and management of money (Worthington, 2005). Financial knowledge enables individuals to build their financial skills and gives them confidence to undertake financial decisions for their pension schemes. Knowledge on savings and plans to save is critical for effective long term financial decision making that is relevant to pension funds. Financial literacy remains an interesting issue in both developed and developing economies, and has elicited much interest in the recent past with the rapid change in the finance landscape. OECD, defines financial literacy as the combination of consumers and investors understanding of financial services and concepts and their ability and confidence to appreciate financial risks and opportunities, to make informed choices, to know where to go for help, and to take other



effective actions to improve their financial well-being. Financial literacy helps in empowering and educating consumers so that they are knowledgeable about finance in a way that is relevant to their lives and enables them to use this knowledge to evaluate services and make informed decisions. Greenspan (2002) argues that financial literacy helps to inculcate individuals with the financial knowledge necessary to create household budgets, initiate savings plans, and make strategic investment decisions. Proper application of that knowledge helps households to meet their financial obligations through wise planning, and resource allocation so as to derive maximum utility (Thomas, et al. 2014).

A survey in Nigeria identified irregular income, unemployment and distance as the major impediments to having an account. It also identified determinants of financial inclusion such as the level of education, connectivity, capacity to generate surplus, and availability of financial providers. The comparatively lower level of education and income of women could partially explain their greater exclusion. In Bangladesh, lack of financial literacy was considered a major barrier for financial inclusion. The National Survey for Financial Inclusion in Mexico determined, among others, that costs, poor financial knowledge and lack of trust were important challenges to address. These determinants were important to design policy responses and could be classified according to what they influence: access, usage or uptake. For instance, awareness about the financial product was important for generating uptake. Research in Kenya confirmed that the identification of these determinants benefited from multisectoral partnerships and required more and better data (United Nations Conference on Trade and Development, 2014).

According to the UNDP (2014), Zimbabwe has the highest literacy rate in Africa at 90.1% and in line with this notion this research found out that 95% of the respondents to bank clients questionnaires indicated that they had at least primary education. Most of the respondents attained secondary education with some reaching tertiary education.

The knowledge scores indicate increased financial knowledge with increased levels of education.

**Table 2.3: Effect of Education on Financial Knowledge in Zimbabwe**

	<b>LEVEL OF EDUCATION</b>	<b>FINANCIAL KNOWLEDGE SCORE</b>
A.	Postgraduate	11
B.	University (first degree)	9
C.	College (Diploma)	8
D.	Secondary	6
E.	Primary	3
F.	None	2

Source: Author calculations based on survey data.

Table 2.3 shows that the mean score for the knowledge questions for respondents in the postgraduate educational level category is the highest at 11 whereas those of the respondents with no education at all is the lowest at 2 since increased education is associated with increased knowledge and the converse is equally true. Responses to attitude questions also follow this trend with the highest percentage of positive responses amongst those respondents who achieved college and postgraduate qualifications at 80% and 100% respectively whilst the lowest positive responses were noted in the primary to none educational level at 33% and 0%.

All the respondents with a postgraduate qualification had an above average financial behavior score. More than 55% of respondents with educational qualifications of secondary, college and university education had above average financial behavior scores and those with primary and no education did not have any positive responses to behavioral questions. Since financial behavior is a function of financial knowledge and attitude, respondents with no to primary education who had low knowledge and attitude scores emanating from their low educational background also had low financial behavioral scores. The overall effect of education on financial literacy follows the trend of shown by components discussed above. The level of financial literacy increases as the educational level from respondents with no education to those who attained postgraduate qualifications. As shown in table 4.3, the highest financial literacy score mean of 21.3 was obtained from postgraduate respondents whilst the lowest mean was of 3.33 was obtained from respondents with no education at all. The lowest standard error was recorded on the postgraduate group implying that the financial literacy scores of individuals with high educational levels deviated to a lesser extent from their mean of 21points.

**Table 2.4: Effect of education level on financial literacy score**

<b>Over</b>	<b>Mean</b>	<b>Std. Err</b>	<b>95% Conf</b>	<b>Interval</b>
<b>Financial literacy</b>				
<b>None</b>	<b>3.33333</b>	<b>0.6666667</b>	<b>2.000686</b>	<b>4.665981</b>
<b>Primary</b>	<b>5.833333</b>	<b>0.8724168</b>	<b>4.089397</b>	<b>7.57727</b>
<b>Secondary</b>	<b>10.65517</b>	<b>0.7247827</b>	<b>9.206352</b>	<b>12.10399</b>
<b>College</b>	<b>14.8</b>	<b>0.8406347</b>	<b>13.1196</b>	<b>16.4804</b>
<b>University</b>	<b>14.5</b>	<b>0.7537784</b>	<b>12.99322</b>	<b>16.00678</b>
<b>postgraduate</b>	<b>21.33333</b>	<b>0.3333333</b>	<b>20.66701</b>	<b>21.99966</b>

(James, 2014).

It is evident that the level of education has a direct relationship with financial literacy; financial literacy influences the uptake of banking services in both rural and urban centers.

## **2.5 Agricultural Investment Opportunities**

Investment opportunity means “anything, tangible or intangible, that is offered, offered for sale, sold, or traded based wholly or in part on representations, either express or implied, about past, present, or future income, profit, or appreciation.” There are arrays of investment opportunities that exist in the rural setting; these are but not limited to:

- a) Horticulture is the branch of agriculture that deals with the art, science, technology, and business of plant cultivation. It includes the cultivation of medicinal plant, fruits, vegetables, nuts, seeds, herbs, sprouts, mushrooms, algae, seaweeds and non-food crops such as grass and ornamental trees and plants. It also includes plant conservation, landscape restoration, landscape and garden design, construction, and maintenance, and arboriculture.
- b) Fishery – is the branch of agriculture that deals with the art, science, technology, and business of fish rearing. These include tilapia, Nile perch, mud fish, cat fish, cray fish & crustacean fish (crabs & lobsters).
- c) Livestock rearing – is the branch of agriculture that deals with the art, science, technology, and business of livestock rearing. These include cows, pigs, goats, sheep, rabbits, poultry and camel.

- d) Floriculture is the branch of agriculture that deals with the art, science, technology, and business of growing flowers. These include roses, lillys, carnations etc.
- e) Cash crop farming is the branch of agriculture that deals with the art, science, technology, and business of cash crop farming. These include maize, coffee, beans, wheat, barley, sorghum etc.

