UNIVERSITY OF NAIROBI

MASTER OF ARTS IN VALUATION AND PROPERTY MANAGEMENT

ANALYSIS OF THE USE OF LAND AS COLLATERAL FOR FINANCING IN RURAL KENYA

A CASE STUDY OF KIVANI LOCATION, MACHAKOS COUNTY

BY

PHOEBE MUENI NZUKI

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DECLARATION

DECLARATION BY THE CANDIDATE

I, PHOEBE MUENI NZUKI, do hereby state that the research project is entirely original with no submissions to another university for review. Without previous consent from the author and/or University of Nairobi, no part of this project may be replicated.

PHEOBE MUENI NZUKI

Signature: ……………………………………

Date: ……………....26th July 2023…………….

DECLARATION BY THE SUPERVISOR

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

ARCH. PETER NJERU NJUE.
Lecturer
Department of Real Estate, Construction Management and Quantity Surveying (RECM&QS)
University of Nairobi

Signature: ………………………………………….

Date: ………….....26th July 2023…………….

MR. KIRK KATWA, M.I.S.K
Tutorial Fellow
Department of Real Estate, Construction Management and Quantity Surveying (RECM&QS)
University of Nairobi

Signature: ………………………………………….

Date: ………….....26th July 2023…………….

DEDICATION

I am grateful to God Almighty for blessing me with life and good health, as well as for providing the resources I need to succeed in academics and throughout every dimension of my life. I cannot express enough gratitude to my parents, siblings, Grace and daughters: Sasha and Hadassah; may you discover the true value of pursuing excellence with unwavering dedication.

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ABSTRACT

The development of the world's economies, particularly those of emerging countries, depends heavily on land. Despite being a crucial tool for gaining access to loans, the adoption and enforcement of land as collateral is relatively low particularly in rural Kenya. This study aims to close the existing information, policy, and practice gaps related to the need for financing secured by land title deeds. In order to determine the extent of land-based financing in rural Kenya and factors influencing its use, this study explores the usage of land in the capacity of collateral instrument.

The study aimed to determine the degree to which Machakos County rural landowners utilize their titles as collateral for borrowing; determine how well-known utilizing title deeds as guarantee for loans is in rural Machakos County; determine factors influencing the usage (or not) of property ownership titles as security for borrowing in Rural Machakos County; determine the prevalence of the use of other forms of collateral to secure finance for development in Rural Machakos County; and establish the challenges faced in use of title deed as collateral for financing in Rural Machakos County

A descriptive survey research design was utilized in the study. 724 households in Kivani Location, Machakos County, as well as 30 financial institutions, including banks, SACCOs, and microfinance organizations, were the study's target population. The study used the Nassiuma (2000) approved random sampling technique and sampling formula, yielding a sample size of 96 respondents. Data were gathered in the context of this research by employing a self-administered structured questionnaire and topic discussions. Tables and graphical techniques were used for presentation while descriptive statistical methods were used for data analysis.

The study revealed that the adoption of land as collateral among rural landowners is low at 11%. Instead, the rural landowners depend overwhelmingly on group and household guaranteed loans in lieu of traditional guarantee. Various factors, including societal, lending, and property registration issues, contribute to this situation. To expand the use of land-based financing, the study recommends implementing simpler and more affordable procedures for land titling and registration, reducing inefficiencies in land registries, and providing education on the importance of individual land ownership. By addressing these barriers, more individuals can formalize land ownership, become eligible for land-based financing, and stimulate economic development in rural areas.

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EMD	Emerging Markets in Development
FAO	Food and Agriculture Organization
FSD	Financial Sector Deepening
KNBS	Kenya National Bureau of Standards
KIHBS	Kenya Integrated Household Budget Survey
LTPR	Land Tilting Property Rights
MFI	Micro Finance Institutions
NLUP	National Land Use Policy
SACCOs	Savings and Credit Cooperative Organizations
SMEs	Small and Micro Enterprises
UN-Habitat	United Nations Human Settlements Programme
WDR	World Development Report

CHAPTER ONE

INTRODUCTION

1.1 Introduction

The absence of collateral prevents disadvantaged individuals living in rural areas from accessing conventional banking services. In order to address their financial demands, the poor have devised several of ad hoc community-based financial systems (Brau & Woller, 2004). In addition to these informal arrangements, non-governmental groups, the government, and the commercial sector have established more formal institutions to address these same needs. The terminology "microfinance" is frequently applied to denote both official and non-formal agreements that offer financial assistance to the poor and represent a creative solution to the problem of a lack of collateral (Nyarondia , 2017). This situation could also affect countryside property holders leveraging their titles as guarantee for funding in Machakos County which require empirical investigation.

In theory, land is eminently suitable as collateral (Sanjak, 2012). Since it is fixed rather than mobile, it lowers the cost of physical monitoring for the lender. It is appropriable, meaning that in the event of nonpayment, the financier can easily acquire the ownership rights to the pledged asset. The value of a specific property is greatly affected by the quality and extent of property rights. These rights are an essential foundation to contractual negotiations as they are aimed at ensuring security of the lender against threats emanating from credit default. Ownership of land is traditionally considered as bundle of rights wrapped in government sheathing of law and order whose purpose is to preserve, protect and enforce the rights. The probability for use of land as security is high especially with well-defined and clear property rights.

An asset is considered collateral if, upon liquidation, it can cover the principal, accrued interest, and collection expenses, as well as the majority or total of the risk subjection to the financier (Larr, 1994). Physical assets like real estate, landed property, and chattels are typically regarded as collateral. According to Briggs & Zuijderduijn's (2018) definition, collateral is a tangible asset that meets the requirements of (i) appropriability, (ii) lack of guarantee-backed hazards, and (iii) accumulation of the profits to the mortgagor for the financing duration. Collateral is an indispensable qualification for borrowers to obtain financial resources from lending entities (Atta-

Mensah, 2015). By granting the banking institution rights to the tangible items, collateral reduces the element of default risk associated with a credit (Etemesi, 2017). Collateral, according to Coco (2000), is a different strategy for preventing loan defaults.

Collateral pledging, as reported by Gitman (2003), is the extent to which debtors give assets to a financier as collateral for debt repayment. In the event that the borrower defaults, the estimation of the assets worth that are guaranteed must be used to recoup the initial investment. Small and medium-sized enterprises specifically offer security in the kind of immovable assets like land and landed properties whose market value is equal to or more than the principle amount and accrued interest in the case of default. (Garrett, 2009). To recoup losses brought on by loan default, collateral should be readily tradable under the usual market conditions. It's clear that more SMEs are victimized and denied financing by lenders because of the risk of significant losses associated with insufficient collateral. (Kihimbo, 2012).

In Africa, collateral-based lending is the norm, and real estate is frequently thought of as a more appropriate type of security. Because it is immobile and steadily increases in value, landed property is preferred. Real property's ability to have solid and clear titles, however, may be called into question. Undoubtedly, a number of investigations have investigated different facets of this contention using a variety of suppositions. Some people have come to the conclusion that formal titles and credit access do not significantly correlate ((Brown , et al., 2006); (Carter & Olinto, 2003); (Galeana, 2004); (Gilbert, 2002); (Carly , Pender, & Pender, 2009); (Migot-Adholla, Hazell, & Blarel, 1991)). Other studies (Boucher, Guirkinger, & Trivelli, 2009) have, on the other hand, interpreted the dead capital hypothesis to mean that legal property titles positively affect loan access. This shows that there is a lack of agreement on the topic of official titles and credit, which is a known research gap that needs more inquiry.

In rural areas, land is the sole significant and most profitable asset (Bugri & Yeboah, 2017). It is recognized as an essential component of societal and ethnic identities, a priceless instrument for fostering economic advancement, a vital factor in preserving the environment as well as advancing inclusivity, adaptable, and environmentally-friendly communities. Therefore, the sociocultural setting and legal framework defining the property privileges determine how land is used as collateral (Quan, Fei Tan, & Toulmin, 2004). More research is needed to determine how different factors affect the leveraging of property titles as a guarantee for funding in rural areas of Kenya.

One of the primary approaches to offer sustainable livelihood options to the rural population who don’t have steady jobs is to leverage land and other assets by utilizing them as a means of obtaining funding from conventional organizations. Nonetheless, land holds the primary preference as security among Kenyan financial lenders. Theoretically, there are a number of reasons why land is a good choice for collateral (Sanjak, 2012). It is the best type of collateral because of its qualities, which include fixity, appropriability, indestructibility, durability, and saleability. There are significant research gaps that need to be investigated regarding how much the rural poor in Kenya use their land titles to address their credit challenges.

Business owners, corporations, and multinational firms use credit as a source of money to finance significant economic activity via borrowing (Enyia & Udungeri, 2018). Financial institutions take a risk when they extend credit, consequently, a guarantee of the borrower's ability to pay back the mortgage is an effective risk-reduction strategy. In the event of mortgagor default or non-compliance with the loan conditions, using assets as security turns out to be a sure strategy to recover the loan’s cost. Collateral is seen as a means to augment mortgagors' liability capacity and improve their creditworthiness by mitigating the impact of default and information asymmetry in finance markets (Ioannidouy, Pavaniniz, & Peng, 2019).

Different items can be utilized to obtain credit (Enyia & Udungeri, 2018). Because it makes the perfect collateral for both borrowers and lenders, land is frequently seen as a significant aspect in facilitating lending access (Narayanan & Chakraborty, 2019). In general, when ownership rights expand, its collateral value does too (Narayanan & Chakraborty, 2019); (Field & Torero, 2011); (Piza & de Moura, 2011); (Sanjak, 2012). Land ownership rights in the rural Kenya face challenge in use as credit security because of pattern of ownership which also require further investigation by the researcher.

The majority of Kenyans still reside in rural regions and rely on agriculture for a living (NLUP, 2016). Based on the most up-to-date statistics published by the Kenya National Bureau of Statistics (KNBS, 2019) 32,732, 596 people, or 68.9% of the populace, dwell in the countryside. Even though great progress has been made in Kenya to guarantee that agricultural land is used sustainably and profitably, funding availability continues to be a problem.

According to Boone (2018), land titles in Africa are instruments to help the underprivileged gain access to land-based resources and gain legal empowerment. DeSoto (2003) asserts that the lack of official property titles is to blame for the difficulty in acquiring loans. Despite the fact that the poor own valuable land that would improve their ability to obtain loans, such properties are generally considered to be unfeasible for a variety of reasons. Small and medium-sized businesses (SMEs) cannot use this wealth as leverage to acquire borrowing from banking establishments and other financial service providers. Because of this, these organizations frequently lack the funds necessary to invest, generate employment, combat poverty, and eventually raise living standards.

1.2 Problem Statement

The development of the world's economies, particularly those of emerging countries, depends heavily on land (Azadi & Vanhaute, 2019). Despite it being a critical resource, land development continues to lag behind and its potential largely untapped. This is due to lack of capital, technology and entrepreneurship to fully develop it. This is to a large extent evident in developing countries' rural areas, where there exists severe poverty, rising unemployment, widening income disparity, low levels of education, and ill health (Meyer, 2015).

Being a natural capital, land is the most valuable asset in rural settings (Mphande, 2016). It is the basic framework for rural settlement and growth. According to Kenya Land Alliance (2003), 90% of people residing in the countryside rely exclusively on the land with the intention of catering to their livelihood. For these individuals, access to land resources determines their level of affluence or poverty, fulfils social obligations, and confers social prestige and political influence. It is key therefore that the land resources are optimally developed so as to give returns enough to raise the standards of living for the rural population. Development of land requires large capital outlay, which often times can only be raised through borrowing from financial lenders. Institutional financial lending is only possible when backed by collateral as a guarantee towards repayment.

The most valuable collateral are assets that (1) are easiest to appropriate in the case of default, (2) do not easily depreciate in value and (3) have substantial use value to the borrowers so they will not want to part with them (Meyer, 2015). Land is argued to meet all these features hence can act efficiently as collateral. Studies have shown that land serves as an excellent choice for guarantee to both the lenders and borrowers in secured loans (Narayanan & Chakraborty, 2019); (Kislat, Menkhoff, & Neuberger, 2013). Loan transactions frequently involve the risk of a defaulting borrower, thus lenders take various steps to mitigate that risk as well as abating any negative outcomes in the event of non-payment (Briggs & Zuijderduijn, 2018). The use of loan collateral is a common procedure adopted by lenders as it increases anticipated profitability in addition to giving debtors a reason to refrain from deliberate default.

According to several research, the quantity of the loan receivable, the worth of the collateral, and default risk are all positively correlated, ceteris paribus. Due to its rising value, land offers a more reliable and valuable security for loans. The more a person's property is worth; the higher their credit limit will be (Enyia & Udungeri, 2018). Atta-Mensah (2015) asserts that as the worth attributed to the guarantee rises, so does the availability of loans. In the opinion of Narayanan & Chakraborty (2019), using land as collateral is linked to higher loan values. As stated by Briggs & Zuijderduijn (2018), mortgagees should expect at least some additional value to account for both the risk of daily changes in the estimated worth of the mortgaged property and, probably more importantly, the costs associated with having to sell the asset. According to Meyer (2015), land tends to have the highest collateral value and a consequent high use value that borrowers would not want to part with, hence reducing possibility for strategic and intentional default. As maintained by Sanjak (2012), collateral shouldn't lose value over time. To recover bad debt, the market price of the guarantee when sold must be sufficient to pay the loan's principal and accrued interest.

Given that land is an asset whose value increases over time, logic dictates that the value of the pledged property should typically be greater than the amount of the loan secured (Briggs & Zuijderduijn, 2018). It is thus expected that the concept of harnessing land as a means to secure credit will be unanimously accepted and subscribed to by majority title holders. In reality, land is not widely used as collateral, especially in rural Kenya for a variety of reasons. For instance, the values and standards that people associate with land are cited as a restricting factor by Narayanan and Chakraborty (2019).In rural areas, land constitutes a greater proportion of wealth and is considered a critical asset with substantial cultural value (Bugri & Yeboah, 2017). Other hindrances to use of land as collateral include lack of formal documentation of rights and poor titling (Piza & de Moura, 2011), high transaction costs (FSD-Kenya, 2015) to the borrower, and issues of land succession (Narayanan & Chakraborty, 2019). These barriers hinder landowners from utilizing their land as collateral for loans and obtaining access to larger loans with lower interest rates and longer maturities, which are essential for significant land development projects.

Real property or personal property, both tangible and immaterial, may be used as collateral (Karumba & Wafula, 2012). In developing countries, institutional lenders hardly make loans secured by personal property unless at least one of two conditions is satisfied: borrowers must own real property that can be attached in case of default, or borrowers must place the movable property under the physical control of the lenders (Enyia & Udungeri, 2018). If neither of these stringent requirements can be met, financial institutions will only offer smaller loans with high interest rates and shorter maturity, hence not enough to raise sufficient capital for land development. Land, a valuable asset in rural settings, seems to hold a prominent position in collateralized transactions, notably in developing nations, even if banks and financial institutions may use other types of assets as collateral. (Nwuba, Egwuatu, & Salawu, 2013).

Due to their inconsistent and ineffective legal and regulatory frameworks, developing and least developed countries typically find it challenging to implement the contractual arrangements surrounding defined assets that are part of collateral (Karumba & Wafula, 2012). According to FSD-Kenya (2015), there is no uniformity in the regulation of securities due to multiplicity of laws governing the creation and perfection of security interests. As a result, clearing the subject asset is a time-consuming, expensive, and complicated operation. A policy issue that needs to be resolved is Kenya's long time and financial costs associated with credit. The lack of uniformity in the regulation of securities and issues with the enforceability of collateral make lenders more risk-averse and restrict the availability of credit for economic activities in rural areas. (Karumba & Wafula, 2012). The adoption of suitable policy interventions is essential for achieving global development goals, such as food security, sustainable rural livelihood, and economic empowerment for the rural poor (Bugri & Yeboah, 2017). Access to finance utilizing real property and other assets as collateral is a crucial policy strategy that boosts investment, productivity, and value in the rural economy.

Despite the considerable importance and value of land as a critical asset in rural settings and having the potential to act efficiently as collateral, its adoption and enforcement as guarantee for loans remains meager (FSD-Kenya, 2015). This situation hampers the progress of economic growth and development objectives. The research gap, therefore, lies in the need to address and understand the reasons behind the low adoption of land as collateral in rural Kenya, despite its potential as a valuable asset and its significant role in rural livelihoods and development. Additionally, there is a gap in knowledge about the specific factors influencing the low utilization of land as collateral and the policy interventions that can be implemented to overcome these barriers and promote access to finance and economic development in rural areas.

Thus, this study aimed to close the existing information, policy, and practice gaps related to the demand for financing with title deeds as collateral. By understanding the extent of land-based financing in rural Kenya and factors influencing its use, this study seeks to provide valuable insights into the economic development potential of rural areas. It also aims to assess access to credit for rural populations and identify barriers and opportunities in the financing sector. Ultimately, the research aims to enlighten policymakers, financial institutions, and development organizations in designing inclusive and efficient financing systems that can contribute to poverty eradication and sustainable development in rural Kenya.

1.3 Objectives of the Study

1.3.1 General Objectives of the Study

This study's primary goal was to ascertain the magnitude to which Machakos County rural landowners use their titles as collateral for borrowing.

1.3.2 Specific objectives

a) To determine how well-known utilization of title deeds as collateral for loans is in rural Machakos County.
b) To identify factors influencing the usage (or not) of property titles as security for lending in Rural Machakos County.
c) To determine the prevalence of the use of other forms of collateral to secure finance for development in Rural Machakos County.
d) To establish the challenges faced in use of title deeds as collateral for financing in Rural Machakos County.

