

**CREDIT ACCESSIBILITY AND PERFORMANCE OF SMALL SCALE FARMS IN  
TAITA TAVETA COUNTY, KENYA**

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## **DECLARATION**

This research project is my original work and has not been presented for the purpose of a degree course in any other university.

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## **DEDICATION**

I dedicate this work to my wife Betty, my children Karyna, Ryan & Himidi Tole and the entire family for the sacrifice they made for me to complete this project. Their love, care, concern, support, encouragement and enthusiasm inspired me to achieve this goal. My praise also goes to Almighty God for His provision throughout the project.

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## **ABBREVIATIONS AND ACRONYMS**

<b>ASAL</b>	- Arid & Semi-Arid Areas
<b>GDP</b>	- Gross Domestic Product
<b>MFI</b>	- Micro Finance institution
<b>SACCO</b>	- Savings and Credit Cooperative
<b>SME</b>	- Small & Micro Scale Enterprise
<b>SPSS</b>	- Statistical Program for Social Sciences

## OPERATIONAL DEFINITION OF TERMS

**Agricultural Credit Access:** Availability of funds to be used in Agricultural production.

**Agricultural credit:** A credit financing vehicle, such as a loan, banker's acceptance or letter of credit, that is designed specifically for agricultural producers.

**Farm:** An area of land and its buildings, used for growing crops and rearing animals

**Performance:** This refers to a planned qualitative and quantitative measurement or estimation of the extent to which specific objectives have been met or accomplishment of a given task measured against preset known standards of accuracy. In this study it refers to achievement of desired profitability in a small scale agricultural venture.

**Loan Pricing:** Cost criteria on loans acquired from financial institutions

**Loan Repayment Schedule:** a laid down procedure with timelines of repayment, amount of loan acquired, interest principle payable and loan balance.

**Record keeping:** The process recording transactions between lenders and farmers.

**Small Scale Farms:** This is production of crops and livestock on a small piece of land without using advanced technology. It is characterized by annual turnover less than Sh.120,000 or 10,000 per month.

## **ABSTRACT**

Agriculture is considered the backbone of the Kenyan economy since it contributes to approximately 25 percent of the gross domestic product. It earns a significant amount of foreign exchange since it provides for all food supplies in the country in addition to creating employment to almost 70 percent of the entire population in either a direct or an indirect manner. The study therefore focused on evaluating Agricultural credit as well as its effect on small scale farm production in Taita Taveta County. Its aim was to the effect of credit accessibility on performance of small scale farms in Taita Taveta County, Kenya. The specific objectives were to determine the loan pricing influence on small scale farms found in Taita Taveta County, to assess the impacts of loan repayment schedules on performance of small scale farming in Taita Taveta County, to evaluate the influence of record keeping on performance of small scale farming in Taita Taveta County, and to identify the impact of formal lending facilities availability on small scale farming performance in Taita Taveta County. In small scale production there are numerous challenges faced in small scale agriculture among them being lack of information as well as limited resources. In traditional or subsistence farming, there are no crop rotation practices since most of the farmers prefer mixed farming that entails same crop production in all the seasons which in turn leads to the buildup of pest and diseases. As a result, investigations needed to be done to identify the agricultural credit impact in ASAL areas since different regions suffer in different ways. In other words, this study is meant to assess the Agricultural credit and its influence on farms performance in Taita Taveta County, Kenya. The study was anchored on the trade- off theory of capital structure, the theory of Information Asymmetry, Adverse Selection Theory, the Pecking Order Theory, and the demand and Supply Theory. The study utilized descriptive review method. The research targeted 1101 small scale farms living in 4 sub counties across the county. Therefore, a 111 sample size made of small scale farms was used to represent the target population by the use of simple arbitrary sampling to provide for every member of the target population. The data was gathered by using a self-administered questionnaire, analyzed by use of descriptive statistics utilizing graphs and tables. SPSS was used to analyze data through a regression model.

## CHAPTER ONE

### INTRODUCTION

#### 1.1 Background of the study

A key enhancement challenge for the past decades has been to increase horticultural competence. One restriction confronting farmers is lack of access to formal credit that will empower them so as to exploit monetary odds which expand the yield levels and in turn move out of insolvency. Small scale agriculturists and the provincial poor have been worried about the design of different money related segment strategies. Rural fund is committed to financing rural related exercises, for example, input supply, creation, preparing and dispersion (Meyer *et al.*, 2015). Little advances to provincial farmers, once in a while legitimize the expenses of lawful activity to bring in a case on land and then sell it.

Essentially, versatile resources, for example, domesticated animals and hardware are additionally genuinely high hazard without confirmation of proprietorship and protection cover. Subsequently, access to credit by farmers turns out to be a liability due to the loaning terms placed by the data asymmetry together with banks (Kayizi, 2015). Genuine data sharing between the borrowers and banks can reduce dangers and increase credit access by authorizing screen borrowers in banks at a lower cost. Nonetheless, because of absence of precise data about people or firms and their monetary foundation, the saving money industry thinks that it is difficult to choose a decent customer.

A moneylender in back is characterized as any individual or association occupied with the matter of making purchaser credits or business advances. These credits might be unsecured, anchored by individual property, genuine assets or a blend of genuine and individual property. Loaning at that point alludes to the movement or business of making shopper and business advance items.

O'Donoghue, Hoppe, Banker and Korb (2016) characterized a farm as any entity that delivers farming merchandise for business purposes. Farmers can be little business cultivate, business possessed by one family unit or expansive homesteads that regularly have numerous partners, including a few proprietors or investors who may give considerable capital, however little on-cultivate work or management. The proprietors of these organizations that create rural items available to be purchased are the farmers.

In Kenya, agriculture keeps on being a key instrument for feasible improvement, destitution decrease and upgraded sustenance security in creating nations. According to a report regarding Food security that was gathered by Kenya Agricultural Research Institute, farming gives 24 percent of the national Gross Domestic Product in particular with 27 percent of GDP in an approximately way using linkages that deal with transporting, administration and transportation related parts (Ademola, *et al.* 2013). Additionally, the report demonstrates that around 45 percent of Government profits are generated through agribusiness. Moreover, it shows that agriculture offers more than 75 percent of contemporary basic materials and more than half of fare profit. This segment is likewise the biggest participant in the economy. It represents 60 percent of the aggregate business. More than 80 percent of the populace particularly those living in country regions, mostly get their vocation from gardening together with its associated exercises (Kenya Economic Survey, 2012).

Kenya Vision 2030 has perceptibly identified agriculture to be among the six major segments of the monetary feature (alongside tourism, discount and exchange, manufacturing, money related administrations and IT empowered administrations) anticipated that would drive the economy to an anticipated 10 percent development every year over the following two decades. It additionally perceives that there are in excess of 5 million small holders occupied with various kinds of

agricultural exercises in the nation. Agriculture is subsequently key to the accomplishment of Vision 2030 whose objective will be acknowledged halfway by the advancement of a creative, economically arranged and present day Agriculture. To make this progress in the cultivating part, farmers require monetary help that usually seems to be slippery and for that reason, commercialization of farming has failed to flourish amongst most agriculturists (Kenya Vision 2030).

The difficulties facing global agriculture in the future decades are impressive, both as a nourishment supplier and more expansively, as a development impetus of building nations. The segment should encourage an anticipated populace of 9 billion folks come 2050. The Food and Agriculture Organization (FAO) estimates that a normal yearly venture amounting to 209 billion dollars is anticipated to cater for projected sustenance demand in 2050 thus a lot more is essential in dispensing the appetite as well as the target impoverishment and malnourishment (FAO, 2015). Additionally, viewed using various normal financial, social, and ecological difficulties, creating nations require long haul supportable, expanded speculation, incorporating interest in Agriculture; and in this setting an extra normal yearly venture of some USD 250 billion every year until the point when 2030 is obligatory (UNCTAD, 2014). Nevertheless, the anticipated Agricultural endeavor gap is huge and in numerous creating nations will no doubt require larger scale corporate investment, well beyond existing sources.

In many nations, both rich and poor, normal yield is generally little, suggesting that the business is overwhelmed by proprietor worked families that consolidate responsibility for primary methods for generation with management. To be sure, at a worldwide scale, Agriculture is one of couple of businesses construct overpowering based with respect to a family firm form; that is, farms are owner worked and depend to a great extent on family labor (Lipton, 2015). The main

reason is the fact that Agricultural invention contains a couple of particular scale (dis) economies, concluding that a range of creation organizations can survive together. There are three rationalizations behind the insistence of the family farm exhibited even in rich countries (Barasa, 2013). First of all, for those who seek to produce surplus, family consultants will probably work harder compared to wage laborers who need exclusive supervision. This is dangerous since Agriculture requires adjustment to smaller scale ambiance as well as a spatially scattered condition. Proprietor administrators likewise have an understanding of neighborhood soil and atmosphere, frequently amassed over ages that provide a favorable spot in appropriate management for the neighboring conditions in addition to the adaptation process after rapid changes have been made to the management in both the economic and regular sites (Danso, & Adomako, 2014). In addition, family cultivates have impressive adaptability to modify work supply to the regularity and yearly inconstancy of creation since family work would more be able to effectively be reallocated to different assignments, on and off the farm.

For poorer, land scarce nations, little homesteads bring more points of interest over large farms, including their more noteworthy monetary proficiency, their commitments to making greater business and employment, diminishing destitution and enhancing food sustainability and their utilization designs which help vitalize the provincial non farming economy (Ibrahim, & Bauer, 2013). The proficiency of littler homesteads has been shown by a noteworthy collection of observational examinations demonstrating a backwards connection between cultivate size and land efficiency (Finnerty, 2013). They contended, small farmers regularly accomplish their higher profitability with insufficient capital powers than expansive holdings.

### **1.1.1 Credit Accessibility**

Credit happens to be a critical device that is essential for empowering farms to acquire command required in utilizing the working capital, utilization products as well as the fixed capital. Credit usually presumes a crucial part in increasing the profits gained from agricultural endeavors (Ibrahim, & Bauer, 2013). Countryside credit financing is applicable in that farmers are offered vehicles on credit and in turn give agricultural production as an exchange that involves the cash, untimely payments, trade bills as well as the acknowledgments derived from brokers. These types of financing are change in that they money caters for associated requirements of the farmers which are usually brought about by gathering, planting as well as marketing cycles (Karumbi, 2013).

In order for farming to be remarkable, access to satisfactory credit meant to cater for agricultural generation is considered to be the empowering factor (Khandker, & Koolwal, 2015). The loaning market of farming across different countries involves taking some money associated to foundations and units that can adequately loan resources to encourage the creation of farm output, harvest and animals. These business sectors are fundamentally comprised of commercial banks, other financial arrangement firms and individuals. Be that as it may, the market additionally incorporates specific establishments, for example, Agricultural Co-agents and Rural Development Banks (Langat, 2013). In this manner, opportune accessibility of credit empowers farmers to buy the required injections and machinery to necessitate operations.

Horticulture as a segment usually relies on the use of loans which is different from other segment of the economy with regards to intermittent assortments in the agriculturists' returns as well as the varying patterns experienced while moving from subsistence to commercial cultivating. Credit can offer winning chances to farmers and in turn enhance their livelihoods (Maurer, 2014).

