EFFECTS OF INTEREST RATE CAPPING ON FINANCIAL PERFORMANCE OF AGRIBUSINESS SMALL AND MICRO ENTERPRISES IN NYERI CENTRAL SUB COUNTY KENYA

CAROLINE WANJA GITHINJI

B211-01-0081/2016

A Thesis Submitted to the School of Business Management and Economics in Partial Fulfillment of the Requirement for the Award of the Degree of Masters in Business Administration (Finance Option) of Dedan Kimathi University of Technology.

March, 2019

DECLARATION

This thesis is my original work and has not been for a degree in any other University

Signed ..... Date.....

Name: Caroline Wanja Githinji

Reg No: B211-01-0081/2016

This thesis has been submitted for examination with our approval as University supervisors.

Signed ..... Date.....

Dr. David Kiragu, (PhD)

School of Business Management and Economics

Dedan Kimathi University of Technology

Kenya

Signed ..... Date.....

Dr. Richard M. Kiai, (PhD)

School of Business

Karatina University

Kenya

DEDICATION

I dedicate this research thesis to, husband Samuel, dear sons Brian, Elvis and Bantu, for their unfailing support, patience and understanding during this study period.

ACKNOWLEDGEMENT

I wish to thank God the almighty for giving me the time and strength, will and good health to go through the entire course and in particular the research thesis.

I would wish to thank my supervisors Dr. David .N. Kiragu and Dr. Richard. M. Kiai for the professionalism, skillful support, patience, commitment, encouragement, availability and guidance which lead to the success of my thesis.

My sincere gratitude goes to the school of business fraternity, DeKUT management for the moral and financial support. I owe a great deal of thanks to my entire family members, friends who contributed to the success of this research study. May the almighty God bless you all in your future endeavors.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

ABBREVIATIONS AND ACRONYMS

CBR	-	Central Bank Rate
CBK	-	Central Bank of Kenya
CEMAC	-	Economic and Monetary Community of Central Africa
GDP	-	Gross Domestic Product
GOK	-	Government of Kenya
IBRD	-	International Bank for Reconstruction and Development
PBT	-	Profit Before Tax
ROA	-	Return on Assets
ROI	-	Return on Investment
SMEs	-	Small and Medium Enterprises
SSA	-	Sub Saharan Africa
WAEMU	-	West African and Monetary Union
WBES	-	World Business Environment Survey
WC	-	Working Capital
WCM	-	Working Capital Management
IFC	-	International Finance Corporation
OECD	-	Organization for Economic Co-operation and Development
UNEP	-	United Nations Environment Programme
GFIP	-	Global Partnership for Financial Inclusion

ABSTRACT

This study investigated the effects of interest rate capping, firm size and financial performance of small and micro enterprises in agribusiness nyeri central sub county Kenya. The study sought to establish the effect of increase collateral requirement, increase of credit processing period and additional customer information requirements after interest rate capping on the financial performance of Agribusiness SMEs in the Nyeri Central Sub County. The study also sought to establish the effect of size of Agribusiness as a moderating variable on the financial performance of Agribusiness SMEs. The theories used in the study are; the pecking order theory, the theory of financial intermediation and the dynamic trade off theory. The target population of this study was 950 licensed SMEs while the sample size was 274 licensed SMEs operating in the Nyeri Central Sub County. A pilot study was conducted to enhance the validity and reliability of the data collection instrument. Cronbach alpha coefficient of 0.7 was used to ascertain test the reliability of the data collection instrument. Inferential statistics was also carried out to establish the nature of the relationship that exists between variables. Data was interpreted with the help of 0.05 significance P-values. Model fitness R^2, ANOVA statistics and regression coefficient were generated. Prior to running a regression model, multicollinearity test and normality test were conducted. Data that was analyzed was obtained from 237 respondents out of the targeted 274 achieving 86.5% response rate. Frequencies and percentages were generated from the data and presented using frequency distribution tables while bivariate and multiple regression analysis were conducted to establish relationship of each parameter of the independent variables in the study. The results indicated that increase in credit processing period due to interest rate capping had a negative and statistically significant effect on financial performance of Agribusiness SMEs. Collateral requirement due to interest rate capping had a negative and statistically insignificant effect on financial performance of Agribusiness SMEs but a statistically significant effect after introducing size of Agribusiness as moderating variable. Additional customer information requirement due to interest rate capping had a positive and statistically significant effect on financial performance of Agribusiness SMEs. The study concluded that interest rate capping affects the amount of financing SMEs receives due to increased requirements which in turn affect the SMEs financial performance. The study concluded that the size of Agribusiness as a moderating variable had an impact on financial performance of Agribusiness SMEs. The study recommends that Agribusiness SMEs should expand their operations as the size of their business is a factor that enhances access to credit and collateral considerations. In addition, Agribusiness SMEs should maintain all the records and books of accounts required and prepare final accounts as this may enhance financial performance. Further, government should play its role of enabling SMEs to access finance from financial institutions by intervening or providing alternative options. Future research could focus on the benefits of interest rate capping on financial performance of SMEs.

CHAPTER ONE
INTRODUCTION

1.1 Background of the study

Interest rate capping is a restriction on the rate at which commercial banks lend loans to its customers. Globally seventy six nations globally are at present utilizing some form of interest rate caps on loans (Maimbo & Gallegos, 2014). Interest rate caps are utilized by governments for various economic as well as political reasons; the most common reasons are to offer support to a precise area of the economy or an industry. An economy might identify a market failure within a certain industry, or that the interest rate cap may be intended to greatly focus on certain financial in a particular market. Another reason may be to discourage financial institutions in making extreme profits by charging excessive rates of interest to customers. In such a case governments intervene to protect vulnerable clients from predatory lending practices. Examples are loans to the sector of agriculture to improve agricultural productivity like the case of Bangladesh (Miller, 2013).However interest rate capping might have a negative impact on the economy. For instance Ecuador a country in South America capping on lending was introduced in 2007, this lead to commercial banks increase the average amounts of loans so as to survive. Small banks were left with no choice but were bought by large banks. Caps also led to illegal lending flourishing in the country (Olaka 2017). Interest rate caps introduction in Japan also lead to reduced loan applications, and illegal lending rose (Porteous, Collins & Abrams 2010).

