

**RELATIONSHIP BETWEEN AGRICULTURAL CREDIT FINANCING AND
FINANCIAL PERFORMANCE: A CASE OF SMALL SCALE FARMERS IN KIRIA
DIVISION IN MURANGA COUNTY**

BY

JACKLINE WAITHERA IRUNGU

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DECLARATION

This research project is my original work and has not been presented for an academic award in any other institution of higher learning

Sign:

Date:

Jackline Irungu

D61/64354/2010

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

Sign:

Date:

Mr. James Nganga

Lecturer

School of business

University of Nairobi.

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DEDICATION

To my parents, Nancy Njeri and Gibson Irungu. Thank you for making me understand the value of education.

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LIST OF ABBREVIATIONS

AGRA – Alliance for Green Revolution in Africa

AFC – Agricultural Finance Corporation

CEE - Central and Eastern Europe

CODA - Cotton Development Authority

DMB - Deposit Money Banks

GDP - Gross Domestic Product

IFAD - International Fund for Agricultural Development

NIB - National Irrigation Board

SACCOS - Savings and Credit Cooperatives

SRA - Strategy for Revitalizing Agriculture

WFP – World Food Programme

ABSTRACT

Limited credit and high interest rates often appear as an impediment to agricultural development, inhibiting the acquisition of capital necessary for modern agriculture. The problems of adverse selection, moral hazard and other market imperfections may cause the effective transaction costs to be so high, as to limit trade in or lead to the demise of those markets. It is the perception of this seemingly market failure that often results in pressure for government intervention. The purpose of the study was to determine the relationship between agricultural credit finance and financial performance with reference to small scale farmers in Kiria Division, Murang'a County. This research study adopted a descriptive approach. The population of the study consisted of 150 small scale farmers in the selected villages in Kiria Division, Murang'a County who obtain agricultural credit for various financial institutions including Equity bank, Cooperative bank, K-rep bank, AFC and KWFT bank. The data was collected using questionnaire from 50 farmers about their financial performance before and after taking the credit from financial institutions such as banks in 2012. Quantitative data collected using questionnaires was analyzed by the use of descriptive statistics using SPSS. The study used simple linear regression to analyze the relationship between agricultural credit financing and financial performance. The study found that agricultural credit finance had the highest effect on performance followed by family size while farm size had the least effect. The study concludes that credit is an important instrument that enables farmers to acquire commands over the use of working capital, fixed capital and consumption goods. Timely availability of credit enables farmers to purchase the required inputs and machinery for carrying out farm operations. The study concludes that agricultural credit is an integral part of the process of modernization of agriculture and commercialization of the rural economy. The introduction of easy and cheap credit is the quickest way for boosting agricultural production. the study recommends that the government of Kenya needs to recognize it6s role in the creation and maintenance of a financial infrastructure that supports agricultural credit financing. The government may also provide seed capital for or temporary subsidies to strengthen small scale farmers.

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

This study seeks to explore relation between agricultural credit financing and financial performance. Agricultural credit financing refers to any of several credit vehicles used to finance agricultural transactions, including loans, notes, bills of exchange and bankers acceptances. These types of financing are adapted to the specific financial needs of farmers, which are determined by planting, harvesting and marketing cycles (Uyarra & Flanagan, 2010). For agricultural practice to be meaningful, one of the enabling factors is addressed by availability of adequate credit to finance agricultural production. The agricultural lending market in any country is made up of the participating financial institutions and units that can effectively lend resources to facilitate the production of farm produce, crops and livestock. These markets are primarily made up of deposit money banks (DMBs) and other financial institutions (Comptrollers Handbook 1998) firms and individuals. However, the market also includes specialized institutions such as Agricultural Co-operative and Rural Development Bank (Arminas, 2002).

Agriculture is not only the backbone of food, livelihood and ecological security system, but is also the very soul of our sovereignty (World Bank, 2002). Otieno (2004), the economy of Kenya is mostly agrarian in makeup. Regardless of prompt growth in other sectors, agriculture is still the major sector contributing 25 percent towards the Gross Domestic Production (GDP). About 70 percent of total population of the country lives in rural areas which are directly or indirectly allied with agriculture. According to estimates agriculture sector has occupied about 44 percent

of total labor force and its direct and indirect contribution in annual exports of the country is around 70 percent (Government of Kenya, 2002). Agricultural output is low in developing countries especially in Kenya due to small holdings, traditional methods of farming, poor irrigation facilities, low or misuse of modern farm technology etc (Zuberi, 1989). This results in small income and no saving or small saving. Therefore, it needs of time that credit agencies come up to help them in applying and undertaking the improved farm practices. Credit is an important instrument that enables farmers to acquire commands over the use of working capital, fixed capital and consumption goods (Siddiqi, 2004). Credit plays an important role in increasing agricultural productivity. Timely availability of credit enables farmers to purchase the required inputs and machinery for carrying out farm operations (Saboor et al, 2009).

1.1.1 Agricultural Credit Financing

‘Agriculture continues to be a fundamental instrument for sustainable development and poverty reduction’ (World Bank, 2008 :); yet, ‘financial constraints in agriculture remain pervasive, and they are costly and inequitably distributed, severely limiting smallholders’ ability to compete’. Sudden and dramatic changes in food prices have exposed the vulnerability of agricultural production in meeting global demand and call for increased investment in agriculture at all levels. The question is how the right amount of investment can be acquired, particularly in a challenging milieu where financial uncertainty causes a reduction in available resources along with increased fear and scrutiny of risk. An answer to addressing these constraints goes beyond conventional measures since agriculture has always been difficult to finance through formal financial institutions and approaches (Donald, 2006).

As a result of economic reforms in Central and Eastern Europe (CEE) new structures in agriculture are emerging. The changes of agriculture together with macroeconomic uncertainty have created difficulties in the normal process of financing agricultural activity (Anily, Glass & Hassin 1999). At the same time the banking sector is undergoing a major transformation, and so credit markets are underdeveloped, inhibiting the effectiveness of monetary, credit and trade policies (Calvo & Frenkel, 1991).

The problems in the credit market for agriculture stem from both demand and supply forces. The majority of both private farmers and large scale farm managers indicated that problem in accessing credit were mainly due to- “high interest rates” in all these countries. These high interest rates reflect both transition and structural problems with CEE agriculture. Lack of collateral, low profitability and macroeconomic uncertainty makes banks view the agricultural sector as a high risk consumer. Expected declining profitability and macroeconomic uncertainty are discouraging borrowing at high nominal interest rates. Immediate plans of farmers are uncertain because of the lack of working capital. There is also the long-term problem of ensuring adequate funds to facilitate structural adjustment and to enable farmers to apply effective technologies (Swinnen & Gow, 1997).

1.1.2 Financial Performance

Financial performance is the level of performance of a business/enterprise over a specified period of time, expressed in terms of overall profits and losses during that time. Evaluating the financial performance of a business/enterprise allows decision-makers to judge the results of business strategies and activities in objective monetary terms.

Agricultural productivity can be increased, farmers incomes raised, more people fed and indeed, the general economic welfare enhanced. The SRA (2004-2014) recognizes this and that to improve smallholder farm productivity as well as increase incomes; smallholder farming must be changed from producing for subsistence to commercial profitable businesses. It will then attract private entrepreneurs willing to invest therein and employ modern farming techniques necessary to achieve increased productivity. When agriculture is technology-led, not only is food security achievable but also poverty alleviation is also possible. Inability to afford new and readily available farming technology, however, is partly blamed on poor access to financial resources, especially in a nation where the majority, and not only farmers, are poor and the financial markets have not developed to support agricultural investment.(Nyangito & Okello, 1998).

Credit is the back bone for any business and more so for agriculture which has traditionally been a nonmonetary activity for the rural population. Agricultural credit is an integral part of the process of modernization of agriculture and commercialization of the rural economy. The introduction of easy and cheap credit is the quickest way for boosting agricultural production (Abedullah et al, 2009). Therefore, it is the prime policy of all successive governments to meet the credit requirements of the farming community. Agriculture as a sector depends more on credit than any other sector of the economy because of the seasonal variations in the farmers returns and a changing trend from subsistence to commercial farming. Credit may provide them opportunity to earn more money and improve their standard of living (Vogt, 1978).

1.1.3 Agricultural Credit Financing and Financial Performance

Agriculture forms the backbone of most economies in sub-Saharan Africa. In Kenya, agriculture has remained the mainstay of the economy since independence in 1963. Although its

contribution to the GDP decreased from 35 per cent in 1963 to 25 per cent in 1996, it employs about 75 per cent of the labor force, provides most of the food requirements for the nation and earns the country about 60 per cent of the foreign exchange (Kenya, 1997). Despite the importance of the agricultural sector in Kenya, and in most sub-Saharan African countries, the performance of the sector has been poor for most years since 1970 (World Bank, 1981; Chibber, 1988; Mosley and Smith, 1989). Much of the blame for the poor performance of the sector is attributed to the policies used, particularly government controls on agricultural production and marketing. Financing agriculture continues to be perceived as having high costs of operation, high risks and low returns on investment. Despite good intentions for directing credit to agriculture, the results of the agricultural lending programmes in developing countries commonly have unsatisfactory results with low rates of repayment in spite of (or often partly because of) high subsidies (Asingo, 2004).

