EFFECTS OF CREDIT ASSESSMENT DETERMINANTS ON CREDIT UPTAKE IN THE AGRICULTURAL FINANCING SECTOR IN KENYA: A CASE OF SOUTH IMENTI SUB COUNTY, KENYA

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DECLARATION

I declare that this document and the research that it describes are my original work and that they have not been presented in any other university for Academic work.

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This research was conducted under my supervision and is submitted with my approval as University supervisor.

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DEDICATION

This research work is dedicated to the Late Mwalimu Francis Nyamu and Esther Nyamu who are my role models and mentor in education and career life, my wife Carol, my daughters Wendy and Bella, my nephew Munene, sisters and brothers whom their love is my driving force.

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ABSTRACT

Food Security is a vital cog in every fiscal and monetary growth of all countries worldwide. It is a state when all people have economic, social and physical access to nutritious, safe and sufficient food that meets food preferences and dietary needs for a healthy and active life at all times. Lack of funding confines farmers' productivity and improved income hence a major impediment for farmer's especially small-scale farmers in third world countries. The purpose of the project was to assess the effect of credit assessment determinants during credit uptake. The Specific Objectives was to determine how character, financial capacity, capital contribution, collateral and credit conditions affect credit access to farmers in South Imenti. The study was based on two theories namely prospect and Lewin's Change Management Theory` which anchored the research study. The design of the study was carried out in South Imenti sub-county within Meru county farmers. Primary data was collected from 336 among the 2,133 in South Imenti farmers (stratified sampling) in Meru County. A questionnaire was the mode of collecting primary data where interviewed farmers were identified by transect in a preselected region whereby after the questionnaire was drafted pilot study was conducted to ensure effective data collection tool was used. The software utilized to analyse the primary data was SPSS (24). Study findings depict that farmers in Imenti South Sub-county are made up of a diverse mixture of all age groups while majority are young and middle aged. Regression model was able to explain 77.9 percent of the success in credit application for Agricultural loans. The study determined that character ($\beta = 0.263$; $\rho = 0.008$), capacity ($\beta = 0.255$; $\rho = 0.004$), contribution ($\beta = 0.601$; $\rho = 0.000$), collateral ($\beta = 0.314$; $\rho = 0.000$) and conditions ($\beta = 0.465$; $\rho= 0.001$) had considerable effect on agricultural credit uptake. Lastly, Study findings demonstrated that agricultural credit uptake was averagely successful ($\beta = 0.352$; $p = 0.498$). Using the standardized coefficients, the study findings revealed that contribution was the most influential on credit uptake success in Imenti south (standardized $\beta = 0.547$) followed by conditions ((standardized $\beta = 0.348$), collateral / Collateral (standardized $\beta = 0.317$), character (standardized $\beta = 0.240$) and capacity (standardized $\beta = 0.237$) against ranking of 5Cs concluding that Collateral, Capacity, Capital, Character and Conditions should be in that ascending order. The study recommends: - government together with lenders should establish training programs to equip farmers with effective agri-business skills, financial know how and disaster preparedness. National government in collaboration with the county government should enforce better regulations to ensure farmers get maximum benefits from produce like avocado farming. Also they can subsidize farm inputs and improve roads for easier access to the market. Lenders should create more favourable credit offers for farmers. This can be achieved by coming up with better terms like affordable interest rates and longer repayment periods. Alternative securities should be developed like bank guarantees that can ensure that farmers without title deeds are able to benefit with loan funds. Lastly, due to unforeseen happenings, lenders could offer farmers better grace period.

DEFINATION OF TERMS

Capacity: For the purpose of this study, capacity is the aptitude to payback when the borrower gets a loan where the same is pegged on his present revenues and liabilities. It is also the ability of a person to pay back the funds when required. This is based on revenues or proceeds from his project. Farmers with high net worth have greater chances of getting loans and the capacity to payback the funds. Hence the more the income a farmer gets the higher the credit uptake.

Capital: For the purpose of this study, capital is the borrower's personal investment in the operation or the cash that a farmer has to commence his/her project. It is also the wealth of the borrower and relates to the risk bearing ability and repayment capacity of the borrowing farmer which leads to greater credit uptake when capital is high.

Character: For the purpose of this study, Character is the farmer's status in the area of occupation. When commencing any loan transaction, the genesis is the dependence or reliability of an individual. Banks may request for the other 4 Cs but individual character while giving money will be the number one priority. The institutional financial agencies' confidence for its borrowers is determined by the individual characteristics like honesty, integrity, commitment, hard work and promptness exhibited by the borrower. Thus, borrowers' characteristics are taken into consideration before a loan is advanced. This means that borrowers with good ratings of the characteristics have good credit character as well hence higher credit uptake.

Collateral: For the purpose of this study, collateral is chattels, possession or belongings that are used to protect the loan advanced. Collateral is a must for all the farmers whether land, personal guarantees and cash reserves by all financial lenders and can be used to repay the

loan when the client defaults the loan proceeds as per the loan offer. The presence of Collateral is critical in any form of credit. Land is more preferred Collateral since it appreciates unlike cars or electronics goods.

Conditions: For the purpose of this study, conditions are the external environment whether political, social or economic that affects the credit sector. Interest rates used in credit evaluation will depend on the character of the borrower, Collateral presented, the use of the loan, the loan term and the amount requested. All these aspects influence the extent of apparent risk inherent in advancing the loan as perceived by the lender.

Credit uptake Success: For the purpose of this study, credit uptake success is the rate of credit absorption by farmers and the number of beneficiaries against applied amount. Default rate or the rate at which borrowers fail to meet legal obligation (conditions) of a loan is the major factor. Most financial institutions in Kenya shy away from lending to agricultural sector due to high risks involved in the segment. Turnaround time or the amount of time taken to process a loan/facility and period that it takes from application to disbursement determines the level of credit uptake since if takes a longer time, then majority will withdraw. This has direct impact to credit accessibility of farmers due to risk of agricultural finance hence the decision making takes time.

ABBREVIATIONS AND ACRONYMS

AFC Agricultural Finance Corporation

ANU Africa Nazarene University

CAMPARI Character, Ability, Margin, Purpose, Amount, Repayment, Insurance

CBK Central Bank of Kenya

CRB Credit Reference Bureau

DFIs Development Financial Institutions

FIVE Cs Capacity, Capital, Collateral, Conditions, Character

FIVE Ps People, Purpose, Payment, Protection, Prospective

LAPP Liquidity, Activity, Profitability, Potential

MFIs Micro Finance Institutions

MCGS Micro Credit Group Scheme

NPL Non Performing Loans

PACT Person, Activity, Collateral, Terms

SACCOs Savings and Credit Cooperative Organization

TAT Turn Around Time

UNIDO United Nations Industrial Development Organisation

USAID The United States Agency for International Development

UNDP The United Nations Development Programme

IMF International Monetary Fund

CHAPTER ONE

INTRODUCTION

1.1. Introduction

The introduction is the beginning and backdrop of the research project. This chapter introduces the topic and study area. The chapter has also stated the research problem, objectives of study and posed the research questions which were answered by the study. It also provides scope of study, the theories which could explain the study concepts of credit uptake have been discussed significance and limitations encountered in study. Moreover, it provides the delimitations of study and conceptual framework that guides the study.

1.2. Background of the study

Since the 1950s, governments and donors have spent large amounts of money on agricultural credit programmes, particularly for highly subsidised farm loans. However, in many countries these agricultural credit programmes have shown disappointing results. Following the failure of these programmes, a major shift in approaches to agricultural lending in developing countries has taken place. Today, in many parts of the world, new or restructured financial institutions offer financial services in rural areas, aiming at combining large outreach with financial sustainability. However, in many cases these service providers' are not for agricultural producers but rather for small traders and craftsmen. In the past, subsidised agricultural lending programmes have dominated rural financial policies throughout the world. In many countries, supply-led and directed credit programmes were the dominant tool used to spur agricultural development during the three decades prior to the1990s. These programmes were intended to assist poverty alleviation, boost food production, and develop small-scale farmers. This traditional approach ignored the existence of non-farm economic

activities and targeted financing a specific agricultural crop or farm activity but not the farm household as a complex economic entity. These agricultural credit programmes copied largely the design of other sector-specific credit programmes, such as small enterprises in urban areas. The assumption behind these efforts was that many farmers faced liquidity constraints that limited ability to make investments, use modern inputs and employ capital-intensive farming techniques. Relaxing these constraints by providing them with loans was thought to be an efficient way of stimulating farm production.

It was further assumed that farmers were too poor to save. Based on this assumption, there was an exclusive focus on the provision of credit. Consequently, many of these programmes were financed through the central bank or directly from state budgets. Funds from subsidised agricultural lending programmes were to be on-lent to the specified target groups at below market interest rates and were often accompanied by supplying production inputs within a so called “credit-plus” package approach. Usually state-owned development banks administered subsidised agricultural lending programmes. At times, co-operatives and other specialised farm credit institutions, and sometimes private commercial banks, were used to channel funds to the target population. In some cases, loan portfolio requirements regarding agricultural lending were imposed on commercial banks.

In most cases, however, obtaining access to subsidised credit from these funds was difficult for small farmers. Often requirements were detailed and sophisticated, considerably restricting eligibility. Bureaucratic documentation requirements and lengthy procedures increased the actual costs incurred for smallholders to prohibitively high levels. Results were, in the majority of cases, negative regarding smallholder access and developmental effects. Despite the extent of resources allocated, most of the programmes did not have substantial positive impact on either rural development or on the rural families. Besides that, large parts of the resources and subventions were, in effect, diverted to wealthy and influential farmers

instead of serving the initially-intended target group. As low interest rates kept the margins to a minimum to cover administrative costs, or even caused negative margins, frequent losses were incurred by the lending institutions. Additionally, low repayment rates increased losses. Also, large losses had to be covered from state budgets on a regular basis.

A characteristic feature of agricultural development banks in many parts of the world were severe inefficiencies. Administrative costs sky-rocketed due to large staff numbers and maintenance costs of expanded branch networks. Also, inflation often substantially exceeded the nominal interest rates charged on loans, turning the loan portfolio itself into a major cost factor. In addition, many development banks were highly politicised and had to deal with considerable corruption, frequent loan forgiveness programmes and nepotism. The majority of these institutions de-capitalised, were in permanent need of state subsidies and finally collapsed in many parts of the world. Inadequate provisioning often kept institutions from liquidation only until the political will existed to close the development banks.

While all these problem areas of subsidised agricultural lending programmes were already identified in the early 1970's, these credit programmes were carried out on a large scale until the1980's. Today, some countries still continue operating this type of approach. Few development banks have managed to transform themselves into more efficient, cost-covering institutions. Famous examples of successfully reformed development banks include Bank for Agriculture and Agricultural Co-operatives (BAAC) in Thailand; as well as the rural Unit Desa System of Bank Rakyat Indonesia (BRI). Since the 1980's most development countries have embarked on financial sector reform. Financial sector liberalisation has been on reform agendas throughout the world. Reforming and privatising the banking sector has been one major component of these reform programmes. Interest rate restrictions and directed credit, as reflected in many of the old agricultural lending programmes, were abolished widely. Reforms opened banking sectors for the establishment of new private banks and moved

towards establishing more competitive financial markets. At the same time, many state-owned banks were closed, leaving formerly wide branch network in rural areas idle. As financial sector liberalisation programmes aimed at establishing competitive market-places for financial intermediation, prudential regulation and supervision of these market-places became a core topic. Central Banks and supervisory authorities shifted attention towards promoting efficient financial markets by removing obstacles to sound financial intermediation such as interest rate ceilings and credit controls. Reduced targeting of loans and market-determined pricing of financial products are core aspects of this "new paradigm". Innovative financial institutions and products aimed at servicing the non-formally employed. Low income population segments are propagated today to operate under a commercial, market-oriented approach. Savings mobilisation has also become a reviewed topic, with new emphasis being put on the establishment of financial systems, instead of financing channels. (Food and Agriculture Organization FAO, 2013)

Yaron, McDonnald and Piprek (2013) stated that lack of funding confines farmers' productivity and improved income uptake. Availability of loans is still a major impediment for farmers' especially small-scale farmers in third world countries. Availability of credit was found in indigenous donors like USAID, UNDP, IMF, World Bank and Africa Development Bank, direct injection of budgetary funds and credit allocations set up by central banks in many third world countries. The direct government budgetary allocations and development financial institutions established were provided with credit quota executed by central banks in various developing countries, and agricultural development banks were formed by constitutional aim of giving farmers loans. Majority of these development institutions were not performing as required hence not suitable on any economic level hence distorted the credit accessibility in many third world countries. These policies that were supply oriented were later discarded in 1980s as a measure to ease up the financial sector. The promotions for

market clearing interest rates were accompanied by strict adherence to regulations. Favourable rules were implemented making financial institutions more hazardous as the rules reduced exposure to agricultural and rural based economic sectors. When financing to agricultural sector in Africa was reduced to half with elimination of sector lending quotas, numerous banks in Nigeria inclined towards paying penalties rather than comply with the agricultural lending quotas rules (Ahokpossi, 2013).