Credit is a catalyst that lubricates the process to accelerate the farm and non-farm sector development including rural industrialization, business and service segments of the economy. Credit helps farmers invest in creating assets to generate output and income through deploying science, technology and modern methods of business management. Investments in farm can generate farm income sustainably when credit is simultaneously adequately supported by backward and forward linkages, viz. inputs of production, technology and services. The World Bank in its sector policy paper as back as in 1975 has aptly reiterated “*credit is often a key element in the modernization of agriculture. Not only can credit remove financial constraint but it also accelerates the adoption of new technology. Credit facilities are also an integral part of the process of commercialization of the rural economy. However, no amount of credit even at the most reasonable rates can guarantee higher productivity or income among the rural poor, as the success depends upon many factors including the availability of inputs and services, sound credit policies, well-managed institutions and appropriate delivery channels*”. This paper briefly highlights serious issues of agricultural credit and makes suggestions for the Government, RBI and Legislators to resolve them speedily. The credit flow to agriculture, more importantly after introduction of financial sector reforms in early-nineties, increased from Rs.2,85,146 crore during the Ninth Plan [1997-2002] to Rs.6,91,739 crore [243%] during the Tenth Plan [2002-07]. Credit disbursement during the Eleventh Plan [2007-12] further shot up to Rs.19,20,400 crore [277%]. As against annual average disbursement of Rs.57,029 crore, Rs.1,38,348 crore and Rs.3,84,080 crore during previous three plans the disbursement during 2012-13 alone was Rs.6,07,375 crore, exhibiting significantly high growth of credit year after year.

However, the pressing issues still continue viz.

- a) Impact on improving crop productivity and output has been not so satisfactory, leave alone expected

- b) Significant disparities in the flow of credit among States, districts, villages and even within the village.
- c) significant imbalance between short-term and term loans, between credit disbursed to agriculture and allied activities as also across components of agricultural term loans, viz. irrigation development, farm mechanization, land development, plantation and horticulture, hi-tech agriculture, etc.
- d) Difficulties experienced to easy and reliable access of institutional credit by small, marginal and tenant farmers, share croppers, oral lessees, landless laborers, households residing in hilly, tribal, desert, drought prone and most backward and vulnerable areas in particular
- e) Problem of loan repayments leading to building up huge amount of NPA has become serious and pernicious.
- f) In order to ensure that credit in particular and financial services in general achieve their intended objectives, now the need to create enabling policy environment and effective credit planning is greater than before. (Dr. Amrit Patel 2014).

### **2.5.1 Agricultural investment in Kenya**

Kenya's long-term development blueprint, Vision 2030, was launched in 2008. It aims to create a "globally competitive and prosperous country with a high quality of life by 2030." Vision 2030 is designed to guide the country towards meeting the Millennium Development Goals by 2015 and beyond, transforming Kenya into "a newly industrialized, middle-income country." Evidence shows that agriculture-led growth in Kenya is more than twice as effective in reducing poverty as growth led by industry. The key to better performance in agriculture lies in boosting smallholder productivity and developing non-farm activities. By making financial services widely available to rural communities to enable the growth of smallholder enterprises, the Government of Kenya aims to stimulate the rural economy (International Fund for Agricultural Development 2013).

The Government is doing something about stimulating economy growth in the rural areas through this initiative; looking at the scenario above one of the key stimuli for economic growth is credit. The rural areas do not have much of investment opportunities when you look at it at the perspective of industry and business. The rural areas however pose a great opportunity in

agricultural investment due to the large parcels of land available; these large pieces make it possible to achieve economies of scale in agricultural production. It is however important for financial services to be available to these owners so that they can boost their productivity. The land tenure system in Africa and specifically Kenya does not include a formal land system or rather it poses gaps to formal land systems, with the rural areas greatly affected. The commercial banks on the other hand get into business with individuals and co-operations that have registered collateral like land. It is therefore important for the Government to work on this issue so as to make the rural center an attractive investment destination.

## **2.6 Theoretical framework**

This study was guided by Finance-Growth and System approach theories which are the widely used theories in financial inclusion studies. In summary these theories postulate that the inclusion of all sectors into the banking sector is important. For a region to achieve economic growth they would have to enjoy financial services in totality i.e. those in the rural and urban centers.

### **2.6.1 Finance-Growth Theories**

Theories on the finance growth nexus advocate that financial development creates a productive environment for growth through 'supply leading' or 'demand-following' effect. Theories also perceive the lack of access to finance as a critical factor responsible for persistent income inequality as well as slower growth. Therefore, access to safe, easy and affordable source of finance is recognized as a pre-condition for accelerating growth and reducing income disparities and poverty which creates equal opportunities, enables economically and socially excluded people to integrate better into the economy and actively contribute to development and protect themselves against economic shocks. Theoretical disagreements do exist about the role of financial systems in economic growth. Some economists see the role as minor or negligible while others see it as significant. The demand following view is supported argues that the financial system does not spur economic growth; rather the financial system simply responds to development in the real sector. The supply leading proponents contrast the former view. The origin of the finance-led growth hypothesis can be traced back to Bagehot (1873). Those who favor the finance-led growth hypothesis argue that the existence of an energetic financial sector has growth-enhancing effects. Schumpeter in (1911) posited that banks enable an economy to

grow by providing efficient markets for funds. Goldsmith (1969), McKinnon (1973), Levine and Zervos (1996), and others also emphasized the positive role of financial systems in economic growth as cited by Ndebbio, (2004). The main argument of proponents of the supply leading theory is that, financial markets evolve in response to increased demands for financial services from an already budding economy. Therefore, the development of financial markets is a reflection of growth in other sectors of the economy. In conclusion, majority of the theories have established a positive link between financial development and economic growth. (Josiah, et al. 2012).

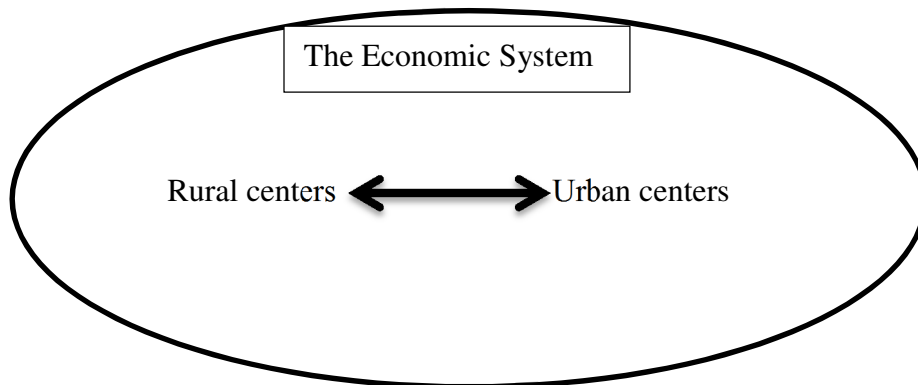
The rural areas as seen in the literature are mainly excluded in financial systems with an array of reasons given for this exclusion. Looking at the role of the rural areas to the economy of every nation, we find that the rural areas are important to the economic growth and sustainability. The rural areas play the following role: provision of raw materials to the manufacturing sector, provision of food products for the economy, provides the space for tourism activities; it provides land for settlement purposes and provision of recreation areas away from the urban centers. The literature provided also looks at how financial services are important in ensuring that production is increased and efficient. It is clear that economic growth owes financial services and in this case banking services, as a factor that influence it; reports done by the Central Bank of Kenya and the World Bank credit banking services as stimuli for economic growth.