1.4 Research Questions

a) To what measure do rural landowners in Machakos County utilize their land titles as collateral for borrowing purposes?

b) How frequently do rural landowners in Machakos County use their property title deeds as security for loans?

c) What are the key influencing elements on the decision of rural landowners in Machakos County to use or not use their land title deeds as security for loans?

d) What are the prevailing forms of collateral utilized by rural landowners in Machakos County to secure finance for development, apart from land titles?

e) What are the main challenges experienced by rural landowners in Machakos County when using title deeds as guarantee for borrowing?

1.5 Significance of the Study

In light of the Kenyan government's recent commitment to converting land related data into digital format in an endeavor to streamline land ownership records and property transfers, the study "Use of Land as Collateral for Financing in Rural Kenya" is pertinent at the moment. Largest portion of financial organizations would favour using land as guarantee where property documents and titles are well-defined and unambiguous. The goal of digitization is to enhance competence and transparency in providing property-based resources, resulting in titles being accessible within feasible schedules.

Additionally, the research was motivated by the Jubilee government's extensive distribution of property deeds, which seeks to address the land issue. To take benefit of the government's programs, title holders must be made aware of them, particularly in rural Kenya, where land stands as the foremost and invaluable monetary resource. To alleviate impoverishment and enhance means of living, countryside landowners have the opportunity to utilize their land productively by using their titles as guarantee to obtain credit. This study will be effective in educating the rural populace about the value of titles as a means of obtaining financing from the financial markets. Through the provision of necessary capital to carry out economic activities, credit access performs a significant role in economic development and prosperity. Insights and data from the research are intended to inform the creation of interventions that support the development of resilient, pro-poor rural economies. The study was important for government policy makers since it addressed important concerns from the field survey that affect whether or not titles are used as collateral for loans.

1.6 Scope of the study

The scope of this study encompasses the rural area of Kivani, located in a developing nation facing significant challenges such as poverty, rising unemployment, widening income disparity, inadequate educational attainment, and diminished health. The major economic activity in Kivani location is small- scale rain fed agriculture, with maize being the dominant crop. However, a considerable portion of the population also engages in small and medium-sized businesses (SMEs) to supplement their income, which is insufficient for land development purposes. Furthermore, the region experiences a substantial variation between farming output and consumer requirement due to the inconsistent rainfall cycles. There are scarce chances to enlarge farmland due to water and arable land shortages. To promote viable means of living and economic advancement in both the broader country context and specifically in Kivani location, it is crucial to maximize the economic benefits derived from land, which is a valuable resource in countryside environments. A potential solution lies in facilitating access to adequate investment for land improvement, with land serving as the primary type of collateral.

Access to credit is recognized a key policy intervention and is one of the lucrative ways of raising capital for economic development. The main challenge is the meager adoption and enforcement of land as collateral, thus necessitating the need to investigate the underlying issues. It was necessary to identify the elements influencing whether or not land was used as collateral in order to provide acceptable solutions. While acknowledging the broader sources of finance available to rural families, the study specifically focuses on the importance of collateral and its relationship to borrowing. The geographic scope of the study is limited to Kivani location, chosen because it represents a typical rural area in the county, allowing the researcher to gain insights into the experiences of rural landowners. Lastly, Kivani has a significant number of landowners who possess titles, making it a suitable location to explore the use of these titles as collateral for lending. By exploring the underlying issues surrounding the meager adoption and enforcement of land as collateral, the study seeks to provide valuable insights and propose potential solutions to enhance sustainable livelihoods and promote economic development in Kivani and similar regions.

1.7 Organization of the Study

The study is segmented into five separate portions. The study's initial elements are presented in Chapter 1. Introduction, problem statement, research objectives, research questions, scope of the study, significance of the study, chapter organization, and definitions of important terminology are some of these sections. The second chapter includes examination of the literature on utilization of land as security in general, alternative forms of collateral used in financing, their advantages and disadvantages, factors influencing whether or not titles are used as collateral in financing, and initiatives to encourage the leveraging of land as pledge in financing. The data in this chapter serve as the study's conceptual foundation. The study methodology used is described in detail in chapter three. The research design, the population, sample size, sampling methods, and data gathering tools and techniques are some of the concepts covered. The presentation and interpretation of data are covered in Chapter 4. This information was gathered from a field survey using a variety of data acquisition methods. The overview of the research results, the conclusion, the recommendations, and the areas for further research are all included in chapter five.

1.8 Operational Definition of Key Terms

Land

Land as a physical concept includes soil and anything that is permanently attached to it.

As a legal concept, land includes the rights and interests that people have in it.

Land as an economic concept is viewed in relation to other elements of production, namely; human resources, capital investment and entrepreneurial expertise.

Credit

Credit is a tool that enables the short-term transmission of purchasing power from those who have an excess to others who do not. As a result, credit entails the brief transfer of wealth now in exchange for a commitment to pay it back later (Yadav, 2018).

Collateral

An asset is considered collateral if, upon liquidation, it can cover the principal, accrued interest, and collection expenses, as well as the majority or total of the risk subjection to the financier (Meyer, 2015).

According to Briggs & Zuijderduijn's (2018) definition, collateral is a tangible asset that meets the requirements of (i) appropriability, (ii) lack of guarantee-based hazards, and (iii) accumulation of the profits to the mortgagor for the duration of the loan.

Default risk

According to Spucháková, Valaková, and Adamko (2015), default risk pertains to a customer or other party's inability or reluctance to fulfill promises in relation to loaning, commerce, insuring, resolution, and other economic transactions. Default risk, in its most elementary form, signifies the likelihood that a party involved in a banking transaction has the potential to fail in satisfying its commitments (repay the loan) in line with established terms.

Rural

There are many definitions of rural that have been used globally, but they differ based on the analysis's goals. Rural is defined by the United Nations Human Settlements Programme (UN-Habitat) as everything that is not an urban area. The World Development Report, 2008 (WDR) from the World Bank and the International Labor Organization both believe that agricultural activities predominate in fostering development and reducing rural poverty (World Bank, 2007).

The societal, economic, and environment-focused facets of living in rural regions are all taken into account by the Food and Agriculture Organization of the United Nations (FAO). The societal component pertains to homes as consumers of social provisions like learning opportunities and medical services. The financial aspect comprises agronomic yield, commercial activities, along with farm and non-farm income. The ecological aspects deal with how land and water resources are used (FAO, 2018).

Review of these definitions reveals that there is no universal concept of what constitutes rurality across nations. However, there is some consistency in the definition's underlying concepts (if not its empirical representation): population size and density, local economic activity, and proximity to major cities (FAO, 2018).

Sustainable livelihood

A livelihood is considered sustainable if it can survive pressures and disruptions, reclaim from them, and strengthen or improve its capacities, resources, and activities in the current and forthcoming without jeopardizing the base of available natural resource (Serrat, 2017).

Sustainable livelihood is a strategy applied to reduce extreme poverty, promote economic and community development as well as enhance natural resource management.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter analyses literature connected to theories, concepts and experimental studies that form the foundation of fulfilling the research objectives and questions. The chapter addresses recent literature and research on the extent rural land owners' uses their titles as collateral. The literature investigation pertains to the theoretical assessment, empirical assessment and devising of the research gap that the study seeks to fill. From this examination, a conceptual framework is formulated for improvement of understanding into the topic.

2.2 Collateral Based financing Concept

Collateral-based financing has occasionally been employed in emerging markets and less developed economies, which encompass India (Dua, 2020), China (Gabor, 2018) and Brazil (Kaltenbrunner & Painceira, 2018). Although Russia has adopted this worldwide phenomenon, it has also experienced plenty of peculiar characteristics that distinguish it as unique subject for studies of the administrative economy of collateralized financing. Russian repurchase agreement markets were recently securitized, making Russia the first country to make this instrument known. This was made possible by the creation and its aftermath growth of the exceptionally centralized transaction of general collateral certificates (GCCs) in the state-controlled monopoly Moscow Exchange (MOEX).

The amount of property that debtors pledge to financial institutions as security so that they can repay their loan is known as collateralization (Gitman, 2003). Should a borrower be incapable of meeting the borrowing reimbursement, the principal amount will be recovered using the guaranteed assets provided as security. Entrepreneurs provide collateral in the form of homes, businesses, cars, and anything else that can be sold to recoup the loaned funds. (Garrett, 2009). Duan & Hongbo (2009) postulated that owing to absence of collateral and guarantors, the entrepreneurs in China encounter challenges in obtaining funding from financial service companies thus preventing them from contributing in the commercial prosperity of the nation. Haron et al. (2013) noted in Malaysia that, collateral affects enterprise access to finance, a case which is likely to be replicated in the rural Kenya.

According to Kariuki (2007), the process of certifying a title deed is time-consuming due to the difficulties encountered at Kenya's land offices and the inefficiency of the paper-intensive framework. The results could also be unreliable, which has adverse effects on the bank's ability to disburse loans. The need for alternative or additional collateral by lending institutions has decreased as a result, as has the pledging of title deeds as security. This suggests that lending institutions lose a lot of potential customers who might have used the banks' credit services.

Through the provision of credit to carry out economic projects, financing organizations have a substantial contribution in the expansion and advancement of the financial system. However, many lenders are concerned about how to recover the credit expenses if the borrower defaults or is unable to uphold the contractual responsibility while extending credit (Fleisig, 1995) and this implies that there is some danger associated with the relationship between lenders and borrowers, which can be reduced by using security. Secured finance is the term used to describe credit transactions. When a loan is secured, the borrower promises a piece of property as security, permitting the mortgagee the authority to foreclose and peddle it if the mortgage is not repaid as promised (Nwuba, Egwuatu, & Salawu, 2013).

Land is typically the main valuable item utilized as security in Kenya to get loaning from conventional organizations. To accomplish this, a lending institution must undertake property search at the centralized database to ascertain the authenticity of the title deed ad the evidence of identity, which adds cost and time to the procedure. Due to this circumstance, many financial institutions are hesitant to accept land title deeds as guarantees for loans (FSD-Kenya, 2015). Due to this circumstance, it is difficult for rural business owners to use property titles to obtain financing from financial institutions.

Lending institutions cannot accept land as a collateral for credit without first conducting an authentication process. The lending institution initially checks the national identification database to see if the applicant's identity proof is valid. The lending institution must additionally double-check the information on the offered title deed in the lands registry's central database of title deeds. The valuation division of the lending institution is in charge of carrying out this procedure. Filling all the relevant paperwork and physically handing them over to the land register completes the authentication process (Kariuki, 2007).

According to FSD-Kenya (2009), processing credit where land has been pledged as security costs an overall total of 5.78% of the financing sum and requires sixty working days. There are more serious challenges bedeviling the use of land as security in developing nations not just the slow speed of the search. Issues of double allocation, manual land records meaning the title deeds may be manipulated, lack of proper updated land records and missing records, corruption that discourages land owners to seek services such as searches. Due to the title deed substantiation procedure' inefficiency, slowness, and discrepancy, lending institutions are forced to decline the admission of land as security and request alternate types of guarantee in order to disburse credit. The majority of Kenyans in rural regions are deterred from using collateral as security to finance land development initiatives by this real-world circumstance.

As mentioned earlier, the practices of extending credit in Kenya heavily rely on tangible collateral, which is not accessible to the greater number of Kenyans. In order to accomplish the goal of reducing the number of people without credit, a fundamental change from secured financing to credit scoring lending is necessary. This shift will enable increased credit availability for overlooked or unserved market segments. This is due to the fact that small businesses have insufficient assets to utilize as security and have higher rates of nonpayment as compared to large businesses (Pandula, 2011)

2.3 Theoretical Review

Theories can provide valuable insights for policy-makers and researchers, enabling them to comprehend the underlying causes of various situations and the impact of decision-making on ultimate results. Within decision-making theories and frameworks, the approach employed may vary based on the specific circumstances and the type of decision that must be reached. This study which is on the extent rural property-owners employ their titles as guarantee to obtain loaning in Machakos County, therefore, was analyzed based on the following theories; The Social Relations Theory, Theory of Financial Intermediaries and Loan Pricing Theory.

2.3.1 The Social Relations Theory

The theoretical basis for this study is provided by social relations theory as it relates to property. The theory looks into the role property rights play in shaping societal relations and the manner in which social relations shape property access (Chapin, 1965). It views property rights as originating from social group and reflecting the of societal consensus granting the right holder the freedom to perform in a certain way devoid of meddling from unrelated individuals of the social order provided that the technique of behaving is one that is included in the scope of his rights (Odote , 2010).

According to Pedersen (2010), property is a communally established constructed postulation. These societal associations constitute and are designed by a sequence of privileges, obligations and rules, which regulate the conduct of individuals or organizations in regard to everyone as well as the trusteeship, ownership, usage, enjoyment, conveyance and others, of diverse categories of instruments. Founded on Hohfeld (1966) interpretation of legal relationships, each corresponding relation comprises of four rudimentary elements: the individual or ensemble owning a title; the individuals or collective residing in the associated location correlated to the prerogative; the formation of the relationship (for example, whether it constitutes, let's say, a relationship of rights and obligations or a relationship of authority and responsibility); as well as the information contained therein (the description of the right-duty relationship).

The conception of bundle of rights underline the diverse components that constitute property including the right to usage, relinquish, and inherit. Honoré (1961) extensively advocated for the concept property as a "bundle of rights." Honoré (1961) maintains that this "bundle" is made up of eleven "sticks" or "incidents": rights to possess, usage, govern, obtain proceeds from, consume or destroy, be secure in ownership and transfer one's property, in addition to have these rights continue progressively; along with duties, refrain from using someone's property detrimentally; to be legally accountable to dissolution of ownership in the event of indebtedness, and to respect any abiding privileges others may possess in one's property. By its very nature, the acquisition of a bundle of rights in land essentially comprises the possession of a bundle of restrictions.

Rights in landed property complement with differing proportions of communally permitted power to allocate exercisable beyond the resource. Thus, considering that property rights influence the societal relationships among entities and persons, distinctive property rights establishments had numerous means to organize and administer the various facets of the bundle of rights termed property and consequently assign different values to the property institution. Established on this theory, prevailing social institutions are designed to apportion fundamental rights and obligations appertaining to land tenure to the economically disadvantaged city dwellers living in informal housing through an appropriate policy and legal system that defines the obligations of the land occupants.

These community-based institutions, specifically under the national and county government should embrace land management authority of compulsory acquisition and police power as advanced in existent land laws to besides enhancing security of tenure, moderate the three land use determinants – economic determinants, socially entrenched determinants and public interest - toward sustainable use of land in the informal settlements. The indefinite assumption is that they incapable of delivering these privileges and obligations hence the continuous predominance of tenure insecurity that may negatively influence the informal residents' choices on land use. The Social Relation Theory was the basis for analyzing the the extent countryside landholders utilize their title deeds as guarantee in acquiring credit in Machakos County.

2.3.2 Theory of Financial Intermediation

Financial Intermediation theory, invented in 1960 by Gutley and Shaw is instituted on the agency theory and the information asymmetry theory which explains the relationship between principals and their relative agents. In theory, the presence of middlemen in financial transactions is illustrated by the high operational expenses, the governance mechanism and absence of all-inclusive facts in the appropriate moment (Andries & Cuza, 2009). The theories satisfy the subsequent provisions in agreement using the model of perfectly functioning money markets in the neo-classical theory: the borrowing prerequisites for lenders and debtors are undistinguishable; none of the parties can impact on the values; there does not exist prejudiced costs; the absence of contestable edge (Andries & Cuza, 2009). Financing is an instrument for financial mediation - reason being that capital become accessible to individuals that require it for deployment in the economic development. Hypothetical studies have inaugurated correlation that subsists amidst monetary advancement and financial mediation. In particular, Levine (2002) in his studies emphasized firmly the function of financial intermediation in the economic growth and development. Concurrently, the experimental and hypothetical studies propose that a well-developed financial system is an advantage to the economy undividedly.

According to Scholtens & van Wensveen (2003), proficient financial intermediation effectuates a rise in the savings in addition to the degree of investment, moreover, it boosts the efficacy in the financial apportionment in the limits of the market economy. Expansion of the banking system and accomplished financial intermediation give rise to economic development. Reason for this is that savings are directed to high-yielding and less cash flow uncertainties (Augier & Soedarmono, 2011). The relevance of this theory is that in most rural Kenya agribusiness is not cooperative driven but family and individual driven making people borrow as individuals rather than through cooperatives. This makes the theory relevant in analyzing the utilization of title deeds as security for obtaining funding for agribusiness enterprises run by individuals or families. Lack of adequate security, insufficient financial information asymmetry, the financial intermediation theory describes the deficient credit accession by prospective borrowers if/when the conditions of lending are unsatisfied.

2.3.3 Loan Pricing Theory

As reported by Stiglitz & Weiss (1981), banking institutions would escalate interest rates with the intention of earning the maximum possible returns on their investments, although this would consequently instigate the likelihood of adverse selection; which is to say, choosing only borrowers that are able and prepared to accept these rates owing to their high-risk profile. Afterwards, such debtors would venture into high risk investments because of moral hazard (the impression that their high credit costs account for the high risk investment endeavors) that might possibly be unfavorable to the financier (Karumba & Wafula, 2012). It is on the proposition of the loan pricing theory by Stiglitz & Weiss (1981) that Olokoyo (2011) maintain that the level of interest rate established by banking institutions does not all the times reflect of the risk of the borrower rather takes the interest of the lender. Within rural credit financing in the Kenyan setting, loan pricing theory appears to operate only to the degree that the credit dispensed would be subjected to land titles collateral of which a lot of properties in the rural areas do not actually have the physical titles and may not therefore be used as collateral to secure loans for financing land development.