The emergence of microfinance in 1990s as a potential panacea to agricultural lending challenge having been prompted by the failure of both governments led credit initiatives and financial liberalization to improve agricultural output (United Nations Industrial Development Organization [UNIDO], 2013). During this era several NGOs transformed into MFIs targeting rural based micro entrepreneurs following the Grameen Bank Model which its proponents claimed that access helped poor farmers get out of the poverty. This was inclusive of Microcredit summit Campaign participants. Many microfinance outfits saw this as a strategy for promoting economic development, job creation and rural growth thought the funding of small businesses and micro entrepreneurs while others saw it as a way for the poor people to manage finances more effectively and take the advantages of economic opportunities while managing risks. According to (Kloeppinger-Todd & Sharma, 2015) it is evidenced that the major development challenge is promoting efficient, sustainable, and widely accessible agricultural financing systems in third world countries.

In Kenya the economy is dominated by Farming where 15 to 17% of Kenya total land mass is arable. 5 to 7 percent is regarded as the Kenyan highlands. Accordingly, 75% of employed Kenyans lived by income from farming practices (Food and Agriculture Organization FAO, 2013). According to statistics, agriculture is the largest contributor to Kenya's Gross Domestic Product (GDP) with a contribution of 24% and contributes 50% of export revenues and 18% of wage employment (Food and Agriculture Organization FAO, 2013). Kenya is

also a chief producer of coffee and tea and also the third principal exporter of fresh produce such as mangoes, onions and cabbages. Furthermore, numerous small-scale farmers produce maize and also horticulture products like beans, bananas, French beans, potatoes and pigeon peas (Food and Agriculture Organization FAO, 2013).

Miranda & Glauber (2014) advancing agriculture credit can be a crucial avenue to improved production, expanding operations or diversifying agriculture produce. Due to necessity to improved profitability more farmers are diversifying from indigenous farming practices to hybrid farming practices. These types of farmers are embraced by agricultural financial institutions since they have acceptable business models with profitable ventures. They have better understanding of agricultural financing, business plans, proposals hence improving financial accessibility easily. For the others agricultural financial institutions turn away backs from them since they are high risky due to uncertain cash flows, capacity and Collateral (Wachira, 2017).

Afram & Mills-Robertson (2014) emphasized that until there are changes is farming systems including information that is useful to small scale farmers then credit uptake would be lower than other financing products. These are diversified produce, credit products, Insurance and lending models inclusive of favourable credit assessment determinants. On the other side the lenders should combine risk prevention, mitigation, and coping strategies. A study by (Abbadi & Karsh, 2013) also emphasized that credit is a major component in every type of business including agriculture. The importance of agri-financing is very important especially after migration from traditional to modern agricultural practices whereby in the former mechanization is under employed, weather, market risks and capacity to invest and save is very low There is also use of low high yielding inputs especially seeds and fertilizers. This proves the necessity to avail credit to enhance efficiency and productivity. (Abbadi & Karsh, 2013).

Meru County has more than 1.5 million inhabitants, with a consistent population growth rate of around two percent. This means by 2018 the population is expected to rise by 100,000 people to reach 1.6 million. Farming or agricultural practices is the main economic activity of Meru people whereby most of them live in rural areas whereby 7,500 farmers were registered in the area (Food and Agriculture Organization FAO, 2013)

Meru County has different ecological zones from lower, middle and upper highlands and midlands. This zonal classification has largely been determined by the key economic activities undertaken. For instance, the upper highlands cover majority of the county's area ranging from Imenti Central, Imenti North, Imenti South, Tigania West, Tigania East, Igembe West, Igembe South and Igembe Central constituencies. On the other hand, the lower Midlands are lower Buuri and Tigania which neighbouring Isiolo County.

Agriculture is the main economic activity of Meru county accounting for over 80 percent household's income. Ninety percent (90%) of the Meru County's population is directly or indirectly dependent on agriculture for livelihoods. Over 700,000 acres in total are under cultivation for staples, 40,000 acres are under cash crops and 50,000 acres are under horticulture. Staples production is around 1 million Tonnes annually with Tea being the county's largest cash crop with 45 million kilograms produced annually. This makes tea the biggest revenue earner for Meru with a kilo fetching one to two dollars totalling around Kshs.4 billion yearly. Bananas production is between 200,000 to 300,000 tonnes per year. Most lucrative business is Cut flowers which earns between Kshs. 200 - 250 per Kg. (Food and Agriculture Organization FAO, 2013).

This research reveals some of the emerging issues related to lending in the agricultural sector in developing nations especially in Kenya whereby our research was in South Imenti Sub County of Meru County which clearly addressed hindrances in the financing of the agricultural sector in the rural areas. This entailed recognizing financial determinants which

have improved access to financial services by smallholder farmers. It focuses predominantly on effectiveness of sustainable credit assessment determinants of 5 Cs that are entrenched in ensuring transaction-based relationships in agricultural value chains.

1.3. Statement of the Problem.

The research problem identified is that despite agriculture accounting for over 70% of employment and livelihoods of Kenyans, most of whom are small scale holder farmers dispersed in the rural setup, the sector is hard hit by many challenges among them low capital input owing to the existing financial lending culture that is based on risk assessment practices that lock out the bulk of agricultural producers (International Fund for Agricultural Development, 2016). The risk factors intrinsic in agriculture regularly inhibit financial institutions from advancing credit to farmers. They include pests, droughts, lack of Collateral volatile prices and low-quality inputs (Köhn, 2016). Central Bank of Kenya (2014) emphasized those agricultural financial lenders should come up with alternative ways of lending to farmers using latest credit lending determinants and use of Credit Reference Bureau (CRB) in 5Cs.

Despite of the model being in existence most Agricultural financing institutions have not incorporated and implemented lending processes and hence low uptake of credit is still evident. The updated credit assessment determinants of Credit and how they apply to agri-finance is a gap that has been addressed but not fully exhausted thus the need to study in the area (Peavler, 2013). Kenyan banks, DFIs (Development Financial Institutions) and SACCOS (Savings and Credit Cooperative Organization) employ rigorous credit assessment processes although they are yet to excel in the management of loan portfolio (Central Bank of Kenya, 2014).

The researcher did not find any studies which focus on 5Cs in agricultural loan uptake. Hence there is a research gap to determine whether credit assessment 5Cs Model that is character, contribution, capacity, conditions and collateral will improve or it is a stumbling block in credit uptake or access to farmers. In this study the researcher will therefore seek to fill this research gap by carrying out a survey to establish if the credit assessment determinants will lead to faster or lower credit uptake brought about by the ease of assessment and loan approval.

1.4. Purpose of the study

The general purpose of the study was to investigate the effect of credit assessment determinants on credit uptake in agricultural financing sector in Kenya using south Imenti sub-county in Meru County as a proxy.

1.5.Specific objectives of study

I) To determine how character of farmers influence credit uptake in the agricultural financing sector in Kenya.

II) To determine how farmer's financial capacity influence credit uptake in the agricultural financing sector in Kenya.

III) To determine how capital contribution influence credit uptake in the agricultural financing sector in Kenya.

IV) To assess how collateral influence credit uptake in the agricultural financing sector in Kenya.

V) To determine how credit conditions influence credit uptake in the agricultural financing sector in Kenya.

1.6.Research Hypothesis

The following were the alternate hypotheses for this study:

H1: There is significant relationship between character of farmers and credit uptake in the agricultural financing sector in Kenya

H2: There is significant relationship between farmer's financial capacity and credit uptake in the agricultural financing sector in Kenya

H3: There is significant relationship between capital contribution and credit uptake in the agricultural financing sector in Kenya

H4: There is significant relationship between collateral and credit uptake in the agricultural financing sector in Kenya

H5: There is significant relationship between credit conditions and credit uptake in the agricultural financing sector in Kenya

1.7.Significance of Study

The significance of any study is an account on how the research study will be valuable to the researcher and others who will access the study. The investigation is to find out effects of determinants of credit uptake within Kenyan agricultural sector. In highlighting credit assessment determinants roles in credit evaluation by AFC and other commercial banks among the farmers, the study seeks to contextualize risk evaluation to the bulk of farmers specifically the small-scale small holder farmers.

This will go along-way in expanding the bracket of the beneficiaries to the government subsidized agricultural financing through alternative innovative risk assessment options that conform to the specific situations of the typical Kenyan farmer. The study will contribute to understanding effects of credit assessment process in Kenya and Africa banks. To the future

researchers it will also act as tool of future reference. The results to be obtained at the end of the study will be beneficial to bank management because it will help them formulate and develop credit policies and products that will improve or sustain performance of the agricultural lending. The research finally will act as a reference source to researchers and policy makers.

1.8. The scope of the study

The study's scope outlines all the fundamentals the research study covered in relation to population, methodology, geographical area and subject. Due to time, budget constraints and reachability, the study was limited to Imenti South. The study was carried out in one of the high potential agricultural region in Kenya targeting all categories of farmers in Imenti Sub-county Meru as per attached appendix and focused on the role of updated credit assessment determinants (including CRB and mobile transfer) specifically as relates to Agricultural financing of farmers through the government subsidized credit for agricultural production. Out of the total number of 2,133 farmers in South Imenti, 336 farmers in the sub-county were sampled using Yamane formula.

1.9.Delimitations of the Study

Delimitation of a study brings out the boundaries that a researcher had set clearly demonstrating what the researcher would not focus on. The current study focused on South Imenti Sub County -Meru County farmers as the unit of study and thus concentrated on the high agricultural potential regions in the county. While this accounts for less than 50% of the Meru county land mass it represents over 80% of agricultural productivity hence for practical purposes it is representative (Food and Agriculture Organization FAO, 2013). The current study also focused on only one credit assessment process namely 5Cs. It did not cover 5P's Process, CAMPARI Process, LAPP Process, PACT Process and financial ratios. It would

have been ideal to employ all the processes, but as a result of time and the nature of the project this was not possible

1.10. Limitations of the Study

Limitations are factors that place restrictions and influence a research study and which the researcher does not have control over. Most of the farmers felt the research does not add value to them therefore accessing information necessary for this particular study was challenging. The respondents might have been inclined to withhold information for fear that it might be misused or even utilized for various other purposes apart from the objectives of the academic investigation. In order to overcome this challenge, the research assistants carried along an introduction letter as well as research permit that were utilized to enable the management to help in data collection. Second, restricting oneself to a case study it does not permit for the generalization of the findings. The results are just restricted to farmers in South Imenti. Nevertheless, to allow for generalization of findings to various categories of farmers, information collection instrument was examined for reliability and validity by way of a pilot examination to make sure that it was appropriate to collect reliable and accurate data.

Thirdly, the respondents at first failed to co-operate and give incomplete information to some questions in the questionnaire for fear of disclosing information considered confidential or that seemed to damage reputation pertaining the delicate issue of ethics. However, the researcher assured them that all information given would be treated as confidential and used for academic purpose only. Also, the study was reflective and depended on the recall capability of the respondents as well as ability to offer unbiased replies in the questionnaire. Thus, the study might have been influenced by partial reporting and bad recall capability of the respondents. Nevertheless, the respondents were notified of the value of objective and accurate responses in the study. Follow up with questionnaires was challenging especially for

farmers with other formal jobs which was the reason for not getting a response rate of 100%. Some respondents opted to fill and send the questionnaire by mail. Others would not return the questionnaires which would occasion giving fresh respondents and this affected the length of time that it took to collect data other limitations included, time constraints. The researcher works on full time basis, attends evening classes and a full time parent hence did not have enough time to carry out the research as he would have been. The researcher tried to create time and balance his time effectively. The researcher was faced with budget constraints like travelling, printing out of questionnaires and other costs like data processing. The researcher tried to reduce costs of travelling by using cheaper travelling means and also reduce the costs of printing of questionnaires by printing on both sides.

1.11. Assumptions of the Study

It was therefore assumed that the questionnaire allowed only one respondent from each of the targeted households and therefore there would be errors in the quality of information and also that an individual perspective may not be wholly objective. This shortcoming was improved by having more than one respondent from every household which was not be possible in this study because of time limitations. The data collected was through self-completion questionnaire. The respondents filled the questionnaire which was collected later. Most of the farmers were very busy and therefore there was likelihood that they may not had adequate time to address the questionnaires and provide requisite information.

1.12. Theoretical Framework

1.12.1 Prospect Theory

The first study theory is the Prospect Theory. Prospect theory traces its roots to 1977 but it was fully developed in 1992 by Amos Tversky and Daniel Kahneman. It proposes a more precise explanation of psychological decision making, in contrast to the expected utility theory which had mostly used previously. When the theory was being originally formulated, the term prospect was construed to refer to lottery. The prospect theory seeks to explain judgment under uncertainty, as a behavioural economic theory where people tend to select between stochastic substitutes that have a risk bearing and where the probabilities of the outcomes are known. This theory further indicates that individuals base decision-making on possible likelihood of benefits or losses instead of the ultimate outcome, and those such individuals analyse the benefits or losses using specific experiences. The theory is deemed vivid for its attempts to explain real-life choices unlike the approach of normative theories which seek for optimal decisions.

Prospect theory holds that decision-making process has two phases – editing and evaluations phases. The editing stage involves ordering of decision outcomes in line with a particular logical order. Specifically, people make decisions on the outcomes they consider to be equal, set a cut-off point and then consider greater outcomes as gains and lesser ones as losses. This editing phase is aimed at alleviating any set-up effects. Besides, it seeks to resolve isolation effects that could stem from the propensity of the individual to regularly separate successive probabilities instead of considering the concurrently. The editing phase comprises of simplification, combination, coding, cancellation, detection and segregation of dominance.