In Sub Saharan Africa (SSA), interest rates on loans are at present capped in twenty four nations. These consist of the eighteen nations within the West African and Monetary Union (WAEMU) this include countries like Burkina Faso, Benin, Côte d'Ivoire, Mali, Guinea-Bissau, Niger, Togo, Senegal, Eritrea, Ghana, Guinea, Mauritania, Ethiopia, Namibia, South Africa, Sudan and Nigeria. Economic and Monetary Community of Central Africa (CEMAC) are six in number. Since the implementation of the caps in South Africa it has made numerous changes in its restrictions of interest rate, because initially the caps did not apply to small loans from 1993. Then in 2007 a National Credit Act was effected which re-imposed the 5% caps on small loans (Maimbo & Gallegos, 2014). In January 2013 Zambia introduced the interest rate capping which led to the near collapse of the credit market for households and SMEs. Zambia's local currency was hard hit as lenders gave hard currency loans to the non tradable sectors which affected the economy of the country adversely, the caps were dropped in 2015 (Olaka 2017). The interest rate capping in Zambia lend to constrained credit lending to SMEs (Miller, 2013).

The bill on capping of lending rates in Kenya was passed by members of parliament into law and signed on August 2016 by the president and became effective in September the same year. The interest rate was capped at 4% of the Central Bank Rate (CBR).For the past about 20 years the Kenyan Commercial banks have enjoyed spread of about 11.4% on average which the Central Bank Governor acknowledged that it was too high, this was even way above the global average of 6.6 percent. The interest rate capping was meant to protect the customers by making the loans more affordable and increase in accessibility of finance to the customer (Kang'ethe, 2016).

The access of finances has been viewed as an obstacle to financial performance of small and micro enterprises. According to Levy, (2015) the challenge to finances hinders growth as well as development of these institutions. Lending to SMEs has declined in value since the implementation of the interest rate capping; this has been reflected in commercial banks, loan approvals declined by 6% between December 2016 and February 2017 as per the CBK Newsletter for 27th march 2017.The reduced SMEs sector credit would bring about economic growth that is constrained which means that the state would not be capable to attain the 6.0 percent rate of growth anticipated for 2016 (Apex Africa Special Report August 2016). The latest data indicate that bank lending to small and medium-sized enterprises has declined by 5.7% between August 2016 to April 2017, the reason being that SMEs are considered among the riskiest category of borrowers by commercial banks because of their high level of failure after startups (Mwaniki, 2017).

1.1.1 Importance SMEs in the economy

SMEs are a policy priority by many economies of the world; this is because they play a significant function in the development of the economy and also makes contribution to employment (Harash, Al-Timimi & Alsaadi 2014). Small and micro enterprises play a big task in new jobs creation, creation of new products, promote innovation and also help to deliver goods and services to the people (World Bank 2017).SMEs accounts for over 99% of total enterprises in developed economies of the world and also generate the highest number of employment opportunities of about 70% on average, in emerging economies it provides an average of 45% employment and 33% contribution to the GDP (OECD, 2017). The big economies such as the United States of America and United Kingdom developed through the growth of SMEs (Kamunge, Njeru & Tirimba 2014) therefore the performance of SMEs should not be underestimated by an economy.

There has been an increase of SMEs in the agricultural sector. This is a positive direction for the economy because agriculture is the backbone of the Kenyan economy, contributing about 24% of the GDP directly and another 27% indirectly. Agriculture is the livelihood of majority of Kenyans, providing income to more than 80% of population and employing an average of 40% (UNEP, 2015). Agriculture SMEs are often seen as unattractive clients to most financial institutions, this is due to their small asset base and their seasonal nature (IFC, 2011). The economic survey of 2017 established that there were about 1.56 million licensed SMEs and 5.85 million unlicensed businesses. The importance of small and medium-sized enterprises in Kenya was reflected in the Economic Survey in 2014, which signified that 80 percent of the 800,000 created jobs in 2014 were in the informal sector which is dominated by small and medium-sized enterprises (Kandie, 2015). The SME sector has been segmented in the following manner in Kenya, 40% are in the trade industry, 30% in agriculture industry, 13% in the manufacturing industry, 15% in the service industry and about 2% in the construction industry (Musando, 2013).

1.1.2 Importance of financial access to SMEs

Finance access is critical to growth as well as development of SMEs and finance availability is related positively with financial performance. Nevertheless access to finance remains a limitation to the SMEs especially in emerging economies (GFPI, 2011). The World Bank Enterprise Surveys reveal that on average 43% of SMEs in the emerging economies have constraints to the access of Finance, while it is lower for the developed countries with only 11% of SMEs rated access to finance as a constraint. The World Bank's Investment Climate Surveys indicate that access to finance enhances performance of an organization in terms of return on assets (ROA), profitability turnover and size. Finance access doesn't just facilitate entry of market but also SME growth and reduction of risk but as well increases the return on assets (ROA), boosts profitability, increases turnover levels and builds the capital size of the firm.

As per the Nyeduko, (2014) finance is the life blood of every business, it does not matter how well a business is ran and managed, if it does not have sufficient capital for investment of fixed assets, working capital, skilled employees employment and new products and markets development then business would not perform. Statistics state that three out of five SMEs drop out of business after some months of operation (Kenya

National Bureau of Statistics, 2007). SMEs often rely on personal savings or even borrowing from relatives to meet their financial needs, nevertheless when an SME does not access finances they normally turn to commercial banks as their primary source of finance (International Finance Corporation 2010). Organizations with adequate access to funds are capable to exploit investment and growth opportunities. Aggregated economic performance can be enhanced by increasing the access of adequate capital. Financing constraint affect small firms' more than it does to large firms (Dalberg report, 2011).

1.1.3 Financial Performance of SMEs

SMEs financing has been viewed as important by most policymakers in the recent financial crisis prompting a number of central banks creating programmes that target bank lending to the SME sector. Interest rate capping affects the amount of financing SMEs receives which in turn affects the SMEs financial performance (Ryan, 2014).

The main failure of SMEs is poor management of their businesses. Management capability is evidently a concern to most businesses of both sizes, because management is accountable for making all the vital financial decisions of the organization. Nevertheless, the smaller the business, the more likely the financial performance decision challenges it may face due to the inability to employ highly specialized professionals (Ryan, 2014).

Unsuitable finance sources may bring about an unbalanced loan capital and risk capital mix leading to a threat of the business solvency. Over-dependence on credit finance can test the cash flow position of the company, resulting to unnecessary responsibilities for the company to pay back capital as well as interest that is associated with it, particularly when conditions of the loan permit the lender to do variations of the interest rates. If the an organization begins to experience financial difficulties, inadequate risk capital would just situation worse, since the present loan capital might prevent raising debt finance further and therefore affecting the financial performance of SMEs (Ryan, 2014).