It enables these participants to fulfill the money needs incited by the creation cycle which portrays Agriculture: land planning, planting, development and reaping of the products are normally done over a time during which almost no money income is earned, while uses on materials, bought information sources and utilization should be made in real money. Cash inflow is gotten a brief span after the gather. Without credit markets, agriculturists would need to keep up money reserves to encourage creation and utilization in the following cycle. The accessibility of credit permits both more noteworthy utilization and more prominent acquired input acquisition and therefore boosting farms welfare (Tyler and Dixie, 2012).

Horticultural credit happens to be a basic agricultural development component essential in creating countries across the world. It can be described as a brief individual substitute required in funds investment thus helping in speeding innovation, that empowers agricultural development through enhancing small scale farms profitability, resource arrangement and nourishment security, hence enhanced agricultural output (Matavire, & Gangata, 2013). For example, agricultural financing in Brazil and India is given highest priority. Through the private financing segment of the World Bank, the International Finance Corporation (IFC) together with different banks have managed to create robust Agricultural credit (World Bank, 2013). The accessibility of formal fund to the smallholder agriculturists is fundamental, in the event that they are to deliver an attractive surplus and in this manner add to the improvement procedure (World Bank, 2008). Poor access to credit by smallholder farmers who are most of the area drivers is among the major oppressing variables (World Bank, 2013).

Studies done around there demonstrate that other than its critical significance in the general improvement process, little scale cultivating in creating nations to an expansive degree is constrained by credit. The Agriculture segment in these economies usually characterized by little

and marginal participants; governments assume a functioning part and initiate policy measures that are frequently assessed so as to enhance the livelihoods of such type of farmers (Khandker and Koolwal, 2015).

According to Akinbode (2013) credit refers to the remarkable militating factor against Agricultural advancement and generations in Nigeria. Lack of closeness regarding the acknowledge establishments is an issue that faces the members since they are required to undergo long separation trips in order to access credit sources as well as repressing elevated Agricultural creation. Moreover, the use of payment gathering turns out to be an issue that is caused by individuals who fail to repay credits within the specified time. Socio-cultural components is yet another handicap as a rule, regions, sex, religion, education level, cultivate size and long stretches of experience among others are consideration for advance obtainment. Convenience of advance obtainment is poor accordingly agriculturists don't get credits when in need. Ekwere (2014) finalized an investigation regarding Agricultural Credit Facility and the impact it brings about on the Rural Development as well as agricultural production. He states that a determined helpful training regarding credit should be given to the credit utilizers before getting endowed to it. In this approach, Agricultural credit trainings could be sorted out so as to ensure that credit gets used in an adequate way. In any case, Agricultural credit offices have been far distant to small business producer groups.

### **1.1.2 Performance of small scale farms in Taita Taveta County**

According to County Government of Taita Taveta, (2018), although most of the smallholder farms engage in diversified farm enterprises such as Tomatoes, bananas, onions, green grams, beans, cabbages and dairy keeping among others, very few smallholder farmers (0.5%) venture in innovative and emerging livestock enterprises such as ostrich farming, crocodile farming, tortoise

farming, silkworm farming, snail farming and butterfly farming. County Government of Taita Taveta, (2013) further notes that very few smallholder farmers engage in innovative crop enterprises such as moringa, mushroom, aloe vera and jatropa farming among other crop enterprises. The failure by these smallholder farmers in Taita taveta to engage in innovative and specialty enterprises has made them to miss on the entrepreneurship opportunity of creating niche markets (RoK, 2014). On the other hand, UoN and ASDSP (2014) recons a situation of a limited use of modern technologies among smallholder farmers in Taita Taveta. In this regard UoN and ASDSP (2014) observe that only about 20% of the smallholder farmers that engage in the dairy enterprise keep any of the pure dairy breeds such as ayrshire, friesland and jersey among others while for the smallholder farmers that engage in irrigated farming, only about 8% use innovative technologies like drip irrigation technology. Further UoN and ASDSP (2014) observe that although a number of modern market facilities such as market shades exist in Taita taveta county, not many smallholder farmers sell their products in packaged form and majority of them market their products by displaying them in the open air. For Mwaluko (2012), only about 5% of the smallholder farmers in Taita Taveta county engage in innovative marketing initiatives such as digital marketing as in most of the trading centres and in major urban towns majority of the smallholder farmers sell their products along the road reserves through agents and brokers.

### **1.1.3. Credit Accessibility and Performance**

There is a strong relationship between credit accessibility and performance of SMEs. The inaccessibility of credit and capital is a major impediment to the development of SMEs, particularly because it prevents them from acquiring the new technology that would make them more productive and more competitive (Matavire, & Gangata, 2013). Access to finance will provide assistance to SMEs in the area of accounting, financial management and entrepreneurship

that complies with national accounting requirements and/or best practices, this will improve the performance of SMES (UNCTAD 2012). Entrepreneurs and small business owners often turn to access to finance in order to establish or expand their business ventures. Business enterprises that choose this method of securing funding, which is commonly called debt financing, need to be aware of all components of those loan agreements, including the interest. Many studies have linked the access to finance to performance. They assert that the access to finance which is a component of operating expenses, profit motive, access to finance and inflation rate in the country significantly affects the performance of small scale enterprises. This is measured in terms of level of output, level of revenue and level of employment depending on how the borrowed money is put to use (Mostafa, & Boregowda, 2014).

According to Kappel and Steiner (2014), the access to finance is not a problem as long as the borrowed money is invested in ventures with high rate of return. They however found out that for this to be achieved, a big amount of capital should be accessed by the borrowers in order for them to increase their levels of investment so as to enjoy economies of scale. Their finding was confirmed by (William, 2016) who found out that loan performance is influenced by the loan size and loan repayment period. According to him, the bigger the amount of borrowed money with longer repayment period the better will be the liquid of the enterprise as well as high levels of profitability that will be achieved after meeting the obligation of loan repayment.

According to (MFPED, 2014) a high interest rate regime with shorter loan repayment period undermines the financial performance of small scale enterprises through increased probability of default and non-performing assets that affect liquidity. It further threatens the financial long term solvency of private sector businesses and especially of local origin, mainly small scale

enterprises. Moreover, as a result of compounding, a continually rising interest rate increases loan repayment obligation over time and constrains small scale enterprises operations. The high cost of credit and the small loans available to small scale enterprises not only affect private sector business through increased costs of operation, but affects production performance and this has negative effect on liquidity and profitability of the enterprises (Wright et al, 2015).

#### **1.1.4. Small Scale Farms in Taita Taveta**

Taita Taveta County is located in the coastal region of Kenya and it lies between 200 km northwest of Mombasa and 360 km southeast of Nairobi. The county occupies 17,083.9 km<sup>2</sup> with 11,100 km<sup>2</sup> which is equivalent to a 62 percent mass being located inside Tsavo East and Tsavo West National Parks. Based on the information derived from Kenya National Bureau of Statistics (2010), Taita Taveta is made up of 287,243 individuals as per the 2009 census which can be further divided into 85,643 family units. The county is divided into four sub provinces namely Taveta, Voi, Mwatete and Wundanyi. The district experiences a precipitation that is considered to be bimodal. The long rains are experienced in the period between March and June while the short rains are experienced between September and November. Rainfall ranges between 120-500 mm with a normal homestead receiving approximately 2.5ha (Kenya Integrated Household Budget Survey, 2010).

Agriculture has turned out to be the primary financial action in the county with block making, consumption of charcoal, exchanging ranch create as well as various family unit basics like motorcycle transport and carpentry being the alternative exercises of generating money. The hectarage under nourishment and trade edit generation out the County is approximately 18,125 ha with 3,296 ha allocated to individuals. This addresses the insignificant 0.01 percent arable land in the County which makes 2,909.9 Km<sup>2</sup>. For family unit, land accessible for cultivating exercises is

diminished radically because of the nearness of a sum of 28 ranches which consolidated, cover a rough zone of 773.5 Km<sup>2</sup>. Subsistence cultivating is essentially practiced in the region and the primary yields incorporate beans, maize, millet, cassava, sorghum and sweet potatoes. All family units intercrop maize and beans in the area.

Taita Taveta County is a noteworthy domesticated animals raising zone with the principle kinds of domesticated animals reared in Taita Taveta being hamburger cows, sheep, dairy bovines, camels, goats, pigs as well as poultry. The main poultry raised is chicken, in spite of the fact that guinea fowl rising is rising in a few sections of the County. Honey bee together with rabbit rearing are also entailed in domesticated animals' venture that is tried in the County (Wadud, 2013). Cultivating is usually meant for subsistence purposes in that the produce is used at home while the extra is sold in local markets. Horticulture cultivating typically involving vegetable farming is grabbing in a few sections which are close water hotspots for water systems. Kales, cabbages and tomatoes are for the most part developed for the local market.

## **1.2 Statement of the problem**

In small scale production there are numerous challenges faced in small scale agriculture among them being lack of information as well as limited resources. In traditional or subsistence farming, there are no crop rotation practices since most of the farmers prefer mixed farming that entails same crop production in all the seasons which in turn leads to the buildup of pest and diseases. Land scarcity makes shift cultivation impossible leading to the exhaustion that adversely affects the soil since the farming involves chemical and fertilizers inputs in addition to the high cost incurred in production. As a result, a large number of farmers cannot access certified seeds since they are hardly available besides their cost (Karumbi, 2013).

Financial resources access is an important factor that leads to agricultural success thus ensuring capital requirements provision essential in financing its growth. Several research studies have been carried out in this area. According to Kilonzi (2011) issues affecting agriculture can be classified into four major classes which include the natural, social, economic and technical factors. Natural factors which can be considered environmental include climatic issues such as the rainfall amount. Climate change seems to have a significant impact on the Kenyan agriculture which is according to a challenges study conducted by Mabiso *et al.*, 2012) focusing on small scale farms whereby pests and diseases are the cause of continued losses incurred by farmers.

The researcher does not consider the affiliation between farm performance and access to agricultural credit access by involving farm performance experienced arid and semi-arid areas such as Taita Taveta County. A negative variance has been on an increase from 2012 all the way to 2016 with the anticipated output in the county together with the real output derived from various products indicating a continuous decrease in agricultural production in Taita Taveta County. The trend has been evident despite the various policies formulated by the county and national government so as to improve the agricultural performance.

As a result, investigations needed to be done to identify the agricultural credit impact in ASAL areas since different regions suffer in different ways. In other words, this study is meant to assess the Agricultural credit and its influence on farms performance in Taita Taveta County, Kenya.

### **1.3 Objectives of the Study**

#### **1.3.1 General Objective**

To determine the effect of credit accessibility on performance of small scale farms in Taita Taveta County, Kenya.

### **1.3.2 Objectives of the study**

- i) To determine the influence of loan pricing on performance of small scale farms in Taita Taveta County, Kenya.
- ii) To assess the impacts of loan repayment schedules on performance of small scale farms in Taita Taveta County, Kenya.
- iii) To evaluate the influence of record keeping on performance of small scale farms in Taita Taveta County, Kenya.
- iv) To identify the impact of availability of formal lending facilities on performance of small scale farms in Taita Taveta County, Kenya.

### **1.4. Research Questions**

- i) What is the influence of loan pricing on performance of small scale farms in Taita Taveta County, Kenya?
- ii) What is the impacts of loan repayment schedules on performance of small scale farms in Taita Taveta County, Kenya?
- iii) What is the influence of record keeping on performance of small scale farms in Taita Taveta County, Kenya?
- iv) What is the impact of availability of formal lending facilities on performance of small scale farms in Taita Taveta County, Kenya?