This makes way for the subsequent evaluation phase, where farmers could compute a utility value appertaining to loans, considering the probable outcomes and corresponding probabilities, and then select the alternative that provides a higher utility hence affecting credit uptake. The credit appraisal process by a financial institution leads to a decision on whether to extend a loan to an applicant or to deny the applicant a loan. This is facilitated by credit scoring which enables the decision maker to arrive at the best decision based on experience regarding past applicants. This is the basis of a decision to accept or reject an application based on determinants of credit assessment process (Owusu-Dankwa & Gyamfi, 2013). It allows for case by case risk management assessment when appraising a loan application. This forms the basis of level of effects of credit uptake whereby the decision is based on the determinants of credit process.

1.12.2 Lewin's Change Management Theory

This theory was developed by Lewin (1947) who was a psychology professional. The change management theory was formulated with three distinct stages; unfreeze, change and refreeze. The first stage of unfreeze is a considerable one which incorporates reaching to a circumstance of viewing that is actually crucial. With this point, the decision makers focus on creating an optimum atmosphere that is essential for the change to be effectively undertaken. While this exogenous exclusion restriction is extensively constant with the empirical truths, an essential inquiry is important. If lending institutions believe that personal bankruptcy signals something relative permanent regarding the household's unobservable characteristics, they may limit future credit access for that household. However, if the conditions bordering personal bankruptcy are short-term like a temporal, unfavourable revenue shock or various other short-lived factors, the financial institutions may consider that as a historical trend that is not likely to be repeated in the future. This may not harm the credit history of the

household or its ability to access future credit. Wachira (2017) noted that affordable lending institutions use current repayment, bankruptcy standing and various other 5Cs to try to presume an individual's future possibility of default in order to properly price loans. There is virtually no existing rational paradigm embedding this credit problem right into measurable vibrant design. However, it is essential for a lender to analyse the possibility that a borrower will certainly fail to pay back. This is examining the default risk (Owusus-Dankwa & Gyamfi, 2013).

The second stage is where the essential changes are conducted. Banks should introduce fundamental changes in appraisal systems whereby lending determinants like Interest rates, Grace period, Mobile technology, and Repayment terms in addition to 5Cs. Banks should also consider the problems of adverse selection and moral hazards since it is very difficult to forecast the borrower type at the start of banking relationship (Afram & Mills-Robertson, 2014. When financial institutions provide loans with high interest rates, they may they might experience adverse selection which suggests that high risk borrowers will opt to accept these high rates. Once these high-risk borrowers access the loans, they may develop ethical risk actions or so-called customer moral risk because they are most likely to be unable to ethically adhere to the loan terms and conditions (Abbadi & Karsh, 2013). This is fundamental principle underlying credit application and uptake whereby the theory clarifies why it is judicious for banks to embrace change especially due to dynamics of economic, political and social conditions in the world. The financial institution assesses the capacity of the borrower by evaluating past repayment and borrowing behaviour and hence decides on propensity to default on the loan and thus embracing change management style.

Lewin’s change management theory helps account for both the uncertainty and resistance to change that can be experienced by farmers and lenders. The lack of cooperation between farmers and banks, a general distrust of unproven processes, or the fear of turning away from

what has worked in the past are just some of the common barriers to implementing change. Lewin observed that people naturally resist change, gravitate toward what's familiar, and seek out comfort zones. Based on his research, Lewin sought to simplify change management strategy. Successful implementation of change required greater simplicity. For his particular strategy, Lewin broke everything down into three manageable stages: unfreeze, change and refreeze.

Unfreeze: First, a team or organization must unfreeze current process and perceptions when preparing for upcoming changes. This helps the team approach the task or challenge with a clean slate without bias or bad habits. Past behaviours, ways of thinking, processes, people, and organizational structures must be thoroughly examined to demonstrate the necessity for change to establish or uphold a competitive edge in an evolving marketplace. Change: Once the team or organization is no longer frozen, it's time to implement change. Lewin recognized this was a time marked with uncertainty and fear—making it the most arduous step to complete. During this step, employees begin to learn new behaviour, processes, and ways of thinking. For this reason, clear and constant communication across all are critical for employees as they become familiar with the change both during and after deployment. Refreeze: Finally, it's time to refreeze. Assuming that the changes made to behaviours, processes, and ways of thinking are accepted, the refreeze step locks the new norm or status quo into place. Lewin found this step to be particularly crucial to ensure that banks would not revert back to old way and past habits before the change was implemented.

While too simplistic for some, Lewin's change theory is favoured by others for its uncanny ability to uncover bad patterns or unseen problems and its fresh approach to new thinking. Hence reasons to consider applying Lewin's change theory in the 5cs are: - Relatively easy to implement: How successfully banks manages change can vary tremendously. It often depends on the nature of the business that is being financed along with the scope of change and the

farmers involved. Much of this is contingent on how well farmers understand the change process from start to finish. Given its relative simplicity and basic three-step approach, Lewin's change theory is easy to implement. The transition period between the Unfreeze and Change steps makes change more palatable to new and seasoned farmers' two groups whose shared acceptance and understanding is critical when it comes to the success of proposed 5cs model.

Lewin's change theory framework also naturally lends itself to the process of lending to farmers. When financial institutions incorporates 5cs model chart to visually outline lending change process can help farmers gain by accepting and providing relevant information during appraisal process. To ensure farmers embrace the new 5cs model, you can share your optimized processes with critical stakeholders from anywhere at any time helping you gain approval or feedback to expedite improvement implementations. These documents can be used to keep bank employees and farmers updated and accelerate new lending models. Encourages lasting change: Lending models transformations don't always have the best success rate hence before worrying about how to change, executive teams need to figure out what to change.

In today's complex, fast-moving business environment, the combination of flawed implementation and the misdiagnosis of what really needs to be changed can result in negative performance. This will be informed by low credit uptake due to change of credit lending model. However, in Lewin's change theory, the Unfreeze stage allows for a more substantial transition period before Change is enacted allowing people time to overcome natural reaction to resist change then embrace the idea of transformation. This period also gives leaders time to reflect on desired outcomes and make adjustments as needed to achieve goals.

Gradual approach creates momentum: The main idea of changing credit lending model was based on question meant to be an exploration of who we are, what inspires us, and what compels us to act. They key to change is consistency and the willingness to sustain effort. Farmers started to notice a difference in lending process, and banks started to notice a difference in credit uptake. As a researcher I anticipated that as the momentum builds, it would get bigger and bigger. Such change was incremental, but tangible carrying with it significant dividends as it acted as a personal awakening. It also played a significant role in agribusiness lending and cultural shift.

Likewise, Lewin's change theory emphasizes gradual but purposeful change—always keeping in mind the benefit of change once fully implemented. The idea behind Lewin's Unfreeze step is that the more farmers' know about a change and the more they felt it was urgent, the more likely they become motivated to accept change. This gave banks the momentum needed to transform. Put change theory into practice Lewin's change theory can be a slow process to implement. When putting change theory into practice especially when dealing with farmers', laying the foundation for the 5Cs strategy by starting out small was critical. Building up consensus and country wide acceptance required a set of achievable short-term goals including increase in credit uptake.

Farmers often look to banks and other stakeholders for cues on how well change is being accepted throughout all levels of the organization. When transitioning from unfreeze to change, it was critical to talk to farmers to understand needs, concerns, and fears. Clearly positioning vision for change where we gave frequent updates to all stakeholders and farmers involved in change process. During implementation of 5Cs secrecy was avoided or the lack of transparency. Doing things differently did not come naturally to some farmers. Many found the entire change process to be uncomfortable or intimidating. Banks were aware of negativity brewing among farmers and were prepared to address issues or misconceptions

from the moment they arose. During implementation of 5Cs the channels of communication were kept open. Before the refreeze step could take shape and change becomes the status quo, farmers were eager for any information provided. Perhaps most important was to maintain a positive attitude. Lewin's change model worked best for 5Cs when served as an early adopter to change. Frequent personal feedback to farmers helped build up confidence and shape expectations for lasting change. With the right solution, planning for even the most radical change of 5Cs within the model became possible. Hence Lewin's change theory in determinants of credit lending using customised 5Cs change process strategy anchored the study and theory addressed the gap of the lending models being in existence and most Agricultural financing institutions have not incorporated and implemented in lending processes hence low uptake of credit. This is still evident in that farmers need to make decision based on changed perceived or brought about in the financial lending sector.

1.13. Conceptual Framework

A conceptual framework diagrammatically shows the interlinkage between the study variables and determinants of credit. The framework acts as a guide when developing the study methodology and in analysing results. It also helps researchers and the readers in understanding concepts of the project. The conceptual diagram gives a summary of the factors whereby the study was based as presented in Figure 1.1 whereby the five independent variables (Character, Capacity, Capital contribution, Collateral and conditions) affect success of the Agricultural credit uptake.

Character was assessed through assessment of borrowers' reputation in the society and historical records of repaying debts. Other aspects that were assessed include collection accounts, judgments, liens and bankruptcies. Capacity is the capability of the farmer to repay his or her debts obligations by checking if the borrower's debt and income ratios are healthy. Capital checked if the amount that is injected in the project was sufficient to kick start the cash flows and accommodate new injections in terms of loan facility. Collateral assessed through the value, fixed or current and ability to secure the loan facility granted. The conditions are external environmental factors that influence lending this may be micro or macro environment such as interest rates, Grace period, and Mobile technology and loan term. The success of credit uptake included how fast one access his loan funds, fast processing of loan application, the amount of loans, new loan beneficiaries and quality of portfolio.

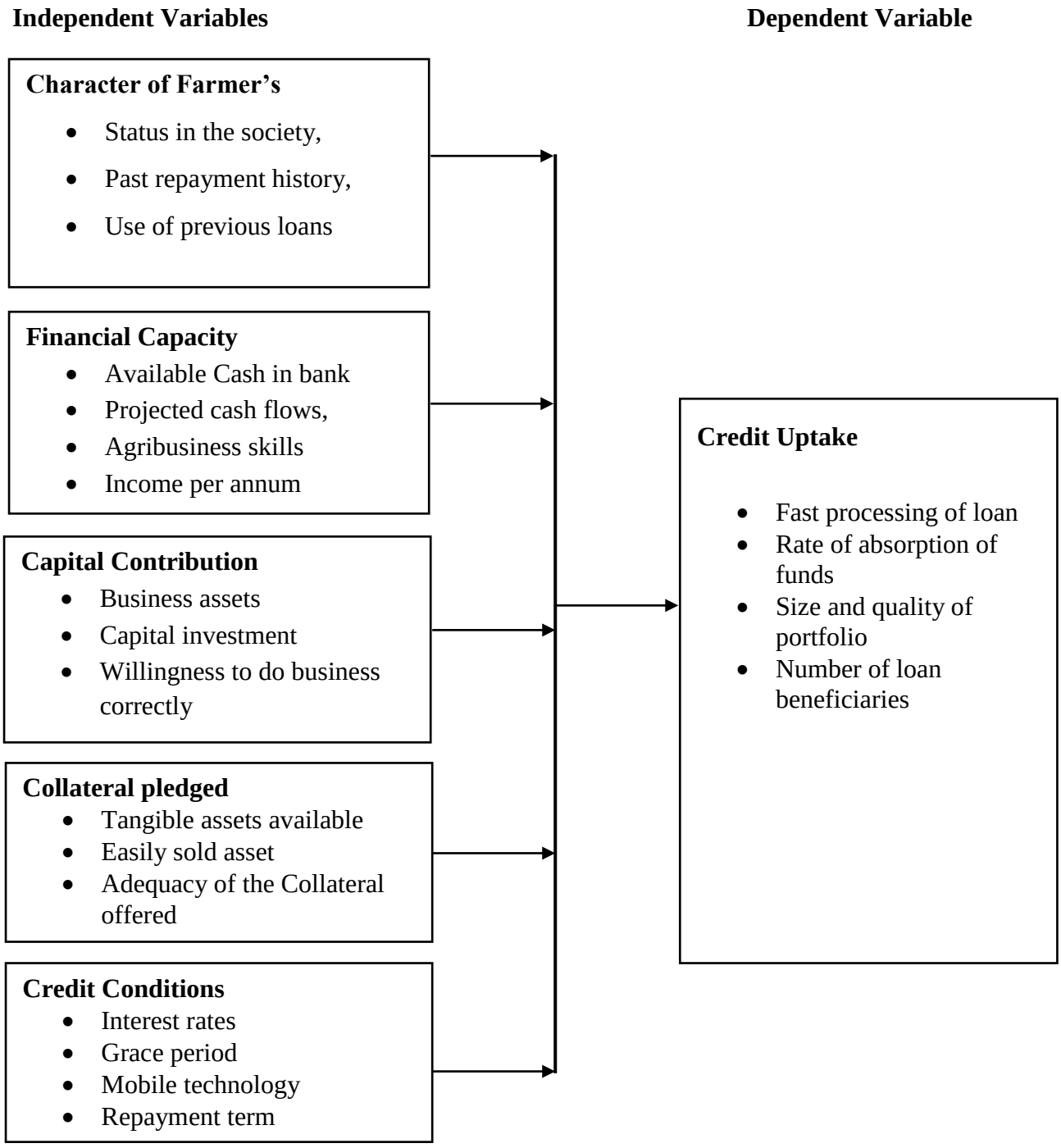


Figure 1.1: Conceptual Framework

Source: Researcher (2020).