### **2.6.2 Systems theory**

The concept of 'system' serves to identify those manifestations of natural phenomena and process that satisfy certain general conditions. In the broadest conception, the term connotes *a complex of interacting components together with the relationships among them that permit the identification of a boundary-maintaining entity or process*. For the purposes of this study, system theory definition is a set of two or more interrelated elements with the following properties: Each element has an effect on the functioning of the whole, each element is affected by at least one other element in the system and all possible subgroups of elements also have the first two properties (Ackoff, 1981). By substituting the concept of 'element' for that of 'component,' it is possible to arrive at a definition that pertains to systems of any kind, whether formal (e.g., mathematics, language), existential (e.g., 'real-world'), or affective (e.g., aesthetic, emotional, imaginative). In each case, a whole made up of interdependent components in interaction is

identified as the system. In the most basic definition a system is *a group of interacting components that conserves some identifiable set of relations with the sum of the components plus their relations (i.e., the system itself) conserving some identifiable set of relations to other entities (including other systems).*

Looking at a country's economy as a system and the rural and urban centers as components of this system, one will understand that none of the two can survive without the other. One of the key focuses of any nation is economic growth that will ensure that its citizens have financial stability and disposable income. It is therefore important for each component to play its role in economic growth. The literature provided shows that the rural areas play their role but are limited by financial ability; it is therefore necessary for them to improve their productivity which is directly affected by their ability to access credit. It is therefore important for financial institutions to ensure that all the components are provided with services so as to achieve their objectives for their roles within the economy. If any of this components does not access banking services and in turn affects optimization of its role within the economy, then it will affect the other component and in turn the whole, which is the economic growth of the nation.

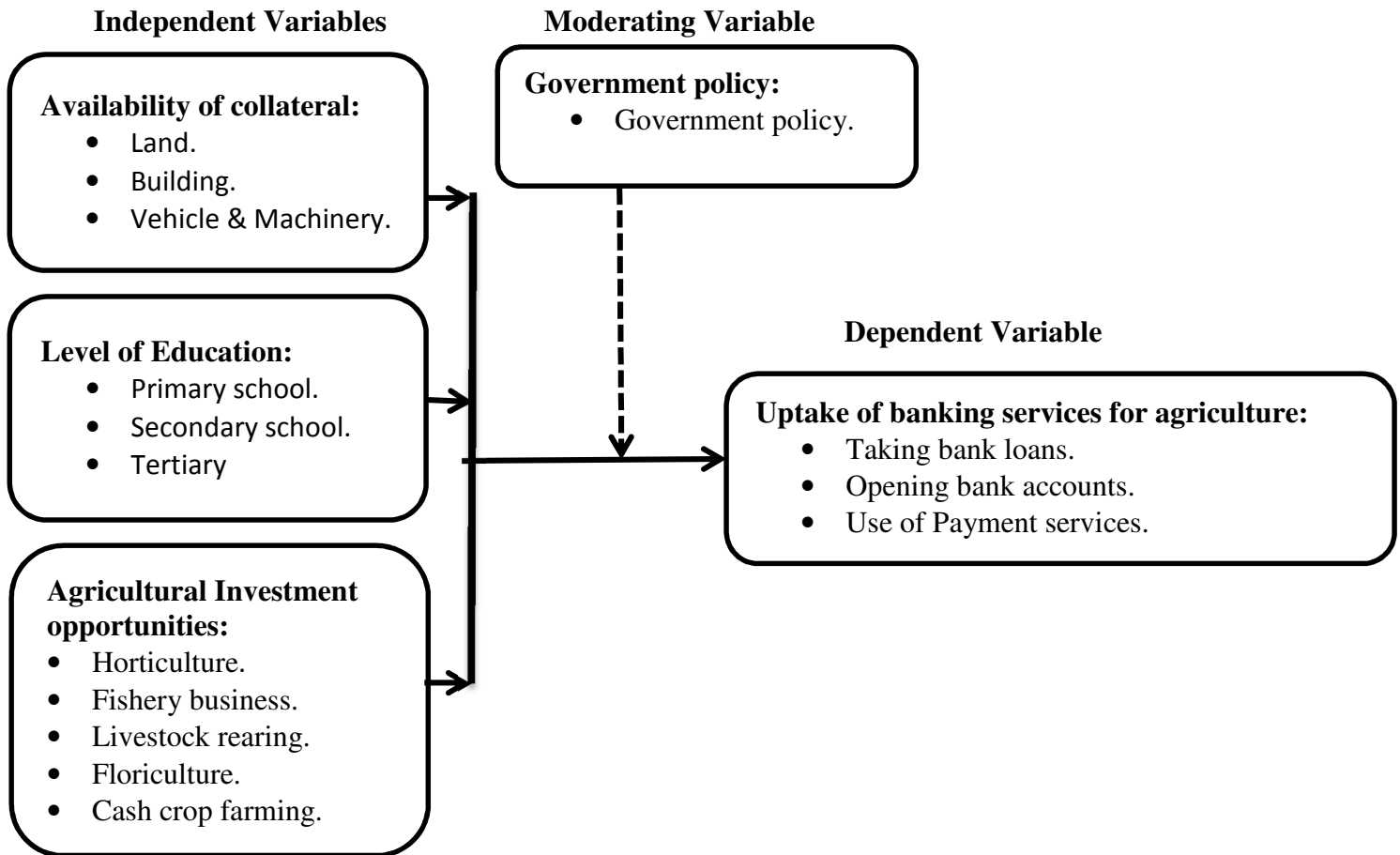


**Figure 1: The Economic System.** Source: Own.



## 2.7 Conceptual framework

The conceptual framework for this study appears in Fig. 2



**Figure 2: Conceptual framework**

## 2.8 Summary

This chapter has literature on the uptake of banking services in and the factors that affect the same. The chapter has examined these factors in the global arena, in Africa and in Kenya; similar studies have been examined to get actual scenarios in this areas. The chapter examines: how availability of collateral influences the uptake of credit as a bank product in rural areas in developing countries, level of education has a direct relationship with financial literacy which in turn affects the uptake of banking services like bank accounts, loans etc. and how investment opportunities are in rural Africa, with agribusiness being the greatest form of investment.

The conceptual framework and theoretical framework are displayed and the relevant indicators included.

## **CHAPTER THREE**

### **RESEARCH METHODOLOGY**

#### **3.1 Introduction**

This chapter describes the research methodology; it comprises of research design, population, sample size and sampling procedure, data collection method and data analysis techniques.

#### **3.2 Research Design**

This study adopted a descriptive design. Descriptive research design is a scientific method which involves observing and describing the behavior of a subject without influencing it in any way (Bryman, 2001). It is designed to gain more information about variables within a particular field of study. Its purpose is to provide a picture of a situation as it naturally happens (Burns and Grove, 2007). The method is more efficient and economical because information will be gathered from a sample population. (Kothari, 2004).