Agricultural development banks have been slow to innovate, often due in part to governmental directives given to them. Commercial banks have traditionally shied away from this sector because of uncontrollable and systemic risks, higher costs and fear of the unknown for bankers not familiar with the sector and setting. The cost of directly lending to farmers, especially smaller ones, in hard-to-reach rural areas with less-educated and low-income populations is in fact generally prohibitive to most formal financial institutions. Microfinance institutions do reach some of these low-income households but at a high cost, with short-term loan products that are generally not able to address the full range of agricultural needs. Even more important than the operational costs for transacting a loan or securing investments is the systemic or correlated risk in agriculture. (Republic of Kenya, 2005)

This risk stems from both price volatility as well as from changeable weather patterns that can affect whole regions at a time, making repayment uncertain. In conventional lending, collateral is used to mitigate risks to the lender but the typical mortgage type of collateral commonly required by the banks is often not available or feasible in rural areas. This is due largely to land tenure restrictions and/or other requirements that are often designed to protect the livelihood assets of the community, but in doing so effectively limit their use as collateral. Hence, collateral is a major constraint to access to finance in agriculture not only from banks, but also from credit unions and other financing institutions. Central Bank policies can often exacerbate this constraint by requiring high reserves or imposing other restrictions which in effect penalize uncollateralized lending. Furthermore, the collapse of the global financial markets in 2008 and ensuing caution for financing activities with unknown and/or uncontrollable risk has led to financiers and investors requiring more assurance of markets, prices and controls (Republic of Kenya, 2011).

Agriculture has been changing rapidly from one of fragmented production and marketing relationships toward integrated market systems, or chains. Driven by gains from economies of scale and globalization of the food chain, multinational Agri-enterprises increasingly dominate the sector with more and more vertical and horizontal linkages or integration. The changes are also being driven by the marketplace and responsiveness to consumer interests, including stricter compliance, timeliness and quality standards. Agriculture, as with many other sectors, is now a global marketplace driven by competitiveness, which demands certain levels of efficiency and productivity. The future of farmers, traders and agribusinesses in the food or agro-industrial chain and therefore the quality of their loan or investment depends upon both their ability to compete in the marketplace (World Bank, 1997).

1.1.4 Small Scale Farmers

Kenya's small scale farmers play a major role in providing this country with food and cheap or unskilled labor. Their effort is very important and cannot be ignored for their production amounts to 80% while 20% is by large scale farmers whose main target is the export market and only a very small portion of small scale farmers' products goes to the export market mainly due to the difficulty in attaining the required quantity and quality in production. Small scale farmers are all over Kenya from the highlands in Limuru and Kiambu to the semi arid regions of Embu and Mbeere. Crop variety grown varies from region to region but most farmers have now developed the culture of growing a variety of crops. This favors them for not all crops are lost in case of acute weather fluctuations. Due to the nature of small farms, you'll find that these crops will be consumed by their families as their mode of farming is subsistence farming where they only happen to sell the surplus to the local market (Muhia, 2009).

In small scale production there are many challenges ranging from lack of information to limited resources. In subsistence or traditional farming, crop rotation is not practiced as most farmers do mixed farming of the same crops season in season out, leading to disease and pest build up. Due to scarcity of land, shift cultivation is no longer possible resulting to exhausted and badly affected soils due to usage of chemical fertilizers and other chemical inputs, also due to high cost of farm inputs like seeds and fertilizers. Many farmers cannot afford the certified seeds due to their cost and limited availability. The other challenge is to market their surplus produce, because in most cases they're available in small quantities which are uneconomical to market owing to the high transport costs involved. Most small scale farmers have little if any knowledge of marketing their produce, making them vulnerable to brokers who take advantage of this fact.

These brokers buy in bulk at low prices and later sell two or three times more thus making a kill (Muhia, 2009).

The study from India revealed that greater efficiency or higher productivity of small farms did not hold equally strongly across food groups - the negative farm-size-productivity relationship was weaker in case of cereals and oilseeds. Moreover, the analysis of responsiveness of crop output to market prices showed mixed results across food groups. While the responsiveness was higher for cereals, it was very low for vegetables. This result highlights the importance of cross-price elasticity, as prices of competing crops are taken into account by smallholders in determining output and marketed surplus. The use of average prices to analyze the price-responsive of marketed surplus also creates an internal bias since seasonal patterns of marketing vary across small and large farmers with the latter better positioned to take advantage of higher market prices (Ganesh, 2007).

The major challenges faced by small farmers in Asia are declining productivity, risks associated with diversification to high value crops, environmental constraints including those arising out of climate change and idiosyncratic risks like floods and droughts. Tenure insecurity was recognized as another major constraint for smallholders, many of whom often do not own the land they till, which adversely affects their capacity to undertake small or large investments necessary for improving farming practices.

It was noted that smallholder farmers have been exceptionally resilient in the presence of multiple risks. However, the term 'resilience' deserved elaboration. Noting that resiliency does not imply viability, smallholder farmers often remain in agriculture due to a shortage of

employment opportunities in non-farm activities or urban areas and a lack of required skills for a shift in occupation.

1.2 Research Problem

It has been argued by some researchers that providing rural farmers with credit will increase agricultural output and productivity. However; agriculture credit will improve financial performance if profitability is improved. Thus increasing the supply of loanable funds and managing risk will expand the production frontier and lead to higher earnings (Quartey et al, 2012)

Limited credit and high interest rates often appear as an impediment to agricultural development, inhibiting the acquisition of capital necessary for modern agriculture. The problems of adverse selection, moral hazard and other market imperfections may cause the effective transaction costs to be so high, as to limit trade in or lead to the demise of those markets (Akerlof, 1970; Greenwald 1986; Stiglitz, 1982; 1994; Dowd, 1992). It is the perception of this seemingly market failure that often results in pressure for government intervention.

In view of the researches done, there still exists a gap on whether agricultural credit finance has any relationship with financial performance. In the attempt to fill the existing knowledge gap, this study sought to answer the question of whether there is any relationship between agricultural credit finance and financial performance with respect to small scale farmers.

1.3 Objectives of the Study

The specific objective of the study was to determine the relationship between agricultural credit finance and financial performance with reference to small scale farmers in Kiria Division, Murang'a County.

1.4 Value of the Study

Many researchers have recognized the importance of relation between agricultural credit financing and financial performance in the economy of any country. The research work shall offer the managers or decision makers in credit financing industry especially commercial banks an opportunity for diversifying policy considerations related to agricultural credit finance.

The research will benefit investors and stakeholders more so commercial banks by being able to identify the challenges surrounding agricultural finance and therefore come up with products that are less risky and at the same time beneficial to farmers. The study will help improve agricultural credit financing in Kenya by adjusting accordingly in favour of the small scale farmers.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter covers literature on previous studies done on the relationship between agricultural credit financing and financial performance. The specific areas covered here include the theoretical framework, and critique of the existing literature, summary and research gaps.

2.2 Theoretical Review

2.2.1 Risk and Uncertainty Theory

Risk and uncertainty concepts in agriculture are subjects internationally discussed by theoretical economists and empirical analysts. The operations of a farm enterprise are not as protected as in the case of commercial and industrial enterprises. Forecasting farm income is a difficult task. Agriculture suffers from various risks and uncertainties for example risks emanating from natural hazards and calamities, risks of loss of property by fire, thefts, loss due to abrupt and wide fluctuations in prices of farm products and the risk arising out of the death or disability of the farmer.

Credit risk is faced by both lenders and borrowers. An increase in farm investment will take place only when the risks and uncertainties in the minds of farmers are removed (Jugale, 1991)

2.2.2 Demand and Supply Theory

The theory of demand plays a very important role in business management because it looks at the concept of elasticity of demand and the determinants. It enables a firm to determine what to

produce into the market, how much of it, when and where. Theory of demand forms the basis of pricing and it enables firms to measure the reaction of customers towards critical market forces. With intense knowledge and understanding of demand and supply theory, production and the subsequent sale of the produce is well forecasted. This reduces losses attributed to excess supply.

According to Singh and Nyandemo (2007), quantities demanded will change whenever there is a change in the determinants of demand and supply. This therefore means that knowledge of elasticity of demand and supply is necessary because it is a measure of the responsiveness of demand or supply of a commodity to the changes in its price or changes in the income of the consumer.

2.2.3 Agency Theory

The effect of employing external debt rather than equity financing is that it reduces the scope for managerial perquisite consumption, which can have an adverse effect on the value of the firm. With debt outstanding, the most of excessive perks consumption will result in managers losing control of the company due to default and bondholders seizure of the company assets.

Thus external debt serves as a bonding mechanism for managers to convey their good intentions to outside shareholders. Because taking on debt validates that managers are willing to risk losing control of their firm if they fail to perform effectively, shareholders are willing to pay a higher price for the levered firms. The use of debt to control the agency of external equity can be accomplished in two ways: Debt forces managers to be monitored by the public capital. If investors have negative view of management's competence, they will charge high interest rate on the money they lend to the firm or they will insist on restrictive bond covenants to constrain

management's freedom or both. Outstanding debt limits management's ability to reduce firm value through incompetence or perquisite consumption, (Jensen, 1986).