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This is the second chapter. Chapter Two scrutinizes and evaluates an evolving body of knowledge touching on credit determinants and appraisal process that leads to accepting or rejecting a loan hence affecting credit uptake within Agricultural sector. The theories which could explain the study concepts of credit uptake have been discussed. The chapters are has done empirical review and isolated the knowledge gaps from publications on the agricultural lending practices. The chapter has examined arguments and findings by several scholars and authors who have studied the appraisal process that determines whether to accept or decline a credit application basing on credit determinants which in turn determines the level of uptake of agricultural credit uptake.

2.2. Review of literature

This subtitle reviewed the available and relevant literature written on utility and decision-making nature of human beings which can be applied in different fields but for the purpose of this study the researcher looked at how they affect the decision making in credit lending after analysing the 5Cs determinants. The subtitle basically engaged in a critical evaluation of the contributions of the literature to the given topic. It analysed the debates, issues, and contributions of the writers to the subject of the research. The section also indicates how the theories have been applied to the study in the concept of the 5Cs model and credit uptake within agricultural lending sector, the empirical studies review and the knowledge gap emerging from the literature.

2.2.1 Credit risk

This is the risk that the promised cash flows from loans held by financial institutions may not be paid in full. Virtually, all financial institutions face this risk. Financial institutions that make loans with long maturities are more exposed than financial institutions that might make loans with short term maturities. This means that banks, thrift and life insurance companies are more exposed to credit risk than Microfinance institutions or money market mutual funds that make loans with short term maturities (Creswell, 2014). It is therefore incumbent on financial institutions to estimate the expected default risk on loans held as assets and to demand risk premiums on those loans commensurate with that risk exposure. The return distribution for credit risk suggests that financial institutions need to both monitor and collect information about firms whose assets are in their portfolios. Thus, managerial efficiency and credit risk management strategy affects the shape of the loan return distribution (Babbie 2016). According to Babbie (2016), credit risk may be classified as firm specific credit risk, which is the risk of default by the borrowing firm associated with the specific types of project risk taken by the firm, and systematic credit risk which is the risk of default associated with the general economy wide or macro conditions affecting all borrowers.

2.2.2 Credit Control Policy and Risk management in MFIs

Awarding credit is a journey, the success of which depends on the methodology applied to evaluate and award the credit. This journey starts from the application for credit and ends at the time the loan from the credit process is fully paid. Like any human journey, the credit management process has got smooth paths, impediments and detours before the destination is reached. Therefore, credit needs to be effectively controlled for it to succeed eventually. Credit control can rightly be said to start when the client walks into the office. If during the discussion with the client, the credit manager agrees to grant credit, the lender has embarked

on a journey called credit control and the nature of the journey will be influenced by the quality of the decision (Neuman, 2014).

Credit control policy is therefore the general guideline governing the process of giving credit to the firm's customers. The policy sets rules on who should get what credit and when and why. In addition the policy defines the repayment arrangements, necessary collaterals and chattels as an obligation by the borrower. The method of assessment and evaluation of risk for each prospective applicant are part of a credit control policy. There is need for an effective credit control policy at all times to manage credit risk in order to ensure a fairly healthy credit management program, with minimal expensive bad debts and minimized credit risk. (Neuman, 2014) asserts that effective risk management, from the viewpoint of financial institutions, is the key to the future success in lending institutions and therefore, these institutions should focus on professional management of risk. The successful financial institutions are and will increasingly be those that develop focused strategies, lower their overhead ratio, ingeniously exploit their advantages and know how to calculate their risks.

Therefore, there is need for an effective credit control policy to manage credit risk. Hence, in order to ensure a fairly healthy credit management program, with minimal expensive bad debts, and minimized credit risk, a company strives to establish an effective credit control and lending policy.

2.2.3 Credit appraisal models

Lending institutions need to measure the probability of default of borrowers. The ability to do this largely depends on the amount of information the financial institution has about the borrower. At the retail level, much information needs to be collected internally or purchased from external credit agencies. At the wholesale level, the information sources include publicly available information such as certified accounting statements, stock and bond prices

and analysis reports. The availability of more information along with lower average cost of collecting such information allows financial institutions to use more sophisticated and usually more quantitative methods in assessing default probabilities for large borrowers compared to small borrowers Dillman (2016. Advances in technology and information collection are making quantitative assessments of even smaller borrowers increasingly feasible and less costly. Financial institutions have therefore employed many different models to assess the default risk on loans. These vary from the relatively qualitative to the highly quantitative models. These models are not mutually exclusive, in that, more than one model may be used to reach a credit pricing or loan quantity rationing decision (Coolican, 2014).

2.2.4 Qualitative Models

In the absence of publicly available information on the quality of borrowers, the financial institution manager has to assemble information from private sources such as credit and deposit files and or purchase such information from external sources such as credit rating agencies. The amount of information assembled varies with the size of potential debt exposure and the cost of collection. A number of key factors enter into the credit decision. These include borrowers' specific factors which are idiosyncratic to the individual borrower, as well as market specific factors that have an impact on all borrowers at the time of the credit decision (Coolican, 2014).

2.3 Empirical Review

In this section the researcher presents an appraisal of empirical literature associated with credit uptake. The segments in this chapter provide empirical literature on credit appraisal model, uptake and success measured by extent of non-performing loans and 5Cs model as a determinant of credit uptake.

2.3.1 Credit Assessment Determinants (5Cs)

The use of Credit Assessments determinants is among the techniques banks use when appraising and recommending a loan request. They are Collateral, Conditions, Capacity, Character and Capital (Afram & Mills-Robertson, 2014). Determining the suitability of a borrower to be advanced a loan applies both quantitative and qualitative evaluation methods. The financial institution advancing credit assesses the income statements, credit score, credit reports and other information sources that could be in informing the financial situation of the borrower including the loan that the borrower has applied for.

2.3.2 Character of farmers and Credit Uptake

This is at times referred to as credit history, borrowers' reputation or track record for repaying debts. This is the information that appears in the borrower's credit report and is taunted as the major determinant on whether to approve a loan or reject. The two licensed credit bureaus in Kenya are Metropol and Trans Union. The major role is to determine how the amounts borrowed by applicants in the past and how well the borrower repaid the advanced loans. The credit reports provided by the credit bureaus also have information regarding bankruptcies, liens, judgements and collection accounts which is maintained for a seven-year period. This information is accessible by financial institutions to enable them evaluate the suitability of the borrower for credit facilities by determining the credit worthiness of the borrowers.

According to Abbadi and Karsh (2013), credit assessment is conducted to evaluate the trustworthiness and integrity of the borrower. The records of the borrower regarding past borrowings are analysed for integrity in settling financial obligations without coercion. Moreover, Kabir, Jaham, Chisty and Hasin (2014) observe that there is also a human and moral assessment of the individual regarding responsibility, commitment and business ethics.

By evaluating information from credit reference institutions, references provided by the borrower and profiles, the lender can ascertain the character of the borrower.

This credit history determinant is the general impression you make on the possible lender or financial institution. The lender will develop a subjective opinion as to whether farmers are sufficiently reliable to repay the loan or produce a return on funds invested in projects (Abbadi & Karsh, 2013). The farmer's education background and experience in agribusiness is analysed. The employee experience, background checks and quality of references are also taken into reflection. Character concerns the quality of the borrower's personally such as reputation, education background, social status and credit record. It is normally adopted to evaluate the percentage of borrower's intention to fulfil the financial obligation. For instance, the enterprise culture is regarded as a sign of whether one is reliable borrower. Lack of reputable information on borrowers, suitable information systems as well as instruments for `handling threats indicates rural inadequate farmers are left out from the formal financial system as a result of the fact that official financial institutions are either reluctant or not able to finance them (Strischek, 2013).

2.3.3 Capacity and Credit Uptake

This is another credit determinant that measures a borrowers' capability to pay back finance by comparing income versus recurring financial debts and assessing the debtor's debt to income (DTI) ratio. In addition to examining earnings, loan providers look at the size of time an applicant has gone to his at his task as well as task Collateral. The evaluation of capability is to figure out the capability of the consumer to repay the credit advanced (Sharm & Kalra, 2015). The submitted financial information will certainly assist in the determination of the customer's ability hence major determinants on credit uptake since the lower capacity, the lower uptake. Capacity may be computed by associating cash produced to pay the credit advanced. The forecast of ability can be projected by using performance factors such as quick

ratio, debt service coverage ratio and of net profit margin, (Kabir, Jaham, Chisty, & Hasin, 2014).

The capability to repay the loan has the utmost significant of the five factors. Before a financial institution advances a loan, they require understanding how the farmers intended to repay loans. The financial institution will deliberate on the cash flows from the farming projects, the timing of repayments and the possibility of effective repayment of finances. Settlement history of existing credit score connections whether personal or industrial is considered an indication of future repayment efficiency. Potential lenders additionally would like to have information regarding the farmer's contingent sources of repayment. Cash flows indicate the borrower’s liquidity whereby liquidity problems lead to a default while constant cash flows is conventionally understood to mean a good liquidity. For this reason, loan applicants are normally asked to provide most recent financial reports (Lundsten & Anyamwu, 2015). When valuing firms, discounted cash flow methods are largely acceptable. This is a disadvantage to rural farming households since only a small fraction can be able to access credit if formal financial institutions applied this technique.

Additionally, amongst those with access to credit from formal financial institutions, a very tiny group especially the elites and the rich residing in towns receive a large share of the entire amount disbursed. Subsequently, the devastatingly constrained debtors are compelled to rely on unstable and costly informal credit sources instead (Magni, Malagoli, & Mastroleo, 2013).

2.3.4. Capital and Credit Uptake

Financial institutions consider capital that the borrower invests towards an investment that has potential. A huge input by the investor reduces the chances of default since they value that kind of investment. For example, if a farmer intends to borrower a farm machinery,

availability of down payment will make it easier to access the financing (Kabir, Jaham, Chisty, & Hasin, 2014).

Down payment is the borrowers' level of seriousness when making investment decision hence makes lenders more comfortable when financing the project (Owusu-Dankwa & Gyamfi, 2013). Financial institutions analyse investment capital contribution since it enables the financial institution to determine the risk of the borrower towards an unexpected occurrence in the industry. High equity in a project enables it to have the capacity to cover expenses and hence able to be profitable and to break–even (Strischek, 2013). This determinant is the possession and it depicts confidence and commitment towards the business as portrayed by the debt to equity ratio (Sharm & Kalra, 2015).

Capital also stands for the assets or capital the borrower owns. There is a close linkage between capital and the approved loan. For example, debt to capital ratio reflects the how likely would be the default. The probability of default increases as the leverage increases (Jesswein, 2014). This is what the farmers have invested in agribusiness and it's a sign of how much they have jeopardized should business stop working. All prospective lenders and investors will certainly expect farmers to have contributed from very own assets and also handled individual financial threat to develop the agriculture before inquiring to devote any kind of funding. The end result of this is that only a small percentage of the country houses and farmers gain from official financing. This will lead to them turning to expensive and unreliable informal credit sources (Strischek, 2013).

2.3.5. Collateral and Credit Uptake

Collateral can assist a borrower to access secured loans easily and at affordable rates. This is because it gives the financial institution a guarantee that they have recourse when a borrower defaults on the advanced credit since they can sell the asses to cover the loan. For example,

agricultural loans should have collateral to ensure alternative sources of loan repayment if the facility is defaulted (Wilkinson, 2013). Collateral comprises of the asset that is pledged to the lender to secure the financial risk whereby mostly title deeds are used with authentic title, valuable and marketable enough to cover the advanced amount assessed using Loan – to value ratio (Sharm & Kalra, 2015).

Small holder farmers lack possessions which can be collateralized partly since appraisal and also liquidation of countryside possessions, particularly land can be frustrated by absence of efficient legal or registration systems and missing markets for such properties (Nair & Fissa, 2013).

Due to lack of credit score for smallholder agricultural enterprises, this typically deteriorates need for return boosting inputs hence governments are under pressure to bring back or keep government run subsidized inputs. However, according to (Eco-friendly, 2013) the emerging evidence recommends that this strategy might neither be budget-friendly nor lasting.

There is consequently a pushing need for technologies that will enhance access to agricultural financing particularly to small owners, a market that dominates agricultural outcome in developing countries in order to expand accessibility to rural financing by linking area based financial companies to larger official financial intermediaries.

Under the Micro Credit Score Team Plan (MCGS), groups consisting of smallholder farmers' groups established funds to ensure credit rating extended to members. The funds are developed from members inform of table banking or levies and incomes generated via cumulative marketing. The moral hazard issue is reduced via peer screening as well as peer pressure from participants. The funded warranty option is a more robust supply of financing to exclusive drivers since there is a readily available fund to cover finance default.

In contrast (Campaigne & Rausch, 2014) suggested that under the traditional team loaning scheme, participants just mobilized resources to cover the default risk. The higher the chance of getting collateral the most likelihood of more loans hence higher credit uptake.