#### **3.3 Target Population**

The population of the study comprised of residents of Imenti North. The study focused on individuals that were 19 years and above. The population size of North Imenti of those above 19 years is 264,198.

#### **3.4 Sampling procedure**

In social science research, the following formula can be used to determine the sample size.

$$n = Z^2pq/d^2$$

Where:

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

z = the standard normal deviate at the required confidence level.

p = the proportion in the target population estimated to have characteristics being measured.

q = 1-p.

d = the level of statistical significance set.

If there is no estimate available of the proportion in the target population assumed to have the characteristic of interest, 50% should be used as recommended by Fisher et al. If the proportion

in the target is 0.50, the z – statistic is 1.96 and we desire accuracy at 0.05 level, then the sample size is ok (Mugenda and Mugenda, 2003).

$$n = (1.96)^2(0.5)(0.5)/(0.05)^2$$

$$= 384$$

The population size was above 10,000 so a sample size of 384 sufficed.

The researcher picked the sample size from specific areas - strata within the region; the researcher used stratified sampling. The region has two major towns with banking coverage that is Meru town and Timau. The population is 53,627 (86.55% of total cluster population) and 8,333 (13.45% of total cluster population) respectively; Meru town had a sample size of 332 and Timau 52. Table 3.1 shows the different clusters to be used.

**Table 3.1: Sampling frame**

Stratum		Sample size
Meru town	Runogone	42
	Gakoromone	42
	Makutano	42
	Gitimbine	42
	Kithoka	42
	Kambakia	42
	Gikumene	42
	Kinoru	42
Timau		52
Total		388

### 3.5 Methods of Data Collection

Data collection is the process of acquiring subjects and gathering information needed for a study; methods of collection vary depending on the study design, (Kothari, 2004). Primary data was collected for this study by administering a semi-structured questionnaire. This type of questionnaire used both closed and open-ended questions. Closed ended questions had predetermined answers and collected quantitative data while open-ended questions gave the respondents freedom of answers and collected qualitative data. The use of questionnaires ensured collection of data from many respondents within a short time and respondents were free to give

relevant information because they were assured of their anonymity (Mugenda and Mugenda, 2003).

### **3.6 Validity of the Instruments**

Validity is the accuracy and meaningfulness of inferences which are based on the research results (Kathuri J., et al., 1993). This implies that validity is the degree to which results obtained from the analysis of the data actually represent the phenomenon under study. To enhance content validity, the researcher consulted the experts in the field of research especially the university supervisor.

### **3.7 Reliability of the Instruments**

Reliability of the research instrument is its level of internal consistency over time. A reliable instrument therefore, is one that constantly produces the expected results when used more than once to collect data from two samples drawn from the same population. Reliability of the instrument was enhanced through a pilot study; split half method of randomly selected areas of Imenti North Sub County. During the pilot study, the instrument was split half into all odd numbers put them in one subset and all even numbers in another subset. The scores of all the odd numbered items of the respondents in the pilot study was computed separately and then compared to see the suitability of the instrument using Pearson Product Moment Correlation Coefficient. A coefficient of 0.6 – 0.7 is a commonly accepted rule of thumb that indicates acceptable reliability. A pre-test of the instruments was carried out among a small group of 40 respondents in Meru town, which is above the statistical 5%; the split half method was applied; alteration and Improvement was done to the instruments after the pilot study.

**Table 3.2 Operational definition of variables**

<b>Objective</b>	<b>Type of Variable</b>	<b>Indicator</b>	<b>Measure</b>	<b>Data collection</b>	<b>Level of scale</b>	<b>Approach of analysis</b>	<b>Level of analysis</b>
To determine the influence of availability of collateral on uptake of banking services for agricultural development in Imenti North sub county, in Meru County, Kenya.	Independent: availability of collateral.	Land	Formal Ownership of land.	Questionnaire & Interview	Nominal	Quantitative	Descriptive
		Building	Formal Ownership of building.	Questionnaire & Interview	Nominal	Quantitative	Descriptive
		Vehicles & Machinery	Formal Ownership of car.	Questionnaire & Interview	Nominal	Quantitative	Descriptive
To determine the influence of level of education of would be customers on uptake of banking services for agricultural development in Imenti North Sub County, in Meru County, Kenya.	Independent: Level of education.	Primary	Evidence of certificate	Questionnaire & Observation	Nominal	Quantitative	Descriptive
		Secondary	Evidence of certificate	Questionnaire & Observation	Nominal	Quantitative	Descriptive
		Tertiary	Evidence of certificate	Questionnaire & Observation	Nominal	Quantitative	Descriptive
To assess the influence of availability	Independent:	Horticulture.	Ownership	Questionnaire	Nominal	Quantitative	Descriptive

of agricultural investment opportunities on uptake of banking services for agricultural development in Imenti North sub county, in Meru County, Kenya.	Investment opportunities .		of registered business	& Interview		/Qualitative	
		Floriculture.	Formal Ownership	Questionnaire & Interview	Nominal	Quantitative /Qualitative	Descriptive
		Fishery business.	Ownership of registered business	Questionnaire & Interview	Nominal	Quantitative /Qualitative	Descriptive
		Livestock rearing.	Land ownership and agriculture business	Questionnaire & Interview	Nominal	Quantitative /Qualitative	Descriptive
		Cash crop farming.	Share holder	Questionnaire & Interview		Quantitative /Qualitative	Descriptive
Uptake of banking services for agriculture	Dependent: Uptake of banking services	Taking bank loans.	Any form of credit from commercial bank	Questionnaire & Interview	Nominal	Quantitative / Qualitative	Descriptive
		Opening	Fixed	Questionnaire	Nominal	Quantitative	Descriptive

		bank accounts.	deposit, Current account & Savings account.	& Interview		/ Qualitative	
		Use of Payment services.	Mobile banking, payment services (utility payment etc.)	Questionnaire & Interview	Nominal	Quantitative / Qualitative	Descriptive

Table 3.2 presents operational definition of variables which will be measured using nominal and ordinal scale.

### **3.8 Methods of Data Analysis**

Before processing the responses, the completed questionnaires were edited for completeness, accuracy and consistency. The data was then coded to enable the responses to be grouped into various categories. As such quantitative data was analyzed by descriptive analysis techniques in form of tables to show frequencies and percentages, while qualitative data was analyzed through content analysis. Statistical Package for Social Sciences (SPSS) was used in data analysis.

### **3.9 Ethical Considerations**

Participation in the study was free and voluntary. The researcher was open and explained the purpose of the study to the study subjects and assured them of confidentiality and anonymity. Participants were not required to indicate their names on the questionnaire.