Bad debt impeding is one of the other likely causes of failure of the business that also affects the financial performance of SMEs. Bad debts might significantly increase, because of disappearance or even debtors insolvency. This repeatedly brings about insolvency or even collapse of the SMEs. The main problem for SMEs is that they do not have a good mechanism in place for collection of credit which is able to carry out regular activity of credit control as well as follow up issues of going-concern. Therefore, bad debts might have a more remarkable impact on SMEs who have a small capital base

compared to larger businesses (Ryan, 2014).Most SMEs have Poor Marketing and Research strategies or even do not have any. Lack of adequate and appropriate market research may also influence the financial performance of SMEs. Market study is needed because it helps the business to identify their clientele as well as notify them of the size of the possible customer base, to establish what price clientele may be ready to pay and to give suggestions on how the service or product demand would change in line with the charged that is charged. Research informs the business regarding their competitors as well as their likely reaction to a novel competitor to the place of market (Ryan, 2014).

1.1.4 Interest Rate Capping

The Banking Amendment Act No. 25 of 2016 that took effect on September 14, 2016, banks were limited to charging a maximum interest rate on credit at 4% and the minimum interest rate granted on a deposit held in interest earning account to at least 70 percent of the base rate set and published by the Central Bank of Kenya. The main objective was to promote a savings culture among the Kenyan public but most importantly to lower cost of credit, resulting in growth of credit flow to private sector. However this might not have been the case for SMEs because the interest rate capping locked out SMEs and other high risk borrowers from accessing credit as commercial banks prefer to lend to government other than households and Businesses. This has brought about reduction in innovations which is promoted by SMEs and therefore stagnating the country's economy, the capping has discouraged the supply of funds to the financial system, it has also made the commercial banks to concentrate on large borrowers which may lead to an increase in non-performing loans, this may also act as a loop hole for the commercial banks to look for ways of introducing additional fees or even modify lending terms to increase effective rates.

Though the government finds it as a good intention, interest rate capping actually influences SMEs negatively by limiting their access to funds as well as decreasing transparency of the price. If the setting of ceilings is done too low, providers of financial service find it hard to recover costs and they are prone to grow more slowly, decrease delivery of service to the entrepreneurs which are more risky as well as other more costly markets, they become less transparent regarding the loan total cost, and even entirely exit the market (Maimbo & Henriquez2014).

1.2 Statement of the Problem

The introduction of the interest rate capping on lending, led to SMEs being locked out since they are categorized as high risk borrowers, second they are not able to meet the required conditions by financial institution like the required collateral, filing proper books of accounts for lack of the required management and technical skills, leading to lack of access to finances causing a decline of 5.7% of loans in value which is a reflection of recent statistics (Mwaniki, 2017). Due to inadequate access of finances, the financial performance of Agribusiness SMEs in the Nyeri Central Sub County declined. The inaccessibility to finance greatly affected the financial performance of small and micro Agribusiness SMEs than their larger counter parts. The inaccessibility of finances to the SMEs lead them to not fully utilize their assets leading to a decline in the return on assets (ROA) and also the profits before tax also went down because of reduced turnover leading to inadequate fund to meet their obligations. The SMEs are a backbone to an economy and also provide about 45% of employment in emerging economies like Kenya as per OECD, 2017 report; when the Agribusiness SMEs do not financially performing well, they are not able to provide the general public with the needed goods and services which lead stagnation and finally closure of the SMEs. This research study was to find out the effects of interest rate capping, firm size and financial performance of small and micro enterprises in agribusiness Nyeri central sub county Kenya.

1.3 Objectives

13.1 General objective

The study's main objective was to explore the effects of interest rate capping on financial performance of Agribusiness Small and Micro Enterprises in Nyeri Central Sub County Kenya.

1.3.2 Specific Objectives

This research was guided by the following specific objectives;

i. To explore the influence of collateral requirement on the financial performance of Agribusiness SMEs in the Nyeri Central Sub County.
ii. To assess the influence of customer information requirements on the financial performance of Agribusiness SMEs in the Nyeri Central Sub County.
iii. To evaluate the effect of credit processing period on the financial performance of Agribusiness SMEs in the Nyeri Central Sub County.

iv. To assess the moderating effect of the firm size on the relationship between collateral requirement, customer information requirements and credit processing period of the Agribusiness SMEs in the Nyeri Central Sub County

1.4 Research Questions

This research sought after answering the following research questions;

i. What is the influence of collateral requirement have an influence on the financial performance of Agribusiness SMEs in the Nyeri Central Sub County?
ii. What is the influence of customer information requirements on the financial performance of Agribusiness SMEs in the Nyeri Central Sub County?
iii. What is the effect of credit processing period on the financial performance of Agribusiness SMEs in the Nyeri Central Sub County?
iv. What is the firm size moderating effect on the relationship between collateral requirement, customer information requirements and credit processing period of the Agribusiness SMEs in the Nyeri Central Sub County?

1.5 Justification of the Study

This research was being carried out to find the effects of interest rate capping, firm size and financial performance of small and micro enterprises in agribusiness Nyeri central sub county Kenya. The research would benefit all SMEs to understand the interest rate capping terms and this may help them improve their credit worthiness, know what information is needed from them and also the collateral terms needed by financial institutions. The study would also be of help to the general public because it would lead to availability of jobs after financial performance stability of the Agribusiness SMEs in the Nyeri Central Sub County. The study could also be important to the government so that they can revisit the capping regulation passed in 2016. The study could also assist in future academic research and finally it could assist the financial institutions not to set very strict term to the SMEs which would in return give them more business.

1.6 Scope of the Study

This study focused on how the increase for collateral requirement, the increase of credit processing period, increase for customer information requirements and firm size due to interest rate capping would influence the financial performance of Agribusiness SMEs in the Nyeri Central Sub County. There could be other variables but this study was limited to the above four variables. The study was carried out in the Nyeri Central Sub County

because it is an agricultural activity dominated area. The sample size of the study was 274 Agribusiness SMEs.

1.7 Limitations of the study

This study's limitation was limited access to information; this is because some SMEs may become suspicious and conceal vital information which is crucial to the research. Financial performance may be seen as confidential information by most SMEs and therefore some respondents may not feel comfortable in giving the information. To mitigate this limitation the researcher used a letter of introduction. Some of the SMEs may be illiterate and filling the questionnaire may take time they might as well decline to answer the questionnaires which may delay the research. To mitigate this, the researcher requested the research assistant to assist the respondent in filling the questionnaire.