Collateral or guarantees means that the borrower pledges an asset they own such as car, machines or land or provides guarantors to the lender with the agreement that it will be the settlement resource in case you fail to settle the advanced credit. A guarantee on the other hand is whereby someone provides assurance that in case you default, they can repay the advanced credit. If the borrower is unable to service the loan (Strischek, 2013). Some financial institutions may need such an assurance in addition to the surety as collateral before advancing a loan. This is any asset that is acceptable to financial institutions to secure repayments of loans in case when predetermined payments cannot be fulfilled. The value of assets to be used as collateral depends on its own stability and liquidity. Banks prefer securities like real estate and share certificates. Lacking or having inadequate land to pledge as collateral restricts access to credit by smallholder farmers due to low social status or small landholdings. Consequently, most borrowers request for credit from informal sources (Bullivant, 2014).

2.3.6 Conditions and Credit Uptake

When a borrower request for a loan factors such as interest rates, grace period and repayment period influence whether the credit uptake is successful or not. Conditions refer to how a lender analyses the political, economic and industry environment including the purpose of the loan. Prior to approval of a loan, there should be a thorough analysis of the conditions. This is critical in ascertaining the vulnerability of the borrower to the economic environment (Moti, Masinde, Mugenda, & Sindani, 2013). Further, there should be political analysis which evaluates the political environment, agency relationships, and any other civil issue that can affect the business environment in the particular country or region (Hudson & Leftwich,

2014). Industry analysis is also essential as it evaluates any outward hindrance that can affect the ability of the individual or business to repay the advanced loan. The better these conditions the higher the rate of credit absorption hence the higher chances of getting credit facility (Kabir, Jaham, Chisty, & Hasin, 2014). Conditions focus on the purpose of the loan like working capital, machinery or inventory. In agrifinancing lenders will look at local economic climate and conditions within farming industry and in related industries that could affect businesses. This will also involve macroeconomic factors like economic growth whereby banks tend to issue more loans when it's favourable. Conditions are used to consider the macroeconomic status at the time of application. When banks set unfavourable conditions like high interest they may induce adverse selection due to high risk borrowers who will accept them. Further 5Cs are the most significant factors affecting small scale farmer's access to credit facilities hence improvement of the same can be successful if farmers are highlighted on credit process in addition to 5Cs(Strischek, 2013).. It is believed that credit evaluation in with proper analysis can reduce non-performing loans. Abbadi, & Karsh (2013) conducted further studies of ranking of 5Cs was done the analysis concluded that Collateral, Capacity, Capital, Character and conditions should be in that ascending order. This is a clear indication that 5Cs assist lenders to determine whether to approve or reject application in faster and accurate procedure.

2.4 Summary of Literature Review

A summarized version of the relevant past scholarly work used in the study is necessary to show the key points which emerged and which were important in the methodology and design of the data collection tools. The study was based on two theories namely prospect theory which has clearly described how people choose between two different opinions and how they are able to estimate (Many times in a biased and wrong way) the perceived likelihood of each of the options and Lewin's Change management theory which has delved

into the need to recognize change and also the importance of making that change happen. The ability to achieve the results will depend on the amount of information the financial institutions has about the borrower.

The researcher also reviewed empirical studies regarding the 5Cs and the key determinants of credit given out by banking sector players and other financial institutions providing financial services in the economy. These reviews have analysed how 5Cs have helped lenders in analysing the determinants hence faster and more accurate decision. This has also factored in Credit Referencing Bureaus (CRB) which has been taunted as the best tool for collecting, managing and disseminating borrowers' information to lenders in the confines of particular regulatory frame work. Credit assessment determinants can help in increasing credit accessibility to more people while acting as a platform to reduce risk and fraud for lenders and businesses. The empirical studies have shown that information sharing amongst financial institutions such as banks and microfinances in respect to customers behaviour23 has a notable positive impact on lending and repayments practices.

2.5 Research Gap

(Strischek, 2013) stated that accessibility to different types of credit by households or even one of its members, ensures that there is a positive credit limit for the different types of credit. Additionally, when households have no access to any type of credit then they are said to be credit constrained for that type of credit. Poor ratings in the financial determinants lead to lack of financial services by farmers which are usually deemed as one of the constraints which limit access to the same. However, in most cases the access problems is created by lending institutions that come up with punitive lending procedures and policies.

This is evidenced through prescribed minimum loan amounts, complicated application and appraisal processes and restriction to specific purpose credit facilities (Bullivant, 2014).

According to (Sharm & Kalra, 2015) in developing nations formal credit markets farmers are mostly discriminated against compared to other borrowers' segments. The key concern in this form of discriminatory tendency is especially towards women and youth borrowers often based on the few number of farmers in that category. The applications are also perceived as automatic rejection based upon due to low opinions on the same. There are five major factors that contribute to the above hence restricting or improving access to the formal credit. They are what the researcher wanted to delve into since they are related to farmer's lack of control over economic resources and nature of economic activities. (Campaigne & Rausch, 2014) noted that the exclusion of rural poor farmers from the formalized financial systems is largely because of the inability or unwillingness of formal lenders to serve farmers in the rural areas. These formal lending institutions have opined that agricultural financial customers are a high risk and incur higher transaction costs. There are also said to be difficulties in enforcing contracts and chances of penalties by the central bank for lending to borrowers with no acceptable collateral. Farmers are also perceived as lacking reliable information on borrowing with inappropriate information systems and poor risk management tools. The knowledge gap is if the use of 5Cs, updated information on Credit assessment determinants including CRB and mobile cash transfer in the empirical model and fully implemented offer Kenya especially farmers from rural background an opportunity to promote access to affordable credit to more Kenyans. Is there a clear and direct linkage between access to agricultural credit and economic development which can be improved by fully implementing Credit assessment determinants? There is no research which has been undertaken on the impact of 5Cs credit determinants on credit uptake of agricultural loans inclusive of CRB, mobile technology and latest inventions to be factored in the current study.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

The research design and methodology explain how the objectives of the study were met. This chapter therefore explains and justifies the methods used and the steps that were followed when undertaking the research. The areas covered in this chapter include included the design adopted, the targeted population, sampling technique, methods used to collect data, data analysis in addition to the legal and ethical considerations.

3.2. Research Design

Research design is the strategy implemented by a research, enabling the researcher to conduct numerous study activities and thereby creating a satisfactory atmosphere to access adequate information with minimal financial resources, time, effort and expenditure (Sekaran & Bougie, 2016). Descriptive survey research design was adopted to carry out an investigation into the determinants of agricultural credit uptake in agricultural financing.

Best, M., & Khan, A. (n.d.) described descriptive study involving recording, describing, interpreting and analysing existing conditions. Creswell, J. W (2014) observe that a descriptive study entails gathering of information from persons associated with service delivery and analysis of the information to illuminate important issues. The research elicited information from 6 wards in Imenti South Sub-county from primary data from 336 farmers in South Imenti (purposive sampling). And step two, which was instruments and tools to be used where the researcher used questionnaires and personal interview, emphasized qualitative data. For inferential statistics, regression analysis was used in assessing how the identified variables determine credit uptake in the agricultural sector in Imenti South, Meru County.

3.3. Research Site and Rationale

The research location is the actual geographical site where a study is conducted (Creswell, 2014). The researcher concentrated on Imenti South Sub County of the target population which is in Kenya. The initial sample of participating farmers was drawn from 6 wards in South Imenti Sub-county like farmers for primary data. The site was selected since the Sub County has variety of agricultural activities, different financial institutions have offered credit in the area and there is relatively higher literacy level ideal for research. Hence this made the location appropriate for the study.

3.4. Target Population

The population here is the total number of farmers in the sub county whereby in the spirit of promoting partnership and consultation between county and National Government the Constitution of Kenya (2010) strongly emphasizes the right of Kenyans to improved access to Government information. In this regard, the National Farmer registration which seeks to list all farmers in the country capturing farm and farmer details, farm Enterprises, and farm inputs and service was done whereby 2,133 farmers were captured as population in Imenti South Sub County.

Through the National farmer registration process National and County Governments was able to perform accurate Food and Nutrition Collateral Assessment; Accurate Farmer Targeting; Informed Policy Formulation; Informed Investment and Manufacturing; Informed Infrastructure Development; Inclusion and Affirmative Action; Track and Trace; Pest and Diseases Control; Informed Capacity Building; Contract Farming and Aggregation for Groups and Cooperatives. The Farmer Registration exercise was conducted on 20th April 2017 by Complete Enumeration of all farmers across the country in three (3) phases hence

the population was derived from the exercise as per the attached evidence. The samples are selected from 6 wards, from a population of 2,133 farmers in South Imenti.

Table.3. 1 Target Population

Types of respondents per ward	Total Population
Abogeta East	311
Abogeta West	153
Igoji East	862
Igoji West	44
Mitunguu	288
Nkuene	475
Total	**2,133**

Source: Meru County Farmers register (2018)

3.5 Study Sample

3.5.1 Sample Size

According to (Creswell, 2014) a sample size is defined as a percentage of the target population that is actively involved in the research undertaking. The sample is a small part of the population under investigation. The sample for the study was calculated using Yamane formula (Coolican, 2014). A confidence level of 95% was designated to certify that sampling errors are minimized.

$$n = \frac{N}{1 + N(e)^2}$$

=2,133/ 1 + 2,133(0.05) ^2

In the formula;

N = Population

N = sample size

E = error margin (0.05).

= 336 sampled respondents

Table 3. 2 Sampling Research Frame

Types of Respondents Per Ward	**Total Population**	**Actual Sample**
Abogeta East	311	53
Abogeta West	153	26
Igoji east	862	118
Igoji West	44	8
Mitunguu	288	50
Nkuene	475	81
TOTAL	**2,133**	**336**

The 336 farmers included in the sample were distributed among the six wards in Imenti south based on the proportional numbers in the target population. To reach individual farmers random sampling from each ward was done till the apportioned sample size was achieved.

3.5.2 Sampling Procedure

The study used stratified random sampling. This is a sampling method where equivalent number of entities from each segment in the population is included as part of the sample. The

sub groups into which the population is divided into are referred to as strata. The strata formed were based on farmers commonly shared features such as geographical location which in this case was the wards in Imenti South Sub County. This sampling method ensures that that every population stratum-ward, got an equivalent number selected as the sample. This method guaranteed representativeness of the selected sample in addition to the findings from the sample hence dependable.

3.6 Data Collection

The study applied the cross-sectional field survey technique to collect data by applying numerous approaches. The approach of 'multiple – operationalism" was applied which implies applying oral interviews and questionnaire that seeks to tap to the same phenomenon to act as a soundness check on the operational indicators of the study variables.

3.6.1 Data collection Instruments

The Validity of research instruments is reached when the designed research instruments measures what they were intended to capture (Njue, 2011). The research instrument in this study was the questionnaire. A questionnaire has been defined as a set of questions related to the topic or subject under consideration in the study to which the selected respondents are expected to respond to. As observed by Gillham (2013), the use of questionnaire has several advantages including ease of evaluation of the responses and ensuring standardized responses. The questionnaire was thus preferred in this this study. The questionnaire was prepared after an in-depth review of scholarly works on credit uptake and the determinants of the credit uptake. The questionnaire was prepared to enable collection of relevant information which enabled the study to achieve the five study's specific objective. It had six parts, the first collected basic information about the respondents; the other five parts had questions in reference to dependent variables and the four independent variables (Character, Capacity,

Capital Contribution, Collateral and condition). The questionnaire had both closed and open items. Five-point Likert scale statements were used to assess the level of credit uptake.

3.6.2 Pilot Testing of Research Instruments

The purpose of a pilot study is to ensure that the data collection method and instrument is appropriate for the purpose at hand. A pilot test examines the practicability of the planned method that the researcher intends to use in the main study. Babbie (2016) observe that the reliability and validity of the data collection instrument determines the accuracy and reliability of the collected data. This makes a pilot test on the study instrument and method a very essential process. The study applied 10% of the proposed sample size in the pilot study (Neuman, 2014). This meant that a pilot study sample size of 37 respondents from South Imenti participated in the pilot six in each ward except Igoji East which had seven due to high population.

The pre-test of the questionnaire was performed before the questionnaire was applied for the main study. This procedure was necessary to establish whether there were any was done to discover any shortcomings in the content or design of the questionnaire which could adversely affect its capacity to collect appropriate information to attain the study objectives. Features which were assessed during the pilot test consist of wording of the questions, order of sections, suitability and comprehensiveness of the questions, time required to respond to the questionnaire, respondent fatigue and choice of respondents (Babbie, 2016).

3.6.3 Instruments Reliability

A research instrument is regarded to have reliability when it steadily produces similar fundamental outcomes when applied repeatedly over similar units (Sekaran & Bougie, 2016). This study assessed reliability of the research instrument by examining the internal consistency through Cronbach Alpha. This coefficient examines the reliability by assessing

the internal consistency with which different respondents answer to the different items. This was assessed by conducting a pilot test using 37 respondents 6 respondents from 5 wards in South Imenti except Igoji East which had seven due to high population. The responses from these respondents were used to compute the Cronbach alpha. Dawson (2014) observes that the alpha values range between 0 to 1 and items with a coefficient of above 0.7 and above 0.5 for less than 10 items considered reliable. The Cronbach Alpha Output reliability statistics was 0.859.

3.6.4 Instruments Validity

The study assessed the research instrument's content validity through regular consultations with the research supervisor. This process enabled the researcher to establish whether the selected measurement tools were adequate and rightly represented the concepts and constructs under study. This assisted the study in determining whether the selected research instruments would be effective in measuring constricts and concept under investigation in the study. The consultations with the supervisor assisted in effectively amending the instruments to enable them to be effective for collecting appropriate and adequate information.