### **1.5. Significance of the Study**

Research in Agriculture section outfit furnishes inventors with the significant data in regards to the issues of this segment, which causes them organize diverse zones and earmark essential

resources competitively. This, thus accomplishes allocative efficiency in addition technical efficiency resulting to long haul financial objectives. The present examination may give a stage whereupon the policy makers can dwell on to misuse the potentialities of the Agricultural segment keeping in mind the end goal of fortifying exports, boosting the manufacturing sector and general upward push of the economy with a more elevated amount of allocative and technical efficiency.

The discoveries of the investigation might also be similarly useful for banks to evaluate the variables causing snags in increasing the credit to Agriculturalists in addition to highlighting the approach to address the issues that can uphold such credit. The current examination is expected to be vital for various monetary foundations together with the policy makers to devise suitable arrangement instruments and activities to accomplish their objectives.

The investigation will be used as a source of reference for future researchers dealing with related subjects; thus it might help various academicians who hold a similar topic in their examinations. It will also feature other necessary connections that need further research.

#### **1.6. Scope of the Study**

The study was meant to establish the impact of agricultural credit access on the performance of small scale cultivators in Kenya and was conducted in Taita Taveta County where it involved small scale farmers. It covered the performance of the small scale farms for the last 5 years ranging from 2015-2019. The target population will be the small scale farms in Taita Taveta.

### **1.7. Limitations and Delimitations of the Study**

The county covers wide geographical vicinity made up of numerous small scale farmers. The researcher faced challenges in gathering data from each and every farmer. In addressing this challenge, smaller samples were involved so as to represent the entire population thus saving the cost as well as reducing the time used.

The research period may be considerably short but this was solved by allocation of more time for data collection. The respondents may not fully answer the questions in the questionnaire satisfactorily due their level of literacy and this may affect the analysis of data. To avoid this the researcher explained the importance of the research to the respondents and why they should fill in the questionnaires.

### **1.8. Organization of the Study**

The structure of the project is as follows: chapter one offers the research background, research objectives, significance of the study, scope and limitations likely to be encountered in the course of the study. Chapter two presents literature review on the influence of agricultural credit on performance of small scale farms in Taita Taveta County and a conceptual framework.

Chapter three presents the methodology to be employed in the study, data analysis and presentation.

Chapter four presents data analysis, results and discussions of the findings from data collected, while chapter five presents summary, conclusion and recommendation of the study.

## **CHAPTER TWO**

### **LITERATURE REVIEW**

#### **2.1. Introduction**

This chapter focuses on studies that were previously done by different scholars in relation to the study topic. It shall discuss different theories that helped in achieving the study which was followed by empirical investigations with regards to the study.

#### **2.2. Theoretical Review**

The section aims at highlighting the relevant theories associated with agricultural financing as well as the farm performance.

##### **2.2.1. The Trade- off Theory of capital structure**

The proponents of the theory were Modigliani and Miller in the 1950s, two professors who studied capital structure theory and collaborated to develop the capital-structure irrelevance proposition. The theory states that a company chooses how much debt finance and how much equity finance to use by balancing the costs and benefits (Modigliani and Miller, 1963). It states that there is an advantage to financing with debt, the tax benefits of debt and there is a cost of financing with debt, the costs of financial distress including bankruptcy costs of debt and non-bankruptcy costs. The marginal benefit of further increases in debt declines as debt increases, while the marginal cost increases, so that a firm that is optimizing its overall value will focus on this trade-off when choosing how much debt and equity to use for financing.

Chen (2011) presented the Static Trade- off hypothesis which was further supported by Modigliani and Miller (1963) became the earliest and most apparent since it clarified the capital structure definition and then, Trade- off theory justified that the most optimal capital structures being reached through trade- off between the returns & costs of debt and equity. The trade- off

theory reflects on combination of variables that communally decide the ideal capital structure. Holding the firm's resources as well as the reliable speculation designs constant, a firm optimizes its obligation ratio by bearing in mind the trade-off between the benefits and costs of acquiring credit (DeAngelo and Masulis, 1980; Myers, 1984). At the center of the theory are the tax benefits of obtaining credit (interest tax shield) that are attuned against the operating expense of monetary indebtedness (Myers, 2003). Costs of monetary distress encompass costs of bankruptcy or financial embarrassment.

The firm is assumed to substitute debt for equity and vice versa until the value of the firm is maximized. Monetary distress variables are scrutinized in the trade-off theory literature incorporate the productivity of the firm, profit instability as well as resource specificity. In the agriculture context it would be unwise to disregard other production adverse factors such as weather shocks. Projected insolvency costs of together with other costs related to monetary distress, occur when firm productivity reduces, income instability as well as various increment risks; the thread of these costs forces the firms towards lower leverage targets (Fama and French, 2002).

Mostafa and Boregowda (2014) confirmed that the principal hypothesis regarding capital structure is Modigliani-Miller (MM) proposition. The theory advocates for the firm value is unimportant to financing choice or capital structure. The theory was projected under perfect capital market circumstances (without taxes, transaction costs and information asymmetry) valuation of any firm is independent of its financing choices (Modigliani and Miller 1958). In a simplified setting, the financial tools issued by the firm don't affect its profitability and thereby its value. Despite the fact that, Modigliani and Miller's affirmation relies on presumptions without

genuine world holdings although when these suspicions are relaxed, the capital structure decision transforms into a vital deciding aspect (Sheik and Wang, 2010).

The accompanying uncertainties were set close to them in an invalid manner making the Capital markets to be perfect without cost in chapter 11 or exchange. There are no typical classes of hazard for firms except one type of estimation matters is the commercial expense to be paid to the administration in form of impartial duties. All capital streams are perpetuities with no development issue linked to income is projected; Insiders together with outcasts lack data asymmetry due to the absence of ethical danger facing administrators in the course of working on amplifying the wealth of investor's. Firms usually two case assortments' that value with risk and commitment without chances.

Nevertheless, these assumptions are not actually practical rising concerns regarding the superfluity theory that has been criticized for being hypothetical (Danso and Adomako, 2014). The relevance of this theory to my study is the fact loan pricing Influence access to agricultural credit owing to factors other than those considered when substituting debt for equity and *vice versa* and hence performance of small scale farmers.

### **2.2.2. Theory of Information Asymmetry**

The proponent of the theory was George A. Akerlof in 1970 and was later advanced by Michael Spence in 1973 together with Joseph Stiglitz in 1975, all against the different applications involved in the theory. Michael Spencer proceeded with the thoughts of Arkelof in his paper following the Signaling and Signaling balance in the Job Market (1973). He utilizes work advertise for instance, where he displays contracting representatives as speculation choices made under uncertainty. The business isn't sure of the gainful abilities of a person before contracting her. Indeed, even in the wake of procuring, the profitable capacities are not promptly clear as

some specific preparing and learning needs to occur. Spence reasons that in light of the fact that the capacities of an individual set aside opportunity to get the hang of, employing is an investment decision and on the grounds that the abilities are not known before hand with assurance, it is a venture choice under uncertainty. He contrasts such a speculation choice and a lottery where the business sees a specific shot of captivation in the lottery and a specific possibility of losing (Auroren, 2003). This theory is relevant in our study since it emphasizes on the importance of record keeping in farming ventures which then act as an important source of information for lenders to use during credit analysis.

### **2.2.3. The Signaling Theory**

The Signaling Theory was first coined by Ross (1977). This theory emanates from information asymmetries between firm management and shareholders. Ross asserted that if managers have inside information, their choice of capital structure will signal information to the market. If managers believe that their firms are undervalued, they will issue debt first and then issue equity as a last resort. Going for debt may be a decision well influenced by the theoretical premise that increases in debt is a positive sign that managers are confident about future earnings. Debt contracts are a commitment by managers to make future interest payments. Failure to repay debt could lead to insolvency. This signals confidence to the market that the firm will have sufficient cash flows to service debt. This theory is relevant in my study since it emphasizes the importance cash inflows in determining the loan repayment schedules by lenders. Focus on this specific aspect is based on need to focus on regularity of agricultural cash inflows.

### **2.2.4 The Pecking Order Theory**

The theory of Pecking Order was proposed by Myers together with Majluf (1984) followed by Mostafa and Boregowda (2014). The inventors accept idealize showcase the same case with

Modigliani and Miller. Myers (1984) anticipated an elective perspective on financing decisions. He stated that organizations assume a pecking order while attempting to settle the preferred type of financing. When financing a venture, organizations incline toward inside produced assets to outer assets and they favor obligation to value issues (Myers, 1984). The Myers clarification (1984) is based on data asymmetry thus being outlined as a situation where Investors lack definite data regarding a speculation a firm is expected make so when the firm issues stock to uphold the venture, the financial specialists won't pay the maximum for the stock as a result of the hazard he faces because of the data asymmetry.

The principle factor deciding the level of obligation proportions are free market activity factors (Mostafa and Boregowda, 2014). Be that as it may, choice on wellsprings of financing relies upon the inclination order: inward fund like saves and held income; obligation; value (Chen, 2011) and organizations amplify their incentive by financing new speculations with least expensive accessible sources (Sheik and Wang, 2010). For instance, if inward supports are insufficient to fund opening ventures, firms may procure outer financing, and on the off chance that they do, they might thrive among the diverse outer back sources with an aim of limiting extra expenses involved in Hilter kilter data (Luigi and Sorin, 2009). In other word, the chain of importance associated with the corporate financing choice is determined by the financing cost (Danso and Adomako, 2014).

As specified by Myers and Majluf (1984), the theory of Pecking order contends that initially, organizations utilize inside sources like stores and held income to back an undertaking as opposed to orchestrating new obligation, or incline toward obligation to issuance of new offers. Chiefs will not issue fresh underestimated shares, on the off chance that they are acting for

investors. In harmony a firm offers new stock to a market with a lower value (Mostafa and Boregowda, 2014) referred to in Myers (1984).

This theory is relevant to this study since it encourages the need for financial record keeping and reporting as a way of diminishing information asymmetry in business decision making. Decision of the farmers' choice of credit rather than other forms of financing is dependent correct information. Their preference for cooperative societies over other formal lending institutions for obtaining credit is based on their assessment of their financing needs.

### **2.2.5. Demand and Supply Theory**

The proponents of the theory were John Locke, Sir James Steuart, Adam Smith and Alfred Marshall. Demand theory assumes an important part in managing a business since it takes into consideration the tenet of demand elasticity and its determinants. It promotes a firm's decision on what to produce for the market, at what quantities, when and where. Theory of demand forms the premise of pricing as well as enabling 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 (Karanja, 2013).

As pointed out by Singh and Nyandemo (2007), demanded amounts can change at any point due to the supply and demand determinants adjustment. This as a result, implies the demand and supply elasticity information which is essential in measuring the responsiveness of an item with regards to changes and cost adjustments that may occur. This theory is relevant to this study since it supports the determinants and access of agricultural credit. Demand side represents farmer's desire for agricultural credit while supply side represents the availability of financial institutions in a market.