1.8 Assumptions of the study

The assumptions of this study are that all the respondents could cooperate with the researcher by providing the appropriate responses with honesty and in good time. Secondly it is assumed that the respondents positively responded to the researcher and lastly it is assumed that the proposed study was completed within the stipulated time as per the time frame.

1.9 Definition of terms

Small and Micro Enterprise	They are businesses in both informal and formal sectors, classified into non-farm and farm categories and employing one to ten employees (Republic of Kenya, 2005)
Interest Rate Capping	Interest rate capping is a restriction on the rate which commercial banks lend loans to its customers. An interest rate ceiling is also a regulatory measure that prevents commercial banks as well as other financial institutions from charging more than a certain level of interest (Bonyane & Ladsani 2011).
Central Bank Rate	It's the lowest rate of interest charged on loans to banks by the Central banks (CBK data).

Financial Performance	This is the level of performance of a business over a particular period of time, and it is expressed in profits and losses during the period (Wairimu,2016)
Interest Rate	This is the rate at which interest is paid by a borrower for the utilization of money which they borrow from a lender. Usually, interest rates are expressed as a percentage of the principal for a period of one year (Bonyane&Ladsani2011).
Return on Assets	This is used to measure a company's effectiveness in profits generation through exploitation of its assets (Heikal,Khaddafi & Ummah. 2014).
Turnover	Turnover is an increase in the net worth resulting from a transaction; this definition is according to Government Finance Statistics Manual 2001.
Profit before Tax	Profit before tax is also referred to as operating profit which is the difference between sales and the goods sold cost plus selling and administrative expenses (Cooper, 2002).

CHAPTER TWO
LITERATURE REVIEW

2.1 Introduction

This chapter reviewed various literatures on interest rate capping, interest rates spreads and how they affect the financial performance of SMEs; it consolidated contributions from various scholars, professionals and practitioners. The chapter included theoretical and empirical review and also an overview of effects of interest rate capping, firm size and financial performance of small and micro enterprises in agribusiness Nyeri central sub county Kenya which are increase in collateral requirement, increase in information requirements, increase in the credit processing period and the firm size of the Agribusiness SMEs needed by financial institutions.

2.2 Theoretical Literature Review

This section examined theories and literature review from scholars which are related to the study. It focused on the effects that interest rate capping; firm size has on the financial performance of SMEs in Agribusiness.

2.2.1 Pecking Order Theory

There is no well-defined best structure of capital (Myers, 1984). The pecking order theory, was suggested first by Myers and Majluf (1984), it indicates that there is no well clear target level of debt which organizations attempt to attain. Organizations raise external funding just when internal funding are insufficient. This theory indicates that organizations have a preference to internal funding over external finance as well as debt over equity this is by Priyanka & Brajesh, (2008). It has been reported that the theory of pecking order is more powerful in giving explanation to the organizations' behavior as compared to the trade-off theory (Shyam-Sunder and Myers, 1999). Nevertheless, the theory was challenged methodologically by other researchers such as Chirinko and Singha (2000). Some organizations follow the theory of pecking order whereas others follow the model of trade-off and none of them can be rejected (Fama and French, 2002). According to La Rocca, La Rocca., and Cariola (2009) the theory further suggested that organizations should finance their requirements in a hierarchical manner. Fama & French, (2000) reported that organizations that are profitable were less leveraged than non-profitable organizations. It has well been suggested that large organizations be liable to accumulate debts so as to be able to pay dividends whereas small organizations be liable to behave in opposite behavior (Frank and Goyal, 2003). Several studies which have been

carried out on developing nations support the theory of pecking order. The theory of Pecking Order is one of the most pertinent theories of this study since SMEs tend to finance their business activities initially by the use of their reserved funds and also borrowing from family and friends they only turn to external debts after exhausting the internal sources. In line with the pecking order theory self-financing comes first followed by debts and last is equity. The theory suggests use of internal sources followed by debt and then equity which is the order that the Agribusiness SMEs in the Nyeri Central Sub County should adopt. Most SMEs particularly in developed nations utilize internal funds including debt at start-up. However the SMEs should be advised that highly leveraged firms are less profitable and therefore it advisable to the Agribusiness SMEs not overburden their firms with debts but try to exploit any opportunities of available internal funds.

2.2.2 Theory of Financial Intermediation

The theory of financial intermediation was developed in 1960 by Gurley and Shaw. This theory is founded on the agency theory and the informational asymmetry theory. Theoretically, the financial intermediaries' existence is explained by the high cost of transaction existence, the regulation method and lack of inclusive information in helpful time (Andries, Cuza, 2009). In line with the perfect financial markets model in the neo - classical theory, the theories fulfill the following conditions: the conditions of borrowing/placement are identical for both participants; no one participant can influence the prices; there are no discriminatory fees; the lack of competitive (Andries, Cuza, 2009).

Credit is a tool for financial intermediation because money becomes available to entities that need it in for utilization in the growth of the economy. Theoretical researches have established the association which exists between economic growth and financial intermediation. For example, Levine (2002) in his researches highlighted strongly the financial intermediation role in economic performance. Both empirical and theoretical researches suggest that a financial system which well developed is a benefit to the economy all together. According to Levine (1997) efficient allocation of capital in an economy leads to growth of the economy.

As a country's economy continues to grow, its financial system grows more speedily as compared to the national wealth (Levine, 1997). Scholtens & Wensveen, (2003) noted

that efficient financial intermediation leads to a raise in the savings as well as investment level, and it also raises the effectiveness in the financial funds allocation within the economic system. Banks development as well as proficient financial intermediation contributes to growth of the economy this is because savings are channeled to activities that are high productive and also there is a reduction of liquidity risks (Augier & Soedarmono, 2011)

This theory is very relevant to this study because the Agribusiness SMEs are affected by financial intermediation, in that the laws that regulate the financial institutions who are the financial intermediaries to the SMEs and the economy as a whole also affect the availability of capital for the SMEs. Agribusiness SMEs are categorized as risky borrowers by financial institutions and therefore with the introduction of the interest rate capping law, it has become a challenge for the SMEs to access fund from financial institutions and if they do it is at a very high transaction rate. Due to the constraints of fund the SMEs are not able to invest in new improved asset for the development and innovation of new products, the SMEs would not fully utilize their assets when they break down leading to a limitation of their maintenance, this would lead to a low return on assets (ROA), reduced turnover and also a low profit before tax (PBT). When there is a healthy financial intermediation the Agribusiness SMEs would grow and also makes profits which would lead to economic growth of the Nyeri Central Sub County and the contribute to the growth of the gross domestic product (GDP) of the country.