3.6.5 Data collection procedure

The study data was collected using questionnaire with personal interviews augmenting the questionnaire data. The survey was administered to farmers within the six wards (an omnibus questionnaire designed to probe several issues related for credit uptake determinants or 5 Cs).

In general the variables were operationalized through a self-administered questionnaire that was hand delivered to each of the participating farmers and by administering the interview schedules to the respondents individually. All the study variables were measured with a variety of fill-ins, check-offs and Likert scale responses. Questionnaires were delivered in in

the ward till the share of the total sample size for Imenti South was achieved. The farmers returned 77% questionnaires, representing an excellent return rate.

3.7. Data analysis and Presentation

Data collected was entered into SPSS data editor for analysis. The package then generated percentages and frequencies, which helped in making conclusion, illustration and comparisons. The researcher applied descriptive statistics including frequency counts and percentages in the data analysis. The study applied descriptive statistics including frequency counts, percentages, in the data analysis. Regression method was employed for testing hypothesis to determine interdependency between 5Cs and uptake of credit facilities by establishing regression coefficients between the variables and testing of hypothesis

The study's regression model was as follows;

$$Y = \alpha + \beta 1\,\chi_1 + \beta 2\,\chi_2 + \beta 3\,\chi_3 + \beta 4\,\chi_4 + \beta 5\,\chi_5 + \varepsilon$$

Where, Y = Success of credit uptake

α = Constant

β = Regression coefficients relating to the Credit Uptake in the Agricultural Sector.

χ_1= Character

χ_2= Capital

χ_3= Capacity

χ_4= Collateral

χ_5 = Conditions

Ɛ = Error term

The regression coefficients calculated revealed the direction and strength of the study's independent variables on the dependent variable.

3.8. Legal and Ethical Considerations

During the entire research work, the research obtained consent from respondents on willing to be administered with the questionnaire. All the respondents involved in the study indicated willingness to participate and the researcher assured anonymity in the questionnaire and in the analysis. The researcher ensured that the information in the questionnaires is used for academic research purposes only. The researcher also acknowledges secondary data from all literatures collected for the purpose of this study in the reference list. In addition, the study was done after research. The researcher has also acknowledged and cited secondary data from all literatures collected for the purpose of this study in the reference list. Additionally, the data collection and analysis was done after the research permit was provided by NACOSTI.

As part of compliance with Nazarene University standards, the final bound research report will be availed to the interested parties in Imenti South and in Meru County who will express interest in reading it. A copy will also be deposited to the Africa Nazarene University Library.

CHAPTER FOUR

DATA ANALYSIS AND FINDINGS

4.1 Introduction

The chapter brings into light the procedure followed in statistics analysis and finally in presenting the resulting study findings. This chapter first highlights the response rate and then presented the demographic and other characteristics of the respondents. Further the descriptive analysis of the data is presented is presented supported by specific objectives of the study.

4.2 Response Rate

The study relied on primary data collected through a questionnaire and personal interviews. The study targeted 336 farmers in South Imenti. Administration of the questionnaires was conducted on the entire 336 targeted sample. Those who filled the questionnaires and successfully returned them were 259 which was a successful return rate of 77 percent. Millar and Dillman (2016) observed that for a research study to achieve minimum standards for publication in key journals, it needs to have a response rate of 60 percent or above. Using this standard, the 77 percent response rate was achieved hence this study is considered adequate.

Table 4. 0 Response rate

Types of Respondents Per Ward	Total Population	Actual Sample	Response rate
Abogeta East	311	53	41
Abogeta West	153	26	20
Igoji east	862	118	90
Igoji West	44	8	8
Mitunguu	288	50	38
Nkuene	475	81	62
TOTAL	**2,133**	**336**	**259**

4.3 Demographic Characteristics

This research project examined the demographic characteristics of the respondents including the age of the farmers in Imenti south sub county, the different types of farming they practice and success in getting agricultural loans.

4.3.1 Age of Respondents

Regarding the age of the respondents, Table 4.1 presents the findings as shown below:-

Table 4.1 Age of Respondents

No	Age category in years	Frequency	Percent
1	Less than 30	62	23.9
2	30-40	71	27.4
3	41-50	97	37.5
4	51-60	29	11.2
Total		259	100.0

The research outcome presented in Table 4.1 indicates that 23.9 percent of the respondents were aged below 30 years, 27.4 percent were aged between 30 and 40 years while 37.5 percent were aged between 41 and 50 years. Those who were aged over 51-60 years were 11.2 percent. These study findings depict that farmers at Imenti South Sub-county are made up of a diverse mixture of all age groups while majority are young and middle aged.

4.3.2 Credit Uptake by Farmers in Imenti South

Regarding credit uptake by farmers in Imenti South Sub County, the findings are presented in Table 4.2 below.

Table 4.2 Credit Uptake Success in Imenti South Sub-count

No	Type of Farming	Farmers who Agree	Percent
1	Livestock farming	42	16.2
2	Crop farming	96	37.1
Total		138	53.3

From Table 4.2 it is evidenced that 16.2 percent of the respondents were livestock farmer's mainly dairy cow farmers whereas 37.1 are cash crop and horticulture farmers. These findings indicate a representative response from those who were sampled. Moreover, the findings indicate that 53.3 percent of farmers sampled agree with Credit success.

4.3.3 Factors affecting Credit Uptake by farmers.

Factors which affect credit uptake by farmers. Study results are presented in Table 4.3

1-Strongly disagree, 2 - Disagree, 3 - Neutral, 4 - Agree, 5 strongly agree)

Table 4.3 Factors affecting credit uptake by farmers

No	Factors	1	2	3	4	5
1	Character	41	36	52	57	73
2	Capacity	30	36	75	58	60
3	Contribution	20	39	61	70	69
4	Collateral	52	60	40	84	23
5	Conditions	47	54	39	64	55

The research outcome presented in Table 4.3 reveal that 107 of the farmer's respondents agreed that character affects credit uptake success while those who disagree were 152. 141 farmers agree that capacity affects credit uptake success while those who disagree were 118. 120 farmers agree that contribution affects credit uptake success while those who disagree were 139. 152 farmers agree that collateral and Collateral affects credit uptake success while those who disagree were 107. Lastly 140 farmers agree that conditions affects credit uptake success while those who disagree were 119.

These findings suggest that all the five factors highly dictate credit uptake success by farmers.

4.4 Character of farmer's and Credit Uptake

The study sought to assess how character contributed in consideration of credit application for Agricultural loans. This section provides descriptive analysis (means and standard deviations) of the responses regarding Character. Statements regarding character were provided to the respondents. Respondents were required to indicate how those statements related to in credit uptake. The rating that was provided was on a scale (Strongly Disagree; 2-Disagree; 3- Neutral; 4-Agree; 5- Strongly agree). The outcome was analysed using means and standard deviations and results presented in Table 4.4.

Table 4.4 Character and Agricultural Credit Uptake Success

No	Statement	Mean	Standard. deviation
1	Education background and Social Status or position in the society	4.20	1.012
2	Past repayment history	4.19	1.011
3	Use of previous loans	3.36	0.939
Mean of weighted means		3.92	

The research outcome evidenced in Table 4.4 indicates that the respondents agreed with the statement that Education background and Social Status or position in the society greatly affected (mean = 4.2; standard deviation = 1.012). Moreover, respondents agreed Past repayment history also affected (mean = 4.19; standard deviation = 1.011). Respondents agreed that Use of previous loans affected (mean = 3.36; standard deviation = 0.939).

Weighed mean was 3.92 indicating that respondents were neutral to the effectiveness of character. The implication of these findings is that some aspects of character were highly considered but some others were not that much. For instance, Education background, Social Status or position in the society was strongly considered, and the Past repayment history.

4.5 Financial Capacity and Credit Uptake

The research second specific objective was to assess the impact of capacity on success of taking agricultural finance loans. This section provides descriptive analysis (means and standard deviations) of the responses regarding capacity of borrowers. Questions regarding capacity were provided to the respondents and they were required to indicate how those

statements affected the credit uptake for Agricultural loans. The rating that was provided was on a rating scale (1 - Strongly Disagree; 2 – Disagree; 3 – Neutral; 4 – Agree; and 5 - Strongly agree). These answers were analysed using means and standard deviations and the results were presented in Table 4.5 below.

Table 4.5 Capacity and Agricultural Credit Uptake Success

No	Statement	Mean	Standard. Deviation
1	Did the bank consider what was available as Cash balance in your account	4.85	1.186
2	Was project Projected cash flows considered	4.20	0.931
3	Did the lender consider your agribusiness skills?	4.19	0.994
4	Did the lender consider your annual Income?	4.04	.810
Mean of weighted means		4.32	

Study findings presented in Table 4.5 depict that respondents agreed to all the listed statements. Most importantly, respondents agreed that bank considered the available balance in the account (mean = 4.85; standard deviation = 1.186), project Projected cash flows were also considered (mean = 4.20; standard deviation = 0.931) and also agreed the lender considered agribusiness skills (mean = 4.19; standard deviation = 0.994). Further, respondents agreed lender considered annual Income for the farmer before lending (mean = 4.04; standard deviation = 0.810).

The mean of weighted means was 4.32. This showed that respondents agreed to all of the arguments regarding capacity. Moreover, the findings imply that capacity was considered effectively.

4.6 Capital Contribution and Credit Uptake

The third study objective was to assess the influence of Contribution towards the uptake of credit by the farmers in Imenti south. This section provides descriptive analysis (means and standard deviations) of the responses regarding Contribution for the farmer towards the business. Statements regarding Contribution were provided to the respondents and they were required to indicate how those statements related to Agricultural loans uptake. The outcome will be determined by a five point likert scale (1- Strongly Disagree; 2- Disagree; 3 – Neutral; 4 – Agree; and 5 - Strongly Agree). The outcome was analysed using means and standard deviations. These results are as illustrated in Table 4.6.

Table 4.6 Contribution and Agricultural Credit Uptake Success

No	Statement	Mean	Standard. Deviation
1	Was the value of your Business assets considered?	4.13	1.029
2	Amount of Capital invested in business.	4.78	1.341
3	Was your Willingness to do business Correctly or misapplication of funds considered?	4.54	1.227
Mean of weighted means		**4.48**	

The findings as provided in Table 4.6 reveal that all aspects of Contribution were considered effectively. For instance, respondents agreed that lenders considered the value of Business assets (mean = 4.13; standard deviation = 1.029). However, respondents also agreed on the statements that lenders considered you Willingness to do business correctly or misapplication of funds (Mean =4.54; Standard deviation = 1.227), and that Amount of Capital invested in business (Mean =4.78; Standard deviation =1.341).

The mean of weighted means for project execution was 4.48 which depicted that respondents agreed regarding the effectiveness of Contribution towards credit uptake.

4.7 Collateral and Credit Uptake

The fourth objective of this study aimed at establishing the impact of Collateral on the ease or success of credit uptake in South Imenti. Statements regarding Collateral / Collateral carried out were provided to the respondents. The rating that was a five-point Likert scale (1 - Strongly Agree; 2- Disagree; 3 – Neutral; 4 – Agree; and 5 - Strongly Agree). The outcome was analysed whereby mean and standard deviation was used to represent the results as evidenced in Table 4.7.

Table 4.7 Collateral and Agricultural Credit Uptake Success

No	Statement	Mean	Standard. Deviation
1	Tangible assets and availability	4.16	.920
2	saleability of assets availed	4.05	.860
3	Adequacy of Collateral offered	4.49	0.933
Mean of weighted means		**4.23**	

Findings presented in Table 4.7 depict that respondents agreed with all the statements provided. Specifically, farmers agreed to the question that saleability of assets availed was considered (mean = 4.05; standard deviation = 0.860). Further results indicate that farmers or respondents agreed to the question Adequacy of Collateral offered is highly considered (mean = 4.49; standard deviation = 0.933), Tangible assets and availability was also considered an important aspect of contribution during credit uptake (mean = 4.16; standard deviation = 0.920).

The mean of the weighted means was 4.23 depicting that respondents agreed with most of the arguments regarding Collateral / Collateral during uptake of agricultural loans. This shows that Collateral / Collateral plays a key role in credit uptake success.

4.8 Credit Conditions and Credit Uptake

The Conditions of the offered by the lenders during lending of loans also affected strongly towards credit uptake. In the questionnaire, farmers were asked to rate the parameter of conditions on a five point Likert Scale (1 - Very unsuccessful, 2 - Unsuccessful, 3 - Neutral, 4 - Successful, 5 - Very successful). The results or outcome was analysed using mean and standard deviation as presented in Table 4.8.

Table 4.8 Conditions and Agricultural Credit Uptake Success

No.	Performance perspective	Mean	Standard. Deviation
1	Did Interest rates make credit access successful to you and other farmers?	4.06	.965
2	Did Grace period offered entice you to borrow and can it improve successful accessibility of credit to more farmers?	3.95	.913
3	Did Mobile technology like Mpesa make successful credit request including quick application and credit accessibility to you and other farmers?	5	1.180
4	Did Loan repayment period entice you to borrow and can it make successful credit accessibility to more farmers?	4.68	1.141
Mean of weighted means		4.37	

Results provided in Table 4.8 reveal that Interest rates make credit access successful to farmers (mean = 4.06; standard deviation = 0.965). However, respondents were neutral on the statement whether Grace period offered enticed farmers to borrow and if it improved successful accessibility of credit to more farmers (mean = 3.95; standard deviation = 0.913). Further, study results indicated that respondents in Imenti south strongly with Mobile technology like Mpesa in making successful credit request including quick application and credit accessibility to farmers (mean = 5; standard deviation = 1.141) and that Loan repayment period enticed farmers to borrow and make successful credit accessibility (mean = 4.68; standard deviation = 1.145). These findings imply that the mobile technology was a major contribution towards credit uptake success.