### **3.10 Research gaps**

At least 65% of the Kenyan population resides in the rural areas; financial access is at 43.7% in the urban centers and 21.3% in rural centers (Financial Sector Deepening Kenya et al. 2013). This shows that many Kenyans and especially those in the rural centers do not use banking services. It is therefore evident that there is a gap in the provision of banking services to the rural Kenya. However, the results obtained are inconclusive for banking in rural centers for agricultural development. Consequently, many researchers have concluded that more research is needed in this area.

### **3.11 Summary**

Research methodology is the framework underlying the strategy of a research. This chapter highlights the various steps and approaches that will be used in carrying out the study. As such the researcher discussed research design, target population, sample design, data collection instruments, data collection procedures and finally data analysis.



**CHAPTER FOUR**  
**DATA ANALYSIS, PRESENTATION, AND INTERPRETATION**

**4.1 Introduction**

This chapter contains the analysis, presentation and interpretation of the data collected.

**4.2 Return rate**

Out of 388 targeted respondents, 360 were accepted for analysis representing 92.8% response rate. The remaining 7.2% represented non returned and incomplete questionnaires.

**4.3 General Characteristics**

This section describes the general and demographic characteristics of the respondents of the study.

**4.3.1 Age**

The study welcomed responses from those individuals who are at a legal age to acquire a bank account and can legally engage in business activity. Their responses appear in Table 4.1.

**Table 4.1: Age**

<b>Age</b>	<b>Frequency</b>	<b>Percent</b>
18-30 yrs	79	21.9
31-40 yrs	110	30.6
41-50 yrs	103	28.6
51 and above	68	18.9
<b>Total</b>	<b>360</b>	<b>100.0</b>

The outcome in Table 4.1 shows that most of the respondents are in the productive period of 31 years to 50 years that account for 59.2% of the total respondents.

**4.3.2 Level Education**

Table 4.1 shows the level of education of the respondents.

**Table 4.2: Level Education**

<b>Level Education</b>	<b>Frequency</b>	<b>Percent</b>
Primary School	78	21.7
Secondary School	127	35.3
Tertiary	152	42.2

Others	3	.8
<b>Total</b>	<b>360</b>	<b>100.0</b>

According to the findings in Table 4.2, the respondents were well educated with a majority of 77.5% with post-secondary education.

### 4.3.3 Gender

Table 4.3 shows the gender of the respondents.

**Table 4.3:** Gender

Gender	Frequency	Percent
Male	166	46.1
Female	194	53.9
<b>Total</b>	<b>360</b>	<b>100.0</b>

The study received 46.1% male respondents and 53.9% female respondents according to Table 4.3. This shows that more female respondents participated in the study than male respondents. This shows that there were more female respondents than male for the study.

## 4.4 Uptake of banking services for agriculture

This section of the study shows the uptake of banking services for agricultural use by the respondents.

### 4.4.1 Respondents with bank account.

Table 4.4 shows the number of responses with bank accounts.

**Table 4.4:** Respondents with bank account

Response	Frequency	Percent
Yes	340	94.4
No	20	5.6
<b>Total</b>	<b>360</b>	<b>100.0</b>

The study in Table 4.4 shows that majority of the respondents accounting for 94.4% had bank accounts.

#### 4.4.2 Bank account operated by those with accounts.

Table 4.5 shows the type of bank accounts operated by the respondents.

**Table 4.5:** Bank account operated

<b>Bank account</b>	<b>Frequency</b>	<b>Percent</b>
Savings Account	143	39.7
Current Account	162	45.0
Fixed Deposit Account	35	9.7
N/A	20	5.6
<b>Total</b>	<b>360</b>	<b>100</b>

According to Table 4.5 a majority of the respondents operated a bank and in this case an account that allowed them to engage well in their economic activity.

#### 4.4.3 Main economic activity.

Table 4.6 shows the main economic activity the respondents engage in.

**Table 4.6:** Main economic activity

<b>Economic activity</b>	<b>Frequency</b>	<b>Percent</b>
Agriculture	97	26.9
Formal Employment	150	41.7
Business Activity	101	28.1
Mining	4	1.1
Others	8	2.2
<b>Total</b>	<b>360</b>	<b>100.0</b>

According Table 4.6, virtually all respondents were actively engaged in a productive service and thus needed and could afford involvement in banking services.

#### 4.4.4 Engagement in agricultural activity.

Table 4.7 shows the number of respondents that engage in any agricultural activity.

**Table 4.7:** Engagement in agricultural activity

<b>Response</b>	<b>Frequency</b>	<b>Percent</b>
Yes	264	73.3
No	96	26.7
<b>Total</b>	<b>360</b>	<b>100.0</b>

The study reveals according to Table 4.7, that a majority of individuals in the rural areas are engaged in some form agricultural activity this accounted for 73.3% of the respondents.

#### 4.4.5 Type of agricultural activity undertaken.

Table 4.8 shows the type of agricultural activity the respondents engage in.

**Table 4.8:** Type of agricultural activity

<b>Agricultural activity</b>	<b>Frequency</b>	<b>Percent</b>
Livestock rearing	73	20.3
Horticulture	111	30.8
Cash crop	79	21.9
Fishery farming	14	3.9
N/A	83	23.1
<b>Total</b>	<b>360</b>	<b>100.0</b>

According to the study, Table 4.8 shows that there are agricultural opportunities in the region with 73% of the respondents engaging in Livestock rearing, Horticulture and Cash crop farming.

#### 4.4.6 Credit facility taken for agricultural purposes with any bank.

Table 4.9 shows the number of respondents that have taken credit facilities for agricultural purposes.

**Table 4.9:** Rate of credit facility taken

<b>Response</b>	<b>Frequency</b>	<b>Percent</b>
Yes	220	61.1
No	140	38.9
<b>Total</b>	<b>360</b>	<b>100.0</b>

The study in Table 4.9 reveals most of the respondents have taken credit for agricultural purposes accounting for 61.1%. This shows that the people are aware of the availability of credit facilities for agriculture.

#### 4.4.7 Type of credit facilities taken with a bank for agriculture.

Table 4.10 shows the type of credit facility taken by the respondents for agriculture.

**Table 4.10:** Type of credit facilities

<b>Credit facilities</b>	<b>Frequency</b>	<b>Percent</b>
Loan	160	44%
Credit Card	20	6%

Asset financing	32	9%
Overdraft	2	1%
Others	6	2%
N/A	140	39%
<b>Total</b>	<b>360</b>	<b>100.0</b>

The study in table 4.10 shows that a majority of the respondents took a loan, accounting for 44% of the respondents. This shows that credit is used for agriculture in the region.

#### **4.4.8 Payment services like bank transfer and bankers cheque taken from a bank for agricultural activities.**

Table 4.11 shows the number of respondents that use payment services with a bank.

**Table 4.11:** Payment services

<b>Response</b>	<b>Frequency</b>	<b>Percent</b>
Yes	166	46.1
No	194	53.9
<b>Total</b>	<b>360</b>	<b>100.0</b>

Table 4.11 shows that 53.9% of the respondents had not used any form of bank payment services. The region did not have adequate information of bank payment services; this therefore led to low uptake of payment services for agricultural purposes.