Due to lack of sufficient collateral, inadequate financial information asymmetry and unreliable credit worthiness of the Agribusiness SMEs the theory of financial intermediation is interfered with.

2.2.3 Dynamic Trade off Theory

Dynamic trade-off theory proposes that organizations let their leverage targets ratios vary within an optimal range and that these targets are only adjusted when the adjustment costs can be compensated by the profits of such adjustment (Islam et al., 2013). The theory of dynamic trade off and the theories of pecking order make comparable predictions with regards to profitability of an organization, example, Hovakimian et al. (2001) found that organizations that are more profitable normally prefer to issuance of debt over equity, they also noted that this was still the same case with firms that were trading off the bankruptcy risks with the debt tax benefits, which as well applies with the theory of

pecking order. Structure of the capital is as a result of cumulative attempts of an organization to time the market, thus arguing the target leverage ratio absence (Baker and Wurgler, 2002).

Leary and Roberts (2005), Strebulaev (2004) and Liu (2005) claimed that the findings of the study conducted by Welch (2004) and Baker and Wurgler (2002) were as well in agreement with costly adjustment by organizations to their goal leverage ratios. One thing about these empirical researches is that their findings are in agreement with a few or all of the following competing capital structure theories: pecking order theory, dynamic trade off theory and market timing or inertia theory. Dudley (2007) also examined the leverage level that firms get used to after getting to one of the boundaries. A study on the post adjustment leverage values revealed that firms adjusted to different levels dependent on whether they reached a lower or an upper limit. The results suggest comparative adjustment costs play a vital function in decisions of capital structure and they are also in agreement with the Leary and Roberts (2005) findings. Findings which are comparable to the theory of pecking order which suggests that organization capital structure is uncertain and is dependent on the financing deficits of an organization as well as their projected regimes of tax (Hennessy and Whited, 2005). It has been revealed that agency costs vanish when organizations enthusiastically change their debt maturity and level of debt (Childs et al., 2005).

In trade-off theory organizations raise their leverage ratios to take advantage of tax shields of debt that is when there is the absence of adjustment costs, bringing about a positive relationship between profitability and leverage. Nevertheless, in the presence of adjustment costs, firms may find it advisable not to involve in the external financial markets since raising capital may sometimes be too costly for them, resulting in a leverage ratio that deviates from what it would be in the absence of adjustment costs (Dierker, Kang, Lee & Seo, 2015).

In the dynamic trade-off theory, capital structure of a firm decision in regards to risk depends on the risk level as well as the adjustment costs associated with external financing. For example, the firm may choose to not to borrow external finances if costs of adjustment are higher than the benefits obtained from adjusting its capital structure. In contrast, if the benefits from borrowing external finances after risk changes are greater than the adjustment costs, possibly due to the emergence of good investment

opportunities then we expect the firm to raise a type of external finance that allows it to move closer to its optimal leverage (Leary & Roberts (2005) and Strebulaev (2007).In this study it is advisable to the Agribusiness SMEs to increase their leverage ratios to take advantage of tax shields of debt that is when there is the absence of adjustment costs, resulting in a positive relationship between profitability and leverage. Otherwise when there is presence of adjustment costs it is advisable not to borrow funds externally since the raising of external capital may turn costly for them, resulting in a leverage ratio that deviates from what it would be in the absence of adjustment costs.

Again the Agribusiness SMEs should be aware that it is not advisable to borrow external funds if the adjustment costs are higher than the benefits obtained from adjusting their capital structure, however if the benefits from borrowing external finances after risk changes are greater than the costs of adjustment, possibly due to the emergence of good investment opportunities then the SMEs should raise the external finance that allows it to move closer to its optimal leverage.

2.3 Empirical Literature Review

The empirical review explained the influences of collateral requirement, customer financial information requirements and credit processing period on the financial performance of Agribusiness SMEs

2.3.1 Collateral Requirement, Interest Rate Capping and the Financial Performance of Agribusiness SMEs

According to Gitman, (2003) collateral pledging is the degree to which borrowers commit the assets a lender as a security for payment of debt. The value of the assets pledged must be utilized to recover the principal in case of default by the borrower. In particular, SMEs give security in form of fixed assets like buildings, land, cars or anything else equivalent or more than the principal loan in the event of default. (Garrett, 2009). Security for loans ought to be actually able of being sold under the markets' normal conditions, at a fair value of market and as well with reasonable promptness. Most financial institutions, so at to finance SMEs ask for collateral equivalent to 100% or more of the loan (Mullei and Bokea, 2000).

Collateral requirements reduce inappropriate funds use by SMEs. It's obvious that majority of the SMEs are discriminated as well as denied by the lenders in giving

financing; this is owing to the high risk associated with them lacking sufficient resources to pledge as collateral (Kihimbo, 2012).

Collateral is a vital prerequisite for to access funds from financial institutions (Bougheas, 2005). Collateral decreases the risk factor of a loan by offering the financial institution with a claim on the assets that are tangible (Etemesi, 2017). Coco (2000) said that collateral is the lender's second line of defense. The comfort offered by collateral permits financial institutions to give credit on favorable terms to SMEs even though information opaqueness as well as uncertainty characterize the organization. Collateral acts as a device of screening to differentiate between bad and good borrowers and to alleviate the unfavorable borrowers' selection. Bester, (2007) noted that investors having low likelihood of default would disclose themselves by accepting requirements of collateral which could be unappealing for borrowers categorized as high risks.

Requirements of collateral act as a mechanism of incentive since higher collateral implements a selection projects that are less risky (Bester, 2007). This is because a low risk borrower has a bigger incentive to guarantee collateral as compared to a high risk borrower, hence lower probability of failure and loss of collateral. Collateral acts as borrower's indicator creditworthiness that is according to Stiglitz and Weiss (1981). Collateral therefore serves as a tool for resolving moral hazard problems (Aghion & Bolton, 2008).