## **2.3. Empirical Literature Review**

### **2.3.1. Loan pricing and small scale farm performance**

Barasa (2013), sought to establish the interest rate that is charged by various financial institutions, types of products as well as assessing the impact of rivalry on loaning organizations with regards to credit access for the SMEs. The study adopted a survey study design to obtain cross-sectional data from credit institutions and SMEs in Nakuru town. A sample of fifty SMEs and 30 monetary institutions were selected utilizing stratified random sampling approach to acquire a representative sample. The assessment observed that MFIs as well as SACCOs are the primary sources of SMEs. Moreover, it found that access to long term credit in banks still remains low. Generally, discoveries have helped in uncovering a positive remarkable connection between the ongoing monetary market rivalries in Kenya together with credit access in SMEs.

An investigation conducted by Ansari *et al.*, (2011) in Khorasan-Razavi Province of Iran found that advanced funds interest rate was an essential factor that influences agricultural credits reimbursements. The study likewise noted that cultivating experiences in business together with the aggregate application of cost happen to be important elements that affect the execution of credit. The investigative proposals illustrated that modalities meant to decrease the cost of financing and other connected credit expenses should be embraced so as to develop the agriculture credit demand. The researchers asserted that, value-based bank costs branded with insurance can be reduced through outsiders' externalization which applies in substitute guarantee. The research further suggested that loan repayments schedules which matched agribusiness cash flows could promote farm credit demand.

Gangata and Matavire, (2013) conducted a study with the objective of confronting the SMEs in getting back from budgetary fundamentals, where they discovered that some SMEs exist with

regards to getting to finances from related organizations, the elemental reason being lack of ability to meet loaning provisions, boss among them being insurance security arrangements. An investigation was therefore conducted to identify the challenges faced by Small and Medium Enterprises (SMEs) in attempts to secure credit in Ghana. Based on the reactions derived from questionnaires coursed, it was evident that SMEs found in Ghana with the variables of loan pricing, availability financing institutions and farm performance were similar to SMEs across different nations that are characterized by significant difficulties of securing credit. These issues were revealed using the investigation to incorporate the malfunction of SMEs in giving insurance together with other data essential for the banks (Vuvor and Ackah, 2011).

### **2.3.2. Loan repayment schedule and farm performance**

An investigation conducted by Karanja (2014) provides the analysis of issues that influence the credit access by Women Entrepreneurs working in Kenya by setting up the lending strategies seemed to be inflexible thus could not address the requirements of lending business visionaries. Guarantee prerequisites that the monetary organizations have embraced don't pull in lending business person borrowers to look for credit benefit, the impact of resoluteness in the loaning sum by the budgetary establishments influences the demand for credit benefits by ladies borrowers, and it was likewise discovered that different parts of the motivation behind the advance were concurred among numerous respondents (over half) to be not good and does not draw in ladies business visionaries.

Christopher *et al.*, (2010) scrutinized agribusiness financing approaches used by the Nigerian legislature. The examination arrangement involved critical endeavors brought about by the government in an attempt enhance the rural settings using projects, plans and foundations are yet to satisfy the budgetary assignment. The researchers approved the requirement for satisfactory

extents of strategically focused interests with regards to agribusiness as well as redesigning provincial foundation aimed at supporting the intensity of cultivating efficiency. Langat (2013) study asserted that agribusinesses encounter challenges in credit reimbursement because of business inner inadequacies. Such difficulties weigh on profiling of farmers, as high risk borrowers. It was rational that, when credit reimbursement plans can't represent creation specifics, financing horticultural ventures by utilizing advances with settled reimbursement calendars such settled opportune installments and sums wind up troublesome.

As verified by Finnerty (2013) fixed reimbursements on advances may pre-exclude ventures with irregular money streams from financing by standard advances. The test impedes loaning except if income confounds are smoothened by different wellsprings of pay of the business visionary. As per the researcher, the sole advanced standard accessibility elucidates why agrarian firms are usually apportioned using credits. The researchers imply that there is the need for fitting credit offices which encourage cultivates acquiring. In addition, Maurer (2014) argued that, standard advances offer an explanation regarding the current urban focal point of numerous loan specialists. The author alluded that in most developing nations, rural economies are ruled by the agricultural sector; henceforth powerlessness to offer satisfactory credit items focusing on this gathering make loan specialists exceed less successful to an economy.

The examination on subsistence cultivating as well as business in Kenya (Nyikal, 2005) derive that, the credit platform is not persuasive in upholding smallholder agribusinesses. This is so since loan specialists don't think about each loaning case individually justify. The discoveries showed that individual factors together with credits office factors happen to be huge determinants in advance failure to pay by small scale farms holders. The investigation recommended a change

of the credit market to tailor credit for farms befitting one of a kind farm conditions to sufficiently bolster agriculture.

Ibrahim and Bauer (2013) surveyed access to micro scale credit together with its effect on farm profit among rural agriculturists in dry land of Sudan. The examination additionally dealt with factors that impact profits from agricultural organizations. The researchers studied 200 farm house holds selected using a multi-arrange random sampling technique. After results of the investigation deduced that savings, estimation of benefits and earnings were huge factors deciding agriculturists' credit constraints. The researchers recommended improvement of farm ventures through expanding loan sums farmers could access, to advance agricultural profitability especially the adoption of productive and sustainable innovation.

Money streams of most agrarian business people are portrayed by an abnormal state of seasonality because of periodical mismatches between planting season (expenditure) and incomes (yielding). The investigation conducted by Yegon *et al.*, (2014) found that repayments falling when an agriculturist had not received proceeds continues from agrarian business subjected farmers into financial constraints. The researchers noticed that now and again agriculturists sold key farm inputs to raise advance instalments consequently declining their financial position. The study surmises that, measures of bringing down loan default should concentrate more on facility factors of instalment timing and portion amounts as opposed to farming conditions.

### **2.3.3. Record keeping and farm performance**

An appropriate arrangement of records keeping appears to be an indispensable portion that monitors various ventures in the present day aggressive as well as challenging business environment. An upright record keeping ensures that business associations assume a legitimate design as well as checking for assets misappropriations of the organization. Ademola *et al.*,

(2013) spells out that keeping justifiable books of accounts helps in the survival and development of any business. In order to assure productivity, feasibility and continuing survival of any business association, the management is supposed to look for reliable, relevant, precise and timely monetary data that would ensure basic leadership and organization.

Nkuah (2013) concluded an investigation involving financing of Small and Medium Enterprises (SMEs) in Ghana whereby the determinants and challenges affecting bank credit access were reviewed. The authentic discoveries for the assessment indicated that there is a necessarily, positive affiliation between credit access and specific properties contained in a firm. There are additionally, some money related exercises, for example, business enlistment, documentation/recording, business planning, resource possession, and others that likewise affect vigorously on SMEs right to use to bank credits.

Poor methods of keeping records or lack of access to records related to money will cause timely assets mismanagement together leading to business failure. Poor keeping of records lead to difficulties in separating business transactions with individual transactions (Tout *et al.*, 2014). It is the duty of every entrepreneur to abstain from making use of business resources for personal use to the damage of the business. Therefore, an inclusive bookkeeper who is qualified ought to be involved in bearing this errand. Bookkeepers with higher experience and capabilities have remarkable impact on the indispensable leadership formula used in a business (Tout *et al.*, 2014).

Poor management of money leads to business failure and the performance of the farm in general. Qualified Accountants assume significant part in basic leadership procedure of a business. He or she is supposed to have apposite information of money control as liquidity which in turn helps in achieving positive results in a business the propensities and encounters keep them in a decent

position such that they are able gauge the money linked to business position as well as the execution. This authorizes clients to principally manage a plan in addition to settling the financial preferences.

According to Mbroh and Attom, (2012) underscored the requirement for organizations to keep legitimate financial records and contended that appropriate arrangement of financial records give the efficiency of the business together with the choices that are significant in sustaining the business in a given market. Most organizations are enthusiastic on guesstimating their gainfulness as well as deciding the benefit they are supposed to receive in order to fit in the basis of bookkeeping, ideas and standards that ensure reliability of its evaluation. Bookkeeping can develop a business execution according to Abdul-Rahamon and Adejare (2014) who noted that there is a concrete affirmative connection between the small scale venture execution and bookkeeping records. Bookkeeping is necessary for basic management which continually influences the implementation of Small Scale Businesses. Failure of keeping legitimate records by Small Scale Businesses does not have the competence to know whether their firms are growing or remain stagnant. The financial records enable proprietors to determine whether the business fetches profits and whether it has the ability to meet its financial commitments as they fall due.

#### **2.3.4. Availability of formal lending institutions and farm performance**

A study carried out by Aruwa (2012) with regards to different financing preferences for small and medium business institutions in Nigeria, a random sample of 10 formal and informal sources together with 20 SMEs in Abuja and Kaduna, it was revealed that financing options for SMEs tend to be many with access to funds being a challenge, despite several government initiatives.

The study therefore reasoned that satisfactory capital together with credit access remains a major achievement of SMEs.

Mokua (2013) took charge of a study meant to identify the extent to which collateral measures impact on credit financing for SMEs operating in Kisii Town in addition to the extent to which management skills impact on credit financing in the town. The analysis involved deployment of a questionnaire and descriptive survey design to assemble and review data from 160 SMEs in Kisii town. The researcher scrutinized 160 organizations that would represent 560 inhabitants involved in small scale organizations through the use of a simple stratified sampling technique. The research discerned that ventures had inadequate funds due to procedure seemed too long to acquire funding from financial institutions.

In an investigation conducted by Matavire *et al.*, (2013), the main aim was to identify challenges confronting SMEs in while trying to access funding from various financial institutions; which is a case identified in Belaway, Zimbabwe whereby SMEs disregard the credit anchor so as to fulfil prohibitive money necessities in related organizations, with security being the main issue. Their proposals entailed the legislature that was supposed to assume its part in empowering SMEs so as to involve various finance firms.

According to Makena *et al.*, (2014), in their investigation on challenges facing business women in accessing credit in Kenya: A case of Ruiru Township of Kiambu County, absence of fixed assets was one of the objectives. Nonetheless, the study discovered that lack of clearly identifiable guarantees such as land was a more significant deterrence to credit access by ladies involved in business. Their proposals stated that the government is supposed to play a vital role in empowering SMEs so that they can acquire loans to cater for their business ventures.

#### **2.4. Summary of Literature Review**

The investigations reviewed in this segment advocate for numerous vital assumptions related to agrarian financing as well as profitability. It focuses on some critical products together with conclusions derived from an investigation section. The discussion is sorted out through the key enlightening components that influence the profitability derived from farming. The main reason behind low agrarian financing can be clarified using different imperatives such as dangers of creation, market and cost dangers that broadly expand to makers and volatile money streams among others. The necessities make agrarian financing to be more difficult when compared with regular financing (Pelrine, 2009). In case of any occurrence in Kenya regarding the budgetary necessities from small scale agriculturists', they tend to face ignorance despite the governmental definition involving various enactments that revolve around expanding credit access (Government of Kenya, 2010).