#### **4.5 Availability of collateral**

This section of the study shows the availability of collateral and its influence on the uptake of banking services for agricultural use by the respondents.

##### **4.5.1 Ownership of registered land.**

Table 4.12 shows the number of respondents that owned registered land.

**Table 4.12:** Ownership of registered land

<b>Response</b>	<b>Frequency</b>	<b>Percent</b>
Yes	213	59.2
No	147	40.8
<b>Total</b>	<b>360</b>	<b>100.0</b>

The study according to Table 4.12 shows that majority of the respondents owned registered land, this accounted for 59.2%. This shows that land as a form of collateral was available in the

region; its availability was however marginal with a good number of people not able to access registered land.

#### **4.5.2 Use of land as collateral for credit facility from a bank for agriculture.**

Table 4.13 shows the respondents that had used land as collateral for credit facility to be used in agriculture.

**Table 4.13:** Use of land as collateral for credit facility

<b>Response</b>	<b>Frequency</b>	<b>Percent</b>
Yes	155	43.1
No	205	56.9
<b>Total</b>	<b>360</b>	<b>100.0</b>

The study according to Table 4.13 shows that 56.9% of the respondents had not used their land as collateral for credit facility to be used in agriculture. The respondents indicated that they did not use land as collateral because they either did not own registered land or they did not need to take a loan.

#### **4.5.3 Ownership of registered building.**

Table 4.14 shows the number of respondents that owned registered building.

**Table 4.14:** Ownership of registered building

<b>Response</b>	<b>Frequency</b>	<b>Percent</b>
Yes	100	27.8
No	260	72.2
<b>Total</b>	<b>360</b>	<b>100.0</b>

The study in Table 4.14 shows that 72.2% of the respondents did not own registered building. A majority of the residents of the region did not own a building that would be admissible as collateral for credit from a bank.

#### **4.5.4 Use of building as collateral for credit facility from a bank for agriculture.**

Table 4.15 shows the respondents that had used building as collateral for credit facility to be used in agriculture.

**Table 4.15:** Use of building as collateral for credit facility

<b>Response</b>	<b>Frequency</b>	<b>Percent</b>
Yes	64	17.8
No	296	82.2
<b>Total</b>	<b>360</b>	<b>100.0</b>

The study in Table 4.15 shows that 82.2% of the respondents had not used their building as collateral for credit facility to be used in agriculture. A majority of the residents of the region did not own a building that would be admissible as collateral for credit from a bank.

#### **4.5.5 Ownership of registered vehicle or machinery.**

Table 4.16 shows the number of respondents that owned registered vehicle and machinery.

**Table 4.16:** Ownership of registered vehicle or machinery

<b>Response</b>	<b>Frequency</b>	<b>Percent</b>
Yes	135	37.5
No	225	62.5
<b>Total</b>	<b>360</b>	<b>100.0</b>

The study in Table 4.16 shows that 62.5% of the respondents did not own registered vehicle or machinery. A majority of the residents of the region did not own a vehicle or machinery that would be admissible as collateral for credit from a bank.

#### **4.5.6 Use of registered vehicle or machinery as collateral for credit facility from a bank for agriculture.**

Table 4.17 shows the respondents that had used registered vehicle or machinery as collateral for credit facility to be used in agriculture.

**Table 4.17:** Use of registered vehicle or machinery as collateral for credit facility

<b>Response</b>	<b>Frequency</b>	<b>Percent</b>
Yes	87	24.2
No	273	75.8
<b>Total</b>	<b>360</b>	<b>100.0</b>

The study according to Table 4.17 shows that 75.8% of the respondents had not used their registered vehicle or machinery as collateral for credit facility to be used in agriculture. A

majority of the residents of the region did not own a vehicle or machinery that would be admissible as collateral for credit from a bank.

#### 4.6 Agricultural Investment opportunities

This section of the study shows the availability of agricultural investment opportunities and its influence on the uptake of banking services for agricultural use by the respondents.

##### 4.6.1 Horticulture

Table 4.18 shows horticulture as an agricultural investment opportunity in Imenti North Sub County in Meru County.

**Table 4.18:** Horticulture agricultural investment opportunities

Response	Frequency	Percent
Strongly agree	153	42.5
Agree	201	55.8
Strongly disagree	6	1.7
<b>Total</b>	<b>360</b>	<b>100.0</b>

Table 4.18 shows that Horticulture is an investment opportunity in Imenti North Sub County in Meru County, which accounted for 98.3% of the responses.

##### 4.6.2 Fishery

Table 4.19 shows fishery as an agricultural investment opportunity in Imenti North Sub County in Meru County.

**Table 4.19:** Fishery agricultural investment opportunities

Response	Frequency	Percent
Strongly agree	31	8.6
Agree	81	22.5
Neither agree nor disagree	80	22.2
Disagree	62	17.2
Strongly disagree	106	29.4
<b>Total</b>	<b>360</b>	<b>100.0</b>

Table 4.19 shows that Fishery farming is not an investment opportunity in Imenti North Sub County in Meru County, which accounted for 68.8% of the responses.



### 4.6.3 Livestock rearing

Table 4.20 shows Livestock as an agricultural investment opportunity in Imenti North Sub County in Meru County.

**Table 4.20:** Livestock rearing agricultural investment opportunities

<b>Response</b>	<b>Frequency</b>	<b>Percent</b>
Strongly agree	105	29.2
Agree	186	51.7
Neither agree nor disagree	11	3.1
Disagree	10	2.8
Strongly disagree	48	13.3
<b>Total</b>	<b>360</b>	<b>100.0</b>

Table 4.20 shows that Livestock rearing is an investment opportunity in Imenti North Sub County in Meru County, which accounted for 80.9% of the responses.

### 4.6.4 Floriculture

Table 4.21 shows Floriculture as an agricultural investment opportunity in Imenti North Sub County in Meru County.

**Table 4.21:** Floriculture agricultural investment opportunities

<b>Response</b>	<b>Frequency</b>	<b>Percent</b>
Strongly agree	53	14.7
Agree	76	21.1
Neither agree nor disagree	65	18.1
Disagree	89	24.7
Strongly disagree	77	21.4
<b>Total</b>	<b>360</b>	<b>100.0</b>

Table 4.21 shows that Floriculture farming is not an investment opportunity in Imenti North Sub County in Meru County, which accounted for more than 46.1% of the responses.

### 4.6.5 Cash crop farming

Table 4.22 shows Floriculture as an agricultural investment opportunity in Imenti North Sub County in Meru County.

**Table 4.22:** Cash crop farming agricultural investment opportunities

<b>Response</b>	<b>Frequency</b>	<b>Percent</b>
Strongly agree	187	51.9
Agree	153	42.5
Neither agree nor disagree	6	1.7
Disagree	4	1.1
Strongly disagree	10	2.8
<b>Total</b>	<b>360</b>	<b>100.0</b>

Table 4.22 shows that cash crop farming is an investment opportunity in Imenti North Sub County in Meru County, which accounted for 94.4% of the responses.