A research on challenges that SMEs face in accessing finance from financial institutions, revealed that not many SMEs be successful in accessing funding from financial institutions, this is because they fail to meet lending requirements, which include collateral security (Gangata and Matavire, 2013). A study proved that SMEs within Ghana just like majority of the SMEs in other nations face main challenges in credit access. These was because they were unable to give collateral as well as other information required by financial institutions for instance financial statement that are audited coupled with the high loan cost in terms of high rates of interest making it very difficult to access loans from the bank (Vuvor & Ackah, 2011).

Organizations with more assets that are intangible have limited access to financing, than organizations with more assets that are tangible. SMEs size also matter in because small and micro SMEs have fewer assets to give as collateral as compared to big organizations. This might partially have to do with the growth stage the organization is in. In the

previous stages of the organization, it might have lower profits retained which might obstruct it from purchasing fixed assets as compared to the bigger organizations that have a longer history (Etemesi, 2017). An additional explanation why small organizations have a small fixed assets proportion is the constraints of capital which they face. Owing to the need to raise huge amounts of capital, it becomes hard for them to get substantial fixed assets.

Access to formal finance is also an obstacle to the SMEs who are categorized as high risk borrowers this because the SMEs do not have adequate financial facilities (Cook & Nixson, 2009). A research on challenges that face SMEs in accessing finance from financial institutions; A case of Belaway, Zimbabwe revealed that SMEs be unsuccessful in securing loans on account of financial institutions restrictive requirements, top amongst them being lack of collateral, and this requirements have been made tight with the introduction of interest rate capping, because of the small profit margin that the financial institutions enjoy on interest rate ceilings (Matavire et al., 2013). Amongst these scholars recommendations was that the government ought to play its responsibility of facilitating SMEs to access finance from available financial institutions. A research on challenges that face women entrepreneurs in accessing finance for business in Kenya: A case of Ruiru Township, Kiambu County, and lack of fixed assets was one of the study objectives (Makena, et al., 2014). Nevertheless, the research revealed that lack of tangible collaterals like land was a big obstruction to accessibility to credit by women entrepreneurs. Amongst the researchers recommendations was that the government ought to play its responsibility of facilitating SMEs to get finance from financial institutions.

2.3.2 Customer Information Requirements, Interest Rate Capping and the Financial Performance of Agribusiness SMEs.

Access to information is extremely vital to both the Agribusiness SMEs and the financial institutions who are the lenders. The Agribusiness SMEs require the information of lenders so that they are able to identify potential lenders of finances. This information is important because the borrower is able to do the evaluation of the financial services and products cost that are being offered by the financial institutions. The financial services providers require Agribusiness SMEs information so that they are able to do the evaluation of the risk profile of the Agribusiness SMEs applying for finances, and to evaluate the SMEs prospects within the segment of the market.

The access to information about credit in environments of local lending determines the degree to which small enterprises get adequate external financing to do exploitation of projects which are profitable. The degree to which the environment of business hinders the best credit provision determines the funding gap size that the Agribusiness SMEs might face (Berger, 2006). One challenge faced Agribusiness SMEs when attempting access credit is information asymmetry; this is because they are not able to prove the value and quality of their investment projects to the financial institutions. Again some of Agribusiness SMEs are not enlightened in keeping proper books of accounts and therefore they are not able to give credible financial information to the financial lenders. Actually, the information asymmetry problem is solely related to lack of good communication and credibility. Tucker & Lean, (2003) noted that startups and most SMEs are not able to provide the needed historical and also the track record financial performance. Financial institutions actually depend on past financial performance as an indicator for the future projects profitability. SMEs tend to be restrictive when it comes to providing detailed core information about their businesses to external financiers because the rival competition and when the information is leaked they would be outdone by their competitors may leak through to competitors (Winborg & Landstrom, 2000).

Ono (2005) states that SMEs in Africa sometimes meet the requirements set by financial institutions, though it is quite a challenge for them to provide the required financial information to the financiers. Oketch (2007) revealed that the demand has only been met by a small percentage to the SMEs requirements due to the various factors like lack of adequate collateral, information asymmetry and delay in credit processing period. This research as well indicated that even though financial institutions do the lending to major borrowers having collateral security, there is need for these financial institutions to increase their lending to SMEs.

Complete information regarding the project of the borrower might not at all time be available (Gorman et al., 2001). This brings about information asymmetry situation, which happens when one party to the transaction of lending has better or more information as compared to the party. Asymmetry of information between financial institutions and SME borrowers is reflected in incapability of the most of SMEs to give realistic plans of business and current dependable financial information. When the information required is not reliable the cost of lending to the SMEs increases and the credit worthiness of the Agribusiness SMEs reduces.

2.3.3 Credit Processing Period, Interest Rate Capping and the Financial Performance of Agribusiness SMEs

Oketch (2007) performed a research on sixteen financial institutions to establish the demand and supply of credit to the sector of SMEs. This research showed that the demand and supply for credit have been on the rise ever since 1991. Most of the conditions required by financial institutions like guarantee prerequisites should not really restrain Agribusiness SMEs and the poor in acquiring credit (Atieno, 2008). With the introduction of the interest rate capping the lending conditions have been tightened further causing the much delay in funding to the Agribusiness SMEs.

Accessing funding from financial institution in form of credit isn't easy and particularly within a short notice in case of an urgent situation. In line with a survey carried out by Central Bank of Kenya (CBK, 2007), the period of funding has actually been increased with the introduction of the interest rate caps, this is because the SMEs are categorized as high risk borrowers. The charged rate of interest on a loan is just part to charges of the loan; a total list of charges can consist of facility arrangement fees, commitment, processing fees, negotiation fees, valuation fee, appraisal fee, legal fee and insurance (CBK, 2007). This hidden charges makes the funding very expensive for Agribusiness SMEs.

According to Sengupta's (2011) financial institutions not only rely on an SMEs creditworthiness to extend finance but also get information from other investor which create trust. Additionally, networks with financial lenders, connections with other business and enterprises relations as well assist in the promotion of access to financial services (Atieno, 2008). With introduction of interest rate capping, financiers take time to evaluate these networks and this delays credit processing. According to Oketch (2007) demand for information from SMEs is only met by a small percentage to the SMEs requirements due to the various factors like lack of adequate collateral, information asymmetry. These requirements cause a delay in credit processing period and affect most Agribusiness SMEs financial performance.

When the Agribusiness gets good networks the financial lender would have trust in lending the SME and the funding would not be delayed causing the financial performance of the SME to improve and hence profitability. Also problems of cash liquidity would be eliminated.