2.4 Empirical Review

2.4.1 Factors influencing the use of Land Titles as Collateral in Financing

While there has not been much research on these connections, Narayanan & Chakraborty (2019) speculate that landholding, land tenure, and tenancy patterns may influence, by means of landownership, the degree to which farmer households use land as collateral. In this instance, the regional variations in collateral usage may simply be a reflection of landownership arrangements. For instance, the usage of land as collateral is implausible to be considerable if tenancy is popular, singularly among landless households that rent land for farming. The types of collateral that predominate in various regions could also be influenced by differences in spatial patterns regarding the development of self-help organizations and micro-lending establishments.

Due in significant part to poor maintenance of land records, there is little use of land as collateral. Regardless of attempts to modernize land records, more work still needs to be done (IGIDR, 2017; Meghna, 2017). One issue is when several people assert ownership to a piece of land. Encumbrances are not regularly recorded and updated, so it is frequently the case that the title is until now registered in the name of progenitors who may have departed, meaning that the land is not appropriate to utilize as security by the borrower. Furthermore, it is impossible to use land as collateral in many rural locations due to common ownership and shared usage of land. In addition, it has been proposed that an asset's optimal collateral quality is not outright and is influenced by institutional and social factors. It is possible that people have sentimental attachments to land that preclude them from utilizing it as collateral, according to this. It is possible that people have sentimental attachments to land that preclude them from utilizing it as collateral, according to this.

The land, for example, might be too precious to the impoverished to risk using as security. Additionally, the value associated with leaving land to future generations may discourage households from securitizing land. Using land as security can come with high processing expenses for the borrower. Rajeev & Nagendran (2018), for instance, denote that Agri Gold loans for farmers in Karnataka depend upon minimal documentation because farmers merely need to show an evidence of agriculture activities (on occasions, even an undersigned letter from the Tahsildar was considered sufficient). No dues certificate from separate bank branch in the branch's Taluka was necessary in order to use land as collateral. As an alternative, land, being a valuable asset, may only be utilized as collateral for substantial loans, and such requirements may be restricted or reserved solely for emergency situations, according to Kislat, Menkhoff, and Neuberger (2013).

An examination was conducted to assess the impact of land restructuring on the accessibility of credit and agribusiness investment in Ghana by Narh et al. in 2016. The study suggests that official ownership rights may not necessarily result in higher access to credit and raises some clear questions about the relationship in the midst of recognized ownership rights and the availability of finacing. In a comparison of universal banks and microfinance institutions (MFIs) in Ghana, Domeher et al. (2016) discovered that the kind of financial institution being studied determined the impact of legal titles on the availability of credit. Furthermore, it was observed that while financiers considered official property titles to be crucial, their presence did not ensure credit availability or better loan terms. The principal intention of this study, which was to evaluate the determinants impacting the usage of titles as collateral in financing in rural Kenya, was not accomplished, hence the need for further investigation into the topic.

Bubb (2013) noted that formal property rights have a negligible positive effect on credit access in Ghana in earlier, far earlier studies. In Ghana, the demand side is typically the subject of the majority of studies. It seems that Abdulai & Hammond's (2010) pilot research is the only one that took into account the supply side. Given that the internal rules and practices of lenders played a significant role in whether or not credit was granted, it is crucial to give the supply side research the same amount of consideration. The factors impacting the usage of titles as collateral for lending in rural Kenya were not examined in this study.

Despite the fact that several studies have found a strong correlation between recognized ownership certificates and finance accessibility ((Feder , Onchan , & Chalamwong, 1988); (Boucher, Guirkinger, & Trivelli, 2009), numerous other research conducted in the emerging nations discovered either no relationship between the two or a negligible influence on credit availability. ((Brown , et al., 2006); (Carter & Olinto, 2003); (Galeana, 2004); (Gilbert, 2002); (Place & Migot-Adholla , 1998); (Migot-Adholla, Hazell, & Blarel, 1991); and (Carly , Pender, & Pender, 2009). There are many different reasons why small enterprises in emerging nations struggle to get finance. According to Aryeetey (1998), banking professionals and entrepreneurs possess various justifications for the current lending restrictions. While business owners blame a lack of collateral for the issue, bankers blame a lack of viable or profitable ventures. This is why the study's foundation was an analysis of the variables affecting the usage of titles as security for loans in rural Kenya.

Because people can utilize informal documentation to prove ownership, despite not being legally registered, land might be used as collateral., according to Dower & Potamites' 2005 research. De Laiglesia (2004) finds that 68% of the lenders in the private sector mandated the provision of secure land titles, whereas 6.7% accepted properties without formal registration being used as guarantee, which is evidence in favor of this conclusion. The factors impacting the usage of titles as collateral for lending in rural Kenya were not examined in this study. Gilbert (2002) observed in a report on a research conducted in Bogota that the absence of recognized ownership titles is not the biggest issue facing formal lenders. The aforementioned upholds the observations of Brown et al. (2006) that, despite the requirement for guaranteed property titles to obtain funding, they frequently aren't enough to prompt credit delivery. Other elements that may lead to the usage of titles as collateral for loans in rural Kenya were not examined in this study.

According to a study by Jiang et al. (2020) on access to financial services for all, property title, and loan, small landholders who have land titles and are poor, non-poor, or both are more likely to obtain funds from official financial organizations through borrowing. The availability of loans for not impoverished and small-scale farmers is increased by land registration. Farmers with substantial land ownership and those who are not living in extreme poverty experience a reduction in the practice of unconventional financing. For some farmers, the process of registering land ownership offers advantages in terms of enhancing access to financial services for all, ensuring that everyone has the opportunity to participate in the economy, but it does not completely eliminate the credit constraints faced by impoverished farmers.The extent to which land titles use as collateral in financing in rural Kenya is not adequately studied.

Suwansin et al. (2018) conducted research in Thailand on using revolving money to recover mortgage loans and land titles. The empirical findings showed that the revolving fund is successful because it can lend money to smallholders so they can buy back their land title deeds from prior creditors. According to the results of the censored Tobit regression, the percentage of outstanding interest was dramatically reduced by more frequent meetings with the RF administration, less influence from outside sources, high land potential, and the interplay of age and experience. The factors affecting the usage of titles as collateral for financing were not examined within this research.

The connection amidst clear property titles and credit access has been highlighted by a lengthy history of study on land titling. Numerous researchers, Soto (2003); Field & Torero (2011); Sanjak (2012) suggest that improving financial accessibility from official organizations becomes crucial, particularly in situations where the enforcement of credit agreements is ineffective, is facilitated by clarifying land titles. (Soto, 2003); (World Bank, 2009). A number of nations have started initiatives and put legislation into place related to land titles based on this idea. Despite these well-established reasons for the supposed benefits of land titles and credit access, empirical data now available points to a more nuanced link between property title and financial accessibility. Research highlights that various conditions must be met for land to serve as security, and although having clear titles is one prerequisite, it alone does not guarantee access to loans. Therefore, even while the process of registering titles holds significant importance to achieving larger economic advantages, one shouldn't anticipate that titling will immediately increase access to financing from formal organizations ((Field & Torero, 2011); (Sanjak, 2012); (Dower & Potamites, 2005)).

Field and Torero (2011) discovered a causal link between the process of registering land titles and credit availability, although this association is only true when a state bank is the lender. According to Macours' (2009) study of 20 villages in Guatemala, the influence of property registration on the utilization of plots and the ability to obtain loans differs depending on how prevalent conflicts are in each community. In order for land titling to be effective in influencing plot use and credit availability, dispute must occur and be resolved. (Deininger & Goyal, 2010). The authors argue that the expense of acquiring information remains unchanged for rustic settings since the integration of registration data (derived at Taluk headquarters) and documentation related to land (acquired from the local level) are still not integrated. As a result, the computerization of land registration has little to no effect on rural residents' ability to acquire loans. Besley et al. (2012) demonstrate that property rights only affect credit access for wealthier borrowers and only when they promote competition among lenders in Sri Lanka. The factors impacting the usage of titles as collateral for lending in rural Kenya were not examined in these research.

There aren't many national surveys conducted in India that specifically state the type of collateral utilized for secured loans. With a few notable exceptions, these haven't always been publicly documented at the countrywide level. According to the Committee on Household Finance (2017), the majority of household debt in India is unsecured (56%), and home loans only make up a small portion of total liabilities nationwide (23%). According to some estimates, land or other immovable property is used as collateral significantly more frequently. According to one set of estimates, between 50 and 60 percent of all consumer loans are linked to real property (Krishnan, Panchapagesan, & Venkataraman, 2016). According to them, nearly half of all term loans are secured by real estate and buildings, and around 80% of all corporate debt is secured. More than 80% of all loans for agricultural purposes are secured by land. However, only 10% of informal and unorganized lending sectors use land as collateral (Rajeev , Vani, & Bhattacharjee, 2011). These studies incorporate various samples, various datasets, and various analytical levels (loan level, household level). Despite the fact that they all appear to indicate that there are systematic differences between industries, they did not examine the factors affecting the usage of titles as collateral for loans.

In the countryside and metropolitan Tamil Nadu, Mowl (2016) records a wide range of credit contracts where a variety of valuable items, including land, vehicles, and mobile phones, are utilized as guarantee. She goes into detail about the function of land titles in facilitating credit availability. She points out that while both formal and informal lenders need basic paperwork like a land patta, sale deed, and lien attestation, institutional financiers also need land chittas and "no objection" certifications, according to replies. In contrast to informal lenders, institutional finance operations frequently exclusively offer loans for developed properties (if located in metropolitan areas). The researcher notes that formalizing titles alone might not boost effective access, and she offers the example of how digitizing land titles, which was meant to be an instrument for accretion and to improve legitimate access and openness, has also produced information reports for unofficial suppliers. Even though it might make loans more accessible, it might not necessarily promote borrowing from unofficial lenders in rural Kenya.

Relevant is also the rise of gold loans, especially in the conventional sector (Nair & Ram, 2014). It appears that gold in preference to land is most prevalent collateral for the banking system, even in states with present-day property records and clearer land titling. As an illustration, information on bank borrowings from a review of lenders from three districts in Karnataka in 2014–15 revealed that 86.2% of all short-term agricultural credit was secured by gold. (Rajeev, Meenakshi, & Vani, 2017). Nair & Ram (2014) point out that utilizing gold as guarantee minimizes the expenses associated with loaning transactions, permitting a low likelihood of nonpayment resulting from the conceptions associated with gold, and provides a mechanism to accomplish lending goals by extending the pool of possible borrowers to individuals who might not own land. The informal sector appears to have distinct upper hand even with collateral regarding limited paperwork and transaction expenses, and only conventional domain financing options that have these characteristics gain widespread use. Predominantly, more types of collateral are still accepted by the non-formal sector than by the formal sector. Inadequate study has been done on the other factors impacting the utilization of titles as security for loans in the Kenyan countryside regions.

Bester (2007) pointed out that investors with low default probabilities would reveal themselves by agreeing to collateral conditions that would be undesirable for borrowers classified as high risks. Because greater security facilitates the choice of less risky ventures, collateral prerequisites function as a motivation procedure (Bester, 2007). This is due to the fact that a mortgagor with lower uncertainty is more incentivized to provide collateral than a high-risk debtor, which results in a decreased likelihood of experiencing setback and the potential for collateral forfeiture. Stiglitz & Weiss (1981) state that the borrower's creditworthiness is shown by the collateral. Therefore, collateral is a technique for dealing with moral hazard issues. (de Aghion & Morduch, 2004).

A few SMEs are fortunate when seeking financial support from credit providers, according to studies on the obstacles they must overcome. This is because they don't comply with lending standards, which include providing collateral security (Matavire & Duflo, 2013). According to a survey, Ghanaian SMEs, like the majority of SMEs worldwide, suffer significant obstacles to obtaining finance. Due to their inability to provide the collateral and other documentation essential to financial institutions, including scrutinized financial statements, SMEs found it extremely challenging to get bank loans (Ackah & Vuvor, 2011). In contrast to companies with more tangible assets, those with more intangible assets have less access to finance. The magnitude of the SME is important since tiny and micro-SME possess fewer resources for use as guarantee compared to substantial businesses. The organization's phase of growth may play a role in this to some extent.

When compared to larger firms with a longer history, it may have had smaller profits retained in earlier stages, which could have prevented it from investing in fixed assets (Etemesi, 2017).

A study on the difficulties SMEs encounter in obtaining financing from banking institutions; A case study in Belaway, Zimbabwe showed that SMEs had trouble obtaining loans due to the rigorous requirements of financial institutions, the two main ones being a lack of collateral and knowledge asymmetry (Matavire & Duflo, 2013). One of the suggestions made by these academics was that the government fulfill its obligation to assist SMEs in obtaining financing from accessible financial service providers. A study on the difficulties faced by female business owners in Kenya in obtaining financing for their enterprises: One of the study's goals was to examine the instance of Ruiru Township in Kiambu County and its absence of immovable properties (Makena, Kubaison, & Njati, 2014). However, the study found that a major barrier to women entrepreneurs' ability to acquire loans was a lack of real collateral, such as property. One of the researcher's suggestions was that the government fulfill its obligation to assist SMEs in obtaining financing from conventional institutions. The present research aims to address a gap that was not covered by the previous study, which did not explore the factors influencing the usage of titles as collateral in financing.

In Murang'a County, Ndungu (2016) identified some of the most important factors influencing access to credit for SMEs, including loan interest, collateral, literacy, and the number of lending institutions. Okello (2010) found that youth-owned and operated SMEs perform badly because it is difficult for them to obtain business financing. This research concentrated on the elements that influence the expansion of small and medium enterprises (SMEs) held and operated by young individuals in Rachuonyo South District. The absence of collateral prevents many customers from accessing financial services, according to Opiyo (2015), who examined the determinants affecting SMEs' monetary inclusion in Kasipul Sub County. This study aims to identify the barriers that SMEs face when trying to acquire loans in rural areas. These studies, however, did not examine the variables affecting the usage of titles as collateral for loans in rural Kenya.

According to Gichuki et al. (2014), of the overall adult population in Kenya, 38% are unable to access credit, only 19% can access credit from lending organizations, and more than 35% are more likely to use informal means of obtaining credit because there isn't enough money to lend to all of the clients who visit those institutions, the business plans aren't acceptable, and there are issues with collateral. For SMEs, obtaining loans has been a major obstacle. Only 27% of the total number of SMEs who filed for loans in Uasin Gishu in 2008 had their applications granted, according to Kimaiyo (2016). Those whose loans were denied cited higher collateral requirements and failure to meet historical information criteria.

It has been stated that the availability and value of collateral, which serves as a security deposit to access loans, hinders the expansion of SMEs (Kamau, 2009). As a matter of fact, according to Kamau (2009), 92% of SMEs who applied for credit in Kenya were denied because they lacked collateral or had collateral that was worth less than the amount of the loan requested. Meanwhile, 12% of SMEs decided not to apply at all since they lacked the collateral needed to secure the amounts of debt capital they expected to obtain for the expansion of their businesses. Research can be used to infer and confirm if land title collateral can alter this situation. Beaver & Jennings (2000) argues that credit institutions have overtime been indifferent to SMEs and that they have developed a negative attitude to them as many SMEs have defaulted in loan repayment thereby creating a market impression which has over time affected even the other SMEs which are innocent. insufficiency of adequate security to guarantee the loans appears as the main obstacle to SMEs' access to credit, according to Ackah and Vuvor's (2011) investigation into these barriers.Fatoki & Odeyemi (2010) assert that for SMEs to get access to debt finance, they must show evidence of ownership in tangible assets which in turn acts as collateral to financial institutions where they opt to source for finances.

2.4.2 Factors determining the use of Alternative Forms of collateral in Financing

The informal financing has privileges among others; training and financial facilities devoid of essentially necessitating any security since the borrowers appertain to a certified self-help group where individual confidence and blood connections influence lending (Kurgat, Kibas, & Otuya, 2018). Itongaet.al (2016) investigated the effects of taking loans on women-owned ventures in Imenti North Sub-County in Kenya and established 25.99% of the survey participants showed hesitancy in seeking loans from banking organizations due to stringent collateral requisites; whereas 23.73% shunned borrowing for fear of losing the pledged assets to the lenders compared to table banking groups rarely impose difficult credit conditions, such as collateral requirement, on their members while applying for loans.

As claimed by Brush et al., (2002); Carter et al., (2007); and Robb & Coleman (2010), the importance of financial support has for an extended period been recognized as key limitation to entrepreneurship as a revenue generating endeavor, specifically in the initial phases of developing a business. This could be mostly perplexing for female entrepreneurs who oftentimes are short of necessary savings required start a business or encounter alternate obstacles including insufficient land collateral (Welter et al., 2007). Collateral requirements implemented by financial institutions disinterest rural business persons in quest for credit facilities.

According to Abdallaand Adam (2013), rural individuals exploring business opportunities face hurdles in accessing financial resources for investment, not due to their unavailability, but primarily because they lack awareness about the existence of such financial instruments and the associated loan disbursement conditions. Moreover, access to entrepreneurship information plays a vital role in fostering the growth of small businesses that hire entrepreneurial graduates, as these entrepreneurs are better equipped to access information about available credit facilities and the necessary lending criteria. The degree in which institutions get through to microbusiness owners and the circumstances wherein they fluctuate remarkably, but SME custodians are at a detriment when the financier declines funding the type of undertakings they solely run (Abdulai & Hammond, 2010). The big question is, are there financial institutions in the rural Kenya like Machakos which can accept alternative forms of collateral other than land title deeds to finance enterprises by the rural people which this study hopes to resolve.

A study conducted by Kamau (2009), established that insufficient guarantee is a principal restriction to funding availability. Additionally, 92% of businesses surveyed qualified for credit, but were denied, at the same time others chose not to seek for the loan due to deficiency of satisfactory security. McMahon (2005) explains that ceteris paribus, companies with non-physical assets ought to seek less amount of credit as opposed to their counterpart with more physical assets by virtue of the security aspect. Generally, SMEs own limited collateral compared to corporations. Lending institutions have at all times assumed a risk adversarial approach with regard to SMEs, along with lack of ability to concentrate on the returns producing potentiality of the business, while evaluating the probability of credit settlement (Beaver, 2002).