The mean of the weighted means was 4.37 indicating that most respondents were of the opinion that considering all performance metrics, the Conditions was a success in credit uptake.

Document analysis of some of lenders indicated KES 12.5 million was rendered to farmers during the financial year 2018/2019 which was a record for the first time to reach the mark despite all those conditions. These findings related to the sentiments of the respondents.

4.9 Credit Uptake in Agricultural financing sector

The research was to evaluate the impact that the five determinants have in accessing agricultural loans and whether the same can be rated as a success or failed to impact the same. Descriptive analysis using mean and standard deviation was used to measure the success of the credit uptake. Statements provided to the respondents' whereby they were required to indicate the impact based on the statements related to respondents

The ratings used was Five point Likert scale (1 - Strongly disagree, 2 - Disagree, 3 - Neutral, 4 - agree and 5 - Strongly agree). The answers were analysed using means and standard deviation and results presented in Table 4.9:-

Table 4.9 Agricultural Credit Uptake Success

No.	Statement	Mean	Standard. Deviation
1	Was the loan processed fast	2.78	.929
2	Were there reduced loan requirements	4.28	1.341
3	Was the loan approval/rejection decision making easy?	3.04	1.127
4	Were you given good loan repayment terms?	2.02	.919
Mean of weighted means		3.03	

The findings as provided in Table 4.9 reveal that respondents agreed that there were reduced loan requirements (mean = 4.28; standard deviation = 1. 341). However, respondents were neutral to the fact that loan approval/ rejection decision was easy. (Mean = 3.04; standard deviation = 0.841). Respondents disagreed on the statement loan was being processed fast (mean = 2.78; standard deviation = .929), and that they were given good loan repayment terms (mean = 2.02; standard deviation = .919). The mean of weighted means for agricultural credit uptake was 3.03 which depicted that respondents were neutral regarding the effectiveness of Agricultural Credit Uptake Success.

4.10 Regression Analysis

Regression analysis was conducted to assist in testing of hypothesis and establishing the role played by various aspects in the credit application for Agricultural loans. Statistics for each of the independent and dependent variables were used in the regression. Findings on the regression summary are presented in Table 4.10.

Table 4.10 Summary of the Regression Model

R	R Square	Adjusted R Square	Standard. Error of the Estimate.
.883	.779	.692	.653

The findings presented in Table 4.10 reveal that the regression model was able to explain 77.9 percent of the success in credit application for Agricultural loans (r squared = 0.779). These results imply that character, capacity, contribution, Collateral / Collateral and conditions could explain 77.9 percent of success of credit uptake in Imenti south Sub-county. The study results presented in Table 4.11 provide the analysis of the variance from the regression, its source, the sum of squares, the mean of squares and the f value.

Table 4.11 Analysis of Variance of the Regression

Source of Variation	**Sum of Squares**	**df**	**Mean Square**	**F**	**Sig.**
Regression	71.664	4	17.916	77.558	.000
Residual	20.292	88	.231		
Total	91.956	92			

The findings presented in Table 4.11 depict that the regression model had some significant predictive power (F = 77.558; P = 0.000). The outcome indicates five independent determinants that significantly influence success of credit uptake.

The coefficients and importance of every determinant (character, capacity, contribution, Collateral / Collateral and conditions) in explaining credit uptake success in Imenti south was examined. The study outcome is shown in Table 4.12 below:-

Table 4.12 Effect and Significance of Independent Variables

Variable	**Unstandardized Coefficients**	**Standardized Coefficients**			
	B	Standard. Error	Beta	t	Sig.
(Constant)	.352	.517		.680	.498
Character	.263	.097	.240	2.699	.008
Capacity	.255	.086	.237	2.977	.004
Contribution	.601	.091	.547	6.596	.000
Collateral / Collateral	.314	.086	.317	3.635	.000
Conditions	.465	.0481	.348	4.258	.001

Findings presented in Table 4.12 shows that character of a borrower has great impact to the success of credit uptake in Imenti south (β = 0.263; p = 0.008).

Study results also revealed that capacity had a significant influence on credit uptake success in Imenti south (β = 0.255; ρ = 0.004). Whereby the research concludes that if farmers are well trained on some aspects of capacity would result to improvement in success of credit uptake. Study results also demonstrated that contribution had a significant influence on credit uptake success in Imenti south (β = 0.601; ρ=0.000).

According to the research Collateral has great influence on credit uptake success in Imenti south (β = 0.314; ρ = 0.000). The research means that farmers could offer adequate Collateral for loans it would result to improvement in success of credit uptake.

Lastly, study results show that Conditions had a significant influence on credit uptake success in Imenti south (β = 0.465; p = 0.001). Using the standardized coefficients, the study findings revealed that contribution was the most influential on credit uptake success in Imenti south (standardized β = 0.547) followed by conditions ((standardized β = 0.348), collateral / Collateral (standardized β = 0.317), character (standardized β = 0.240) and capacity (standardized β = 0.237).

As per the regression analysis two tailed test analysis at 5% confidence level anything below 1.96 and 1.645 for one tailed test is means null hypothesis is rejected hence as per table 4.12 character = (2.699), capacity = (2.977), contribution = (6.596), collateral = (3.635) and conditions = (4.258) hence all more than 1.96.

This means we test Ha: There is relationship between the use of the 5C's of credit and the level agricultural credit uptake in Imenti South Significance of Study if it’s true since 5Cs were considered significant predictors of success credit uptake whereby if they are not availed by farmers they reduce credit uptake. The analysis is as follows.

4.11 Testing of Study Hypotheses

This study had five hypotheses as presented in chapter 1 section 1.6. The hypotheses were based on the general and specific objective of this study as outlined in chapter 1 section 1.5.1. In order to test the hypotheses of this study, regression analysis was employed. Analysis of variance was used to investigate the interaction between credit assessment determinants and credit uptake in the agricultural financing sector in Kenya. Table 4.12 presents the standardized coefficient and p-values for the study model.

4.11.1 Hypothesis 1

The first alternate hypothesis (No 1) of this study was 'character of farmers has significant influence on credit uptake in the agricultural financing sector in Kenya.' The hypothesis was built on the argument there was a significant relationship between character of farmers and credit uptake in the agricultural financing sector in Kenya. The analysis results in this study did show a statistically significant relationship between character of farmers and credit uptake. The study therefore failed to reject the hypothesis.

4.11.2 Hypothesis 2

The second alternate hypothesis (No 2) of this study was 'farmer's financial capacity has significant influence on credit uptake in the agricultural financing sector in Kenya.' The hypothesis was built on the argument there was a significant relationship between farmers financial capacity and credit uptake. The analysis results in this study did show a statistically significant relationship between farmer's financial capacity and credit uptake. The study therefore failed to reject the hypothesis.

4.11.3 Hypothesis 3

The third alternate hypothesis (No 3) of this study was ‘capital contribution has significant influence on credit uptake in the agricultural financing sector in Kenya.’ The hypothesis was built on the argument there was a significant relationship between capital contribution and credit uptake. The analysis results in this study did show a statistically significant relationship between capital contribution and credit uptake in the agricultural financing sector in Kenya. The study therefore failed to reject the hypothesis.

4.11.4 Hypothesis 4

The fourth alternate hypothesis (No 4) of this study was ‘collateral has significant influence on credit uptake in the agricultural financing sector in Kenya.’ The hypothesis was built on the argument there was a significant relationship between collateral and credit uptake. The analysis results in this study did show a statistically significant relationship between collateral contribution and credit uptake in the agricultural financing sector in Kenya. The study therefore failed to reject the hypothesis.

4.11.5 Hypothesis 5

The fifth alternate hypothesis (No 5) of this study was ‘credit conditions has significant influence on credit uptake in the agricultural financing sector in Kenya.’ The hypothesis was built on the argument there was a significant relationship between credit conditions and credit uptake. The analysis results in this study did show a statistically significant relationship between credit condition contribution and credit uptake in the agricultural financing sector in Kenya. The study therefore failed to reject the hypothesis.

4.12 Qualitative Analysis

The questionnaire had open-ended questions for each section enquiring on the improvements that the respondents could recommend for future projects. First, an open question was posed to the research participants enquiring on the improvements they would recommend regarding

consideration of character during credit application for agricultural loans. Various responses were provided and the major themes in those responses centred on repayment history and education background.

Most respondents indicated that lenders should not strictly consider education background instead they should establish financial and project management training programmes for farmers. Further, respondents were of the view that due to unexpected challenges like poor weather, diseases and pests they might have failed to repay previous loans in time hence having a flawed repayment history. Lenders should consider the reasons leading to late repayments. Moreover; farmers suggested that it would be helpful if they could be advised on weather changes preparedness and also resolving unexpected disasters.

Regarding capacity, most respondents were of the opinion that since most of farm produce is seasonal a farmer might be left with little or no cash balance at the beginning of a new season since they probably have not sold or received payment for previous produce hence lenders should be less considerate of bank account balances. Respondents further argued that the government should put in place better regulations in angry-business that would ensure farmers get paid in time and receive better payment for produce. Further on capacity, respondents stated that the government and lenders should consider workshops and training programmes to equip farmers with effective and reliable agri-business skills. Regarding contribution, respondents stated that while borrowing, the size of farms should be closely considered so that they can be able to farm all the land they have at disposal. Similarly, respondents indicated that they should be advised on how to correctly use funds.

Respondents also argued that financial institutions and the government through the ministry of agriculture should help farmers acquire farming equipment's easily which are considered as assets in agri-business. On Collateral, respondents argued that most farmers can use land as collateral. They indicated that the government should help those without title deeds acquire

them. On conditions, the study enquired on the interest rates, grace period, mobile technology and loan repayment period. Respondents argued that the interest rates should be subsidized for farmers. Respondents indicated that given that some of produce takes a long time to mature high rates tend to leave the farmer with large repayment amount compared to the received amount. Respondents argued that they should be offered longer grace periods due to the challenges of harvesting, weather and selling process given that some products also require preparations before selling like drying grains. They suggested that due to bad weather, bad roads, lack of readily available markets it sometimes take months to sell products considering they might not get paid in time. Respondents were of the view that mobile technology especially M-PESA and Equitel has greatly helped them to easily access financial services since most of them live and farm in places development financial institutions and commercial banks are very far this is in line with Lewin's Change Management Theory in the unfreeze stage as it shown that lenders have to rethink lending behaviour towards the agricultural sector as it still is the backbone of the economy in countries like Kenya. Despite the advantages of mobile technology, mobile network tends to fail them sometimes due to poor connectivity in some areas. Loan repayment period is major consideration for farmers while applying for credit. Most farmers indicated that they tend to shy away from borrowing due to short repayment periods considering the many unpredictable challenges involved in farming. Lastly, on agricultural credit uptake success, respondents indicated that loan processing time was convenient. However, they suggested that loan approval/rejection decision making should be more open and lenient for farmers since some of the farmers indicated that some loans are rejected due to simple mistakes like providing the wrong information while applying for credit. This supports the prospect theory psychological position as it accurately describes how lenders make decisions when assessing borrowers in the agricultural sector.

CHAPTER FIVE

DISCUSSIONS, CONCLUSIONS AND RECOMMENDATIONS

5.1. Introduction

This chapter presents the summary of findings, discussion, conclusion and recommendations. The summary of findings presents the key results of the study based on the specific objectives of the study and the key study variables. The discussion of findings is then provided which provides a deliberation of the findings based on reviewed literature. Further, the chapter presents the conclusion of the study based on the specific objectives of the study. Lastly, the study provides recommendations for policy, practice and further research.

5.2 Discussion

The study considered the influence of various specific variables namely farmers character, financial capacity, capital contribution, collateral and credit condition on credit uptake in agricultural financing sector in Kenya. The following is a discussion on the findings:-

5.2.1. Effects of character of farmer's on credit uptake

The study established that character had a significant influence on success of agricultural credit uptake in ($\beta = 0.263$; $\rho = 0.008$). To support these findings Julia Kagan and Troy Segal (2019) investigated the 5Cs and how they affect the chances of getting a loan which is also known as credit worth of a client. According to Julia Kagan and Troy Segal (2019) financial institutions look at the character of the borrower whereby currently Credit Reference Bureau is the main tool that checks how one has been paying previous loans advanced. The authors noted that financial institutions use the tool to check if one is a risky borrower hence make informed decision, however there is the threshold that one cannot be granted a facility and this varies from one lender to another. The research outcome evidenced in Table 4.4 indicates

that the respondents agreed with the statement that Education background and Social Status or position in the society greatly affected. Moreover, respondents agreed past repayment history were very critical during appraisal. Respondents agreed that Use of previous loans whereby appraisers looked at the projects that were existing in the farm.

The implication of these findings is that some aspects of character were highly considered but some others were not that much. For instance, Education background, Social Status or position in the society was strongly considered, and the Past repayment history.