The discipline that debt provides has been further explored by Jensen (1989) and Ofek (1993). They argue that high leverage can provide benefits in the dynamic sense that companies with high leverage ratios may respond more quickly to the development of adverse performance than companies with low debt to equity ratios. Ofek (1993) argues that: A choice of high leverage during normal operations appears to induce a firm to respond operationally and financially to adversity after a short period of poor performance, helping to avoid lengthy periods of losses with no response. The existence of debt in capital structure may thus help to preserve the firm's going concern value. The above however, are still considered to be insufficient to outweigh the agency cost of debt. The cost entail writing detailed covenants into bond contracts which sharply constrain the ability of the borrowing firm's managers to engage in expropriate behavior. The agency cost reduces the benefits of the debt interest tax shield. However an optimal (value maximizing) debt to equity ratio is reached at the point where the agency cost of debt equals agency cost of equity.

2.3 Empirical Review

2.3.1 Rural Financial Services

Kibaara (2006) conducted a study whose primary objective was to examine the evolving models of rural financial service providers with a broad aim of understanding models that are working, why they are working, characteristics, opportunities and constraints. It sought to understand the extent to which these models have improved access to the rural financial services for producers

and traders in the rural areas. This study utilized data from primary and secondary sources. Secondary data was gathered during the discussions with stakeholders from the rural finance. Primary data on the emerging models were gathered purposively from 15 districts within six agro-ecological zones. The study found out that most households in the rural areas borrow credit for farming. Provision of agricultural credit is skewed toward the production region and it's mainly provided by the commodity Based Credit Providers and co-operatives. Therefore any intervention that strengthens the performance of the above will improve access to rural credit.

2.3.2 Small Scale Farmer Access to Credit

According to (Badiru, n. d), agriculture is a major contributor to Nigeria's GDP and small-scale farmers play a dominant role in this contribution (Rahji and Fakayode 2009), but their productivity and growth are hindered by limited access to credit facilities (Odoemenem and Obinne 2010). The study was based on a review of literature, complemented by interviews with key informants and focus group discussions to generate quantitative and qualitative data to validate the findings from the literature. The study found out that the ratio of rural branches to total branches of formal credit institutions is low compared to informal and semiformal institutions and this constitutes a limitation of small-scale farmers' credit access in Nigeria.

According to Karanja, (2013) on a study to explore the influence of access to finance in rabbit farming it was evident that in order to start, support and sustain rabbit farming, financial resources were required. Most of these financial resources were generated from self savings, while others got their financing from microfinance institutions and savings and credit cooperative societies (SACCO's). This study adopted a descriptive research design composed of qualitative and quantitative data. This study was conducted in the agricultural sector.

2.3.3 Impact of Agricultural Credit on Financial Performance

Microcredit can have double-edged impact on food security. By extending microcredit to farmers, the level of inefficiency in crop production can be reduced and supply of food increased. This helps availability of food. Extension of microcredit to the farmers can increase their income through provision of job in dire times that improves access to food. Thus microcredit helps reduce poverty through an increase in food production (availability) and increase in purchasing capability (access) of the farmers. The research applied the Stochastic Frontier Analysis (SFA), Data Envelopment Analysis (DEA) method and Propensity Score Matching Techniques to analyze the impact of microcredit on agricultural farm performance and food security. The results of the study implied that agricultural efficiency performance of microcredit receiving farms is about one per cent higher than that of microcredit non-receiving farms. This could be interpreted as the positive impact of microcredit on farm performance. (Wadud, 2013)

According to Riaz et al, (2012), utilization of agricultural credit by farmers was essential to ensure that financial performance improved to both farmers and financial institutions. The study was conducted for probing the utilization of credit received by farmers in the study area. The data was collected in by using cross sectional survey technique and found out that the importance of credit is vital in the perspective of agriculture.

According to Alila and Atieno (2006), the lack of finance for agriculture limits increasing production and investment in value addition activities in agriculture. Inaccessibility to credit especially for small scale farmers and especially women has limited the range of activities, the type of technology used and the scale of operations that a farmer can adopt on his farm.

Although there have been a number of institutions that have been involved in agricultural financing over time, actual investment in the sector has been small. Thus to improve agricultural productivity and incomes, especially of smallholders most of whom reside in rural areas, access to affordable financial credit is important to enable them acquire new farming technology - a necessary input in realizing the higher productivity goal.

2.4 Summary

The study was conducted in order to establish the relation between agricultural credit financing and financial performance. Since it is well understood that availability and accessibility of agricultural credit is key to the improvement of financial performance, the study will seek to clearly determine the relationship between agricultural credit finance and financial performance. The study will seek to find out whether an increase in availability of agricultural credit finance really improves financial performance.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter explains and outlines the methodology that will be used in achieving the objectives of the study which were to establish the relation between agricultural credit financing and financial performance with reference to small scale farmers in Kiria Division, Murang'a County. The following subsections are included; research design, target population, data collection instruments, data collection procedures and finally data analysis.

3.2 Research Design

This research study adopted a descriptive approach on the relation between agricultural credit financing and financial performance with reference to small scale farmers. The descriptive design deems appropriate because the main interest will be to establish the relationship between agricultural credit financing and financial performance. Descriptive survey research designs are used in preliminary and exploratory studies to allow researchers to gather information and summarize, present and interpret data for the purpose of clarification (Bell, 1999). According to (Mugenda and Mugenda 1999) the purpose of descriptive research is to determine and report the way things are and it helps in establishing the current status of the population under study. Borg and Gall (1996) note that descriptive survey research is intended to produce statistical information.

3.3 Target Population

The population of the study consisted of 150 small scale farmers in the selected villages in Kiria Division, Murang'a County who obtain agricultural credit for various financial institutions including Equity bank, Cooperative bank, K-rep bank, AFC and KWFT bank.

3.4 Sampling Procedure

Schindler (2013) assert that a sample is a subset of a population. According to Kothari (2005) and Mugenda (2008) in a descriptive survey a sample enables a researcher to gain information about a population. The data was collected from 50 farmers about their financial performance before and after taking the credit from financial institutions such as banks in 2012. The data was collected from 5 villages by selecting 10 farmers from each village in Kiria division in Murang'a County. Considering the size of the population, purposive sampling techniques were applied to identify the farmers to be sampled. Orodho (2003) states that purposeful sampling is applicable if a population from which a sample is to be drawn does not constitute a homogeneous group.

3.5 Data Collection Methods

According to Cooper (2013) there are many methods of data collection. The choice of a tool and instrument depends mainly on the attributes of the subjects, research topic, problem question, objectives, design, expected data and results. This is because each tool and instrument collects specific data. Primary data on the relation between agricultural credit financing and financial performance was collected. Secondary data was obtained from relevant literature review from, financial credit journals, magazines and the internet. Primary data was collected using questionnaires. The researcher used a questionnaire as the data collection tool to collect views from the respondents on the relation between agricultural credit financing and financial

performance. The questionnaires were structured in a way that all relevant information was given. The questionnaire consisted of two sections, where the first part was mainly contain demographic information. This enabled the researcher to know the nature of the small scale farmers, while the second part focused on the relationship between agricultural credit financing and financial performance.

3.6 Pilot Testing

The researcher carried out a pilot study to pretest and validate the questionnaire and the interview guide. According to Cooper and Schindler (2003), the pilot group can range from 30 to 150 depending on the method to be tested but it does not need to be statistically selected. This was in line with a qualitative research design methodology employed in this research proposal.

3.6.1 Validity

According to Cathy (2004) validity is the degree by which the sample of test items represents the content the test is designed to measure. Content validity which is employed by this study is a measure of the degree to which data collected using a particular instrument represents a specific domain or content of a particular concept. Mugenda and Mugenda (1999) (Mugenda, 1999) contend that the usual procedure in assessing the content validity of a measure is to use a professional or expert in a particular field.

To establish the validity of the research instruments the researcher sought opinions of experts in the field of study especially the lecturers in the department of Business Administration. This facilitate the necessary revision and modification of the research instrument thereby enhancing validity.

3.6.2 Reliability

According to Nicholas (2001), reliability refers to the consistency of measurement and is frequently assessed using the test–retest reliability method. Reliability is increased by including many similar items on a measure, by testing a diverse sample of individuals and by using uniform testing procedures.

The researcher intended to select a pilot group of 30 individuals from the target population at small scale famers to test the reliability of the research instrument. This was achieved by first stratifying the individuals according to level of education. The researcher also put in consideration gender equity and geographical background of individuals. The pilot data will not be included in the actual study. The pilot study allowed for pre-testing of the research instrument. The clarity of the instrument items to the respondents was established so as to enhance the instrument’s validity and reliability. The pilot study enabled the researcher to be familiar with research and its administration procedure as well as identifying items that require modification. The result helped the researcher to correct inconsistencies arising from the instruments, which will ensure that they measure what is intended.