Congruent with Airs (2007), majority developing and a few developed countries, it is challenging for SMEs to access whatever kind of loan devoid of security and necessary documents. From the financiers' viewpoint, financing rural businesses are superficially high-risk because of the uncertainty of the business deals in contrast to large enterprises thus, making security requirement for offering credit absolutely crucial. (Berger &Udell 2006; Haron, 2013). Haron (2013) on the other hand affirms that security is ordinarily essential from SMEs but greater, old and fully-established companies simply access credit regardless of whether or not they possess collateral.

Mwobobia (2012) study revealed that the majority of women lack ownership deeds, the preferred type of surety for obtaining loans. Majority have petite with reference to owning collateral, tangible properties or business performance history to assist them to effectively access monies for their ventures. Drawing from the referenced studies, the current research proposes that achieving enduring inclusive finance for countryside women necessitates offering more affordable credit options and reducing collateral demands. Consequently, rural women's credit availability is regarded as an autonomous parameter in this study. Through advancing the respective elements, Kenya's underprivileged groups are capable of saving part of their incomes for enduring investment hence boosting their financial condition. These savings could serve as security to accessing loans besides minimizing their vulnerability to external factors that escalate food scarcity (World Bank, 2014).

2.4.3 Group Lending as an Emerging Form of Collateral

The perspective of group loaning employ group security technique to avail credit underprivileged families with insufficient collateral (Mejeha & Ifenkwe, 2007) and for that reason it's imperative to consider that title deeds are not the exclusive form of security for financing. Group-based loaning thus has encouraged occurrence of MFIs which loan by way of groups to defeat collateral difficulties. Group lending uses social groupings that get acquainted for some time and consequently developing confidence with relevance to preceding relationships in place of financial securities including land, landed properties or salary statement frequently needed by formal lending organizations (Kelley, Singer & Harrington, 2011). This case is affirmed by Nguyen (2007) established the coefficient of land holding size and household assets which are commonly pledged as security to be substantial in impacting credit initiative involvement. Njuguna & Nyairo (2015), in performing a research on conventional conditions influencing agronomic funding provision to micro-scale agriculturalists within remote areas of Kenya, found out that absence of collateral by farmers implied that they were unable to acquire credit as lending institutions sense default risk. A number of policy commendations were proposed; that banking institutions ought to design finance products in such a manner that complement the necessities of small-scale farmers' like appreciating the benefits offered by group lending approaches; banking institutions have a duty to hold community awareness campaigns on their loan policies and terms inspire farmers to solicit or negotiate a new terms of preceding loans.

Group lending approaches which permit the poor to pledge social capital as security moderate risks and transactional expenses to the micro-enterprise and allow the rural poor people to get around their inadequate physical collateral and participate in collaborative education (Fernando, 2006). According to Conning & Urdy (2005), group lending is an innovation that has enabled the poor to borrow since it replaces physical collateral which is used by commercial banks with social collateral. For example, Onchiri & Patrick (2015) observes that women are implausible to own registered in their name, albeit their kin own land, and not as likely compared to men to govern land, in spite of the fact that they legally own it. Allen et al. (2014) also noted that bequeathal laws oftentimes disfavor women affecting their access to family properties and consecutively the desire for banking facilities. The authors add that rural women's acquisition of financial services curtailed by prejudiced lending habits exhibited whenever banking institutions view them as inexperienced hence offering loan products fashioned against their tastes and inclinations.

Employing evidence from Thailand, Menkhoff et al. (2012) unveil that insufficient collateral is overcome with the aid of alternative forms of collateral, including relationship lending, the alteration of loan terms (for instance, lowering loan size), and also admittance of third-party guarantees. The credit is secured by moral security which serves as the assurance that the group approve every single loan (Global Development Research Centre, 2005). Micro Finance Institutions (MFI) in the countryside regions focus are low-income groups, hence customers typically cannot provide substantial kinds of security. Nevertheless, the poor may perhaps pledge alternative forms of security. These collateral alternatives could be a 'group communal fund' or 'compulsory savings'. In a number of microfinance paradigms, MFIs may require the borrowers to set aside a proportion of loan into a saving pool to serve as collateral substitute to a certain degree.

The Tegemeo Kenya household survey 2004 indicated that 92.30% of households that accessed credit had more than one kinsperson belonging to a group (self-help, producer, cooperative to serve as security or utilize household properties as guarantee for financing. For the case of SACCOS, no physical collateral is needed considering every loan is secured by SACCO subscribers and guarantors' savings.

Kamungeet.al (2014) discovered that greater part of SMEs enjoyed employing donations, personal savings and savings from family to avoid stringent conditions including, collateral and extensive repayment costs by banking institutions. The study therefore recommends that banks together with other credit supplying lending institutions devise inventive policy framework that are uncomplicated and suitable for the SMEs to access credit.

Minimal risk related to non-formal groups and insignificant security conditions were quoted as the fundamental reasons guiding inclination toward informal financing while absence of knowledge was the lowest quoted factor. The outcome succeed previous suggestions by Mungiru &Njeru, (2015) who similarly suggested less risk and collateral as major motives for desire of non-formal financial sources. Rural folks are more fixated with non-formal credit sources like trade credit, donations from friends and family and self-help group financing, since the informal sources of credit are governed by relationships inferring that information asymmetries between informal debtors and financiers are considerably less severe, and the collateral prerequisites simple to fulfil.

2.4.4 Challenges Facing the Use of Land as Collateral in Financing

In especially in sub-Saharan Africa, property registration to improve the protection of land ownership and property rights in the agricultural sector is progressively regarded as essential for sustainable economic growth. ((Bennett & Alemie, 2016); (Borras & Franco, 2010); (Deininger & Klaus, 2003)). This essentially gives traditional unregulated land ownership mechanisms at various locales control over the majority of rural (agricultural) lands in Nigeria. However, upon surrender of the authorized perimeter survey plan, the transfer deed, and payment of stamp duty costs, such titles are frequently registered, particularly during the conveyance process between parties, recorded at the land registry of the concerned State (Shittu, Kehinde, Ogunnaike, & Oyawole, 2018). The major challenge of the people in the rural Kenya is that their land is not titled making them not useful being collateral for the loans, this situation was also analyzed in this study.

Title deed registration should in an ideal world assist nations in reducing the number of land disputes, preventing imbalanced land appropriation, facilitating the use of land as providing assurance for loans, and encouraging sustained financial ventures in land development to enhance agricultural productivity and revenue (((Fenske, 2011); (Place F. , 2009); (Brasselle, Gaspart, & Platteau, 2002); (Feder , Onchan , & Chalamwong, 1988)). According to (World Bank, 2009), the establishment of competent land markets that let the shifting of land ownership from less productive individuals to those who can utilize it more efficiently might be facilitated by land titling. This would increase the effectiveness of land utilization and its corresponding natural resources.

According to Airs (2007), it is difficult for SMEs to secure diverse types of borrowing in absence of security as well as adequate paperwork in majority emerging and a few industrialized nations. Since lending to SMEs appears riskier from the perspective of the lenders than lending to larger enterprises due to the haziness of the transactions, it is crucial that lenders need collateral before making loans to SMEs (Haron, Said , Jayaraman, & Ismail, 2013). According to Haron et al. (2013), collateral is typically indispensable from startups and small businesses, although larger, more established businesses can readily obtain loans without it. The incapacity of official banks to lend to smallholder farmers exacerbates the credit crisis owing to the limitations of inability to utilize land as guarantee primarily caused by the absence of formal documentation of rights and poor titling, not easy to foreclose on real property or the manner in which land is held in most emerging and developing economies (by the community, family or society making it very hard to use as collateral (Muponda, 2015).

According to Sanjak (2012), the absence of sufficient documentation validating land ownership rights is a reasonable factor to consider as a constraint in accessing loans. Efforts aimed at providing individuals with land titles are expected to enhance credit accessibility as a result. This holds specifically true for individuals who have resided in an industrialized country such as the United States, where obtaining substantial funding it frequently secured by real estate, and where banks need accurately documented registers of ownership for tangible properties (such as property title) in contemplation of completing credit transaction. Even in these circumstances, though, obtaining a loan and the conditions of that loan are determined by other important considerations (such as income level, the market's accessibility to credit, and the viability of the borrower's business idea). However, presumptions of programming to promote land rights have been molded by the oversimplified notion that possessing a land title made finance accessible to farmers and other financially disadvantaged business owners, facilitating their transition from poverty.

In their research on the utilization of land as security for lending to SMEs in Ghana, Atogenzoya et al. (2014) discovered that the absence of sufficient guarantee and substantial transactional expenses were major obstacles to funding availability. Kira (2013) established identical presumptions in his research to assess the financial limitations encountered by five nations in East African: Burundi, Kenya, Rwanda, Tanzania, and Uganda. Kira (2013) demonstrated that limited availability of information and expensive loan transactional expenses was an impediment to obtaining funding throughout the five nations, compelling a number of SMEs to accept internal funding for their business endeavors. Established concerning to these outcomes, SMEs in emerging nations encounter substantial difficulties in accessing credit to maintain the productivity and development of their business ventures.

Narayanan & Chakraborty (2019) observe that utilization of land as security is comparatively limited (in comparison with numerous developed and developing nations), and non-secured debt dependent on personal collateral predominate the outlook of family loaning in both the urbanized and countryside regions of India. Next, employment of title deeds as security differ considerably over the regions and households. Majority of which are alongside predictable fringes. To those whom land account for a substantial percentage of affluence are most presumably to pledge land as security; the usage of land as security is positively correlated with larger quantity of credit. Third, in spite of the exponential expansion of conventional banking establishments and conceivably of property documents innovation, a momentous shifting to the utilization of land as guarantee is far from reality. This is irrespective of the circumstance land is pledged as security, in the event of a default, hardly ever is the loan recouped by foreclosing the subject land. This is attributed to conventions as well as beliefs that society bestow to land as possibly a restraining consideration besides the communal nature of land ownership rights in developing nations. This has been a serious constrain among the rural land owners who fail to appreciate the commodification of land as real property.

2.5 Conceptual Framework

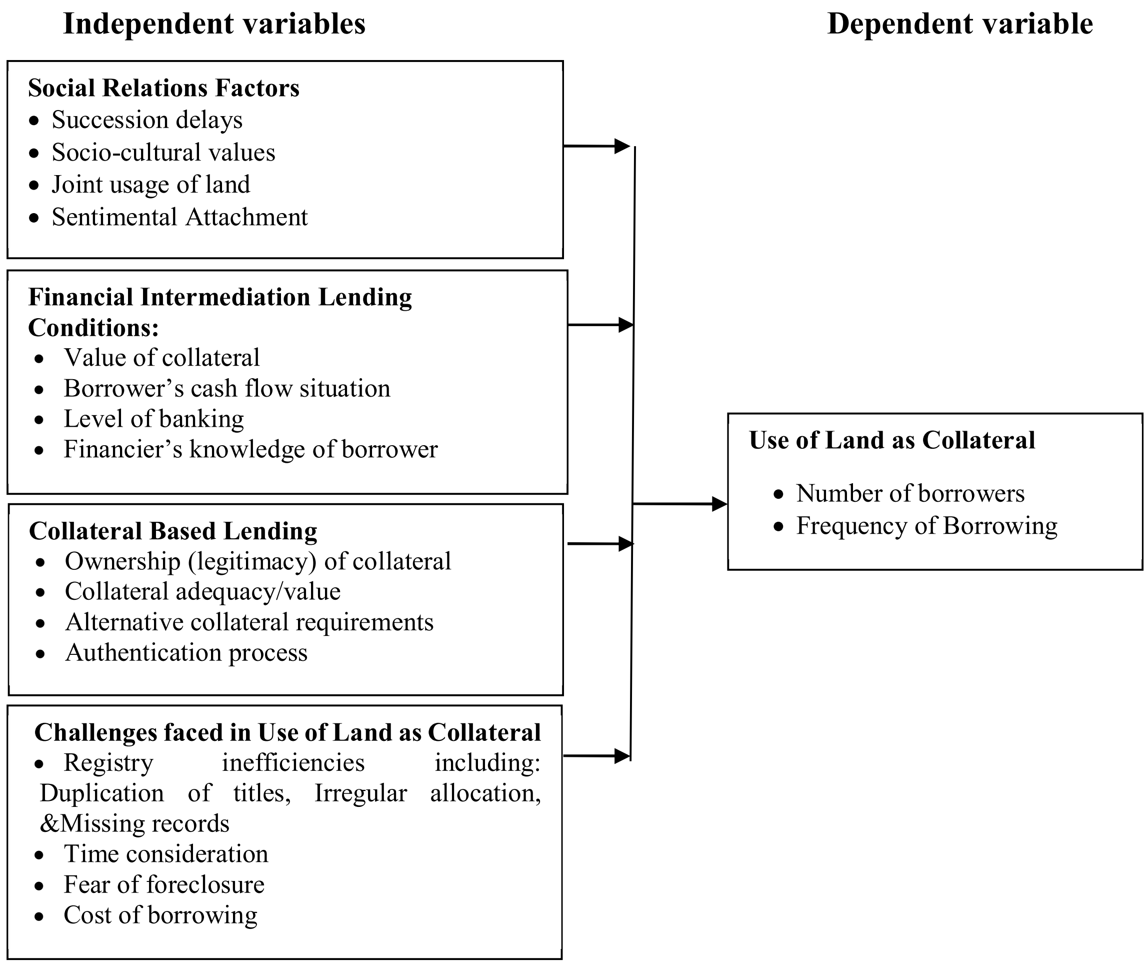

Figure 2.1: Conceptual framework.

Source: Author 2021

Within the conceptual framework, independent and dependent variables are included. The independent variables include; social relations factors which was measured in terms of; succession challenges, joint usage of land and sentimental attachment. The second independent variable is Financial Intermediation Theory measured in terms of; Value of collateral, Borrower's cash flow situation, Level of banking and Financier's knowledge of borrower. The third variable is collateral based lending institutions including; ownership of collateral, collateral adequacy, number of collateral-based lending institutions in the rural area, loan product, and location of the institutions. The fourth independent variables are the inefficiencies facing the land registry whose measures include; duplication of titles, irregular allocation, missing records, amount of time taken and cost of processing. The fifth independent variables are the loan pricing factors measured in terms of; borrowing expenses, operating expenses in addition to professional fees. Use of land as collateral is the dependent variable, which is represented by the quantity of mortgagors and the frequency of borrowing. As a result, it is assumed that when rural landowners utilize their titles efficiently, they can obtain the volume of credit they need.

2.6 Summary of the Chapter

The theoretical, empirical, and conceptual underpinnings of how much Machakos County's rural landowners utilize their titles as collateral for financing are summarized in this section. The study's foundation is; the social relations theory, the theory of financial intermediaries and loan pricing theory. The study further reviewed studies done on; factors influencing the use of titles as collateral in financial support, factors influencing the use of the alternative forms of collateral in financing, group lending as an emerging form of collateral and challenges facing the utilization of titles as security in financing. The conceptualized independent variables of the study were; social relations factors, financial intermediation factors, collateral based lending, loan pricing factors and the land registry inefficiencies facing the use of titles for financing. The dependent variables is usage of land as security in Machakos County.

CHAPTER THREE

CASE STUDY AND RESEARCH METHODOLOGY

3.1 Introduction

This chapter outlines the research methods that will be utilized for data collecting and analysis, including the research design, study location, study population, sampling techniques, sample size, research instruments, data gathering techniques, and data analysis.

3.2 Case Study

The investigation was carried out in Kivaani Location, Kangundo Sub-County, Machakos County. Kangundo Sub-County is on the northeastern side of Machakos County and encompasses 178.2 km. The Sub-County headquarters is at Kangundo town, which is located about 65 km east of Nairobi, the capital of Kenya. It has a population of 97,441with 44,420 males and 46,818 females and a population density of 512 people per square kms and 18,065 households. It is bordered by Mwala District on the eastern side and Kathiani on the southern side. Administratively, Kangundo Sub-County is divided into four locations: Kangundo, Kawethei, Kivaani and Kanzalu (KNBS, 2019). In general, land has not been fully utilized for agricultural output. The expansion of informal settlements, insufficient infrastructure services, environmental deterioration, unplanned urban centers, pressure on agricultural land, and conflicts have all been caused by the lack of a national land use policy.

The average size of farms has been consistently decreasing due to the rapid population growth rate. While the average farm size for large-scale farming is 10 Ha, it is 0.756 Ha for small-scale farming. The county's primary economic sector is agriculture. With regard to employment, food security, and income earnings, it is at the top. As a result, relative to growth in other economic sectors, the agriculture sector's involvement in the fight against poverty is greater. The industry is divided into four main subsectors: livestock & fisheries, horticulture, food crops, and industrial crops. The productivity of agriculture is typically constrained by a number of aspects, including increasing input costs particularly the expenditure on fertilizer and seeds poor livestock management, a lack of extension services, an excessive reliance on rain-dependent agronomy, limited market access, and underutilization of agricultural technological advancements and novelty.

3.3 Research Design

In accordance with Creswell (2013), the research design determines how the study's respondents are chosen and how the data is gathered. The study adopts a combination of case study and descriptive survey design to explore the degree to which rural landowners in Machakos County use their titles as collateral for lending. The descriptive survey design enables the researchers to gather data, condense, present, and interpret information, offering a precise account of the characteristics of the target population in practical settings (Creswell, 2013; Kim et al., 2017). This design is particularly useful in evaluating policies and providing answers to queries such as 'who, how, what, which, when, and how much' (Creswell & Clark, 2018; Cooper & Schindler, 2003). By measuring variables in their natural settings, the design enhances the applicability of the findings to real-world scenarios (Steg & Rothengatter, 2008).