#### **4.6.6 Choice of agricultural investment opportunity.**

Table 4.23 shows choice of agricultural investment opportunity by the respondents.

**Table 4.23:** Choice of agricultural investment opportunity

<b>Agricultural investment opportunity</b>	<b>Frequency</b>	<b>Percent</b>
Livestock rearing	96	26.7
Horticulture	58	16.1
Floriculture	42	11.7
Cash crop	119	33.1
Fishery Farming	43	11.9
N/A	2	.6
<b>Total</b>	<b>360</b>	<b>100.0</b>

According to the study in Table 4.23 a majority of people in Imenti North Sub County in Meru County would choose to practice cash crop farming; this accounted for 33.1% of the responses compared to the others with the second highest being livestock rearing at 26.7%.

#### **4.6.7 Need for banking services for this agricultural investment opportunity.**

Table 4.24 shows the need for banking services to engage in the agricultural investment opportunities identified.

**Table 4.24:** Need for banking services for this agricultural investment opportunity

<b>Response</b>	<b>Frequency</b>	<b>Percent</b>
Yes	280	77.8
No	80	22.2
<b>Total</b>	<b>360</b>	<b>100.0</b>

According to the study, Table 4.24 shows that a majority of respondents would need banking services to engage in their choice agricultural investment opportunity; they account for 77.8% of the responses.

#### **4.6.8 Banking services needed to start this agricultural investment opportunity.**

Table 4.25 shows the banking services needed to engage in the agricultural investment opportunities identified.

**Table 4.25:** Banking services needed to start this agricultural investment opportunity

<b>Banking services</b>	<b>Frequency</b>	<b>Percent</b>
Loan	238	66.1
Bank account	25	6.9
Asset financing	34	9.4
N/A	63	17.5
<b>Total</b>	<b>360</b>	<b>100.0</b>

Table 4.25 shows that a majority of people would require a loan so as to engage in their choice of agricultural investment; this accounted for 66.1%.

#### **4.7 Summary**

This chapter covered a summary of the data analysis, presentation and interpretation among the respondents. The results have been presented in tables.

**CHAPTER FIVE**  
**SUMMARY OF FINDINGS, DISCUSSION, CONCLUSION AND**  
**RECOMMENDATIONS**

**5.1 Introduction**

This is the final chapter in this study which gives the summary of the findings, the discussion, conclusions, recommendations of the study based on the objective of the study and suggestions for further findings.

**5.2 Summary of findings**

The findings presented were derived from the objectives of the study and the research questions which were formulated to help in the investigations.

**5.2.1 Availability of collateral**

The study established that majority of the respondents owned land registered in their name; the respondents did not however use this land as collateral to acquire credit from banks for agricultural development. The study further showed that a majority of the respondents did not own registered buildings; they did not use buildings to acquire credit from banks for agricultural development. Majority of the respondents did not own registered vehicle or machinery; they did not use vehicles to acquire credit from banks for agricultural development. The majority indicated that they did not acquire credit because they did not have the registered collateral. Some of them indicated that they did not need the credit facilities.

**5.2.2 Level of Education**

The study showed that a majority of the respondents had acquired post primary level education. The study showed that they had tertiary and secondary school level of education. This level of education shows that the individuals are of a high literacy level and they can understand and make a decision on banking and bank services. Generally the people of Imenti North Sub County are literate.

### **5.2.3 Agricultural Investment opportunities**

The study showed that agriculture is an investment opportunity in the region; the various opportunities in agriculture included horticulture, fishery, floriculture, livestock rearing and cash crop farming. A majority of respondents agreed that horticulture is an agricultural investment opportunity in the region. A majority of respondents disagree that fishery is an agricultural investment opportunity in the region. A majority of respondents agree that livestock rearing is an agricultural investment opportunity in the region. A majority of respondents indicated that they disagree that floriculture is an agricultural investment opportunity in the region. A majority of respondents of the respondents agree that cash crop farming is an agricultural investment opportunity in the region. The study showed that a majority of the respondents identified cash crop farming as their choice of agricultural investment opportunity; they went ahead and indicated that they would need banking services to develop their venture and in this case a loan from a bank.

### **5.3 Discussion**

Despite the fact that at least 65% of the Kenyan population resides in the rural areas; financial access is at 43.7% in the urban centers and 21.3% in rural centers (Financial Sector Deepening Kenya et al. 2013). This shows that many Kenyans and especially those in the rural centers do not use or have access to banking services. The rural centers have shown tremendous economic growth with most of the raw materials needed in the urban centers coming from the rural centers. It has been reiterated by the Kenya Government that the backbone of our nation's economy is agriculture. Our Gross Domestic Product has seen a constant growth with records showing that Agriculture is a major contributor. Our rural centers are home to Horticultural farming, Floricultural farming, Animal farming, Agroforestry, fish farming, cash crops farming, subsistence farming and the all new agro-tourism. The stimulus for growth of agriculture is finance and in this case credit. Therefore financial inclusion of these areas is important to the economy. Therefore the following section discusses the findings of this study in relation to the available literature.

### **5.3.1 Influence of availability of collateral on the uptake of banking services in rural centers for Agricultural Development**

The study showed that a more than 58% of people did not own collateral that was admissible as collateral for credit from a banking institution. The individuals either had family land that had not been registered in their name, which was a requirement for qualification as collateral. This finds are in line with the findings by Lolita, et al. (2006) in Philippines and Joseph (2014) in South Africa. Their research has shown that most of the farmers in the rural centers of the developing countries do not take credit due to the fact that they require collateral. They also found out that the tenancy of land in developing countries was mainly not formal, but rather traditional; this in turn would not let the farmers' access credit in banking institutions.

### **5.3.2 Influence of level of education on the uptake of banking services in rural centers for Agricultural Development**

The findings of the study show that more than 77% of the respondents had attained post primary education; this showed that they could understand banking and its services. The response on the uptake of bank accounts and credit facilities for agricultural development has the majority of the respondents; this therefore shows that the region has a high level of literacy hence a high uptake of banking services for agriculture. Studies done in Zimbabwe by James (2014), shows that there is a direct relationship between the level of education and financial literacy, which leads to the uptake of banking products. The studies showed that the higher the education level the higher the financial literacy. This hence had an effect on the uptake of banking services.