5.2.2. Influence of capacity on credit uptake

Study results revealed that capacity had a significant effect on agricultural credit uptake success ($\beta = 0.255$; $\rho = 0.004$). According to Dillman (2016) ability of the farmer to repay his or her loan funds is established by that bank considered the available balance in the account whereby one is asked to provide one year bank statements, project Projected cash flows were also considered whereby one provides invoices, farm records and receipts and also agreed the lender considered agribusiness skills where training provided by banks, and other service providers in the value chain was considered. Further, respondents agreed lender considered annual Income for the farmer before. This included all other sources of income from farm projects.

5.2.3. Effects of capital contribution on credit uptake

Study results demonstrated that contribution has a significant effect on success of agribusiness credit uptake ($\beta = 0.601$; $\rho = 0.000$). Findings from the project agree with Babbie (2016) who investigated the aspects used to determine the credit worthiness of a borrower by lenders. Julia Kegan et al. (2019) established that lenders evaluate and make a decision about investment made by a farmer towards the project to be financed. When a farmer has put in more that 20 percent of his money in the project there is low chances that

the project will not kick start hence defaulting on the payments. When client has contributed his personal finances this shows that the client will succeed due to experience and due diligence in the value chain. This means that any lender will be more than willing to fund such project since all indicators point out that the project will be a success. Furthermore if the borrower has great initial capital investment the lender can reduce interest rates and increase the grace period hence favourable loan terms to the borrower.

5.2.4. Effects of Collateral on credit uptake

Financial institutions required farmers to provide a fall back in case one is unable to pay the loans. With ($\beta = 0.314$; $\rho = 0.000$) this is a clear indicator that with Collateral more loans are given by banks but areas where mostly women and youth have no Collateral credit uptake is minimal as supported by Julia Kegan and Troy Segal (2019) who researched that Collateral can increase the chances of getting a loan. This is the assurance that in case a borrower is unable to pay the loan the financial institutions have a fall back plan to recover money by auctioning the properties or recovery from guarantors. This is the reasons banks prefer secured loans since many borrowers are not willing to lose properties or guarantors hence the funds are less risky. This will in turn affect the conditions of the loans since secured loans have low interest and unsecured loans have high interest to compensate for anticipated loss.

5.2.5 Influence of credit conditions on credit uptake

The research project reveals that conditions with ($\beta = 0.465$; $\rho = 0.001$ has major impact on success of credit uptake. The same is supported by Julia Kegan and Troy Segal (2019) who found that when interest rates are favourable, repayment period is increased and grace period of the loans are adequate and properly structured farmers are able to afford credit hence more will flow to our financial institutions to get more loan. Micro and Macroeconomic indicators

also affect the number of loans applied by the farmers this might be inform of taxation legislations, how the economy is performing, emerging industrial trends and governance.

5.3. Summary of Major Findings

The study established that character had a significant influence on credit uptake success in Imenti South Sub-county (β = 0. 263; p = 0.008). However, study findings (Table 4.4) indicate that education background, social status, past repayment history was also highly considered while use of previous loans was the least considered aspect of character during credit application.

Farmer's capacity had a significant effect on successful credit uptake (β = 0.255; ρ = 0.004) whereby the study results (Table 4.5) revealed that available bank account cash balance, farmer's annual income as well as agri-business skills of the farmer are highly considered and Less consideration of cash flows.

Contribution also had a significant effect on agricultural credit uptake (β = 0.601; ρ = 0.000). The amount of capital invested in the agri-business was the most considered aspect closely followed by willingness to do business correctly or misapplication of funds and finally the value of business assets.

Collateral had a significant effect on successful agricultural credit uptake (β = 0.314; p = 0.000). Adequacy of Collateral offered together with tangible assets and availability were highly considered by lenders and saleability of assets was the least considered aspect.

Lending conditions also had a significant effect on successful credit uptake (β = 0.465; p = 0.001). Table 4.8 revealed that mobile technology was the most influential aspect since it brought banking close to the farmer, most farmers were afraid of credit application due to short repayment periods. Additionally, study findings established that interest rates also affected credit uptake success especially where institutions imposed high rates.

Lastly, Study findings demonstrated that agricultural credit uptake was averagely successful ($\beta = 0.314$; $p = 0.000$). Table 4.0 indicated that loan repayment terms were not that suitable for farmers, loan processing time was relatively fair, no reduced loan requirements hence loan approval/rejection decision making was not easy.

5.4 Conclusions

A number of conclusions were drawn from the data analysis. Character significantly influenced agricultural credit uptake success. However, some aspects of character were more critical than others. The highly influential include education background, social status and repayment history. Use of previous loans was the least influential aspect of character considered by lenders before credit approval.

Secondly the study supports that capacity will affect success of agricultural credit uptake significantly. Most of the aspects of capacity highly affect the approval of credit by lenders. Specifically, cash balance available in the borrower's account, agri-business skills and annual income. Thirdly thee study concludes that contribution have positive effect in agribusiness credit uptake success. Aspects of contributions that were most influential included capital invested in the business, willingness to do business correctly or misapplication of funds and the value of business assets. Fourth, the study concludes that collateral / Collateral highly affects successful agri-business credit uptake. Adequacy of Collateral offered, tangible assets and availability are highly considered by lenders before approving loans.

Finally conditions affect success of agricultural credit uptake. Mobile technology has positively impacted credit uptake success. However, loan repayment period and interest rates can negatively affect credit uptake success if they are not favourable to the borrower.

5.5 Recommendations

To ensure character of farmers influence Agricultural credit uptake success financial management training programme on repayment of credit borrowed by farmers should be conducted by national, county, financial institutions and Non-government institutions in the area. To ensure farmer's financial capacity influence Agricultural credit uptake success in South Imenti government together with lenders should establish training programs to equip farmers with effective agri-business skills, financial know how and disaster preparedness.

To ensure capital contribution influence Agricultural credit uptake success include the power imbalance between producers and buyers, and challenges with contract negotiation, transportation, processing and storage. To ensure collateral influence Agricultural credit uptake success in South Imenti Alternative securities should be developed like bank guarantees that can ensure that farmers without title deeds are able to benefit with loan funds. To ensure credit conditions influence Agricultural credit uptake success in South Imenti the national government in collaboration with the county government should enforce better regulations to ensure farmers get maximum benefits from produce like avocado farming. Also they can subsidize farm inputs and improve roads for easier access to the market. Lenders should create more favourable credit offers for farmers. This can be achieved by coming up with better terms like affordable interest rates and longer repayment periods. Lastly, due to unforeseen happenings, lenders could offer farmers better grace period.

5.6 Areas for Further Studies

The project assessed how various aspects influenced agri-business credit uptake success in Imenti south Sub-county. For future studies, it is recommended that various strategies in the agricultural financing sector should be interrogated to ensure that credit determinants are enhanced to suit the current and developing technological advancements like mobile lending.

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APPENDICES

APPENDIX I: INTRODUCTION LETTER

Charles Gitonga Nyamu is a student at the Africa Nazarene University student No. 15J002EMBA005 currently undertaking A Masters' Degree in Strategic Management. As part of his academic requirement, he is currently undertaking his research on the effect of credit assessment determinants on credit uptake in the agricultural financing sector: a case of south imenti sub county, Kenya being partial fulfilment of the award of Masters' Degree in Strategic Management option.

He kindly requests you to fill for him this questionnaire, which is very useful in his research and assures you that the information received on this questionnaire was treated with utmost confidentiality and the identity of the respondent is optional.

There are no correct or wrong answers to these statements and they are intended just to obtain opinions, views feelings. He therefore requests you to be one of the respondents and that you provide data which is needed for this study through the provided study tools. Data provided will be used for project work only hence we will not reveal your identity.

In case you need any clarification you can call or email him. Mobile phone number is 0720978382 and email is cnyamu2001@yahoo.com.

Thank you for your time.

God Bless.

APPENDIX II: QUESTIONNAIRE

Sample questionnaire

Name (optional) _____

Type of Farming _____

PART A

Tick the appropriate check box and comment if necessary.

A–1

Sub county ……. **Ward**……..

1. Gender Male ☐ Female ☐
2. Age group less than 30 ☐ 30 - 40 ☐

41 - 50 ☐ 51 - 60 ☐

2. How many times have you received agricultural loan in the last 5 years?

Less than 5 times [ ] 5 - 10 times [ ] 11 - 15 times [ ] Over 15 times [ ]

SECTION B:

i. Character: What is your opinion in consideration of credit application for Agricultural loans?

(1-Strongly disagree, 2 - Disagree, 3 - Neutral, 4 - Agree, 5 strongly agree)

Education background, Social Status or position in the society?	(1)	(2)	(3)	(4)	(5)

Past repayment history?	(1)	(2)	(3)	(4)	(5)
Use of previous loans?	(1)	(2)	(3)	(4)	(5)

What would you recommend that banks should improve in future

……

……

ii. Capacity: To what extent were following considered in your credit application for Agricultural loans? (1. Least. 2. Less 3.Moderate 4.More 5. Most Considered)

	Least considered most considered				
Did the bank consider what was available as Cash balance in your account?	(1)	(2)	(3)	(4)	(5)
Was project Projected cash flows considered?	(1)	(2)	(3)	(4)	(5)
Did the lender consider your agribusiness skills?	(1)	(2)	(3)	(4)	(5)
Did the lender consider your annual Income?	(1)	(2)	(3)	(4)	(5)

What would you recommend that banks should improve in future

……

……

iii. Contribution: To what extent were following considered in your credit application for Agricultural loans? (1. Least. 2. Less. 3. Moderate 4. More 5. Most Considered)

	Least considered				most considered
Was the value of your Business assets considered?	(1)	(2)	(3)	(4)	(5)
Amount of Capital invested in business.	(1)	(2)	(3)	(4)	(5)
Was your Willingness to do business Correctly or misapplication of funds considered?	(1)	(2)	(3)	(4)	(5)

What would you recommend that banks should improve in future

……

……

iv. Collateral / Collateral: To what extent were following considered in your credit application for Agricultural loans? (1. Least. 2. Less 3.Moderate 4.More 5.Most Considered)

	Least considered				most considered
Tangible assets and availability	(1)	(2)	(3)	(4)	(5)
Saleability of assets availed	(1)	(2)	(3)	(4)	(5)
Adequacy of Collateral offered	(1)	(2)	(3)	(4)	(5)

What would you recommend that banks should improve in future

……

……

v. Conditions Please indicate how you rate your agreement on conditions listed:

(1- Very unsuccessful, 2 – Unsuccessful, 3- Neutral, 4– Successful, 5– Very successful)

Did Interest rates make credit access successful to you and other farmers?	1	2	3	4	5
Did Grace period offered entice you to borrow and can it improve successful accessibility of credit to more farmers?	1	2	3	4	5
Did Mobile technology like Mpesa make successful credit request including quick application and credit accessibility to you and other farmers?	1	2	3	4	5
Did Loan repayment period entice you to borrow and can it make successful credit accessibility to more farmers?	1	2	3	4	5

What would you recommend that banks should improve in future

……

……

vi. Agricultural Credit Uptake Success: Kindly specify your level of agreement to the listed statements below which indicates Agricultural Credit Uptake Success. The rating is:

(1.Strongly Disagree 2. Disagree 3. Uncertain 4. Agree and 5. Strongly agree)

Was the loan processed fast?	1	2	3	4	5
Were there reduced loan requirements?	1	2	3	4	5
Was the loan approval/rejection decision	1	2	3	4	5

making easy?					
Were you given good loan repayment terms?	1	2	3	4	5

What would you recommend that banks should improve in future.....

.....

APPENDIX III: ANU RESEARCH AUTHORIZATION LETTER

AFRICA NAZAR£NE

U N I V E R S I TY

24'', July 2019

E-mail: researchwritine.mba.anus emai1.com

Tel. 0202711213

Our Ref. I5J02EMBA005

The Director.

National Commission for Science,

Technology and Innovation (NACOSTI),
P. O. Box 30623, 00100
Nairobi. Kenya

Dear Sir/Madam:

RE: RESEARCH AUTHORIZATION FOR: MR. CHARLES GITONGA NYAMU

Mr Nyamu is a postgraduate student of Africa Nazarene University in the Master of Business Administration (MBA) program.

In order to complete his program, Mr Nyamu is conducting a research entitled: **"Effects of Credit Assessment Determination on Credit Uptake in the Agricultural Financing Sector in Kenya: A Case of South Iment Sub County, Kenya"**

Any assistance offered to him will be highly appreciated.

Yours Faithfully,



ISAAC MWANGI
M t. PRINCIPAL. NAIROBI CBD
AL. CAMPUS.

APPENDIX IV: NACOSTI RESEARCH AUTHORIZATION

REPUBLIC OF KENYA

NATIONAL COMMISSION FOR

SCIENCE, TECHNOLOGY & INNOVATION

Ref No: **473086**

Date of Issue: **14/August/2019**

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This is to Certify that Mr.. Charles Nyamu of Africa Nazarene University, has been licensed to conduct research in Meru on the topic: EFFECTS OF CREDIT ASSESSMENT DETERMINANTS ON CREDIT UPTAKE IN THE AGRICULTURAL FINANCING SECTOR IN KENYA: A CASE OF SOUTH IMENTI SUB COUNTY, KENYA for the period ending : 14/August/2020.

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