**Table 2. 1: Summary of Literature Review**

<b>Author and year</b>	<b>Title</b>	<b>Findings</b>	<b>Research Gap</b>
<b>Barasa 2013</b>	Interest rate that is charged by various financial institutions, types of products as well as assessing the impact of rivalry on loaning organizations with regards to credit access for the SMEs	Found that MFI and SACCO are the main source of credit for SMEs. Also found the SMES access to long term credit is still low	The scope was local but did explain the impact of credit accessibility in financial performance of SMEs
<b>Karanja 2014</b>	Issues that influence the credit access by Women Entrepreneurs working in Kenya	Found that lending procedures were rigid and do not accommodate the needs of women entrepreneurs. Also found that collateral requirement, inflexibility in lending amount affect access to credit amongst women.	The study did not focus on small scale farms thus creating a knowledge gap
<b>Ibrahim and Bauer 2013</b>	Access to micro scale credit and its effect on farm profit among rural agriculturists in dry land of Sudan	Found that saving, value of asset and farm incomes were significant variables determining farmer credit access	The scope was international and thus no generalization of findings
<b>Nkuah2013</b>	Financing of Small and Medium Enterprises (SMEs) in Ghana	Found that business processes like business registration/ recording, business planning and asset ownership heavily impact SMEs access to bank loan	The scope was international and thus no generalization of findings
<b>Aruwa 2002</b>	Financing preferences for small and medium business institutions in Nigeria	Found that there were numerous financing options for SMES but access to those funds has been difficult despite several government initiatives	The scope was international and thus no generalization of findings
<b>Mokua 2013</b>	Impact of collateral measures on credit financing for SMEs operating in Kisii Town	Found that enterprises had inadequate finances due to lengthy procedures when acquiring funds from financial institutions	The study did not focus on small scale farms thus creating a knowledge gap
<b>Makena 2014</b>	Challenges facing business women in accessing credit in Kenya: A case of Ruiru Township of Kiambu County	Found out that the process of acquiring loans was long and hectic.	The study did not focus on small scale farms thus creating a knowledge gap

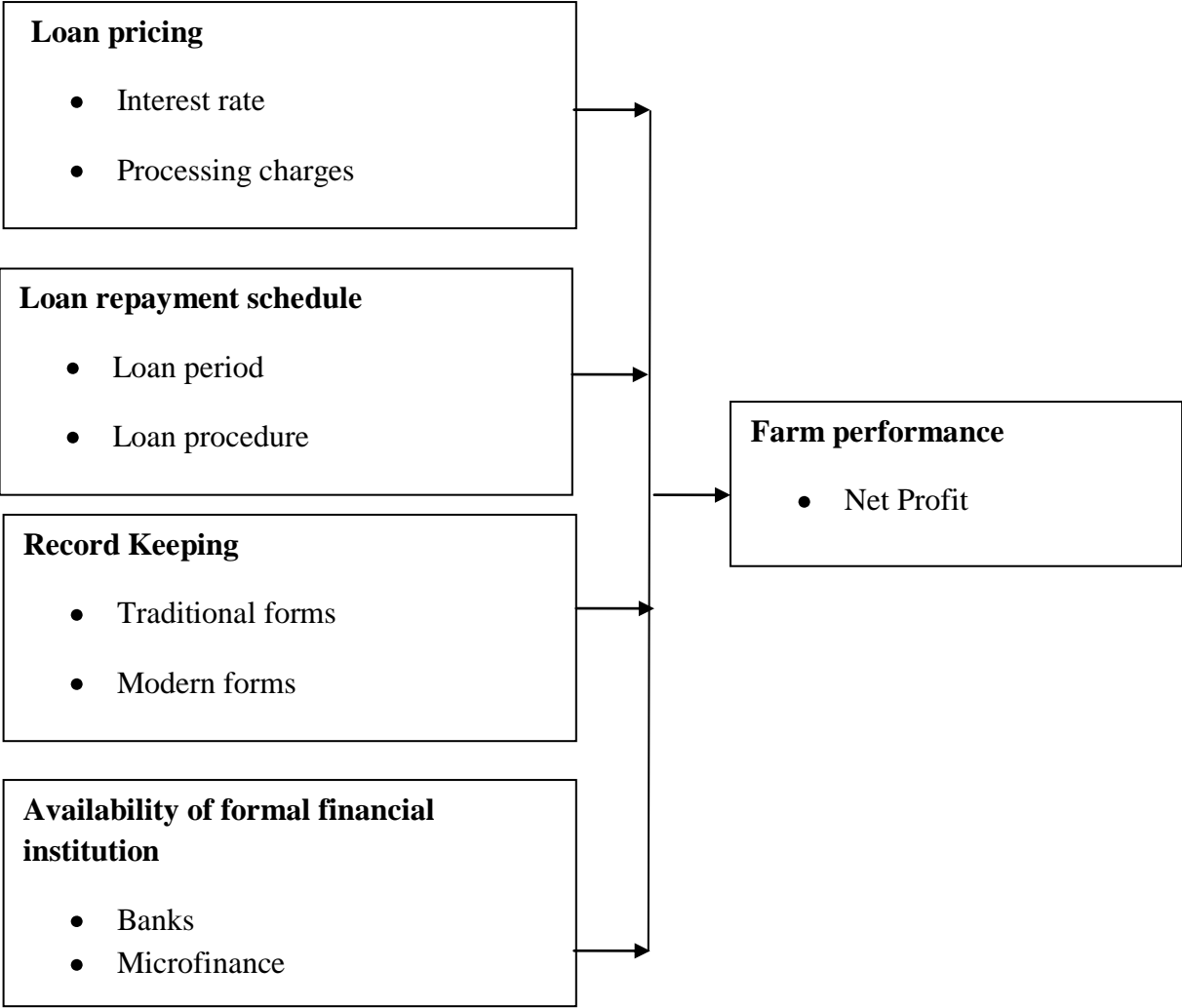
*Source: Researcher (2017)*

## **2.5. Conceptual Framework**

The conceptual framework delineates the presumed affiliation between the dependent and the independent variable. As outlined in Figure 1, there are four independent variables that can be outlined as the schedule of loan repayment, loan price, Record keeping as well as the accessibility of formal credit Institutions. There is one dependent variable; agribusiness borrowing. The scaffold illustrates the assumed relationship between the two types of variables whereby loan price, repayment schedule together with credit risk alleviation mechanism are acknowledged to influence borrowing for agribusiness purposes at First Community Bank found in Kenya.

**Independent Variables**

**Dependent Variables**



**Figure 0.1 Conceptual Framework**  
*Source (Researcher, 2020)*

## **CHAPTER THREE**

### **RESEARCH METHODOLOGY**

#### **3.1. Introduction**

This chapter brings out the study design and methodology. It covers the research design, target population, sample and sampling procedure, research instruments, data collection and data analysis procedure.

#### **3.2. Research design**

The research involved descriptive review method which according to Ngechu (2004), it involves an ordinarily organized and a more formal organization that express speculations. It operates as a mixture of research goal, in that it facilitates attributes or wonder portrayals with respect to the populace subject, evaluations of populace extents that contain these disclosure and qualities of relationship between various factors.

#### **3.3. Target Population**

According to (Mugenda, 2003), the targeted populace is supposed to fit in a specific resolution, which the investigation is considering and the populace is supposed to be homogenous. This investigation was conducted in Taita Taveta County that lies roughly 200 km northwest of Mombasa and 360 km southeast of Nairobi. The province covers a zone of 17,083.9 km<sup>2</sup>, of which a mass 62 percent or 11,100 km<sup>2</sup> is inside Tsavo East and Tsavo West National Parks. The study targeted 1101 small scale farms in the 4 sub districts inside the area. The respondents will be farmers in the small scale farms.

**Table 3. 1: Target population**

<b>Taita Taveta Sub-Counties</b>	<b>Total membership</b>
<b>Mwatate</b>	433
<b>Voi</b>	464
<b>Wundanyi</b>	99
<b>Taveta</b>	105
<b>TOTAL</b>	1101

*Source: Ministry of Gender and Sports, (2017)*

### **3.4. Sample design and Procedure**

As indicated by (Kothari, 2004) a delegate test is one which is no less than 10 percent of the populace to the extent it can give at least 30 agents of the populace. The researcher utilized 10 percent of the small scale farms from every one of the self-improvement gatherings. The examination was in a way to utilize a sample size of 110 small scale farms as illustrative of the objective populace by method of stratified random sampling by giving each individual from populace an equal opportunity of being incorporated into the sample.

The study used stratified random sampling technique. Stratified random sampling *is* a method of sampling that involves the division of a population into smaller sub-groups known as strata. In stratified random sampling *or* stratification, the strata are formed based on members' shared attributes or characteristics such as income or educational attainment. The sample population was divided into various groups including Mwatate, Voi, Taveta and Wundanyi sub-counties after which random samples were taken based on the number of population in the sub-counties.

**Table 3. 2: Sample size**

<b>Taita Taveta sub counties</b>	<b>Total farmers</b>	<b>Multiplier</b>	<b>Sample size</b>
<b>Mwatate</b>	433	0.1	43
<b>Voi</b>	464	0.1	47
<b>Wundanyi</b>	99	0.1	10
<b>Taveta</b>	105	0.1	10
<b>Total</b>	1101		110

*Source: Researcher (2017)*

### **3.5. Data Collection Instrument**

The primary data was gathered through the use of a questionnaire to record the reactions of various respondents'. The questionnaire was to be perfect such that the researcher would offer the respondents some time to react on various things on their extra time nearing in mind that they were regulated to fit in the working hours. The questionnaire was managed by the use of pick and drop method with the Secondary data being derived from previous records, such as the distribution and site from the field of efficiency in horticulture. Secondary data helped in offering collective data with regards to the factors being investigated.

### **3.6. Data Collection Procedure**

The collection of Primary data was done via a structured questionnaire using the drop and pick-later method. The added advantage of using questionnaires is that less time is used on data collection and it less costly (Borg and Gall, 1996). Mugenda and Mugenda (2003), advice that questionnaires are commonly used to get key information about a population under study. The study first obtained an introduction letter from the university approving collection of data and conducting the study, this was used as an introduction to the respondents. A research permit to conduct the study was obtained from the National Council of Science and Technology

(NACOSTI) in order to conduct research in Kenya. Research assistants assisted to administer the questionnaires to the respondents with close supervision from the researcher. The respondents selected were briefed on how to fill in the questionnaire. The respondents were given a time frame to respond to the questionnaire after which the questionnaire was collected by the research assistant within the agreed time.

### **3.7. Reliability and Validity of the Study**

#### **3.7.1. Reliability of data collecting instrument**

General pretesting of questionnaire was conducted with 110 selected subjects; equally spread across the sub-samples. The constructs for each subscale were tested for two psychometric properties, validity and reliability. The formal validity and content were checked based on expert view whether these were eliciting meaningful responses. As (Cooper and Emory, 1999) noted the feedbacks from end users were used to further refine the instrument. The pre-testing helped set the expected time of between 15 to 20 minutes needed to increase readability to complete the questionnaire. Particular attention was given to wording, sequencing and general presentation of the items of the questionnaire. For consistency, dimensions in analysis model underwent Cronbach's Alpha Test to determine whether measured items had any flaws to hamper statistical validity of administered questionnaire. Conceptually, formula for the standardized Alpha test is

$N$  is the number of items,  $c$  is the average inter-item covariance among the items and  $v$  represents the average variance. Thus, if number of items increases, the alpha ( $\alpha$ ) increases and if average inter-item correlation is low, alpha would be low, holding other items constant. A reliability coefficient of  $\alpha = 0.600$  or higher is considered acceptable in most social science research situations (Cook, 2007) and was chosen as desirable reliability threshold for this work.