3.7 Data Analysis

The researcher perused the completed research instruments and document analysis recording sheets. Quantitative data collected using questionnaires was analyzed by the use of descriptive statistics using SPSS (Statistical Package for Social Sciences) and was presented through percentages, means and frequencies. The information was displayed by use of frequency tables, charts and other figures applicable in data presentation. Content analysis was used to analyze data collected from the open ended questions that is of qualitative nature. According to

Baulcomb, (2003), content analysis uses a set of categorization for making valid and replicable inferences from data to their context. This offers a systematic and qualitative description of the objectives of the study.

The study used simple linear regression to analyze the relationship between agricultural credit financing and financial performance. The analytical model showed how the dependent variable (financial performance) is affected by any changes in the independent variable (agricultural credit finance). The equation to be used was as follows;

$$Y = \beta_0 + \beta_1 x_1 + \beta_2 x_2 + \beta_3 x_3 + \varepsilon$$

Where;

Y – Financial performance (this will be measured by annual revenue from the farmers less costs incurred)

β_0 – constant variable

$\beta_1 x_1$ – agricultural credit finance (measured by amount of funds obtained from financial institutions)

$\beta_2 x_2$ – farm size (measured in acres)

$\beta_3 x_3$ – family size (measured by the number of people per household)

ε – error term

CHAPTER FOUR

DATA ANALYSIS AND INTERPRETATION

4.1 Introduction

This chapter presents the analysis of data and discussion of the research findings. The chapter outlines the findings based on the research objectives. The purpose of this study was to determine the relationship between agricultural credit finance and financial performance with reference to small scale farmers in Kiria Division, Murang'a County. The research findings were presented in form of tables, graphs and charts. Tabulation helped to summarize the data whereas graphs and charts were used to present the study results.

4.2 Response Rate

The researcher targeted a sample size of 50 respondents from which 37 filled in and returned the questionnaires making a response rate of 74%. This response rate was excellent and representative and conforms to Mugenda and Mugenda (1999) stipulation that a response rate of 50% is adequate for analysis and reporting; a rate of 60% is good and a response rate of 70% and over is excellent.

4.2.1 Reliability Analysis

A pilot study was carried out to determine reliability of the questionnaires. The pilot study involved the small scale farmers. Reliability analysis was subsequently done using Cronbach's Alpha which measures the internal consistency by establishing if certain item within a scale measures the same construct.

Gliem and Gliem (2003) established the Alpha value threshold at 0.6, thus forming the study's benchmarked. Cronbach Alpha was established for every objective which formed a scale. The table shows that agricultural credit finance had the highest reliability ($\alpha= 0.815$), followed by farm size ($\alpha=0.810$), and family size ($\alpha=0.715$). This illustrates that all the three variables were reliable as their reliability values exceeded the prescribed threshold of 0.6.

Table 4. 1: Reliability Analysis

Scale	Cronbach's Alpha	Number of Items
Agricultural credit finance	0.815	8
Farm size	0.810	7
Family size	0.715	9

4.3 General Information

4.3.1 Respondents Gender

The findings in figure 4.1 show the gender of the respondents. From the findings, the study established that majority of the respondents were male as shown by 56% while 44% were female. This shows that majority of the small scale farmers in Kiria Division, Muranga county are male.

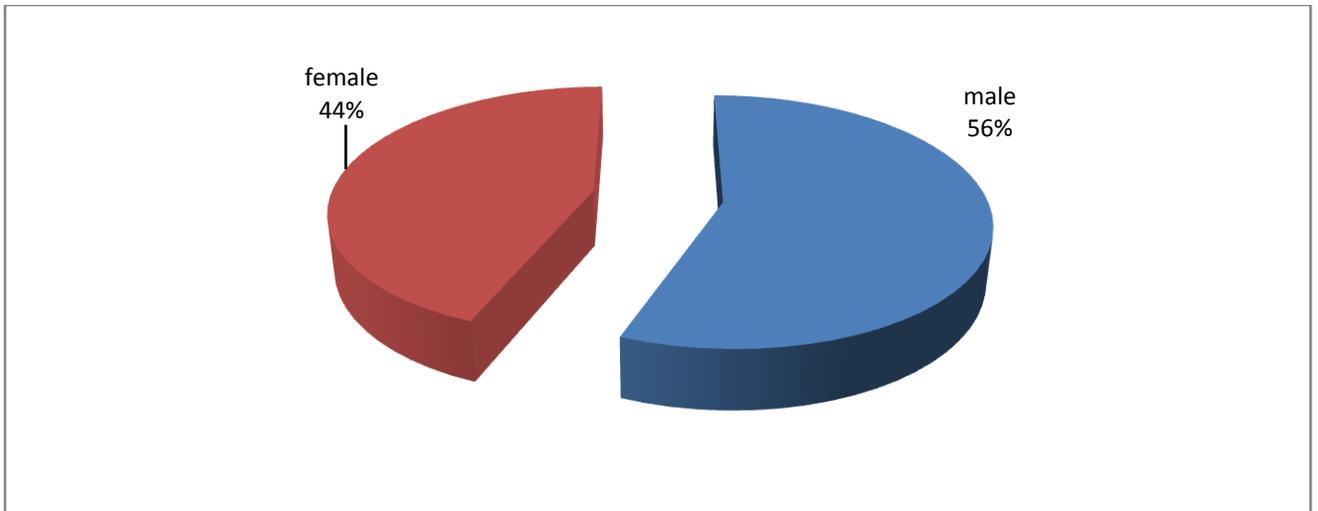


Figure 4. 1: Respondents Gender

4.3.2 Respondents Age

On the age of the respondents, the study found that the majority of the respondents were between 20- 29 years (31.7%), 25% were aged between 40- 49 years, 18.3% were aged below 19 years, 15% were aged over 50 years while 10% were aged between 30-39 years. These shows that majority of the small scale farmers are youth.

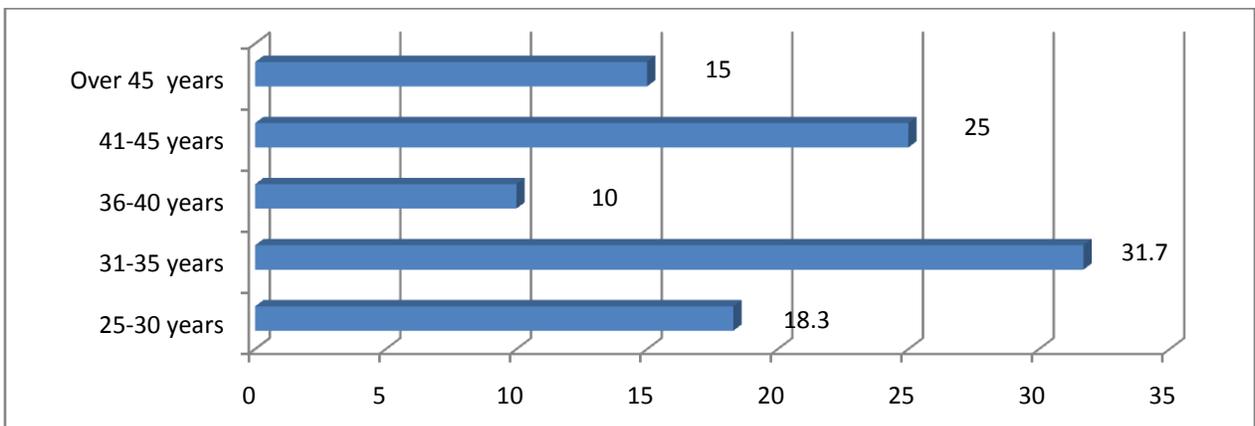


Figure 4. 2: Respondents Age

4.3.3 House Hold Levels

With regard to the household levels,34.2% of the respondents had 2-3 house hold level,26.3% of the respondents had 4-5 house hold level,25% of the respondents had 8-9 and 10-11 house hold level respectively,23.7% of the respondents had 6-7 house hold level,12.5% of the respondents had 13-14 house hold level while 2.5% of the respondents had 12-13 house hold level. According to Muhia (2009), due to the nature of small farms, you'll find that these crops will be consumed by their families as their mode of farming is subsistence farming where they only happen to sell the surplus to the local market.