Furthermore, the study adopts a case study methodology that specifically focuses on the unique context of Kivani in Machakos County. The primary objective is to identify and elucidate the characteristics associated with landownership and the utilization of land as collateral in Kivani. The selection of Kivani as the research site was purposeful, supported by several compelling factors. Firstly, Kivani represents a prototypical rural location within the county, offering valuable insights into the experiences and challenges faced by rural landowners. Secondly, Kivani provides an ideal setting for investigating the use of land titles as collateral for loans, given the substantial number of landowners who possess title deeds. Lastly, the Kivani community has expressed a keen interest in participating in the project, granting researchers access to potential respondents for data collection purposes.

Due to the fact that the design measures variables in their natural settings, it also broadens the applicability to scenarios (Steg & Rothengatter, 2008). By utilizing questionnaires and interviews, the researcher aim to capture self-reported data regarding the respondents' feelings, opinions, and attitudes towards using land titles for lending purposes. Through this approach, the study seeks to shed light on common occurrences and patterns in the utilization of land titles as collateral within the community of Kivani." In order to identify and describe any common occurrences, a wide range of situations, populations, and activities are studied using the design.

3.4 The Target Population

As stated by Shitseswa et al. (2017), the population encompasses every component that meets the necessary criteria to be included in a research investigation. Accordingly, a population is a sizable grouping of individuals, events, or protests with a recognizable signature. On the other hand, a target population describes a collection of people with typical identifiable characteristics (Shitseswa, Onditi, & Nyagol, 2017). The ability to describe and explain the behavior meant to be investigated is better when a population of interest is identified with greater specificity. 724 families in Kivani Location, Machakos County, as well as 30 financial institutions, including banks, SACCOs, and microfinance organizations, were the study's target population (KNBS, 2018).

3.5 Research Instruments

The study employed firsthand data acquisition methods, utilizing structured questionnaires (Appendix I) and interview schedules for primary respondents (Appendix II).The questionnaire was selected due to its ease of administration, ease of scoring on a 5-point Likert Scale, and ease of analysis (Cohen, Manion, & Morrison, 2007). It is also helpful since the style of response encourages consistency among the instruments, which were presented to the respondents to complete under the direction of research assistants because some of the respondents may be illiterate and comprised of closed-ended questions. This style of instrument is beneficial in that it minimizes discrimination against the less literate respondents, permits participation by all literate respondents, and provides clarification of any question (Leung, 2015).

3.6 Sampling Procedures and Sample Size

3.5.1 Sampling for Households

To reach the desired results, the study used random sampling method. In the sampling of the 724 households in Kivani Location, Machakos County and 30 financial institutions in the county, the study used a systematic sampling technique. In order to pick the sample size, the study adopted sampling formula recommended by (Nassiuma, 2000). Nassiuma (2000) claims that a coefficient of variation in the range of 21% to 30% and a standard error in the range of 2% to 5% are often acceptable in surveys or studies. Because it provides the largest sample size limit, the lowest threshold was chosen.

$$S = \frac{N(Cv)^2}{(Cv)^2 + (N-1)e^2}$$

Equation 3.1: Sample size

Where S = the sample size

N = the population size

Cv = the Coefficient of Variation

e = standard error

The sample size was as follows:

$$S = \frac{724\,(0.21^2)}{0.21^2 + (724-1)\,0.02^2} = 95.7947 \approx 96 \text{ Households in Kivani Location.}$$

Subsequent to acquiring the 96 sample size of the households in Kivani Location in Machakos County, the researcher employed a simple random sampling procedure, selecting a maximum of the sample size from each stratum's whole population. Every individual in the population has a uniform chance of being chosen and their selection is autonomous of others in a basic random sampling. (Fraenkel, Wallen, & Hyun, 2000). This method is favored in nearly all surveys and plays a crucial role in ensuring data consistency and credibility. It provides the most representative picture of the whole population, making it the most robust approach. 96 households in the Kivani location of Machakos County were chosen at random to serve as the sampling framework for the study.

The selection of 96 households through a random sampling procedure ensured that the sample accurately reflected the diversity of the overall population in Kivani Location. By utilizing a random sampling methodology, each member of the population had an equitable and uncorrelated opportunity of being chosen, increasing the likelihood of obtaining a sample that accurately reflected the characteristics and diversity of the population. The aim of the research was to analyze the prevalence and utilization of land as a guarantee for financial transactions in rural Kenya without specifically assuming that all households are entrepreneurs seeking loans. The sample included a diverse range of households, and the research aimed to examine the factors influencing the use of land as collateral, irrespective of their entrepreneurial status or borrowing intentions. By focusing on households in Kivani Location, where rain-dependent small-scale farming holds the central position in the economy, the study sought delve into the intricacies of the particular setting and factors that influence the utilization of land as collateral in this particular region.

3.5.2 Sampling for Financial Officials

The researcher sampled bank officials working in the credit departments of the financial institutions based and operating within Machakos County. This included registered Saccos, Micro-Finance Organizations and Banking Institutions. The table below represents the overview pertaining to the institutions and samples.

Table 3.1: Summary of the institutions and samples

S/N	NAME OF FINANCIAL INSTITUTION	NO. OF STAFF IN THE CREDIT DEPARTMENT	NO. OF STAFF SELECTED FOR THE STUDY
1	Kenya Women Finance Trust	8	6
2	Faulu Kenya	6	2
3	Kadet LTD Microfinance	3	3
4	Bimas Microfinance	4	3
5	Rafiki Microfinance Bank	5	4
6	ECLOF Kenya	6	4
7	IZWE Loans	7	5
8	Musoni (Next Generation Microfinance)	4	3
	TOTAL STAFF SELECTED FOR THE STUDY		30

3.7 Unit of Analysis

The households were the element of investigation and the intended participants were the heads of the households whose lands have been adjudicated, subdivided and titled. The households responded to questions related to; determinants of utilizing land titles as guarantee for financing in rural Kenya, exploring alternative forms of collateral adopted by rural individuals in Machakos County, and proposing measures to foster the practice of employing rural land as collateral for loans.

3.8 Validity and Reliability of Research Instruments

The precision of congruence between the instrument and its intended construct is referred to as validity (Kathuri & Pals , 1993). An instrument must cover the study's content in order to be valid. A legitimate instrument is one that is consistent. As they are significant in a research instrument, all components of validity, including content validity, construct validity, and logical validity, were effectively handled. The instruments were improved after completing a pilot study and confirmed following conversations with supervisors.

A trial investigation was carried out among 5 households in Kanzalu Location in Kangundo Sub-County. The selection of Kanzalu Location was made to prevent information duplication, as conducting the pilot in the same study area would have resulted in unnecessary repetition. The research tools were enhanced using the pilot study's findings. To gauge and boost the instruments' dependability, data from a pilot study was employed (questionnaires).

3.9 Data Analysis and Presentation

Data were gathered for this study using a self-administered structured questionnaire and topic discussions. Tables and graphical techniques were used for presentation while descriptive statistical methods were used for data analysis. After scrutinizing the questionnaires for errors, the data was obtained, encoded, and inputted for analysis. Descriptive statistical analysis encompassed computing means, frequencies, and percentages. In order to supplement qualitative data and gain more insights into the phenomena under examination, theme analysis was used to examine the non-numeric data acquired from interviews performed by the study among participants.

According to Mugenda & Mugenda (2003), qualitative research uses words rather than numbers to represent its data, which are then categorized. This supports the utilization of the results of the interview's theme analysis.

3.10 Ethical Consideration

The investigation was conducted with the strictest regard for discretion. The respondent's identity and privacy were protected by the researcher. The participants received assurances that he data they contributed would exclusively be utilized for scholarly reasons. No incentives of any kind were used to entice respondents to participate in the survey. Participants had the option to leave the process if they so desired. The researcher adhered to the established research procedures.

CHAPTER FOUR

DATA PRESENTATION, ANALYSIS AND DISCUSSIONS

4.1 Fieldwork and Survey Results

The fieldwork was done between the months of March and April 2022 at various times. The purpose of the fieldwork was to gauge public understanding about using land as collateral, identify factors considered when using land as a collateral, identify alternative forms of collateral and establish the challenges experienced in use of title as collateral for financing. This was achieved through administered questionnaires to land owners in Kivani Location, Machakos County.
Simple random sampling was used to choose the landowners, and available landowners within the boundaries of Kivani Location, Machakos County, were found and given questionnaires.

4.2 Response Rate

The results are listed in Table 4.1 below. The researcher delivered 96 questionnaires to landowners in the Kivani location and 30 financial officers working in financial institutions in the county who were within reach and expressed readiness to take part in the study.

Table 4.1: Questionnaires Response Rate

Target Respondents	Number of Questionnaires Issued	Number of Questionnaires Returned	Response Rate
Land Owners	96	92	95.8%
Financial Officials	30	30	100%

Source: Field survey 2022

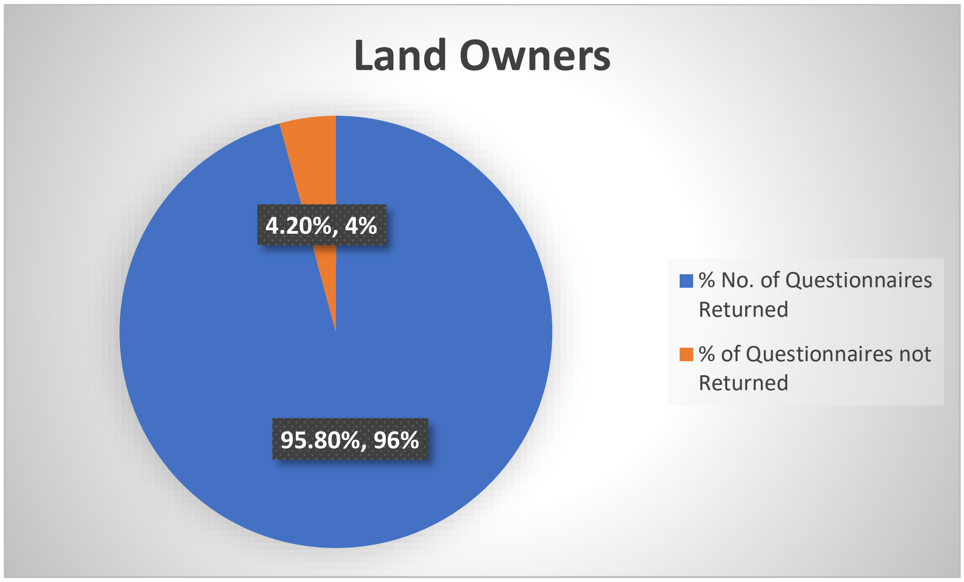

Figure 4.1: Response Rate

Source: Field Survey, 2022

The benchmark for participants' feedback is set at 50% for evaluation and presentation, while 60% is classified as good, and 70% or higher is rated as very good, in accordance with Mugenda & Mugenda, 2003. In order to meet reporting requirements, a response rate of 96% and 100% from landowners and financial officials, respectively, is sufficient. The above-average response was thought to be caused by the respondents' hectic schedules, even though both the reasons for non-involvement and the attributes of the non-participating individuals are defined.

4.3 Level of Awareness of Use of Title Deed as Collateral in Financing in Rural Machakos County

Studying the degree of knowledge among landowners about the land based financing in Kenya was one of the goals of the research project.

To examine the degree of awareness, the researcher separated those land owners with titles from those who had not acquired titles, those with titles were asked to state how often they had used their titles in acquiring financial services from financial organizations.

Table 4.2: Land Owners with Title Deeds

Land Owners with Title Deeds	Land Owners without Title Deeds
30	**62**

Source: Field survey, 2022

To identify the level of awareness, the 30 respondents with title deeds were asked to indicate whether they had never used their title deeds as security, they have used their titles for financing or they regularly use their titles in seeking for financing. The following table summarizes the obtained results:

Table 4.3: Level of Awareness of Land Based Financing

	Have never used title as Security	**Have Used Title as Security for Financing**	**Often use Title to Secure Finance**
Response	20	7	3
% Prevalence of Use of Title as Collateral	67%	22%	11%

Source: Field survey, 2022

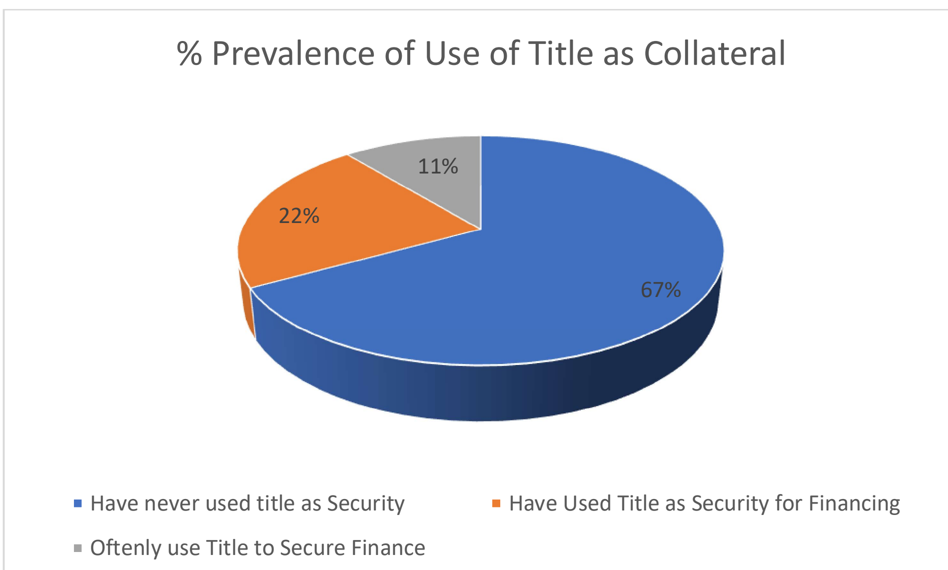

Figure 4.2: Level of Awareness of Land Based Financing

Source: Field survey, 2022

The respondents' level of familiarity with land-based finance varied, with 67% of them reporting that they have never utilized their title deeds to obtain financing, 22% of them having done so, and

11% regularly doing so. The percentage of title being used for land finance is seen in Table 4.3 and Figure 4.2 above.

4.4 Factors Considered When Using Title Deed as Collateral for Financing

To determine the factors considered by the land owners in using title deeds as collateral for financing, the factors were categorized into three; social factors, lending factors and loan pricing factors. Participants were then probed for their responses about ranking the variables that land owners took into account when utilizing title as a collateral for financing on a 5-point linkert scale. A mean score was generated, with a higher mean score indicating that the factor was given more weight and a lower mean score indicating that it received less weight.

Social Relations Factors Considered

Table 4.4: Social Relations Factors Considered

S/N	Social Relation Factors	mean	Rank
1	The land is communally owned and therefore no single person can obtain loan using the title	4.68	2
2	Women are not allowed to own land and this affect them in using the land title which is owned by men	3.22	5
3	In our area, land has sentimental value and therefore should not be used to obtain loans	4.70	1
4	One is only allowed to own land when he is married	2.42	7
5	Youth are not allowed to own land even if they are above 18 years for fear of selling the land	2.99	6
6	Part of the land is the graveyard of our keen and therefore cannot be used to obtain loan	4.17	4
7	In my area, we fear that the financial institutions will steal the land from us.	4.63	3

Source: Field survey, 2022

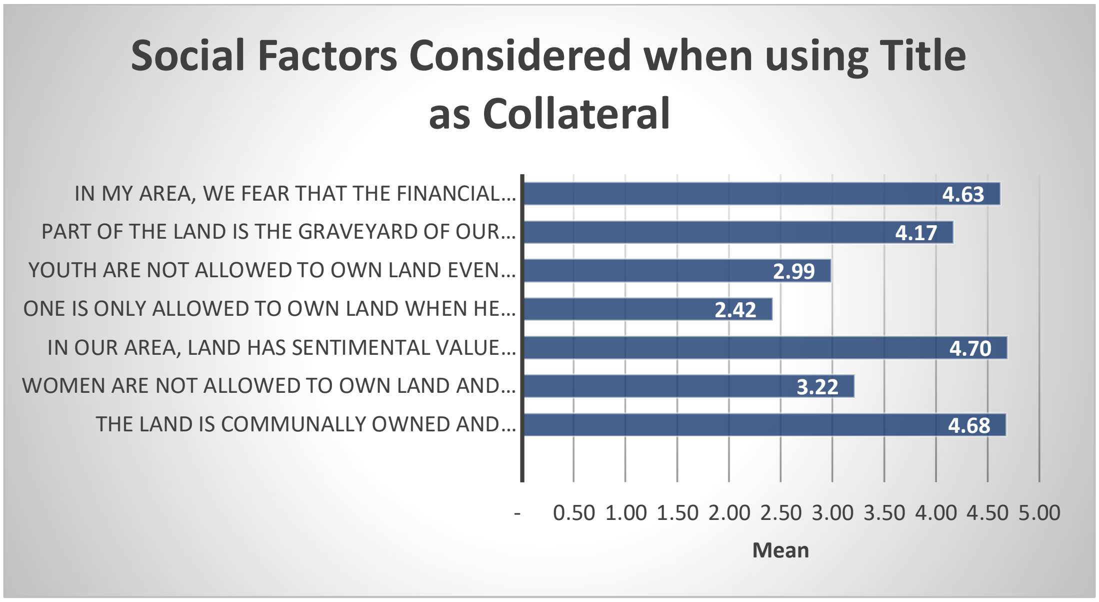

Figure 4.3: Social Factors Considered when Using Title Deed as Collateral for Financing

Source: Field survey, 2022

The study's findings showed that land was deemed to have sentimental worth and that no one was permitted to use it as collateral, placing it first overall with a mean of 4.7, while land being considered a communal property was ranked 2nd with a mean of 4.68, fear that land may be stolen and sold by the financial institution was ranked 3rd with a mean of 4.63 while consideration that graveyards should be treated as sacred places and that should be left as shrines to appease the dead was ranked 4th with a mean of 4.17. The other factors that ranked low are women were not allowed to own land and youth of legal age were also not allowed to own land for they may sale the land, these ranked at 5 and 6 with means of 3.22 and 2.99 respectively.