### **5.3.3 Influence of agricultural investment opportunities on the uptake of banking services in rural centers for Agricultural Development**

The study shows that more than 68% agreed that there exists agricultural investment opportunities in horticulture, cash crop farming, fishery, floriculture and livestock rearing. Most of the respondents were willing to engage in these agricultural investment opportunities which would in turn boost the rural economy as noted by World Bank. Majority of the respondents indicated that they would need banking services and mainly credit facilities to engage in these

agricultural investment opportunities. The rural areas do not have much of investment opportunities when you look at it at the perspective of industry and business. The rural areas however pose a great opportunity in agricultural investment due to the large parcels of land available; these large pieces make it possible to achieve economies of scale in agricultural production. International Fund for Agricultural Development (2013) indicates that credit is a catalyst that lubricates the process to accelerate the farm and non-farm sector development including rural industrialization, business and service segments of the economy. Credit helps farmers invest in creating assets to generate output and income through deploying science, technology and modern methods of business management. Therefore availability of these agricultural investment opportunities influences the uptake of banking services.

#### **5.4 Conclusion**

The study findings show that most of the respondents were of a higher education level; majority of the respondents were of ages 31 – 50 years. Most of the respondents' main economic activity was formal employment and business engagement; the respondents however indicated that they were involved in agricultural activities at their place of residence. The lack of collateral is a major factor that influences the uptake of credit as a form of bank service for agricultural development in rural centers. The study findings showed that most of the respondents did not have registered land, registered building and vehicle/machinery; hence they could not access credit from a bank for agricultural purposes. The level of education was mainly post primary. Most of the respondents had bank accounts and had taken credit for agricultural development. This shows that the level of education influences the uptake of banking services like bank accounts and credit, for agricultural development. In this case it is clear that the higher the education level the higher the financial literacy; this then leads to the uptake of banking services. The study further identifies the availability of agricultural investment opportunities in the region and shows the willingness of the respondents to engage in these agricultural investment opportunities; the respondents indicated that they would need banking services to engage in these agricultural investment opportunities. The availability of these agricultural investment opportunities affects to a great extent the uptake of banking services.

## **5.5 Recommendation**

The study recommends that:

- 1) The banking institutions should develop bank services that are sensitive to the lack of collateral or rather registered collateral in the rural centers. They should have loans that do not require security.
- 2) The banking institutions should recognize agriculture as a source of income and appraise farmers with that in mind. This would allow farmers to access credit without collateral and hence stimulate agricultural development.
- 3) The banking institutions should invest in awareness for their products like payment services so that the public in the rural areas can use these services for agricultural development.
- 4) The County and national Governments should provide alternative sources of credit for agriculture. This would stimulate agricultural development.
- 5) The County and national Governments should provide training on other forms of agricultural investments like fishery, floriculture and agroforestry, so as to increase the agricultural investment opportunities in the rural centers up from the traditional ones.

## **5.6 Areas of further research**

This study has looked at the factors influencing the uptake of banking services for agricultural development in rural centers, the case of Imenti North Sub County, Meru County. These factors were identified as availability of collateral, level of education and agricultural investment opportunities. To this end then further studies should be done on the following:

- a) The influence of financial literacy on the uptake of banking services for agricultural development in rural centers.
- b) The availability of other sources of credit from non-bank institutions and their influences on agricultural development in rural centers.

## **5.7 Summary**

This chapter covered a summary of findings, discussions, conclusions, recommendations as well as areas for further study.



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## APPENDICES

### Appendix I: Letter of Introduction

#### LETTER OF INTRODUCTION

**ROBERT MBOGO MAINA**

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**P.O. BOX 9836 00100**

**EMAIL: [mbogo.robert@gmail.com](mailto:mbogo.robert@gmail.com)**

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Dear respondent,

#### **RE: RESEARCH PROPOSAL QUESTIONNAIRE**

This is to inform you that I am carrying out a research study for my Master of Arts in Project Planning and Management at the University of Nairobi. The study is on “Factors Influencing Uptake of Banking Services in Rural Centers for Agricultural Development, The Case of Imenti North Sub County, Meru County, Kenya.”

I kindly request for your assistance in filling the attached questionnaire to enable me complete my research. The questionnaire is for academic purposes only and any information given shall be treated with strict confidentiality; please give the information as accurately as possible.

Thank you in advance.

Yours sincerely,

Robert Mbogo Maina.

**Appendix II: Research Questionnaire**

**Section A: Bio Information**

- 1. Age:  
18-30yrs      31- 40 yrs.      41-50 yrs.      51 and above
- 2. Highest Education Level  
Primary School      Secondary School      Tertiary      Others (please specify) .....
- 3. Gender  
Male      Female

**Section B: Uptake of banking services for agriculture**

- 4. Do you operate a bank account?  
Yes      No
- 5. If      no      please      state      why?  
.....  
.....
- 6. What kind of bank account do you operate?  
Savings account      Current account      Fixed deposit account      N/A
- 7. What is you main economic activity:  
Agriculture      Formal Employment      Business activity      Mining      Others.....
- 8. Do you undertake any agricultural activity?  
Yes      No
- 9. What agricultural activity do you undertake?  
Livestock rearing      Horticulture      Floriculture      Cash crop      Fishery farming      N/A
- 10. Have you taken any credit facility for agricultural purposes with any bank?  
Yes      No
- 11. If      no      please      state      why?  
.....  
.....
- 12. Please tick any or all credit facilities that you have with a bank for agriculture:  
Loan      Credit card      Asset Financing      Overdraft      N/A

Asset finance    others (please specify) .....

13. Do you use any payment services like bank transfer and bankers cheque offered by the bank for agricultural activities?

Yes                                  No

14. If                          no                          please                          state                          why?  
.....  
.....

**Section C: Availability of collateral:**

15. Do you own land registered in your name?

Yes                          No

16. Have you ever used your title deed to acquire a credit facility from a bank for agriculture?

Yes                          No

17. If                          no                          please                          state                          why?  
.....  
.....

18. Do you own a building registered in your name?

Yes                          No

19. Have you ever used your building to acquire a credit facility from a bank for agriculture?

Yes                          No

20. If                          no                          please                          state                          why?  
.....  
.....

21. Do you own a vehicle or machinery registered in your name?

Yes                          No

22. Have you ever used your log book to acquire a credit facility from a bank for agriculture?

Yes                          No

23. If                          no                          please                          state                          why?  
.....  
.....

**Section D: Agricultural Investment opportunities:**

24. Using a scale of 1-5, please indicate your agreement/ disagreement levels with the main agricultural investment opportunities in Meru. The rating scale indicates agreement levels as follows: 1- Strongly Agree, 2 – Agree, 3- Neither Agree nor Disagree, 4 – Disagree, 5 – Strongly Disagree

	1	2	3	4	5
Horticulture e.g. vegetable farming					
Fishery					
Livestock rearing					
Floriculture					
Cash crop farming					

25. What investment would you consider venturing into?

Livestock rearing   Horticulture   Floriculture   Cash crop   Fishery farming   N/A

26. Why?

.....  
 .....

27. Would you need banking services for this agricultural investment opportunity?

Yes                      No

28. What banking services would you need to start this agricultural investment opportunity?

Loan                      Bank account                      Asset Financing                      N/A

**THANK YOU FOR TAKING YOUR TIME TO FILL THIS QUESTIONNAIRE**