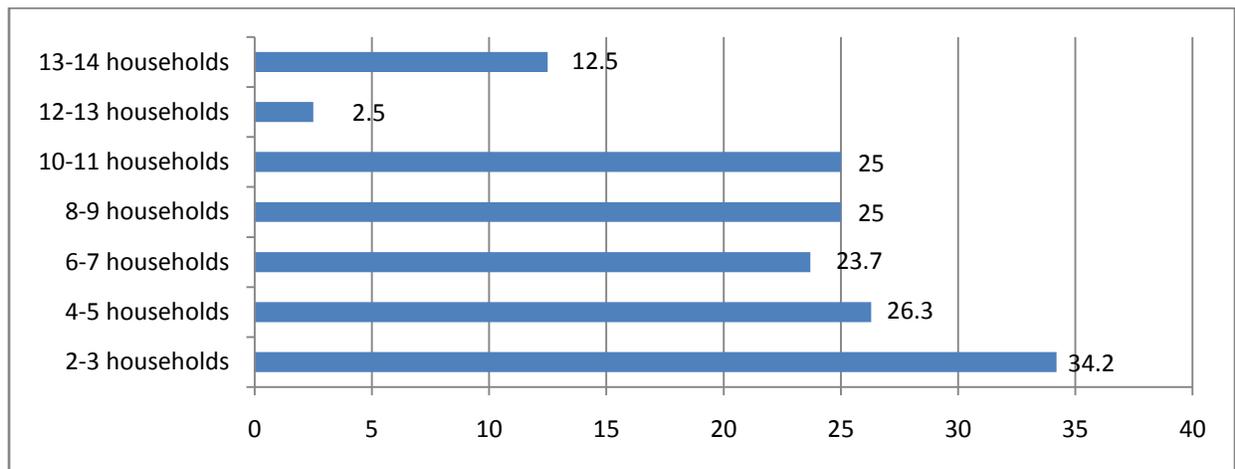


Figure 4. 3: House Hold Levels

4.3.4 Level of Education

From the findings,58.3% of the respondents indicated that secondary school was their highest level of education,35% of the respondents indicated that upper primary was their highest level of education while 6.7% of the respondents indicated that lower primary was their highest level of education.

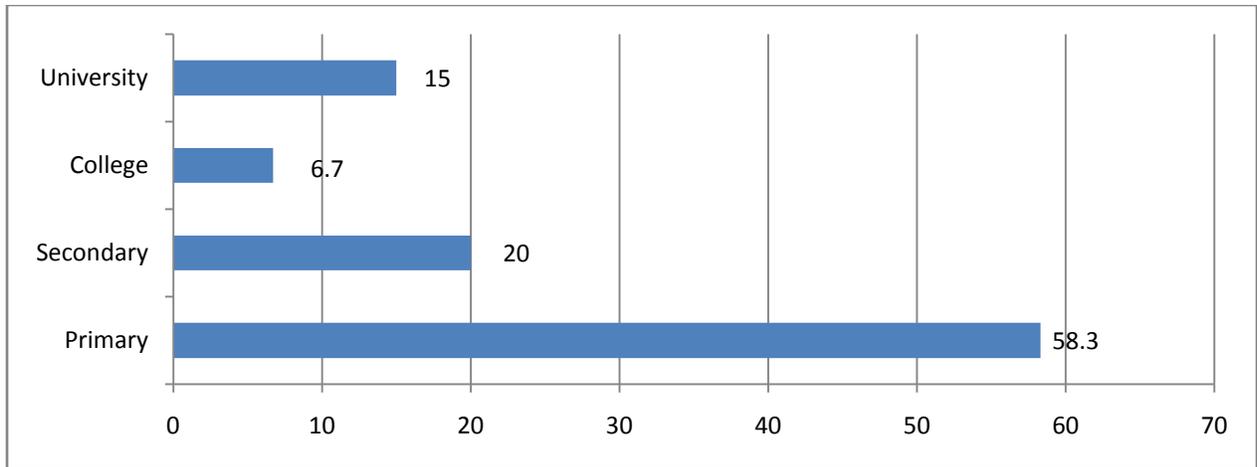


Figure 4. 4:Level of Education

4.3.5 Duration of Years in Farming

According to the findings,34.2% of the respondents had been doing farming for between 1-2 years,26.3% of the respondents had been doing farming between 1-2 years,25% of the respondents had been doing farming for between 1-2 years and above 10 years respectively while 23.7% of the respondents had been doing farming for between 2-5 years.

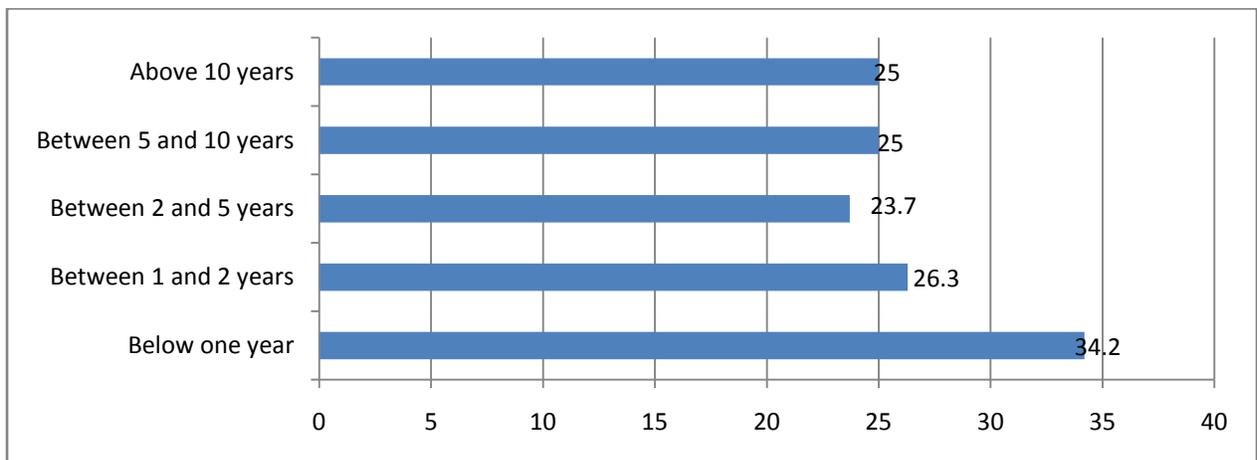


Figure 4. 5:Duration of Years in Farming

4.4 Agricultural Credit Finance and Financial Performance

Financing agriculture continues to be perceived as having high costs of operation, high risks and low returns on investment. Despite good intentions for directing credit to agriculture, the results of the agricultural lending programmes in developing countries commonly have unsatisfactory results with low rates of repayment in spite of (or often partly because of) high subsidies (Asingo, 2004).

4.4.1 Amount of Credit Obtained From the Financial Institutions at any Given Time

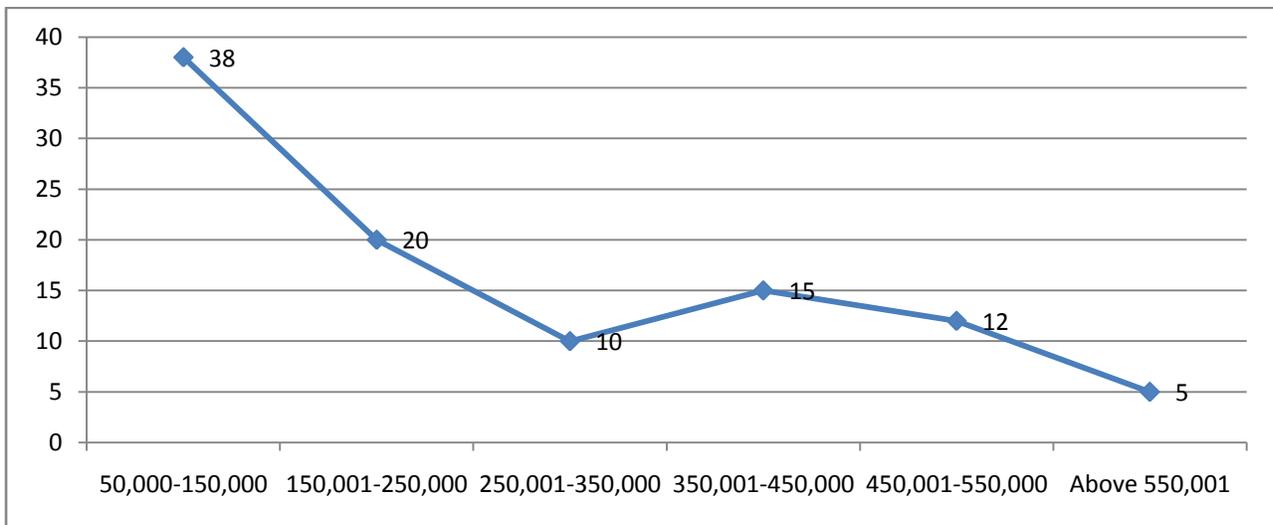


Figure 4. 6: Amount of Credit Obtained From the Financial Institutions at any Given Time

According to the findings, majority of the respondents(38%) indicated that they obtained between Kshs 50,000-Kshs150,000 from the financial institutions at any given time,20% of the respondents indicated that they obtained between Kshs 150,001-Kshs 250,000 from the financial institutions at any given time,15% of the respondents indicated that they obtained between Kshs 350,001-Kshs 450,000 from the financial institutions at any given time,12% of the respondents indicated that they obtained between Kshs 450,001-Kshs 550,000 from the financial institutions

at any given time,10% of the respondents indicated that they obtained between Kshs 250,001- Kshs 350,000 from the financial institutions at any given time while 5% of the respondents indicated that they obtained above Kshs 550,001 from the financial institutions at any given time.