Property rights in all societies are governed by a system formally established by law or informally defined through customs. According to Quan et.al (2004), the value of land as an ideal collateral depends on the framework governing the property rights, whether socio-cultural or legal. The results obtained from the field study highlight that utilizing land as guarantee is likely hampered by the social traditions and ideas that rural people hold to their property. For example, sentimental connection caused individuals in Machakos' rural areas to value their land so highly that they were unwilling to risk using it as collateral for a loan to further their own and their families' lives. Communal ownership and joint usage of land and fear of the land being foreclosed by the financial institutions were also major social issues that affected the rural Machakos County households' usage of land as security for loans.

4.4.1 Lending Factors Considered when using Land as Collateral

Table 4.5: Lending Factors Considered when using Land as Collateral

S/N	LENDING FACTORS	mean	Rank
1	I am aware of most financial lending conditions in our area	1.96	6
2	I am aware of the land valuation process of most of financial institutions that accept land title for obtaining loans	1.89	7
3	I am aware that most of financial institutions that accept land title for obtaining loans require to know my cash flow condition.	3.61	4
4	I am aware that most of financial institutions that accept land title for obtaining loans require to know where I bank	3.22	5
5	I am aware that most of financial institutions that accept land title for obtaining loans require to know my background information	4.09	1
6	I am aware that most of financial institutions that accept land title for obtaining loans require to know the location of my land	4.02	2
7	I am aware that most of financial institutions that accept land title for obtaining loans require consent from my other family members	3.63	3

Source: Field survey, 2022

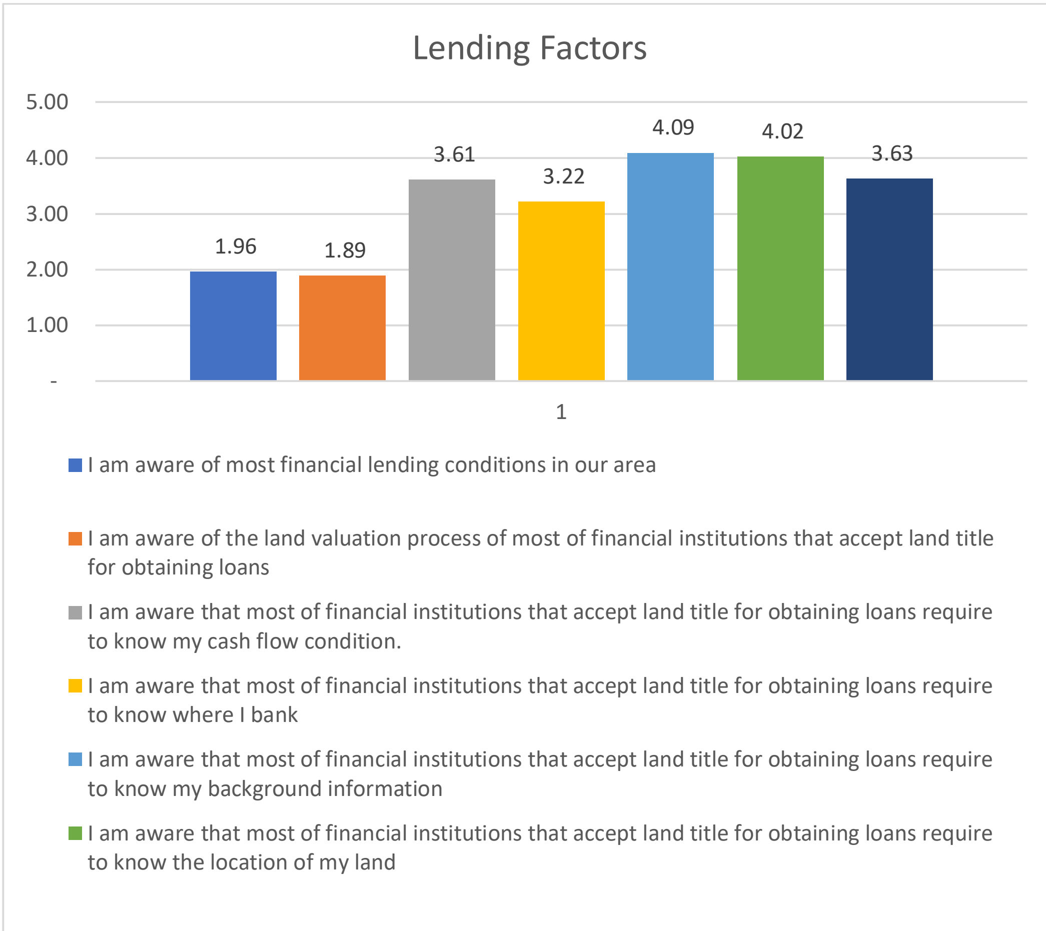

Figure 4.4: Lending Factors Considered when using Land as Collateral

Source: Field survey, 2022

The results of the investigation showed that the requirement for background checking is highly considered with a mean of 4.09 followed by the value of the land or locality of the land and requirement for consent of the other family members at rank 2 and 3 with means of 4.02 and 3.63 respectively. The cash flow condition of the applicant and the type of the banking institution were ranked 4 and 5 with means of 3.61 and 3.22 respectively while the lending conditions and valuation process ranked 6th and 7th with means of 1.96 and 1.89 respectively.

4.4.2 Financial Factors Considered when using Land as Collateral

Table 4.6: Loan Pricing Factors

S/N	LOAN PRICING FACTORS	mean	Rank
1	I am aware of the cost of loans that financial institutions charges	1.73	3
2	I am aware of the loan's processing fees that financial institutions charge	1.48	5
3	I am aware of the transaction fees that financial institutions charge	2.10	2
4	I am aware of the loan's defaulting fees that financial institutions charge	1.42	6
5	I am aware of any other hidden fees that financial institutions charge	2.24	1
6	I am aware of the land valuation fees that financial institutions charge	1.52	4

Source: Field survey, 2022

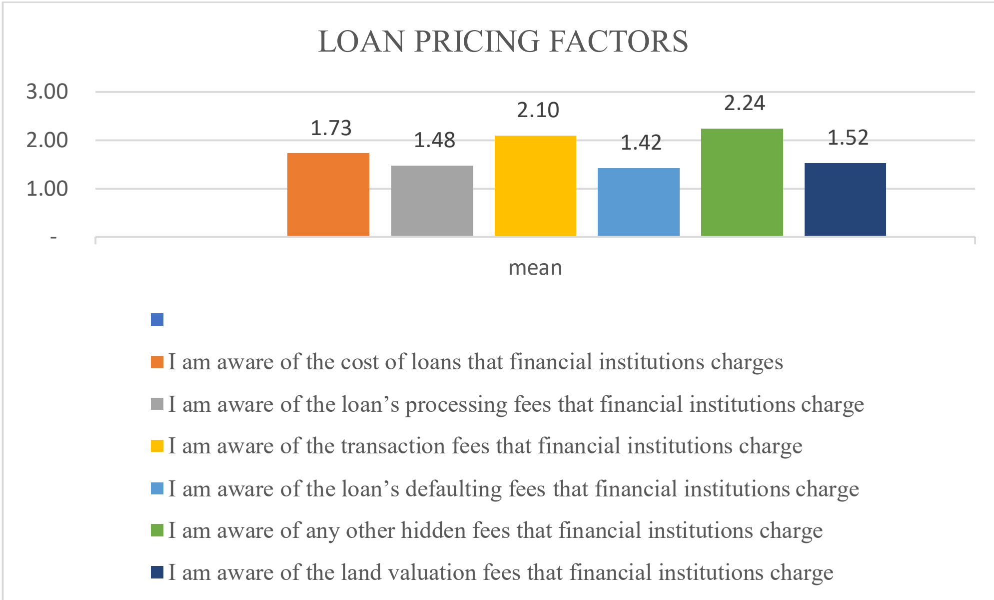

Figure 4.5: Loan Pricing Factors

Source: Field survey, 2022

The study's results showed that the amount of transaction fee is highly considered with a mean of 2.1 followed by the cost of loans and land valuation fees at 1.73 and 1.52 means. The other factors considered through ranked low were the amount of processing fee with a mean of 1.48 and charges for defaulting with a mean of 1.42.

4.5 Prevalence of other Forms of Collateral

In addition, the survey participants were queried in the study to rate the likelihood that they would use various other collaterals in addition to land title deeds on a scale of 1 to 5, with 1 denoting a likelihood of use that was low and 5 denoting a likelihood of use that was high. The ratings were subsequently ranked by computing the mean score of each rating and arranging them in order of rank

Table 4.7: Other Forms of Collateral

S/N	Other Forms of Collateral	mean	Rank
1	Group guaranteed loans	4.7	1
2	Household guaranteed loans	4.68	2
3	Family guaranteed loans	3.22	3

Source: Field Survey, 2022

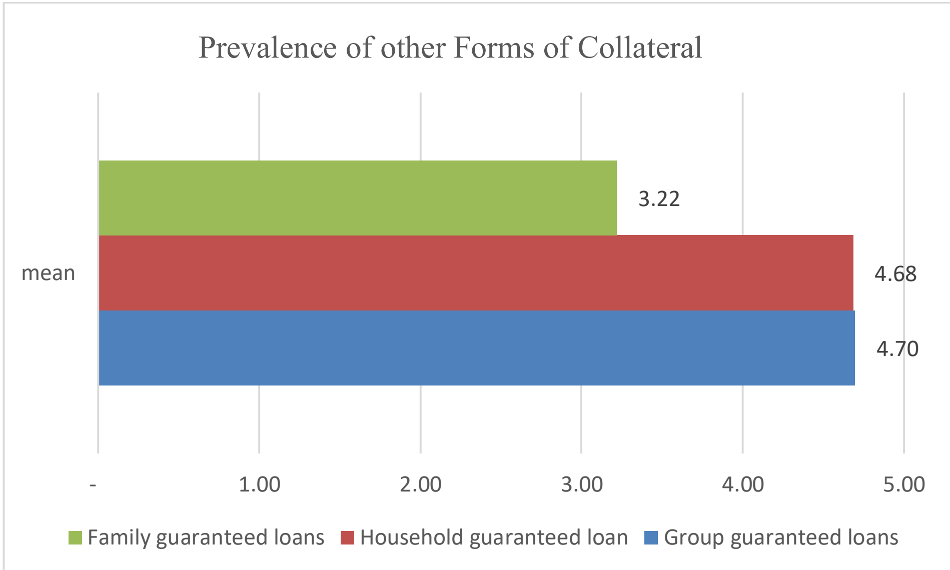

Figure 4.6: Prevalence of Other Forms of Collateral

Source: Field survey, 2022

The study found that rural land owners preferred group guaranteed loans as opposed to household guaranteed loans or family guaranteed loans.

4.6 Challenges faced in use of Title Deed as Collateral for Financing

Participants were instructed to utilize a 5-point scale to rate how often the stated challenges prevent the use of the title deed in order to gauge the challenges faced by land owners when using the title deed as collateral. Average scores were calculated, with higher values indicating greater complexity resulting from the factor, and lower values reflecting reduced challenges associated with using the title as collateral.

Table 4.8: Land Financing Challenges

S/N	LAND FINANCING CHALLENGES	mean	Rank
1	I am aware that land registry sometimes has duplicate titles on one property which is a challenge in using land title as collateral	3.48	6
2	I am aware that land registry sometimes has irregularities on land allocation which is a challenge in using land title as collateral	3.27	7
3	I am aware that land registry sometimes cannot locate some titles due to poor records keeping which is a challenge in using land title as collateral	3.89	5
4	I am aware that land registry sometimes is too slow in providing land title services which is a challenge in using land title as collateral	3.99	3
5	Cost of Finance	4.24	1
6	Time Consideration	4.11	2
7	I am aware that land registry processes are expensive which is a challenge in using land title as collateral	3.91	4

Source: Field survey, 2022

Figure 4.7

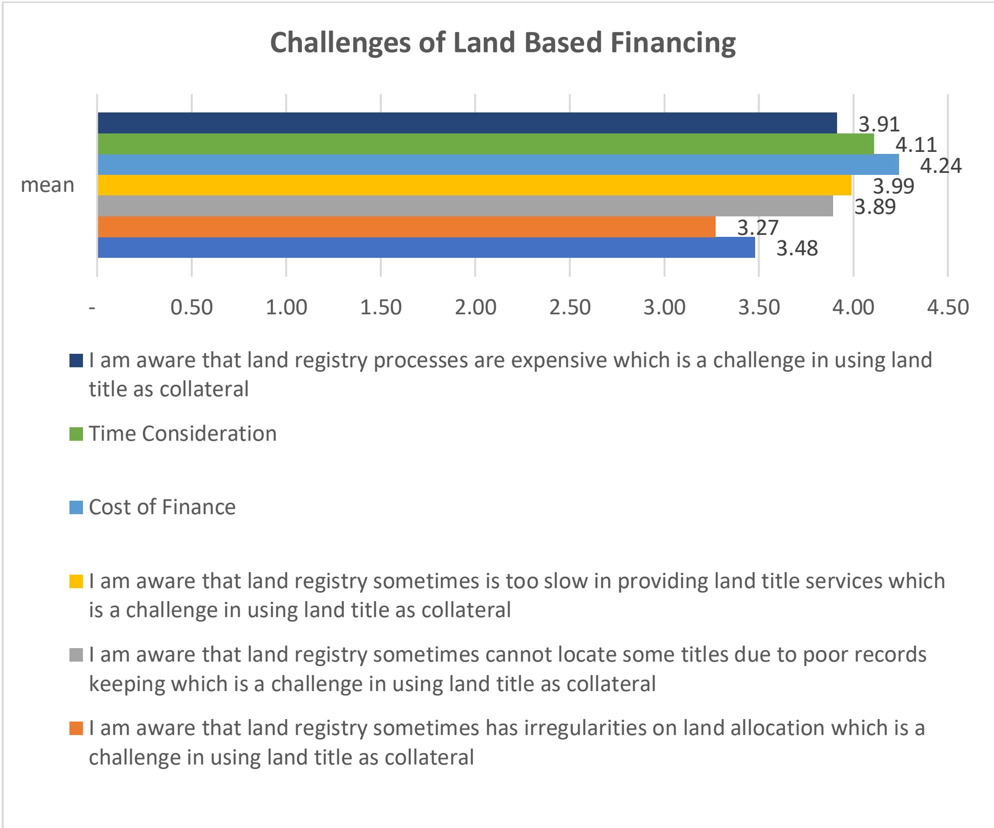

Figure 4.7: Challenges of Land Based Financing

Source: Field survey, 2022

The study's discoveries showed that, with a mean score of 4.24, the high cost of land-based finance is the primary barrier to adoption. The extensive process required in land-based financing came in third with a mean of 3.99, while time consideration came in second with a mean of 4.11. Expensive registry processes was cited as the fourth hindrance in adoption of land based financing with a mean of 3.91 while lack of proper records at the land registry, possibility of duplicate title records of the same parcel of land and irregular allocation were ranked at fifth, sixth and seventh with a mean of 3.89, 3.48 and 3.27 respectively.

4.7 Measure for increasing the use of Land as Collateral

The respondents were also questioned in the survey for their suggestions on how to ensure that land-based financing is widely used in rural Kenya. Respondents were requested to rate the opinions on a scale of 1 to 5, where 1 represented the element with the least widespread integration potential and 5 indicated the item with the highest rate of implementation. By calculating the average score for each rating, the ratings were ranked.

Table 4.9: Measures for increasing the use of Land as Collateral

Measure for increasing the use of Land as Collateral	Mean
Educate people on importance of individual land ownership	4.33
Reducing challenges in the registry	3.92
Educate people on loan pricing systems	3.36
Educate people on land and gender	3.31
Educate people on the economic value of land	3.22

Source: Field survey, 2022

According to the study's conclusions, certain measures need to be taken to enable widespread adoption of land-based financing in Kenya. With a mean of 4.33, education about the significance of land ownership attained the top score. Yielding an average of 3.92, the decrease in challenges to the land registry came in second. Education about land and gender issues came in third and fourth, with averages of 3.36 and 3.31, respectively. With a mean of 3.22, raising people's understanding of the economic importance of land placed sixth.

4.8 Summary

This study's major goal was to determine how often land-based financing was used in Kenya's Kivani location. The purpose of the fieldwork was to gauge public understanding about using land as collateral, identify factors that are considered when using land as a collateral, identify alternative forms of collateral and establish the challenges experienced in use of title as collateral for financing. This chapter focused on data processing, presentation, and discoveries as a result. Through the use of administered questionnaires and topic conversations, both non-numeric and quantitative data were obtained. Tables and graphical representations were used for presentation while descriptive statistical methods were used for data analysis.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

The central purpose of the study was to determine the extent to which land was used as a kind of collateral for loans. The aforementioned goals were particular ones:

a) a) To determine how well-known utilization of title deeds as security for loans is in rural Machakos County.

b) To identify factors influencing the usage (or not) of property titles as security for lending in Rural Machakos County.

c) To determine the prevalence of the use of other forms of collateral to secure finance for development in Rural Machakos County

d) To establish the challenges faced in use of title deed as collateral for financing in Rural Machakos County.