Cronbach's Alpha will be linked with the coefficient measure of inward consistency thus causing dependability of the instrument. With a specified true objective to check results derived from reliability, the study involved a framework done by Cronbach's alpha which depends on inward consistency. Cronbach's alpha measures the general things that are quantifiable together with its association. SPSS programming was used to review the reliability of data that has been assembled whereby the general scales' used in the present condition as well as the appealing situation were examined by Cronbach's alpha, which should be over the tasteful level of 0.60 (Hair, 1998). Alpha over the estimation of 0.6 is seen as sufficient (George & Mallery, 2003).

### **3.7.2. Validity of data collecting instrument**

Validity refers to a measure of the amount of data acquired using unequivocally instrument that completely focuses on the conceptual thought which particularly focus on addressing various elements of data. In cases where validity has been formulated, any findings developed by the use of such data are expected to be critical and exact (Mugenda and Mugenda, 2003). The validity of an investigation augments by utilizing distinctive affirmation sources (Yin, 2003). The basic time of the assessment involved the econometric procedure to identify the association between agrarian credit access and execution. This issue upheld the data validity as well as huge results. Content validity was assessed through school overseer.

**Table 3. 3: Operationalization and measurement of variables**

<b>Variables</b>	<b>Category</b>	<b>Operationalization</b>	<b>Measurement</b>
<b>Small scale farm performance</b>	Dependent	<ul style="list-style-type: none"> <li>• Net profit</li> </ul>	Net profit Ratio= (Net Profit÷ Net sales)×100
<b>Loan pricing</b>	Independent	<ul style="list-style-type: none"> <li>• Interest rate</li> <li>• Processing charges</li> </ul>	Bank Interest Rates level
<b>Loan repayment</b>	Independent	<ul style="list-style-type: none"> <li>• Loan period</li> <li>• Loan procedure</li> </ul>	Loan repayment schedule
<b>Record keeping</b>	Independent	<ul style="list-style-type: none"> <li>• Financial literacy of the farmer</li> <li>• Loan conditions</li> </ul>	Availability of financial statements
<b>Availability of financial institutions</b>	Independent	<ul style="list-style-type: none"> <li>• Types of loan</li> <li>• Sources of loan</li> </ul>	Number of financial institutions in the area

*Source: Researcher (2017)*

### **3.8. Data Analysis and Presentation**

The research will be both quantitative and subjective in nature. Based on the information presented by Chandarn (2004) subjective data has non-numerical attributes which are identified using qualities, characteristics as well as esteem evaluation, for instance, the attitude of individuals' while quantitative data is linked with numeric data.

Once the questionnaires were collected, they were carefully edited to detect errors and omissions for consistency and completeness. The objectives were analyzed therefore, descriptive and inferential statistics were employed to analyze the data in form of percentages and frequencies and then presented in tables, so as to facilitate clear interpretation of results and assist in drawing of conclusions and discussions will follow immediately explaining on the same. Data analysis was done with the help of SPSS version 25.0. Regression was conducted to test the relationship of the variables. The following regression model was used:

$$Y = \alpha_0 + \alpha_1 x_1 + \alpha_2 x_2 + \alpha_3 x_3 + \epsilon \dots\dots\dots (i)$$

**Where:**

Y= Performance

$\alpha_0$  = Constant

$\alpha_1 \alpha_2 \alpha_3 \alpha_4$  = Regression coefficients

$x_1$  = loan pricing

$x_2$  = loan repayment

$x_3$  = availability of financial institutions

e = Error term

The data was presented using frequency tables and graphs.

Dependent Variable = Performance of Small Scale Farms

Independent Variables = Loan pricing, Loan repayment schedule, Record keeping and Availability of formal financial institution.

**3.9. Ethical Consideration**

The researcher was expected to maintain abnormal trustworthiness state that involves keeping guarantees regarding data classification thus acting with solemnity and making attempts on activity and thought consistency. The researcher was expected to be available to feedback and new thoughts and guarantees classification of data particularly when managing respondents.

## **CHAPTER FOUR**

### **DATA ANALYSIS, RESULTS AND DISCUSSION**

#### **4.1. Introduction**

The chapter entails summary, analysis and findings of the research as set out in the study objectives. The findings are presented in percentages, graphs, pie charts and tables on Agricultural Credit Access and Performance of Small Scale Farms in Taita Taveta County. The data was obtained from questionnaires as the research instrument.

#### **4.2. Respondent rate**

The response for farmers was 104 out of the 110 targeted thus indicating a 94.55 percent response rate. This response rate was representative and excellent since it conforms to Mugenda and Mugenda (1999) conclusion that a response rate of more than 50 percent is sufficient for reporting and analysis.

### 4.3. Descriptive Statistical Analysis

#### 4.3.1. Cost of credit

**Table 4. 1: Cost of credit**

<b>STATEMENT</b>	<b>STRONGLY DISAGREE (percent)</b>	<b>DISAGREE (percent)</b>	<b>NEUTRAL (percent)</b>	<b>AGREE (percent)</b>	<b>STRONGLY AGREE ( percent)</b>
High interest rate charged on loan is a burden to farmers	<b>3.6</b>	<b>8.2</b>	<b>2.7</b>	<b>34.5</b>	<b>50.9</b>
Most farm owners lack adequate financial information and literacy to evaluate the cost of credit and the various financial products offered by Banks	-		<b>11.8</b>	<b>57.3</b>	<b>30.9</b>
Inadequate information from Banks in the form of prescribed minimum loan amounts discourage farmers			<b>6.4</b>	<b>54.5</b>	<b>39.1</b>
Most of farmers fear going for credit from commercial banks based on the many hidden charges		<b>0.9</b>	<b>7.3</b>	<b>30.9</b>	<b>60.9</b>

Based on the findings in table 4.1 above, 3.6 percent of all participants strongly disagreed with the opinion that high interest rate charged on loan is a burden to farmers, 8.2 percent disagreed, and 2.7 percent were neutral, 34.5 percent agreed while 50.9 percent strongly agreed. The statement was meant to understand the burden of loan interest on the farmers. According to the results, the majority of farmers believe that high interest rate is burden thus illustrating how the existing loan limit farmers rather than helping them. Secondly, 57.3 percent agreed with the statement that several farm owners lack sufficient financial information and literacy to assess the

cost of loans and various financial products provide by banks, 30.9 percent strongly agreed and 11.8 percent did not agree or disagree.

The outcome can be supported by the education level given that the majorities have only attained the primary education. Lack of adequate financial information regarding loans leads to poor choices that limit farmers from accessing credits. Thirdly, 54.5 percent of all participants agreed that inadequate information from banks in the form of prescribed minimum loans amount discourage farmers, 39.1 percent strongly agreed and 6.4 percent were neutral. The findings illustrate that the majority of farmers feel that banks provide little amount of credit which hinder the performance of small scale farms in Taita Taveta county. Lastly, 0.9 percent of the respondents disagreed that several farmers fear obtaining credit from commercial banks due to many hidden charges, 7.3 percent were neutral, 30.9 percent agreed while 60.9 percent strongly agreed.

### 4.3.2. Loan repayment Schedules

**Table 4. 2: Loan repayment Schedules**

<b>STATEMENT</b>	<b>STRONGLY DISAGREE (percent)</b>	<b>DISAGREE (percent)</b>	<b>NEUTRAL (percent)</b>	<b>AGREE (percent)</b>	<b>STRONGLY AGREE (percent)</b>
Lengthy credit procedures discourages farmers	-	3.6	14.5	34.5	47.3
Small scale farms can rarely meet the conditions set by financial institutions which include provision of financial information regarding their businesses	4.5	-	6.4	49.1	40
Farmers require information with which to identify the potential suppliers of the credit.	1.8	2.7	10.9	43.6	40.9
Most farmers lack adequate financial information on the procedure of acquiring credit	2.7	4.5	5.5	49.1	38.2
There is bias by Banks when evaluating farmers for Bank loans as they are perceived to be riskier	4.5	6.4	10	34.5	44.5
Duration taken to register and create a charge on the security pledged to a Bank discourages farmers from borrowing from Commercial Banks.	0.9	1.8	8.2	30.9	58.2

The findings in table 4.2 illustrate that 3.6 percent disagreed with the opinion that lengthy credit procedures discourage farmers, 14.5 percent did not agree or disagree, 34.5 percent agreed while 47.3 percent strongly agreed. Based on the findings, the majority of participants strongly agree that the processes of obtaining credits are lengthy which discourage small scale farms from obtaining loans. Furthermore, 4.5 percent of all respondents strongly disagreed that small scale farms can rarely meet the conditions established by banks which include provision of monetary information concerning their business, 6.4 percent were neutral, 49.1 percent agreed while 40 percent strongly agreed. The outcome of the question explains that banks do not provide adequate information to the small scale farms regarding how to access loan as well as management of money.

Thirdly, 1.8 percent strongly disagreed with the statement farmers need information to recognize the potential suppliers of loans, 2.7 percent disagreed, 10.9 percent were neutral, 43.6 percent agreed and 40.9 percent agreed. Moreover, 2.7 percent strongly disagreed that most farmers lack sufficient financial information on the processes of obtaining credits, 4.5 percent disagreed, 5.5 percent neutral, 49.1 percent agreed and 38.2 percent strongly agreed. Additionally, 34.5 percent were of the opinion that there is bias by financial institutions when assessing farmers for credits as they are regarded as riskier, 44.5 percent strongly agreed, 10percent were neutral, 6.4 percent disagreed and 4.5 strongly disagreed. Finally, the majority of the respondent 58.2percent strongly agreed that time take to create and register the charge on the security pledge to the bank discourage small scale farms from borrowing credits, 30.9 percent agreed, 8.2 percent neutral , 1.8 disagreed while 0.9 percent strongly disagreed.

### 4.3.3. Records keeping and performance

**Table 4. 3: Most Small scale farms do not maintain proper records**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	1	.9	.9	.9
	Neutral	6	7.3	7.3	8.2
	Agree	37	35.5	35.5	43.6
	strongly agree	60	56.4	56.4	100.0
	<b>Total</b>	<b>104</b>	<b>100.0</b>	<b>100.0</b>	

Table 4.3 illustrates that 56.4 percent of all respondents strongly agreed that smallest scale farmers do not keep proper records of their farm, 35.5 percent agreed, 7.3 percent were neutral while 0.9 percent strongly disagreed. The findings illustrate that the majority of small scale farms in Taita Taveta do not keep good records for their farms which leads to poor decision making hence poor performance.

**Table 4. 4: Banks require business plan to approve loan**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly disagree	2	1.8	1.8	1.8
	Disagree	2	1.8	1.8	3.6
	Neutral	10	10.9	10.9	14.5
	Agree	41	39.1	39.1	53.6
	Strongly agree	49	46.4	46.4	100.0
	<b>Total</b>	<b>104</b>	<b>100.0</b>	<b>100.0</b>	

Table 4.4 illustrates that 1.8 percent strongly disagreed with the statement that banks ask for business plan in order to approve loans, 1.8 percent disagreed, 10.9 percent did not agree or

disagree, 39.1 percent agreed while 46.4 percent strongly agreed. The question illustrates the importance of records keeping in accessing credits from banks. These documents are usually used to support the cause of application and they give surety of the intent of the loan therefore they are an important aspect in the application process.