4.4.2 How Often is the Agricultural Credit Obtained

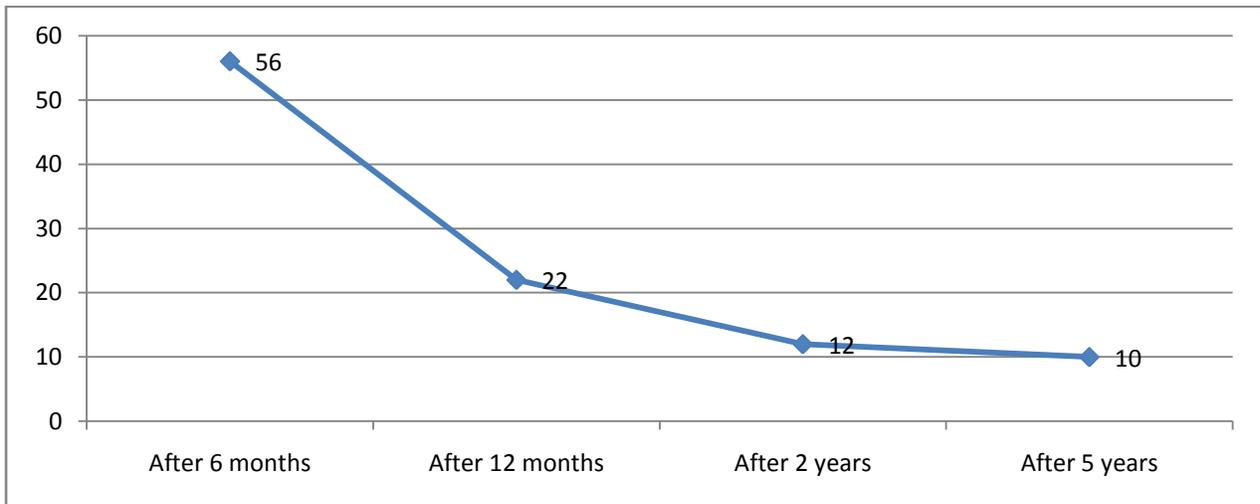


Figure 4. 7:How Often is the Agricultural Credit Obtained

With regard to how often they obtained credit,56% of the respondents indicated that they obtained credit after 6 months,22% of the respondents indicated that they obtained credit after 12 months, 12% of the respondents indicated that they obtained credit after 2 years while 10% of the respondents indicated that they obtained credit after 5 years.

4.4.3 The Average Interest Rate Charged on the Agricultural Credit Advanced

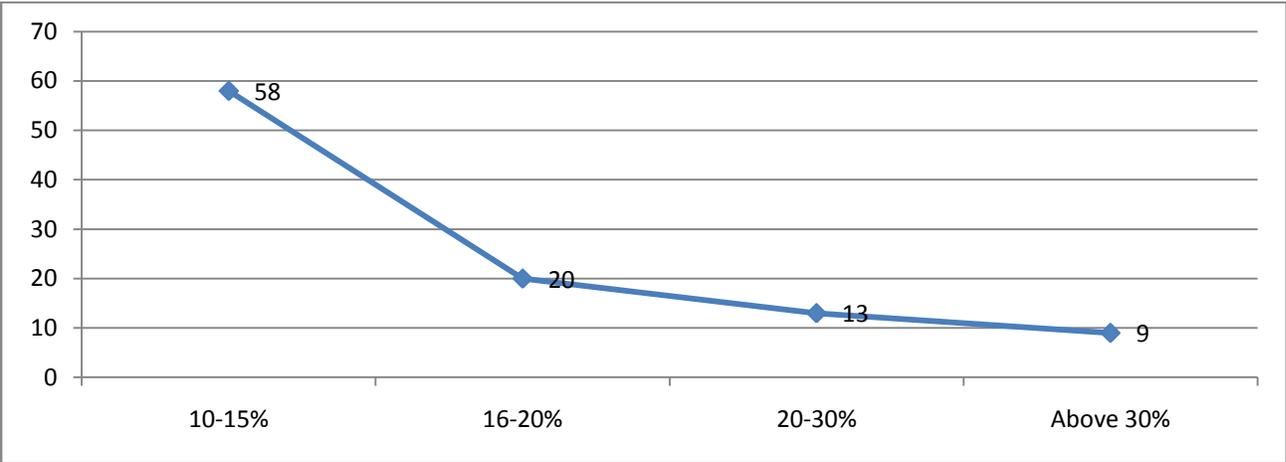


Figure 4. 8: The Average Interest Rate Charged on the Agricultural Credit Advanced

According to the findings, 58% of the respondents indicated that the average interest rate charged on the agricultural credit advanced was between 10%-15% , 20% of the respondents indicated that the average interest rate charged on the agricultural credit advanced was between 16%-20%, 13% of the respondents indicated that the average interest rate charged on the agricultural credit advanced was between 20%-30% while 9% of the respondents indicated that the average interest rate charged on the agricultural credit advanced was above 30%.

4.4.4 Average Repayment Period

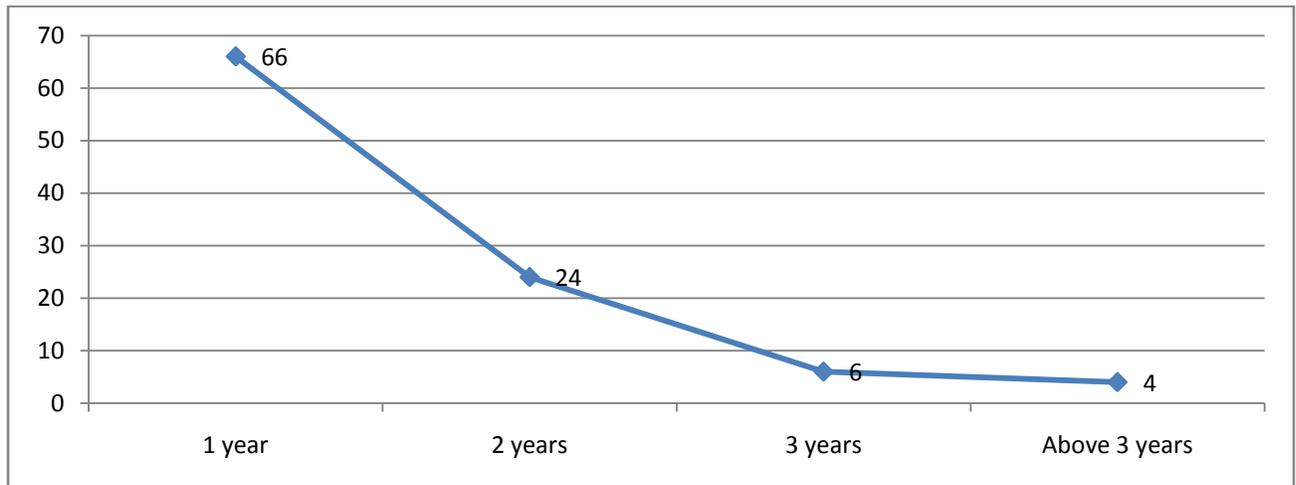


Figure 4. 9: Average Repayment Period

From the findings,66% of the respondents indicated that the average repayment period was one year,24% of the respondents indicated that the average repayment period was two years,6% of the respondents indicated that the average repayment period was three years while 4% of the respondents indicated that the average repayment period was above three year.

4.4.5 Extent to Which the Aspects of Agricultural Credit Financing Affect the Financial Performance of the Farm

The study sought to establish the extent to which aspects of agricultural credit financing affected the financial performance of the farm.

Table 4. 2:Extent to Which The Aspects of Agricultural Credit Financing Affect the Financial Performance of the Farm

	Mean	STDEV
Accessibility of the loan/ supply of loanable funds	4.6091	.29194
Amount of loan received	4.5030	.72822
Loan repayment period	4.4545	.69233
Interest rate charged	4.1515	.80378

From the findings, majority of the respondents indicated that accessibility of the loan/ supply of loanable funds and amount of loan received affected the financial performance of the farm to a very great extent as shown by a mean score of 4.6091 and 4.5030 respectively. The respondents also indicated that the loan repayment period and interest rate charged affected the financial performance of the farm to a great extent as shown by a mean score of 4.4545 and 4.1515 respectively.

This is in line with (Siddiqi, 2004) who points out that credit is an important instrument that enables farmers to acquire commands over the use of working capital, fixed capital and consumption goods. Credit plays an important role in increasing agricultural productivity. Timely availability of credit enables farmers to purchase the required inputs and machinery for carrying out farm operations (Saboor et al, 2009).

4.4.6 Essentials Of Agricultural Development

Table 4. 3: Extent Of Ability To Achieve The Following Essentials Of Agricultural Development To Improve Financial Performance As A Result Of Agricultural Credit

	Mean	Stdev
Planting/start up	4.7576	.61392
Investment in value addition activities	4.5606	.65857
Market for farm product	4.6333	.64550
Constantly changing farming technology	4.4848	.75503
Local availability of supplies and equipment	4.3939	.85944
Production incentives e.g. fertilizers	4.3636	.78817
Transportation	4.5394	.65857

Majority of the respondents indicated that they were able to do planting/start up, market for farm product, investment in value addition activities, and transportation as a result of agricultural credit to a very great extent as shown by a mean score of 4.7576, 4.6333, 4.5606 and 4.5394 respectively. The respondents indicated that they were able to constantly change farming technology, check local availability of supplies and equipment and production incentives e.g fertilizers as a result of agricultural credit to a very great extent as shown by a mean score of 4.4848, 4.3939 and 4.3636 respectively.