To address these issues while conducting the research, the objectives were reformulated into research questions. The information that was gathered on the ground and analyzed is represented in the previous chapter, whereas the overview of the study's discoveries and its conclusion are presented in this chapter. The goals and conclusions of the research form the basis for the recommendations.

5.2 Summary of Major Findings

5.2.1 To assess the level of awareness of use of title deed as collateral in financing

The study aimed to assess the level of awareness and usage of title deeds as collateral in financing among landowners. The findings revealed that only a small percentage (11%) of titled landowners frequently used their land as collateral for financing, while 22% had used land-based financing at some point. A significant portion of the titled landowners had never utilized their land for financing, indicating a low level of knowledge regarding this financing option. This shows low level of knowledge on the use of title as collateral for financing. It can also be said that the rural based land owners are not exposed to this type of financing. This lack of exposure could be attributed to the fact that many landowners had not completed the land succession process to transfer titles to their names, with most lands still being held in the original landowners' names.

Addressing these issues could potentially lead to increased access to financing for the rural landowners and facilitate economic development in the studied area.

5.2.2 To determine factors influencing the use (or not) of land title deeds as collateral in financing

The second objective sought to identify the variables affecting the utilization (or lack thereof) of land title deeds as collateral in financing. The factors were categorized into three groups: social factors, lending factors, and financial factors.

The results indicate that social factors play a significant role in influencing the use of land as collateral. Land was considered to have a sentimental value, and as a result, it was deemed inappropriate to use it as collateral, ranking as the top inhibiting factor with a mean score of 4.7. Additionally, the perception that land is communal property also contributed to the reluctance in using it as collateral, ranking second with a mean of 4.68. There were concerns that financial institutions might take advantage of the collateralized land and sell it, which ranked third with a mean of 4.63.while the belief that using parts of the land, such as graveyards, as collateral was unacceptable ranked fourth with a mean of 4.17.

Among the lending factors, the requirement for background checks was highly influential, with a mean of 4.09. The value of the land and locality of the land were also taken into account, ranking second with a mean of 4.02. Obtaining consent from other family members before using the land as collateral was another significant factor, ranking third with a mean of 3.63.

In terms of financial factors, the amount of transaction fees weighed heavily on landowners' decisions, ranking highest with a mean score of 2.1. The cost of loans and land valuation fees followed closely, ranking second and third with mean scores of 1.73 and 1.52, respectively.

The study's findings suggest that the residents hold traditional norms and values in high regard, leading to a strong sentiment attached to the land. Additionally, the management of land often rests with the eldest family member, which may influence decisions regarding land use as collateral. Concerns about potential foreclosure and the high transaction costs associated with using land as collateral also contributed to the cautious approach of landowners in obtaining loans. The study's findings suggest that the residents hold traditional norms and values in high regard, leading to a strong sentiment attached to the land. Additionally, the management of land often rests with the eldest family member, which may influence decisions regarding land use as collateral. Concerns about potential foreclosure and the high transaction costs associated with using land as collateral also contributed to the cautious approach of landowners in obtaining loans.

Generally, these results highlight the complex interplay of social, lending, and financial factors that influence the utilization of land title deeds as collateral in financing. To promote the use of land-based financing, it is essential to address these factors and develop strategies that consider the cultural and financial sensitivities of the landowners in the studied area

5.2.3 To determine the prevalence of the use of other forms of collateral to secure finance for development.

The findings indicate that rural landowners showed a distinct preference for group guaranteed loans over family guaranteed loans or household guaranteed loans when seeking financing for development purposes.

It was observed that most landowners formed smaller financial groups, which they relied upon in cases of financial distress. This preference for group guaranteed loans suggests that the landowners place a high level of trust in their financial groups, considering them as reliable and supportive sources of collateral.

Banking institutions and governments can better cater financial products and services to the requirements and desires of rural landowners by understanding and acknowledging these preferences. More successful and inclusive development projects within rural communities may result from creating and supporting these community-based financing methods.

5.2.4 To establish the challenges faced in use of title deed as collateral for financing

The study's fourth goal was to establish the challenges faced in the use of title deeds as collateral for financing. The findings indicate several significant obstacles that hinder the implementation of land-based finance. The most prominent challenge identified in the study was the high cost of financing, which ranked as the major deterrent with a mean score of 4.24. This suggests that the expenses associated with utilizing land as collateral for financing are a significant concern for landowners, potentially limiting their access to credit and financial opportunities. Time consideration emerged as the second most critical obstacle, with a mean score of 4.11. The lengthy process involved in obtaining land-based financing can be a burden for landowners, leading to delays and inefficiencies in accessing funds for development or investment purposes.

The third challenge identified was the complex and time-consuming process associated with land-based finance, which received a mean score of 3.99. This finding further emphasizes the administrative burden that landowners face when attempting to use their title deeds as collateral.

Other notable challenges included expensive registry procedures, improper land registry records, the potential for duplicate title records for the same parcel of land, and irregular land allocation. These factors scored mean scores of 3.91, 3.89, 3.48, and 3.27, respectively. These challenges collectively contribute to a lack of confidence and trust in the land-based financing system, making landowners hesitant to utilize their title deeds as collateral.

To encourage land-based financing and increase landowners' access to credit, it is essential to address these issues. To enable land-based finance and promote economic development in the examined area, it is crucial to streamline the financing process, it is crucial to streamline the financing process, lower associated expenses, and enhance property registry procedures. Additionally, correcting anomalies in land allocation and ensuring accurate land registry records are kept can help to create a more robust and dependable land-based financing system.

5.3 Conclusion

The principal intention of this study was to investigate how often Machakos County's rural landowners use their titles as collateral for finance. In particular, it sought to establish the challenges associated with using property titles as guarantee for financing in Machakos County and factors influencing their use (or non-use) as collateral, as well as the prevalence of use of other forms of collateral to secure financing for development.

The findings of the study contributed significantly to the achievement of the main objective, which was to determine the extent and factors influencing the use of land titles as collateral for financing among rural landowners in Machakos County. The fieldwork results successfully established a low level of adoption of land as collateral among the rural landowners. Group and household guaranteed loans dominate the household debt as alternative forms of collateral in Kivani location, Machakos County, shedding light on the challenges and preferences of rural landowners regarding the use of land as collateral. Surveyed respondents offered diverse views as to why they preferred using other instruments of borrowing to land. Majority argued that land is the only valuable economic asset they have and feared that financial institutions would repossess it once pledged as collateral. Others put emphasis on the sentimental value they attach to land, hence cannot risk to use it as collateral. Despite efforts by the Kenyan government to digitize land registry records, a substantial adoption is yet to take place since out of the 32.6% households with titles, only 11% frequently use land as collateral to secure credit. The field research points to succession delays, communal ownership and joint usage of land, socio-cultural values, sentimental attachment, registry inefficiencies, fear of foreclosure and high cost of borrowing as possible constraining factors.

The findings therefore confirm that the usage of titles as surety for loans in Machakos County is affected by; social related factors, lending factors, and land registry related challenges. This establishment provides a deeper understanding of the multifaceted nature of land-based financing. The findings also suggest that in addition to possession of title by the borrower, the legitimacy and value of the collateral instrument are crucial considerations in lending decisions. These are confirmed by the extensive due diligence and professional valuation exercise conducted by lending institutions before using the prospective titles as collateral. Indeed, the mortgagor's ability to demonstrate unencumbered ownership is a prerequisite for borrowing arrangements backed by collateral. Lamentably, just 32.6% of Kivani land holdings are titled, and the bulk of those are registered in the names of the forebears, making it impossible to use the titles as collateral.

By identifying these factors, the study offers insightful information on the complexities and limitations of land-based finance in Machakos County. The results also highlight how crucial it is to take into account other strategies than using land as collateral to increase the range of financing choices available to rural landowners. As a result, the study's conclusions directly address the primary goal by increasing knowledge of the prevalence, difficulties, and influencing variables associated with the use of land titles as collateral in the studied area. The study contributes to the literature on rural finance, land tenure systems, and economic development by providing insights into the prevalence, difficulties, and influencing variables associated to the usage of land titles as collateral. Additionally, it broadens the body of knowledge available to policymakers, financial organizations, and academics who work to improve financial access and advance sustainable rural development. The results support the conclusion that, despite the existence of title deeds, land-based financing is still complex, and that, in order to broaden its use, it would be necessary to explore additional avenues beyond land as collateral.

5.4 Recommendations

Reflecting on evidence gathered from the field, it is imperative to undertake specific actions to enhance the adoption and effectiveness of land-based financing, promoting economic development and sustainable livelihoods for rural landowners in Machakos County. The research yields the following actionable measures:

i. The legal procedures for land titling and registration should be made simpler and less costly to encourage more rural landowners to formalize their land ownership, making them eligible for land-based financing.
ii. Address land registry inefficiencies to instill confidence in lenders and borrowers, ensuring smoother and more reliable transactions related to land-based financing.
iii. Conduct educational programs to raise awareness among rural communities about the importance of individual land ownership and the benefits of using land as collateral. This can help overcome sentiments attached to land and enhance understanding of the potential economic opportunities that land-based financing can provide.
iv. Explore alternative collateral options that can supplement or complement land, enabling rural landowners to access financing for development. This could involve exploring movable property or innovative financial instruments tailored to the specific needs and contexts of rural communities.
v. Foster partnerships and collaborations between financial institutions, government agencies, community organizations, and other stakeholders to develop comprehensive strategies that promote land-based financing and address the specific needs and constraints of rural landowners.
vi. In addition to the existence of legal actions on defaulting borrower such as foreclosure, there is need to implement a socially accepted mechanism for effective contract enforcement in socio-cultural contexts.
vii. The study advocate for the following policy proposals:

a) The government ought to establish insurance markets for assets used as collateral. This will boost borrowers' confidence in pledging valuable assets such as land in loan contracts.

b) The establishment of robust rural financial markets to enhance access to loans, and reduce borrowers' inefficiencies like credit rationing, which results to a lower loan-to-value (LTV) ratio.

5.5 Areas of Further Research

The subsequent areas warrant additional research, according to the researcher's findings from the field study and literature review:

a. Factors considered by the financial institutions in land based financing.
b. The pattern of rural land ownership and its implications on credit financing.
c. The effectiveness of existing policies and regulations in promoting the use of land as collateral in rural Kenya.
d. The role of land tenure systems in determining the feasibility of using land as collateral in rural Kenya.

REFERENCES

Abdulai, R. T., & Hammond, N. F. (2010). Landed property market information management and access to finance. *Property Management*, 228-244.

Ackah, J., & Vuvor, S. (2011). *The Challenges Faced by Small & Medium Enterprises (SMEs) in Obtaining Credit in Ghana.* BTH, School of Management.

Andries, A. M., & Cuza, A. L. (2009). Theories Regarding Financial Intermediation and Financial Intermediaries. *The USV Annals of Economics and Public Administration, 9(2)*, 254-261.

Atta-Mensah, J. (2015). The Role of Collateral in Credit Markets. *Journal of Mathematical Finance*, 315-327.

Augier, L., & Soedarmono, W. (2011). Threshold Effect and Financial Intermediation in Economic Development. Economics Bulletin. Economics Bulletin,. *Economics Bulletin, AccessEcon, vol. 31(1)*, 342-357.

Azadi, H., & Vanhaute, E. (2019). Mutual Effects of Land Distribution and Economic Development: Evidence from Asia, Africa and Latin America. 1.

Bennett, R. M., & Alemie, B. K. (2016). Fit-for-purpose land administration: lessons from urban and rural Ethiopia. *Surv.Rev.,48(346)*, 11-20.

Bester, W. (2007). Credit Rationing in Markets with Imperfect Information. *The American Economic Review*.

Borras, S. M., & Franco, J. G. (2010). Contemporary discourses and contestations around pro-poor land policies and land governance. *J.Agrar.Change,10(1)*, 1-32.

Boucher, S. R., Guirkinger, C., & Trivelli, C. (2009). Direct Elicitation of Credit Constraints: Conceptual and Practical Issues with an Application to Peruvian Agriculture. *Economic Development and Cultural Change, 57(2)*, 609-640.

Brasselle, A. S., Gaspart, F., & Platteau, J. P. (2002). Land tenure security and investment incentives: puzzling evidence from Burkina Faso. *J. Dev. Econ., 67 (2)* , 373-418.

Brau, J. C., & Woller, G. M. (2004). Microfinance: A Comprehensive Review of the Existing Literature. *Journal of Entrepreneurial Finance and Business Ventures*, 1-26.

Briggs, C., & Zuijderduijn, J. (2018). *Land and Credit: Mortgages in the Medieval and Early Modern European Countryside.* Switzerland: Springer International Publishing AG.

Brown , E., Dimitrova , D., Ehrenberg , D., Heyes, J., Kusek, P., Marchesi, G., . . . Ernesto, V. (2006). *Secure Tenure in Latin America and the Caribbean: Regularisation of Informal*

Urban Settlements in Peru, Mexico and Brazil. Woodrow Wilson School of Public and International Affairs, Princeton University.

Bugri, J. T., & Yeboah, E. (2017). *Understanding changing land access and use by the rural poor in Ghana.* International Institute for Environment and Development.

Carly , P. K., Pender, J. L., & Pender, J. L. (2009). Evaluating the Impact of Land Tenure and Titling on Access to Credit in Uganda. *International Association of Agricultural Economists.*

Carter, M. R., & Olinto, P. (2003). Getting Institutions "Right" for Whom? Credit Constraints and the Impact of Property Rights on the Quantity and Composition of Investment. *American Journal of Agricultural Economics, 85(1)*, 173-186.

Chapin, S. F. (1965). *Urban land use planning 2nd Edition.* Urbana: University of Illinois Press.

Cohen, L., Manion, L., & Morrison, K. (2007). *Research Methods in Education, 6th Edition.* New York: Routledge.

Cooper, D. R., & Schindler, P. S. (2003). *Business Research Methods, 8th edition.* New York: McGraw Hill.

Creswell, J. W. (2013). *Qualitative Inquiry And Research Design: Choosing Among Five Approaches, 3rd edition.* Sage Publications.

Creswell, J. W., & Clark, V. L. (2018). *Designing and conducting mixed methods research, 3rd edition.* New York: Sage publications.

de Aghion, B. A., & Morduch, J. (2004). *Microfinance: Where Do We Stand?* Cambridge, Massachusetts: The MIT press.

Deininger, & Klaus. (2003). *Land Policies for Growth and Poverty Reduction: World Bank Policy Research Report.* Washington, DC: World Bank and Oxford University Press.

Deininger, K., & Goyal, A. (2010). Going Digital: Credit Effects of Land Registry Computerization in India. *World Bank Policy Research Working Paper No. 5244*.

Dower, P., & Potamites, E. (2005). Signaling Credit-Worthiness: Land Titles, Banking Practices and Access to Formal Credit in Indonesia. *American Agricultural Economics Association: DOI: 10.22004/ag.econ.19120*.

Dua, P. (2020). Monetary policy framework in India. *Indian Economic Review, 55(1)*, 117–154. https://doi.org/10.1007/s41775-020-00085-3.

Enyia, J. O., & Udungeri, K. (2018). The Use of Land as a Collateral Security for Credit in Nigeria: Problems & Challenges. *International Journal of Managerial Studies and Research (IJMSR), Volume 6, Issue 7*, 44-56.

Etemesi, E. M. (2017). *Credit access from commercial banks and growth of small and micro enterprises in Nairobi central business district.* USIU (MBA Thesis).

FAO. (2018). *Guidelines on defining rural areas and compiling indicators for development policy.*

Feder , G., Onchan , T., & Chalamwong, Y. (1988). Land policies and farm performance in Thailand's forest Reserve Areas. *Economic Development and Cultural Change, 36(3)*, 483-501.

Fenske, J. (2011). Land tenure and investment incentives: evidence from West Africa. *J.Dev.Econ.,95(2)*.

Field, E., & Torero, M. (2011). Do Property Titles Increase Credit Access Among the Urban Poor? Evidence from a Nationwide Titling Program. *Research Program in Development Studies Working Paper No. 223, Princeton University*.

Fleisig, H. (1995). *The Power of Collateral-How problems in securing transactions limit private credit for Moveable property. Public Policy for the Private Sector-Note No 43.* The World Bank.

Flick, U. (2009). *An Introduction to Qualitative Research.* New York: Sage Publication Ltd.

Fraenkel, F. R., Wallen, N. E., & Hyun, H. H. (2000). *How to Design and Evaluate Research in Education.* London: McGraw Hill.

FSD-Kenya. (2015). *The Kenyan collateral process: Constraints and Solutions.* Nairobi: Financial Secctor Deepening-Kenya.

Gabor, D. (2018). *Shadow connections: On hierarchies of collateral in shadow banking. In A. Nesvetailova (Ed.), Shadow banking: Scope, origins and theories.* Routledge.

Galeana, F. (2004). Who wants credit? Explaining the demand for land titling in Mexico Development Economics. *Stanford Undergraduate Research Journal*, 16-21.

Garrett, J. F. (2009). *Bank and their customers (1st ed).* New York, Dobbs Ferry: Oceana Publications.

Gilbert, A. (2002). On the mystery of capital and the Myths of Hernando De Soto: what Difference Does Legal Title Make? *International Development Planning Review, 24(1)*, 1-19.

Gitman, C. (2003). *Small and Medium Enterprises across the Globe: A New Database.* New York.: New York Publishers.

Haron, H., Said , S. B., Jayaraman, K., & Ismail, L. (2013). Factors Influencing Small Medium Enterprises (SMES) in Obtaining Loan. *International Journal of Business and Social Science, 4(15)*, 182-195.

IGIDR . (2017). *Report on the implementation of the Digital India Land Records Modernization Programme (DILRMP) in the state of Maharashtra, Indira Gandhi Institute of Development Research.* Mumbai.