2.3.4 Agribusiness SMEs Size, Interest Rate Capping and their Financial Performance

Galindo and Schiantarelli, (2003) reported that both in the developed and emerging economies of the world SMEs external financing have been a challenge and has lend to constraints in growth. The World Business Environment WBES is an exclusive firm-level survey carried out in 1999 and 2000 for more than 10,000 firms in over eighty countries and it did the rating of financing as well as other obstacles, for instance crime, macroeconomic instability, corruption and infrastructure to have an impact on the firm's operation as well as growth. Small firms constantly report higher obstacles of growth as compared to large or medium-size and micro firms (Schiffer and Weder, 2001). Beck et al. (in press) reported that age, ownership as well as size are the mainly dependable predictors of financing obstacles of the firm. Earlier scholars found that firms that are larger, foreign-owned and older report lesser obstacles of financing and the association aren't just statistical but as well economically important (Akinyi, 2014). The likelihood for micro firms citing finance accessibility as an obstacle is 39 percent compared to 32 percent for large firms and 36 percent for medium-size firms (Akinyi, 2014). Within a world with information asymmetries and fixed costs of transaction, small firms having demand for small loans face higher costs of transaction as well as face higher premiums of risk because they are usually more opaque and have fewer collateral to give. Do the higher obstacles of financing the small firms face in fact limit their growth otherwise do they look for ways to overcome the obstacles?(Akinyi, 2014).

Beck et al. (2005) found that the higher the obstacles faced by smaller firms the slower the growth. Small firms therefore don't just report facing higher obstacles of growth; these higher obstacles are as well more limiting for their financial growth and performance as compared to the case of large and medium-size firms (Akinyi, 2014). It has been reported that the majority of the problems linked to financing mainly arise with SMEs (Junjie et al., 2008). These findings are in line with other scholars who noted that a direct association exist between financing accessibility and size of the firm (Beck, Asli & Maksimovic, 2005; Torre et al., 2010; North et al., 2007; Beck & Demirguc-Kunt, 2006). Such behavior has been criticized by Binks et al. (2006) since the gap of finance brings about failure in exploiting business opportunity and competitiveness disadvantage. On the contrary, Berry et al. (2003) did the interpretation from banks" position that increases in size of the firm permits larger risks diversification, which offer superior safeguards toward banks.

2.4 Conceptual Framework

Conceptual framework specifies the concepts or variables to be studied. It is a hypothesized model that identifies the concepts or variables to be studied and their relationships. It provides clear links to the research. The conceptual framework of the study is presented in Figure 2.1 it is an indicative of the effects of interest rate capping, firm size and financial performance of small and micro enterprises in agribusiness Nyeri Central Sub County Kenya.

Independent Variables **Moderating variable** **Dependent Variable**

(Effects of Interest Rate Capping)

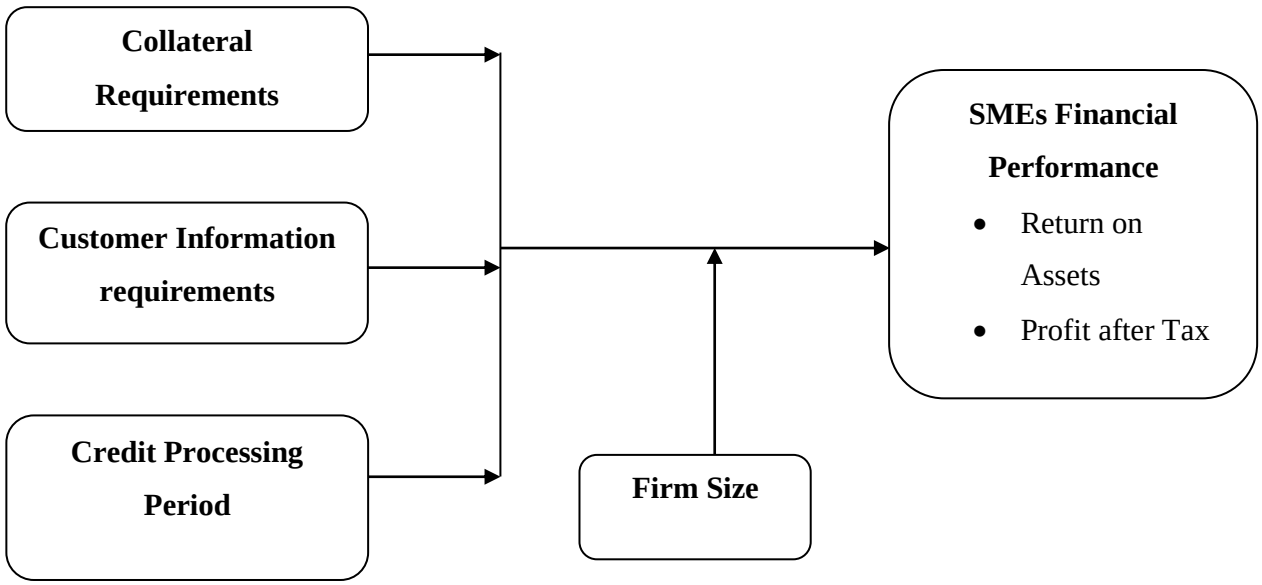

Figure 2.1: Conceptual Framework

2.5 Operational Framework

The operational framework of the study is depicted in Figure 2.2 below. The independent variables are measured by the following parameters Ownership of Assets, Value of Collateral, Mitigation of the Risk factor, Proper Books of Accounts, reliability of available information, Managerial and Technical Skills, Credit processing requirements, Riskiness of the borrowers, Networks and the moderating parameters which are Capital Base Value of the Agribusiness SMEs.