These findings concur with Muhia (2009) who postulates that small scale farmers face challenges in marketing their surplus produce, because in most cases they're available in small quantities which are uneconomical to market owing to the high transport costs involved. Most

small scale farmers have little if any knowledge of marketing their produce, making them vulnerable to brokers who take advantage of this fact. These brokers buy in bulk at low prices and later sell two or three times more thus making a kill. This therefore makes agricultural credit financing crucial since it can help the farmers in transportation, making investments, purchasing fertilizers as well as in marketing.

4.4.7 Effects Of Credit Financing On The Farm Financial Performance

Table 4. 4:Level Of Agreement With The Following Statements On The Effects Of Credit Financing On The Farm Financial Performance

	Mean	Stdev
For agricultural practice to be meaningful, one of the enabling factors is addressed by availability of adequate credit to finance agricultural production.	4.5455	.90453
Agricultural credit financing enhances timeliness and quality standards	4.7576	.75126
Providing rural farmers with credit will increase agricultural output and productivity	4.7879	.85723
By extending microcredit to farmers, the level of inefficiency in crop production can be reduced	3.9138	.88426
Extension of microcredit to the farmers can increase their income through provision of job in dire times	4.2807	.83995
Timely availability of credit enables farmers to purchase the required inputs and machinery for carrying out farm operations	4.6982	.73107

From the findings, the respondents strongly agreed that providing rural farmers with credit increased agricultural output and productivity, that agricultural credit financing enhanced timeliness and quality standards, that timely availability of credit enabled farmers to purchase the required inputs and machinery for carrying out farm operations and that for agricultural practice to be meaningful, one of the enabling factors was addressed by availability of adequate credit to finance agricultural production as shown by a mean score of 4.7879, 4.7576, 4.6982 and 4.5455 respectively. The respondents agreed that extension of microcredit to the farmers increased their income through provision of job in dire times and that by extending microcredit to farmers, the level of inefficiency in crop production could be reduced as shown by a mean score of 4.2807 and 3.9138 respectively.

These findings are consistent with Wadud (2013) who postulates that extension of microcredit to the farmers can increase their income through provision of job in dire times that improves access to food. Thus microcredit helps reduce poverty through an increase in food production (availability) and increase in purchasing capability (access) of the farmers.

4.4.8 Challenges in Credit Agricultural Financing

Table 4. 5:Level of Agreement With the Following Statements on the Challenges in Credit Agricultural Financing

	Mean	Stdev
Lack of collateral, low profitability and macroeconomic uncertainty makes banks view the agricultural sector as a high risk consume	4.7333	.75593
Expected declining profitability and macroeconomic uncertainty are discouraging borrowing at high nominal interest rates	4.7500	1.33898
Microfinance institutions do reach low-income households but at a high cost, with short-term loan products that are generally not able to address the full range of agricultural needs.	4.6056	1.60035
Collateral commonly required by the banks is often not available or feasible in rural areas.	4.0722	1.05522
Limited credit and high interest rates often appear as an impediment to agricultural development, inhibiting the acquisition of capital necessary for modern agriculture.	4.0944	1.16667

With regard to the challenges faced in credit agricultural financing, the respondents strongly agree that expected declining profitability and macroeconomic uncertainty were discouraging borrowing at high nominal interest rates, that lack of collateral, low profitability and macroeconomic uncertainty made banks view the agricultural sector as a high risk consume and

that microfinance institutions reached to low-income households but at a high cost, with short-term loan products that were generally not able to address the full range of agricultural needs as shown by a mean score of 4.7500, 4.7333 and 4.6056 respectively. The respondents also agreed that limited credit and high interest rates often appeared as an impediment to agricultural development, inhibiting the acquisition of capital necessary for modern agriculture and that collateral commonly required by the banks was often not available or feasible in rural areas as shown by a mean score of 4.0944 and 4.0722 respectively.

This is consistent with Swinnen and Gow (1997) who argues that the problems in the credit market for agriculture stem from both demand and supply forces. The majority of both private farmers and large scale farm managers indicated that problem in accessing credit were mainly due to- “high interest rates” in all these countries. These high interest rates reflect both transition and structural problems with CEE agriculture. Lack of collateral, low profitability and macroeconomic uncertainty makes banks view the agricultural sector as a high risk consumer. Expected declining profitability and macroeconomic uncertainty are discouraging borrowing at high nominal interest rates. Immediate plans of farmers are uncertain because of the lack of working capital. There is also the long-term problem of ensuring adequate funds to facilitate structural adjustment and to enable farmers to apply effective technologies .

Microfinance institutions do reach some of these low-income households but at a high cost, with short-term loan products that are generally not able to address the full range of agricultural needs. Even more important than the operational costs for transacting a loan or securing investments is the systemic or correlated risk in agriculture. (Republic of Kenya, 2005)

4.5 Regression Analysis

Agricultural productivity can be increased, farmers incomes raised, more people fed and indeed, the general economic welfare enhanced. The SRA (2004-2014) recognizes that to improve smallholder farm productivity as well as increase incomes; smallholder farming must be changed from producing for subsistence to commercial profitable businesses. It will then attract private entrepreneurs willing to invest therein and employ modern farming techniques necessary to achieve increased productivity. In this study, a multiple regression analysis was conducted to test relationship between agricultural credit finance and financial performance with reference to small scale farmers in Kiria Division, Murang'a County. The research used statistical package for social sciences (SPSS V 21.0) to code, enter and compute the measurements of the multiple regressions.

Table 4. 6: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.8204	0.7799	0.7904	0.4920

The adjusted R^2 , also called the coefficient of multiple determinations, is the percent of the variance in the dependent explained uniquely or jointly by the independent variables. 79.04% of the changes in financial performance could be attributed to the combined effect of the predictor variables .

Table 4. 7: Summary of One-Way ANOVA results

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	15.335	1	15.335	79.87	.019 ^a
	Residual	6.907	36	0.192		
	Total	22.242	37			

The probability value of 0.019 indicates that the regression relationship was highly significant in predicting how agricultural credit finance affects financial performance. The F calculated at 5% level of significance was 79.87 since F calculated is greater than the F critical (value = 5.5287), this shows that the overall model was significant.

Table 4. 8: Regression Coefficients of the Relationship Between Agricultural Credit Finance and Financial Performance

Model		Unstandardized		Standardized	t	Sig.
		Coefficients		Coefficients		
		B	Std. Error	Beta		
1	(Constant)	3.942	.334		10.841	.000
	Agricultural credit finance	4.662	.236	0.414	2.679	.023
	Farm size	2.322	.523	0.215	2.412	.034
	Family size	3.221	.325	0.254	1.548	.011

As per the SPSS generated table above, the regression equation becomes:

$$Y = 3.942 + 4.662X_1 + 2.322 X_2 + 3.221 X_3$$

The regression equation above has established that taking agricultural credit finance constant at zero financial performance will be 3.942. The findings presented also show that a unit change in agricultural credit finance would lead to a 0.662 change in the financial performance. A unit change in farm size would lead to a 2.322 change in the financial performance while a unit change in family size would lead to a 3.221 change in the financial performance. This implies that agricultural credit finance had the highest effect on performance followed by family size while farm size had the least effect.

At 5% level of significance and 95% level of confidence, agricultural credit finance had a 0.023 level of significance, farm size had a 0.034 level of significance while family size had a 0.011 level of significance showing that all the variables are significant ($p < 0.05$).

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter presents a discussion of the findings, and conclusions drawn from the findings and finally recommendations for practice and further research on the problem. The purpose of this study was to determine the relationship between agricultural credit finance and financial performance with reference to small scale farmers in Kiria Division, Murang'a County.

5.2 Summary

The study found that accessibility of the loan/ supply of loanable funds and amount of loan received affected the financial performance of the farm. The study also reveals that the loan repayment period and interest rate charged affected the financial performance of the farm. This is in line with (Siddiqi, 2004) who points out that credit plays an important role in increasing agricultural productivity. Timely availability of credit enables farmers to purchase the required inputs and machinery for carrying out farm operations.

The study established that the farmers were able to do planting/start up, market for farm product, investment in value addition activities, and transportation as a result of agricultural credit. Muhia (2009) postulates that small scale farmers face challenges in marketing their surplus produce, because in most cases they're available in small quantities which are uneconomical to market owing to the high transport costs involved. This therefore makes agricultural credit financing

crucial since it can help the farmers in transportation, making investments, purchasing fertilizers as well as in marketing.

The study deduced that providing rural farmers with credit increased agricultural output and productivity, that agricultural credit financing enhanced timeliness and quality standards, that timely availability of credit enabled farmers to purchase the required inputs and machinery for carrying out farm operations and that for agricultural practice to be meaningful, one of the enabling factors was addressed by availability of adequate credit to finance agricultural production. Wadud (2013) argues that extension of microcredit to the farmers can increase their income through provision of job in dire times that improves access to food. Thus microcredit helps reduce poverty through an increase in food production (availability) and increase in purchasing capability (access) of the farmers.