Ioannidouy, V., Pavaniniz, N., & Peng, Y. (2019). Collateral and Asymmetric Information in Lending Markets. *CEPR Discussion Paper No. DP13905*.

Kaltenbrunner, A., & Painceira, J. P. (2018). Subordinated financial integration and financialisation in emerging capitalist economies: The Brazilian experience. *New Political Economy, 23(3): https://doi.org/10.1080/13563467.2017.1349089* ., 290–313.

Kamau, A. W. (2009). Efficiency in the banking sector: An empirical investigation of commercial banks in Kenya. *Published PhD Thesis, University of Nairobi.*

Kariuki, F. K. (2007). A Public key infrastructure based model for verification of title deeds in Kenya. *Unpublished Thesis, Kenya.*

Karumba, M., & Wafula, M. (2012). *Collateral Lending: Are there Alternatives for the Kenyan Banking Industry?* Kenya Bankers Association.

Kathuri, J. N., & Pals , D. A. (1993). *Introduction to Education Research.* Njoro: Egerton University: Educational Media Centre.

Kihimbo, M. (2012). Credit rationing by microfinance institutes and its influence on the operations of SMEs. *Unpublished MBA Thesis, University of Nairobi*.

Kim, H., Sefcik, J. S., & Bradway, C. (2017). Characteristics of Qualitative Descriptive Studies: A Systematic Review. *Research in Nursing and Health, 40(1)*, 23-42.

Kislat, C., Menkhoff, L., & Neuberger, D. (2013). The Use of Collateral in Formal and Informal Lending. *Keil Working Papers No. 1879*, 47.

KNBS. (2018). *2015/16 Kenya Integrated Household Budget Survey (KIHBS).*

KNBS. (2019). Distribution of Population by Administrative Units. *Kenya Population and Housing Census, Vol 2*.

Krishnan, K. P., Panchapagesan, V., & Venkataraman, M. (2016). Distortions in Land Markets and Their Implications for Credit Generation in India. *Economic and Political Weekly 52(35)*.

Larr, P. (1994). Two Sides of Collateral: Security and Danger. *The Journal of Commercial Lending*, 8-17.

Leung, L. (2015). Validity, Reliability, and Generalizability in Qualitative Research. *Journal of Family Medicine and Primary Care, 4(3)*, 324-327.

Makena, P., Kubaison, S., & Njati, C. (2014). Challenges facing women entrepreneurs in accessing business finance in Kenya: Case of Ruiru Township, Kiambu County. *IOSR Journal of Business and Management*.

Matavire , A., & Duflo, E. (2013). *Do Firms Want to Borrow More? Testing Credit Constraints Using a Directed Lending Program.* Mainline Publishers.

Meghna, B. (2017). Securing Property Rights in India Through Distributed Ledger Technology. *Working Papers id:11567, eSocialSciences*.

Meyer, R. L. (2015). *Financing Agriculture and Rural Areas in Sub-Saharan Africa: Progress, challenges and the way forward.* London: IIED.

Migot-Adholla, S., Hazell, P., & Blarel, B. (1991). Indigenous Land Rights Systems in Sub-Saharan Africa: A Constraint On Productivity? *World Bank Economic Review, 5(1)*, 155-175.

Mphande, F. A. (2016). *Infectious Diseases and Rural Livelihood in Developing Countries.* Singapore: Springer.

Mugenda, O., & Mugenda , A. (2003). *Research methods: Quantitative and Qualitative Approaches.* Nairobi: Act Press.

Muponda, G. (2015). Product Management Strategies in a “dollarized” Economy. a case Study of Zimbabwe's Consumer Products Manufacturing Sector (2009–2014). . *International Journal of Marketing and Technology, 5(12)*, 118-130.

Nair , G. S., & Ram, K. (2014). *Agriculture Gold Loans: Issues and Implications, Rural Pulse, Issue III, May-June 2014, National Bank of Agriculture and Rural Development.* Mumbai.

Narayanan, S., & Chakraborty, J. (2019). Land as collateral in India. *Indira Gandhi Institute of Development Research, Mumbai Working Papers 2019-006, Indira Gandhi Institute of Development Research, Mumbai, India.*

Nassiuma, D. K. (2000). *Survey Sampling: Theory and Methods.* Nairobi: University Press.

NLUP. (2016). Ministry of Lands and Physical Planning, National Land Use Policy Draft. *Land Reform Vol. 3*.

Nwuba, C. C., Egwuatu, U. S., & Salawu, B. M. (2013). The Application of Real Estate as Loan Collateral in Nigeria's Banking Sector. *Research Journal of Finance and Accounting Vol.4, No.11*.

Nyarondia , S. M. (2017). EFFECT OF MICROFINANCE ON POVERTY REDUCTION: A CRITICAL SCRUTINY OF THEORETICAL LITERATURE. *Global Journal of Commerce and Management Perspective, Vol.6(3)*, 16-33.

Odote , C. (2010). *Regulating Property Rights to ensure Sustainable Management of Wetlands in Kenya.* Unpublished Thesis, University of Nairobi, Kenya.

Pandula, G. (2011). AN EMPIRICAL INVESTIGATION OF SMALL AND MEDIUM ENTERPRISES' ACCESS TO BANK FINANCE: THE CASE OF AN EMERGING ECONOMY. *Proceedings of ASBBS, vol 18(1)*, 43-62.

Pedersen, M. J. (2010). Properties of Property: A Jurisprudential Analysis. *The Commoner, Special Issue, Volume 14*, 137-210.

Piza, C., & de Moura, M. J. (2011). How Does Land Title Affect Access to Credit? Empirical Evidence from an Emerging Economy. *Economics Department Working Paper Series No. 22-2010*.

Place, F. (2009). Land tenure and agricultural productivity in Africa: a comparative analysis of economic theory, empirical results, and policy statements. *World Dev., 37 (8)* , 1326-1336.

Place, F., & Migot-Adholla , S. E. (1998). The Economic Effects of Land Registration on Smallholder Farms in Kenya: Evidence from Nyeri and Kakamega Districts. *Land Economics, 74(3)*, 360-373.

Quan, J., Fei Tan, S., & Toulmin, C. (2004). Land in Africa Market asset or secure livelihood? *Proceedings and summary of conclusions from the Land in Africa Conference held in London*.

Rajeev , M., Vani, B. P., & Bhattacharjee, M. (2011). *Nature and Dimensions of Farmers' Indebtedness in India and Karnataka: Working paper 267.* Bangalore: The Institute for Social and Economic Change:.

Rajeev, M., & Nagendran, P. (2018). Are gold loans glittering for agriculture? *Economic and Political Weekly. 53*, 32-38.

Rajeev, Meenakshi, & Vani, B. P. (2017). *Financial Access of the Urban Poor in India: A Story of Exclusion.* Springer.

Sanjak, J. (2012). Land Titling and Credit Access – Understanding the Reality. *US Agency for International Development*.

Serrat, O. (2017). The Sustainable Livelihoods Approach. In O. Serrat, *Knowledge Solutions: Tools,Methods and Approaches to drive Organizational Performance* (pp. 21-26).

Shitseswa, A., Onditi, A., & Nyagol, M. (2017). Role of corporate social responsibility in the relationship between strategy analysis and organizational performance of sugar companies in Western Kenya. *International Journal of Multidisciplinary and Current research, 5(1)*, 335-342.

Shittu, A. M., Kehinde, M. O., Ogunnaike, M. G., & Oyawole, F. P. (2018). Effects of land tenure and property rights on farm households' willingness to Accept incentives to invest in measures to combat land degradation in Nigeria. *Agric. Resour. Econ. Rev., 47 (2)*, 357-387.

Soto, H. D. (2003). *The Mystery of Capital: Why Capitalism Triumphs in the West and Fails Everywhere Else.* London: Bantam Press.

Spuchľáková, E., Valašková, K., & Adamko, P. (2015, July 24). The Credit Risk and its Measurement, Hedging and Monitoring. *International Conference on Applied Economics, ICOAE* , pp. 675 – 681.

Steg, L., & Rothengatter, T. (2008). *Introduction to Applied Social Psychology: Understanding and managing social problems.* Washington,DC: Cambridge University Press.

World Bank. (2007). *World Development Report 2008: Agriculture for Development.* Washington, DC.

World Bank. (2009). *Land Registration, Governance, and Development: Evidence and Implications for Policy.* Oxford University Press.

World Bank. (2014). *Global Financial Development Report 2014: Financial Inclusion.* Washington, DC.

Yadav, S. S. (2018). Source of Agricultural Credit in India: A conceptual study of Indian Agricultural Credit. *An International Refereed Research Journal Vol. 8, No. 3*, 161-166.

APPENDICES

Appendix I: Questionnaire Administered to Household Heads

Masters Research Project

Hello! I hope this message finds you well. I am Phoebe Mueni Nzuki, a student at the University of Nairobi, enrolled in the Department of Real Estate, Construction Management & Quantity Surveying. Currently, I am pursuing a Master of Arts in Valuation and Property Management.

I am conducting research on the usage of land as security for loans in rural Kenya, with a specific focus on the Kivani Location in Machakos County. To gather comprehensive insights for my study, I have prepared a questionnaire. Your voluntary participation in this research is absolutely vital to the successful completion of my academic pursuits.

As one of the individuals who employs land title as collateral for lending products, your valuable input will provide invaluable depth to the study. Rest assured that that any information you share will be handled with the utmost discretion and confidentiality. The data you share will exclusively serve the academic objectives specified in this study.

Thank you for considering being a part of this endeavor. Your valuable input will contribute significantly to advancing knowledge in this area. Should you have any questions or concerns, feel free to reach out to me.

Section 1: Personal Information

1. Gender Male [ ]

Female [ ]

2. Age Bracket 25 years and below [ ]

26 - 35 years [ ]

36 - 45 years [ ]

46 - 55 years [ ]

Over 55 years [ ]

3. Highest educational level attained

Primary [ ]

Secondary [ ]

Diploma [ ]

Degree [ ]

Masters [ ]

Doctorate [ ]

4. Work/farming Experience Below 2 years [ ]

2- 5 years [ ]

5- 10 years [ ]

Above 10 years [ ]

5. Are you aware of the usage of land as collateral for acquiring credit? Yes [ ] No [ ]
6. Do you have title deed for your land? Yes [ ] No [ ]
7. Do you use land as collateral for obtaining loans yourself? Yes [ ] No [ ]
8. Do you find it easy using land as collateral for obtaining loans yourself? Yes [ ] No [ ]
9. Do you obtain the maximum loan required? Yes [ ] No [ ]
10. Do you usually get back your title deed after repayment of the loan? Yes [ ] No [ ]
11. Are you aware of other alternative forms of collateral of obtaining loans apart from title deeds? Yes [ ] No [ ]
12. Listed below are other alternative forms of obtaining loans apart from title deeds. Tick the one(s) you are familiar with

Group guaranteed loans [ ]

Household guaranteed loan [ ]

Family guaranteed loans [ ]

13. Kindly indicate the level of use of these alternative forms of collateral of obtaining loans. Where 1 – Rarely Used, 2 Occasionally Used, 3 – Not Sure, 4 – Frequently Used and 5 – Most Frequently Used.

Group guaranteed loans [ ]

Household guaranteed loan [ ]

Family guaranteed loans [ ]

Section 2: Social Relations Factors Affecting the Use of Land as Collateral

1. Are there factors related to how the society view land that affect the usage of land as collateral in accessing loans from the financial institutions? Yes [ ] No [ ]
2. Using the scale provided, kindly give your opinion on the social relations factors affecting the use of land as collateral in obtaining loans from financial institutions. (*5-Strongly agree, 4. Agree, 3-Unsure, 2-Disagree and 1- Strongly disagree*).

Social Relations Factors	**5**	**4**	**3**	**2**	**1**
The land is communally owned and therefore no single person can obtain loan using the title					
Women are not allowed to own land and this affect them in using the land title which is owned by men					
In our area, land has sentimental value and therefore should not be used to obtain loans					
One is only allowed to own land when he is married					
Youth are not allowed to own land even if they are above 18 years for fear of selling the land					
Part of the land is the graveyard of our keen and therefore cannot be used to obtain loan					
In my area, we fear that the financial institutions will steal the land from us.					

Other ____

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Section 3: Financial Lending Conditions

Using the scale provided, kindly give your opinion on the financial intermediation lending conditions affecting the usage of land as collateral in obtaining finance from the financial institutions. (*5-Strongly agree, 4. Agree, 3-Unsure, 2-Disagree and 1- Strongly disagree*).

Financial Lending Conditions	**5**	**4**	**3**	**2**	**1**
I am aware of most financial lending conditions in our area					
I am aware of the land valuation process of most of financial institutions that accept land title for obtaining loans					
I am aware that most of financial institutions that accept land title for obtaining loans require to know my cash flow condition.					
I am aware that most of financial institutions that accept land title for obtaining loans require to know where I bank					
I am aware that most of financial institutions that accept land title for obtaining loans require to know my background information					
I am aware that most of financial institutions that accept land title for obtaining loans require to know the location of my land					
I am aware that most of financial institutions that accept land title for obtaining loans require consent from my other family members					

Other ____

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Section 4: Lending based on Security

Using the scale provided, kindly give your opinion on the nature of lending based on security. (*5-Strongly agree, 4. Agree, 3-Unsure, 2-Disagree and 1- Strongly disagree*).

Lending based on Security	**5**	**4**	**3**	**2**	**1**
I am aware that most of financial institutions that accept land title for obtaining loans require that the land title I am using is registered in my name					
I am aware that most of financial institutions that accept land title for obtaining loans require that the value of the land must commensurate with the loan I intend to borrow					
I am aware that for my land title to be accepted by lending institution as loan security, the details of the land title must be realized also called due diligence.					
I am aware that my land title will be held by the lending institution until the whole loan is repaid					

Other ____

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Section 5: Land registry Challenges

Using the scale provided, kindly give your opinion on the Land registry Challenges that affect us from using land title as collateral. (*5-Strongly agree, 4. Agree, 3-Unsure, 2-Disagree and 1-Strongly disagree*).

Land registry Challenges	**5**	**4**	**3**	**2**	**1**
I am aware that land registry sometimes has duplicate titles on one property which is a challenge in using land title as collateral					
I am aware that land registry sometimes has irregularities on land allocation which is a challenge in using land title as collateral					
I am aware that land registry sometimes cannot locate some titles due to poor records keeping which is a challenge in using land title as collateral					
I am aware that land registry sometimes is too slow in providing land title services which is a challenge in using land title as collateral					
I am aware that land registry processes are expensive which is a challenge in using land title as collateral					

Other ____

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Section 6: Loan pricing Factors

Using the scale provided, kindly give your opinion on the Loan pricing Factors that affect us from using land title as collateral. (*5-Strongly agree, 4. Agree, 3-Unsure, 2-Disagree and 1- Strongly disagree*).

Loan pricing Factors	**5**	**4**	**3**	**2**	**1**
I am aware of the cost of loans that financial institutions charges					
I am aware of the loan's processing fees that financial institutions charge					
I am aware of the transaction fees that financial institutions charge					
I am aware of the loan's defaulting fees that financial institutions charge					
I am aware of any other hidden fees that financial institutions charge					
I am aware of the land valuation fees that financial institutions charge					

Other ____

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Section 7: Use of Land as Collateral

Using the scale provided, kindly give your opinion on the use of land titles deeds as collateral for financing. (*5-Strongly agree, 4. Agree, 3-Unsure, 2-Disagree and 1- Strongly disagree*).

Use of Land as Collateral	**5**	**4**	**3**	**2**	**1**
Number of people using land title as collateral has increased in our area					
Frequency of borrowing has increased based on land title as collateral					
Frequency of enquiries on the use of land title as collateral as increased in our area					
Acreage under farming financed by land title collateral has increased in our area					
Family income has increased due to farming financed by land title as collateral in our area					
The value of land in our area has increased due to the usage of land title as security					

Other ____

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Thank you for answering the questions

Appendix II: Interview Administered to Financial Institutions

Masters Research Project

Greetings! I am conducting research as part of my Master of Arts in Valuation and Property Management program at the University of Nairobi, Department of Real Estate and Construction Management. My name is Phoebe Mueni, and I am eager to explore the usage of land as security for loans in rural Kenya, focusing specifically on the Kivani Location in Machakos County.

To gather comprehensive insights for my study, I have developed an interview schedule, and I am reaching out to institutions like yours, which employ land title as collateral for lending products.

Your voluntary involvement and active participation in this interview process are paramount to the successful completion of my research. As a key stakeholder in this field, your knowledge and perspective are invaluable.

I want to assure you that I will handle any information you share with the utmost discretion and confidentiality. Your trust is essential to me, and I will ensure that the data you provide will be exclusively used for the academic objectives specified in this study.

Your contribution to this research will greatly contribute to advancing knowledge in this area, benefiting both academia and the wider community. If you have any questions or concerns, please feel free to share them with me.

Thank you for considering taking part in this study. Your insights and expertise will play a vital role in enriching our understanding of the utilization of land as collateral for loans in rural Kenya.

1. Do you use land title as security in advancing credit?

2. What are some of the challenges you face in the use of land title as security in lending?

3. What are the lending conditions that the people from Kivani Location, Machakos County must fulfil before obtaining loan from your institution?

4. Are you aware of some of the land registry challenges that you or the people from Kivani Location, Machakos County face in obtaining land title related services? If yes, what are these challenges?

5. How are your loans priced compared with other institutions? Do you think the people from Kivani Location, Machakos County are able to satisfy these conditions?

6. Since the introduction of land title collateral-based lending, discuss with me the performance of the loans obtained by the people from Kivani Location, Machakos County.

7. Are you aware of alternative forms of collateral apart from land titles? If yes, what are these alternative forms of collateral in lending?

This is the end of the interview. Thank you.