**Table 4. 5: Inability of farmers to pledge to tangible security inhibits access to credit facilities offered by banks**

	Frequency	Percent	Valid Percent	Cumulative Percent
Disagree	1	1.8	1.8	1.8
Neutral	8	8.2	8.2	10.0
Valid Agree	36	34.5	34.5	44.5
strongly agree	60	55.5	55.5	100.0
<b>Total</b>	<b>104</b>	<b>100.0</b>	<b>100.0</b>	

The findings in the table 4.5 above illustrate that 34.5 percent were of the opinion that the inability of farmers to provide tangible security prevent them from accessing credits from banks, 55.5 percent strongly agreed, 1.8 percent disagreed while 8.2 percent were neutral. The results illustrates that the majority of small scale farms in Taita Taveta County lacks tangible security to pledge so as to obtain the loans.

#### 4.3.4. Availability of formal financial institutions

**Table 4. 6: Availability of formal financial institutions**

STATEMENT	STRONGLY DISAGREE (percent)	DISAGREE (percent)	NEUTRAL (percent)	AGREE (percent)	STRONGLY AGREE (percent)
There are no Formal lending institutions found in the rural areas	5.5	35.5	0.9	40.9	17.3
Lack of formal financial institution encourage use of informal sources of credit		3.6	5.5	56.4	34.5
Interest rate capping in Kenya has led to a high degree of exclusion from small loans for small scale farmers		4.5	9.1	45.5	40.9
Interest rates capping has led to locking out of small scale farms since they are considered as “high risk” borrowers		6.4	8.2	54.5	30.9
Inability of farmers to access loans from Banks is created by the financial institutions mainly through their lending policies			9.1	49.1	41.8

Table 4.6 illustrates opinions of respondents regarding various statements on availability of formal financial institutions. 5.5 percent strongly disagreed that there are no formal lending institutions in the rural regions, 35.5 percent disagreed, 0.9 percent were neutral, 40.9 percent agreed while 17.3 percent strongly agreed. The results indicate that there are no lending institutions where farmers are located which may act as the barrier for borrowing credit.

Secondly, 56.4 percent were of the opinion that lack of formal financial institutions encourage the utilization of informal sources of credit, 34.5 percent strongly disagreed, 5.5 percent were neutral and 3.6 percent disagreed. Based on the findings, the majority of farmers use informal means of obtaining loan due to lack of formal banks in the region.

Thirdly, 4.5 percent of all respondents disagreed that interest rate capping in the country has led to high degree of exclusion from loans for small scale farmers, 9.1 percent neutral, 40.9 percent strongly agreed and 45.5 percent agreed. Furthermore, 8.2 percent did not agree or disagree with the statement that interest rates have locked out small scale farms from credits since they are regarded as high risk borrowers, 6.4 percent disagreed, 54.5 percent agreed while 30.9 percent strongly agreed. Moreover, 49.1 percent were of the opinion that inability of farmers to access loans from bank is established by financial institutions mainly via the lending policies, 41.8 percent strongly agreed, while 9.1 percent were neutral. According to the findings, the majority of participants illustrated that lending policies hinder farmers from accessing credits in the region.

#### 4.3.5.Farm Performance

**Table 4. 7: Farmers have sufficient access to farm credit**

	Frequency	Percent	Valid Percent
No extent	10	9.1	9.1
small extent	15	14.5	14.5
moderate extent valid	25	23.6	23.6
great extent	42	40.0	40.0
very great extent	12	12.7	12.7
<b>Total</b>	<b>104</b>	<b>100.0</b>	<b>100.0</b>

The table 4.7 illustrates the results regarding farmers having enough access to farm credit. The question was used to help the research make conclusion on the extent to which small scale farms in Taita Taveta County have used loans, as well as making the final conclusion about credit impact on financial performance. According to the findings, 12.7 percent of respondents explained that farmers have access to farm credit very great extent, 40 percent great extent, 23.6 percent moderate extent, 14.5 percent small extent and 9.1 percent no extent. The findings demonstrate that small scale farms in the region have access to farm credit since the majority of respondents confirmed that the access rate is at great extent.

**Table 4. 8: Most institutions are willing to extend credit to farmers**

	Frequency	Percent	Valid Percent	Cumulative Percent
No extent	7	7.3	7.3	7.3
small extent	10	10.9	10.9	18.2
moderate extent	19	18.2	18.2	36.4
great extent	39	36.4	36.4	72.7
very great extent	29	27.3	27.3	100.0
<b>Total</b>	<b>104</b>	<b>100.0</b>	<b>100.0</b>	

Table 4.8 demonstrates the willingness of most institutions to give credit to farmers. The results illustrate that 27.3 percent of respondents explained that several institution give loans to farmers at very great extent, 36.4 percent great extent, 18.3 percent moderate extent, 10.9 percent small extent and 7.3 percent no extent. Based on the results, the majority of participants confirmed that

banks and other financial institutions are willing to give credit to small scale farms at great extent.

**Table 4. 9: Farmers have managed to access enough farm inputs**

	Frequency	Percent	Valid Percent	Cumulative Percent
No extent	10	10.0	10.9	10.9
small extent	12	11.8	10.9	21.8
moderate extent	20	20.0	20.0	41.8
great extent	31	29.1	29.1	70.9
very great extent	31	29.1	29.1	100.0
<b>Total</b>	<b>104</b>	<b>100.0</b>	<b>100.0</b>	

Table 4.9 illustrates extent to which farmers have managed to access sufficient farm inputs. According to the findings, 29.1 percent confirmed farmers have obtained enough farm inputs at very great extent, 29.1 percent very great, 11.8 percent small extent, 20 percent moderately and 10.9 percent no extent. The results explain that most farmers in the region have access to enough farm inputs since as confirmed by the majority of the respondents.

**Table 4. 10: Access to credit has improved farm yield**

	Frequency	Percent	Valid Percent	Cumulative Percent
No extent	5	5.5	5.5	5.5
small extent	6	7.3	7.3	12.7
moderate extent	22	20.0	20.0	32.7
great extent	32	29.1	29.1	61.8
very great extent	39	38.2	38.2	100.0
<b>Total</b>	<b>104</b>	<b>100.0</b>	<b>100.0</b>	

Table 4.10 illustrates that 38.2 percent of all respondents that access to credit has improved farm yield at very great extent, 29.1 percent great extent, 20 percent moderate extent, 7.3 percent small extent and 5.5 percent no extent. Based on the findings, the majority of participants believed that access to credit has a positive impact to the performance of the farm by improving overall yield.

**Table 4. 11: Farmers have made high profits from farm sales**

	Frequency	Percent	Valid Percent	Cumulative Percent
No extent	5	5.5	5.5	5.5
small extent	9	9.1	9.1	14.5
moderate extent	22	21.1	20.0	34.5
great extent	27	26.1	16.4	50.9
very great extent	41	39.4	49.1	100.0
Total	104	100.0	100.0	

Table 4.11 illustrates the extent to which farmers have made high profits from sales. 39.4 percent confirmed to be at very great extent, 26.1 percent great extent, 21.1 percent moderate extent, 9.1 percent small extent and 5.5 percent no extent. Results demonstrate that majority of farmers have made high profits from the sales given that most of the respondents confirmed that.

**Table 4. 12: The government has been supportive in the provision of credit and capacity to small scale farmers**

	Frequency	Percent	Valid Percent	Cumulative Percent
No extent	4	3.6	3.6	3.6
small extent	18	18.2	18.2	21.8
moderate extent	34	30.7	30.7	54.5
great extent	37	35.6	33.6	88.2
very great extent	11	11.8	11.8	
Total	104	100.0	100.0	100.0

Table 4.12 demonstrates the extent to which the government has been supporting the provision of loans to small scale farmers. 18.2 percent of all participants describe the support to be small, 3.6 percent not extent, 30.7 percent moderate, 11.8 percent very great and 35.6 percent great extent. The findings illustrate that the administration has been supporting credit provision greatly but not good enough.

#### **4.4. Inferential Statistics**

##### **4.4.1. Diagnostic Test**

In this research, a reliability test was conducted on the 110 farmers used to measure the effect of agricultural credit with regards to small scale farming performance in Taita Taveta County. The reliability test measured how constructs were used or may be used in replicating the research in a similar manner. In this study, internal consistency was used to establish that the constructs could, to a large extent, be used to construct a more similar outcome. The overall score of Cronbach Alpha ( $\alpha$ ) for the variables used to predict the public value was found to be reliable.  $\alpha \geq 0.600$  is normally considered as acceptable (Tseng *et al.*, 2006). In addition, Hair, (2010) investigated that any construct with a score value exceeding 0.7 presents an adequate and an acceptable reliability level. Hence, the overall score based on 110 farmers ( $\alpha = 0.865$ ) is a reflection of the desired

outcome. The need to define better scores for the Cronbach Alpha was not necessary as the scores on each construct showed a good reliability indication. It was the recommended threshold above.

#### 4.4.2. Regression Analysis

The study utilized multiple regression analysis to find out the relationship between the predictor variables and performance of small scale farms in Taita Taveta County. The study utilized SPSS version 24 to generate output of the regression statistics after cleaning and coding data from the field. The coefficient of determination was used to explain how the change in the dependent variable can be explained by the change in the independent variables. The dependent variable for the current study was performance of small scale farms in Taita Taveta County while the independent variables were loan pricing, loan repayment schedule, record keeping and availability of formal financial institution.

**Table 4. 13: Model summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	F	P-value
1	0.8204	0.7799	0.7904	0.4920	31.341	.001

a. Predictors: (Constant), loan pricing, loan repayment schedule, record keeping and availability of formal financial institution.

b. Dependent Variable: Performance of Small Scale Farms in Taita Taveta County

From the results in the table  $R^2=0.7799$  that is 77.99% disparity in performance of small scale farms in Taita Taveta County is explained by the independent variable in the model. However, 22.01% unexplained difference in performance of small scale farms in Taita Taveta County is as a result of other unrepresented determinants in the regression model. As per the findings in the above table it can be ascertained that the model is good and can be utilized for the purposes of

estimation. From the results in the table a significant relationship was established which is indicated by the variables as depicted by  $R^2=0.7799$  that is 77.99% which shows that a significant relationship exists between the independent variables and the performance of small scale farms in Taita Taveta County.

**Table 4. 14: Summary of one-way ANOVA results**

<b>Model</b>		<b>Sum of squares</b>	<b>Df</b>	<b>Mean square</b>	<b>F</b>	<b>Sig.</b>
1	Regression	61.34	4	15.335	79.87	.019a
	Residual	19.008	99	0.192		
	<b>Total</b>	<b>80.348</b>	<b>103</b>			

a. Predictors: (Constant), loan pricing, loan repayment schedule, record keeping and availability of formal financial institution.

b. Dependent Variable: Performance of Small Scale Farms in Taita Taveta County

The significance value is 0.019 which is less than 0.05 thus the model is statistically significance in predicting how the factors (loan pricing, loan repayment schedule, record keeping and availability of formal financial institution) impact the performance of small scale farms in Taita Taveta County. The F critical at 5% level of significance was 3.123. Since F calculated is greater than the F critical (value = 79.87), this shows that the overall model was significant.