The study also revealed that that expected declining profitability and macroeconomic uncertainty were discouraging borrowing at high nominal interest rates, that lack of collateral, low profitability and macroeconomic uncertainty made banks view the agricultural sector as a high risk consume and that microfinance institutions reached to low-income households but at a high cost, with short-term loan products that were generally not able to address the full range of agricultural needs. Swinnen and Gow (1997) argues that the problems in the credit market for agriculture stem from both demand and supply forces. The majority of both private farmers and large scale farm managers indicated that problem in accessing credit were mainly due to- “high interest rates” in all these countries. These high interest rates reflect both transition and structural problems with CEE agriculture. Lack of collateral, low profitability and macroeconomic uncertainty makes banks view the agricultural sector as a high risk consumer.

The study revealed that 79.04% of the changes in financial performance could be attributed to the combined effect of the predictor variables. The regression findings also show that a unit change in agricultural credit finance would lead to a 0.662 change in the financial performance. A unit change in farm size would lead to a 2.322 change in the financial performance while a unit change in family size would lead to a 3.221 change in the financial performance.

At 5% level of significance and 95% level of confidence, agricultural credit finance had a 0.023 level of significance, farm size had a 0.034 level of significance while family size had a 0.011 level of significance showing that the variable is significant ($p < 0.05$).

5.3 Conclusions

From the findings, the study concludes that credit is an important instrument that enables farmers to acquire commands over the use of working capital, fixed capital and consumption goods. The study also concludes that credit plays an important role in increasing agricultural productivity. Timely availability of credit enables farmers to purchase the required inputs and machinery for carrying out farm operations.

The study further concludes that through agricultural credit financing, agricultural productivity can be increased, farmers incomes raised, more people fed and indeed, the general economic welfare enhanced. The study concludes that agricultural credit is an integral part of the process of modernization of agriculture and commercialization of the rural economy. The introduction of easy and cheap credit is the quickest way for boosting agricultural production.

The study also concludes that the agriculture as a sector depends more on credit than any other sector of the economy because of the seasonal variations in the farmers returns and a changing

trend from subsistence to commercial farming. Credit may provide them opportunity to earn more money and improve their standard of living.

5.4 Limitations of the Study

The researcher encountered various limitations that were likely to hinder access to information that the study was looking for. The main limitation of study was its inability to include more divisions across the Country. This was a study focusing on the small scale farmers in Kiria Division in Muranga County. The study could have covered more divisions across country so as to provide a broader based analysis however time and resource constraints placed this limitation.

The respondents approached were reluctant in giving information fearing that the information sought would be used to intimidate them or print a negative image about their farming activities. The researcher handled the problem by carrying an introduction letter from the University and assured them that the information they gave would be treated confidentially and it would be used purely for academic purposes. The small size of the sample could have limited confidence in the results and this might limit generalizations to other situations.

Reluctance to respond to questionnaires was another limitation in collecting the required data for the study. This was due to some reservations held by the target population. This hence would have led to generalization during the analysis and presentation of the data made from those who responded to represent the views of the rest of the respondents. The researchers countered the limitation by making prior arrangements with the respondents as well as making personal calls and visits to remind the respondents to fill in the questionnaire.

5.5 Recommendations for Policy and Practice

Foremost the study recommends that the government of Kenya needs to recognize its role in the creation and maintenance of a financial infrastructure that supports agricultural credit financing. It should direct prudential regulation and supervision, especially for those institutions handling deposits, demanding information that clarifies the financial performance of banks, thereby ensuring transparency.

The government may also provide seed capital for or temporary subsidies to strengthen small scale farmers. A significant cause of food insecurity often arises from disasters, some of which appear to be occurring with increasing frequency. National government as well as communities and their local authorities must consider long-term approaches to be better prepared for disasters and including rehabilitation so that communities are less vulnerable to the next disaster.

A pluralistic institutional framework would promote the advancement of "mixed economies, " whereby public and private sectors cooperate more closely. There is evidence that high rates of adoption of improved agricultural technologies occur when government organizations, NGOs, and private organizations form partnerships in extending agricultural technologies to farmers. Adoption of improved technical recommendations appears to be partnership specific, and in turn partnerships are context specific. A pluralistic institutional framework would mandate that programmes be planned, implemented and evaluated jointly by multisectoral service providers on a location specific basis in cooperation with farmers.

The study recommends that the government should create social safety nets. In addition to promoting farm related, income-generating activities with the help of agricultural extension services, government must consider the plight of those who for whatever reason cannot support

themselves, either by farming or other enterprise. These are the rural poor who either temporarily or permanently lack resources to either feed themselves or acquire the money to access food. Some may simply lack the potential for producing marketable surpluses. Others may have suffered losses for reasons due to changes in market prices, or lack of markets. Many are otherwise incapacitated, individually or because of poor land resources. These people require public sector safety nets. Some may require assistance during and following natural disasters.

5.6 Recommendations for Further Research

To Bridge the gap between panacea and development this study recommends further institutional research beyond the agricultural economic aspect of activities of agricultural lending. This is with the aim of development of frameworks that's will enable organization of resource systems, the resource units generated by the systems, the users of those systems, and the governance of the systems to effect positive interactions in the resulting outcomes achieved at particular times and places.

Further studies should be undertaken in all the other counties in Kenya and thus give conclusive recommendations that would be adopted countrywide. Thirdly, further studies should also be done on the factors that affect the successful agricultural credit financing in Kenya.

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APPENDICES

Appendix 1: Research Questionnaire

Answer all questions as indicated by either filling in the blank or ticking the option that applies.

SECTION A: DEMOGRAPHIC INFORMATION

1. What is your gender?

Male []

Female []

2. What is your age bracket?

25-30 []

31-35 []

36-40 []

41-45 []

Above 45 []

3. How many are you in your household? (No of persons)

4. What is your level of education?

Primary []

Secondary []

College []

University []

Other []

5. For how long have been in farming?

Below one year []

Between 1 and 2 years []

Between 2 and 5 years []

Between 5 and 10 years []

Above 10 years []

6. What is the size of your farm?..... Acres

SECTION B: AGRICULTURAL CREDIT FINANCE AND FINANCIAL PERFORMANCE

For questions in this section, please answer to the best of your knowledge

7. What is the amount of credit that you obtain from the financial institutions at any given time?

50,000-150,000 []

150,001-250,000 []

250,001-350,000 []

350,001-450,000 []

450,001-550,000 []

Above 550,001 []

8. How often do you obtain agricultural credit?

After 6 months []

After 12 months []

After 2 years []

After 5 years []

9. What is the average interest rate charged on the agricultural credit advanced?

10-15% []

16-20% []

20-30% []

Above 30% []

10. What is the average repayment period?

1 year []

2 years []

3 years []

Above 3 years []

11. What is your average revenue generated on a monthly basis? (In KES)

12. What are your total costs incurred including interest expense on credit granted?
..... (In KES)

13. To what extent do the following aspects of agricultural credit financing affect the financial performance of your farm? (Mark/Tick as appropriate using a 5-point scale, where: 1=Not at all, 2=little extent, 3=Moderate extent, 4=Great extent, 5=Very great extent)

	1	2	3	4	5
Accessibility of the loan/ supply of loanable funds					
Amount of loan received					
Loan repayment period					
Interest rate charged					

14. To what extent are you able to achieve each of the following essentials of agricultural development to improve your financial performance as a result of agricultural credit?
(Mark/Tick as appropriate using a 5-point scale, where: 1=Not at all, 2=little extent, 3=Moderate extent, 4=Great extent, 5=Very great extent)

Essentials of agricultural development	1	2	3	4	5
Planting/start up					
Investment in value addition activities					
Market for farm product					
Constantly changing farming technology					
Local availability of supplies and equipment					
Production incentives e.g. fertilizers					
Transportation					

15. What is your level of agreement with the following statements on the effects of credit financing on the farm financial performance? Use a scale of 1-5 where 1= strongly disagree, 2= disagree, 3=neutral, 4=agree and 5= strongly agree.

	1	2	3	4	5
For agricultural practice to be meaningful, one of the enabling factors is addressed by availability of adequate credit to finance agricultural production.					
Agricultural credit financing enhances timeliness and quality standards					
Providing rural farmers with credit will increase agricultural output and productivity					
By extending microcredit to farmers, the level of inefficiency in crop production can be reduced					
Extension of microcredit to the farmers can increase their income through provision of job in dire times					
Timely availability of credit enables farmers to purchase the required inputs and machinery for carrying out farm operations					

16. What is your level of agreement with the following statements on the challenges in credit agricultural financing? Use a scale of 1-5 where 1= strongly disagree, 2= disagree, 3=neutral, 4=agree and 5= strongly agree.

	1	2	3	4	5
Lack of collateral, low profitability and macroeconomic uncertainty makes banks view the agricultural sector as a high risk consume					

Expected declining profitability and macroeconomic uncertainty are discouraging borrowing at high nominal interest rates					
Microfinance institutions do reach low-income households but at a high cost, with short-term loan products that are generally not able to address the full range of agricultural needs.					
Collateral commonly required by the banks is often not available or feasible in rural areas.					
Limited credit and high interest rates often appear as an impediment to agricultural development, inhibiting the acquisition of capital necessary for modern agriculture.					

THANK YOU FOR YOUR PARTICIPATION