**Table 4. 15: Regression coefficients of the relationship between Credit Accessibility and performance**

	Unstandardized		Standardized		
	Coefficients		Coefficients		
	B	Std. Error	Beta	T	Sig.
Model 1(Constant)	3.942	0.334		10.841	0.000
Loan pricing	4.662	0.236	0.414	2.679	0.023
Loan repayment schedule	2.322	0.523	0.215	2.412	0.034
Record keeping	2.879	0.295	0.243	2.312	0.021
Availability of formal financial institution	3.221	0.325	0.254	1.548	0.011

a. **Dependent Variable:** Performance of Small Scale Farms in Taita Taveta County

Based on the SPSS results above, the regression equation is:

$$Y = 3.942 + 4.662X_1 + 2.322 X_2 + 2.879 X_3 + 3.221 X_4$$

From the regression taking the independent variable at constant (loan pricing, loan repayment schedule, record keeping and availability of formal financial institution) constant at zero, performance of small scale farms in Taita Taveta County was 3.942. The data findings analyzed also showed that taking all other independent variables at zero, a unit increase in loan pricing will lead to a 4.662 increase in performance of small scale farms in Taita Taveta County, a unit increase in loan repayment schedule will lead to a 2.322 increase in performance of small scale farms in Taita Taveta County, a unit increase in record keeping will lead to a 2.879 increase in performance of small scale farms in Taita Taveta County, and a unit increase in availability of formal financial institution will lead to a 3.221 increase in performance of small scale farms in Taita Taveta County. This infers that loan pricing contribute the most to performance of small scale farms in Taita Taveta County, followed by availability of formal financial institution. At

5% level of significance and 95% level of confidence loan pricing, loan repayment schedule, record keeping and availability of formal financial institution were all significant on performance of small scale farms in Taita Taveta County.

#### **4.5. Discussion of Findings**

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 (Cook, 2013) 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.

Peril, (2009) postulates that small scale farms face challenges in marketing their surplus produce, because in most cases they are 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.

From the findings, the researcher was able to establish that collateral, basic loan requirements and interest rates are some of the key determinants to credit. Findings showed that majority of the farmers were unable to access credit due to strict loan policies that had requirements in which one way or another they were not able to meet. Collateral for a loan is another major challenge as borrowers are required to attach their assets like land and machinery.

## **CHAPTER FIVE**

### **SUMMARY, CONCLUSION AND RECOMMENDATION**

#### **5.1. Introduction**

This section provides the conclusions and discussion of the findings as well as the recommendation of further research on the issues and practice. The purpose of the research was to determine the effect of agricultural credit on the financial performance with reference to small scale farms in Taita Taveta 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. 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.

The study found 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.

The study found that collateral, basic loan requirements and interest rates are some of the key determinants to credit. Findings showed that majority of the farmers were unable to access credit due to strict loan policies that had requirements in which one way or another they were not able

to meet. Collateral for a loan is another major challenge as borrowers are required to attach their assets like land and machinery.

### **5.3. Conclusion**

The study concludes that agricultural loan is an essential instrument that empowers farmers to acquire command over the utilization of working capital, settled capital and consumption goods. The examination additionally infers that credit assumes an essential role in expanding farming efficiency. Opportune accessibility of credit empowers farmers to buy the required sources of inputs and apparatus for completing farm activities. The investigation additionally reasons that through rural credit financing, agrarian efficiency can be expanded, agriculturists livelihoods raised, more individuals encouraged and in reality, the general monetary welfare improved.

The study concluded that farming credit is a fundamental piece of the procedure of modernization of agriculture and commercialization of the rustic economy. The introduction of simple and modest credit is the speediest route for boosting agricultural production. The investigation additionally infers that the agriculture as a division depends more using a loan than some other area of the economy in view of the regular varieties in the farmers returns and a changing pattern from subsistence to business cultivating. Credit may give them chance to gain more cash and enhance their way of life. These findings no doubt show agricultural credits access influence the financial performance hence becoming a concept that must be looked in order to improve agriculture and help small scale farms in Taita Taveta County.

#### **5.4. Recommendations**

Based on the gaps found in the study the researcher made the following recommendations;

The government, banks as well as other lending institutions should consider the possibility of coming up with policies and procedures geared towards catering for specific credit needs for farmers by developing customized designed loan products targeting farmers. Credit to various farming methods should be customized to each mode of farming as they have different challenges and therefore would require different requirements and assessment before credit is granted. These credits should also require minimal collateral. The existing commercial banks need to be encouraged to lend to farmers.

Government owned institutions like Agricultural Finance Corporation and National Bank have to take a principal role in extending credit facilities designed for the agriculture sector. It has to take purposeful initiatives, like reducing the cost of lending and computerizing operational systems in order to reduce operating costs. These exercises will make sure the loans are more accessible and affordable to borrowers.

The establishment of bank branches in rural areas to serve the farming sector may not be possible to the banking institutions thus the formation of farmer's cooperatives, farmers associations or other forms of group responsibility for the administration and supervision of credit programmes at the local level should be promoted and encouraged. Group lending approach may not only reduce the high operating cost costs associated with lending in rural areas but may also encourage the establishment of good credit culture and help in achieving acceptable loan products for farmers. The emergence of saving and credit cooperatives (SACCOs) and saving and credit groups should be encouraged to cater for other farmers. Provision of training to credit

beneficiaries in aspects of credit should be enhanced; this will ensure beneficiaries are well informed on their obligations, particularly on loan requirements and repayment needs and therefore will make sound decisions on credit.

#### **5.5. Future research suggestion**

Further studies should be undertaken in all the other counties in Kenya aimed at giving conclusive recommendations that would be adopted countrywide. Secondly, further studies should also be done on other factors that impact on successful agricultural credit financing in Kenya. Similar studies focusing on large scale farms in all counties should also be conducted to determine the impact of agricultural credit on their performance. Research should be conducted to establish the availability of financial institution in Taita Taveta County to determine factors that influence attraction of their operations on agriculture in the county. Moreover, the study should also be conducted in banks to establish from their perspective what hindrances exist that limit farmers to access credit compared to other borrowers.

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## **APPENDICES**

### **APPENDIX I: LETTER TO RESPONDENTS**

Dear Respondent,

#### **REF: POST GRADUATE RESEARCH QUESTIONNAIRE**

I am an MBA student at Kenyatta University. As part of the fulfillment for the requirements of the MBA Degree, am required to undertake a research project. The objective of the study is to evaluate the relationship between agricultural credit assess and small scale farm performance in Taita Taveta County. As a key player in the sector, you have been identified to be among those sampled to offer the information needed to conduct the study. You are also assured that the information sought is basically for academic purpose and will not be used for any other purpose.

Thanking you for your cooperation.

**Mwanyika Nelson Tole**

## APPENDIX II: QUESTIONNAIRE

**Instructions: Please tick appropriately**

Please fill in the questionnaire provided by ticking appropriately or filling in as directed.

**SECTION A: COST OF CREDIT**

The following are likert scale statements that relate to factors that influence agricultural credit access. Using scale 1-5 where 1- strongly disagree and 5- strongly agree indicate the extent to which you agree or disagree with it.

STATEMENT	STRONGLY DISAGREE	DISAGREE	NEUTRAL	AGREE	STRONGLY AGREE
High interest rate charged on loan is a burden to farmers					
Most farm owners lack adequate financial information and literacy to evaluate the cost of credit and the various financial products offered by Banks					
Inadequate information from Banks in the form of prescribed minimum loan amounts discourage farmers					
Most of farmers fear going for credit from commercial banks based on the many hidden charges					

**SECTION B: LOAN REPAYMENT SCHEDULES**

<b>STATEMENT</b>	<b>STRONGLY DISAGREE</b>	<b>DISAGREE</b>	<b>NEUTRAL</b>	<b>AGREE</b>	<b>STRONGLY AGREE</b>
Lengthy credit procedures discourages farmers					
Small scale farms can rarely meet the conditions set by financial institutions which include provision of financial information regarding their businesses					
Farmers require information with which to identify the potential suppliers of the credit.					
Most farmers lack adequate financial information on the procedure of acquiring credit					
There is bias by Banks when evaluating farmers for Bank loans as they are perceived to be riskier					
Duration taken to register and create a charge on the security pledged to a Bank discourages farmers from borrowing from Commercial Banks.					

**SECTION C: RECORDS KEEPING AND FARM PERFORMANCE**

<b>STATEMENT</b>	<b>STRONGLY DISAGREE</b>	<b>DISAGREE</b>	<b>NEUTRAL</b>	<b>AGREE</b>	<b>STRONGLY AGREE</b>
Most small scale farms do not maintain proper records					
Bank require a business plan to approving loans					
Inability of farmers to pledge tangible security inhibits their access to credit facilities offered by Banks					

**SECTION D: AVAILABILITY OF FORMAL FINANCIAL INSTITUTIONS**

<b>STATEMENT</b>	<b>STRONGLY DISAGREE</b>	<b>DISAGREE</b>	<b>NEUTRAL</b>	<b>AGREE</b>	<b>STRONGLY AGREE</b>
There are no Formal lending institutions found in the rural areas					
Lack of formal financial institution encourage use of informal sources of credit					
Interest rate capping in Kenya has led to a high degree of exclusion from small loans for small scale farmers					
Interest rates capping has led to locking out of small scale farms since they are considered as “high risk” borrowers					
Inability of farmers to access loans from Banks is caused by the financial institutions through their lending policies					

## SECTION E: PERFORMANCE

Indicate your responses to the following statements regarding farm output in relation to performance of small scale farmers. Tick your choice in the appropriate answer box.

1 = No extent, 2 = Small Extent, 3 = Moderate Extent, 4 = Great Extent, 5 = Very Great Extent

<b>Statement</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
Farmers have sufficient access to farm credit					
Most institutions are willing to extend credit to farmers					
Farmers have managed to access enough farm inputs					
Access to credit has improved farm yield					
Farmers have made high profits from farm sales					
The government has been supportive in provision of credit and capacity to small scale farms					

### APPENDIX III: RESEARCH BUDGET

<b>ITEM</b>	<b>PARTICULARS</b>	<b>TOTAL</b>
1.	Stationery and printing services	17,500
2.	Communication	26,000
3.	Data collection visit	5,000
4.	Travelling and accommodation	20,000
5.	Internet	12,000
6.	Research assistant	15,000
7.	<b>Total</b>	<b>95,500</b>

**APPENDIX IV: WORK PLAN**

<b>Month/ Activity</b>	<b>June 2017- January 2018</b>	<b>February 2018- June 2018</b>	<b>July 2018- September 2018</b>	<b>October 2018- February 2019</b>	<b>March 2019- June 2019</b>	<b>July 2019</b>
Proposal Writing						
Proposal Corrections & Defence						
Corrections after Defence						
Data Collection & Analysis						
Report Writing						
Submission of Report						

**APPENDIX V: PRODUCTION QUANTITIES OF SELECTED PRODUCTS IN  
TAITA TAVETA COUNTY**

<b>PRODUCT</b>	<b>UNIT</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>
<b>Cereals</b>	Budgeted (tons)	66450	67800	67800	71250	72450	74500
	Actual (tons)	66108	67172	67672	71082	66037	65900
	Variance (tons)	342	628	128	168	6413	8600
<b>Milk</b>	Budgeted (Thousand Litres)	42542	52365	424944	430760	398412	438253
	Actual (Thousand Litres)	21352	20946	369757	372302	354522	348632
	Variance (Thousand Litres)	21190	31419	55187	58458	44190	89621
<b>Meat</b>	Budgeted (Metric Tonnes)	4781	5878	3183	4307	4512	4872
	Actual (Metric Tonnes)	4245	5584	3061	3304	4124	4078
	Variance (Metric Tonnes)	536	294	122	1003	388	794

*Source: Ministry of Agriculture & Livestock, Taita Taveta County.*