Independent Variables **Moderating variable** **Dependent Variable**

(Effects of Interest Rate Capping)

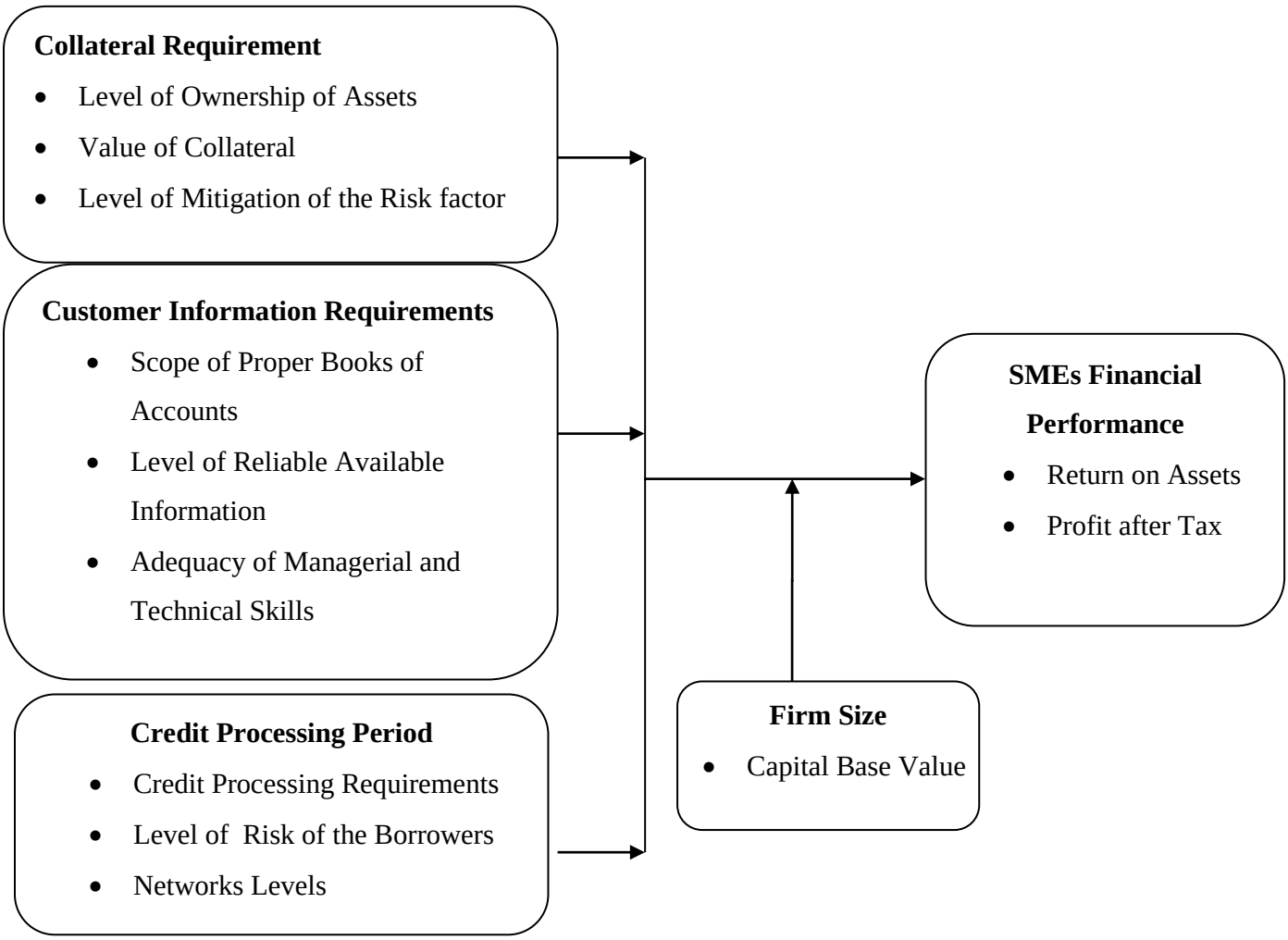

Figure 2.2: Operational Framework

2.6 Research Gaps

From the literature review we have seen that availability of affordable and accessible finance has remained an obstacle to the financial performance of most SMEs in developed and also emerging economies like Kenya. Despite the challenge, the Agribusiness sector has sustained many households in the Nyeri Central Sub County and also created employment and brought food to the table for many in the county. With the new interest rate capping on lending regulations, SMEs have been locked out since they are categorized as high risk borrowers and this has led to the decline of 5.7% of loans in value which is a reflection of recent statistics (Mwaniki, 2017. The access of finances is very important because it allows the growth, development and great financial performance of the SMEs.

It is evident that SMEs lack credit worthiness and therefore they have trouble securing external funds for their business activities. Lack of access to finances from financial institutions due to collateral requirements, information asymmetry and delays in accessing credit causes the SMEs enable to invest in plant and equipment, lack of maintaining the SMEs available assets adequately and therefore the assets are not fully utilized which leads to loss profits and eventually stagnation or liquidation of the SMEs.

The main purpose of a business is to perform well financially from the sale of goods and also provision of services. These sales may either be tangible in nature for the goods or intangible for the services. An SME generates revenue when they exchanges goods or services with their customers in return for money or other assets. An SME is not able to perform well financially if they do not accesses adequate finances. Again if the SME does not have the sufficient finance to perform it daily activities it would either stagnate or go into liquidation.

Mbua (2017) did a study on the effect of interest rates capping by the central bank of Kenya on the banks listed on the Nairobi securities exchange, which answered the following questions, how important the bank interest rate as a factor is when investing in bank shares, how attractive the bank shares are after the interest rate cap was introduced and to what extent is the capping of interest rates an event study. The study recommended that investors should look into other investment areas like Treasury bills and bonds as well as other sectors like real estate, also recommended that when conducting an event study, it is important to be aware of the fact that other non event information or activity might

occur at the same time as the event under study which could lead to inaccurate findings on the event and finally that it is important for anyone undertaking an event study to know that sometimes information can be reflected in the share prices before the actual event date. Irungu (2013) studied the interest rate spread effects on financial performance of Kenyan commercial banks which revealed that spread of interest rate have an effect on performance assets within banks since it raises the loans cost charged on the borrowers, interest rates regulation and have far reaching effects on nonperformance of assets. This research recommended that there is need for the government to do regulation of interest rates since this could aid to protect borrowers from being exploited by commercial banks. Etemesi (2017) studied Credit access from commercial banks and growth of small and micro enterprises in Nairobi central business district. The study concluded that Collateral requirement has been one of the major hindrances for SMEs access to credit from commercial banks also Interest rate capping in Kenya has led to a high degree of exclusion from small loans for SMEs and that Interest rate capping is harmful to SMEs, interest rate caps reduce returns on saving which ultimately reduce both the quality and quantity of investment. Etemesi recommended that there be a revision of loan interest rates with a view of accommodating all borrowers at different economic levels. Though there have been earlier studies on the interest rate capping none has studied the Agribusiness sector. Therefore with introduction of the interest rate capping this study sought to find out its influence of the financial performance of Agribusiness SMEs in the Nyeri Central Sub County.

CHAPTER THREE
RESEARCH METHODOLOGY

3.1 Introduction

This chapter outlines the study's methodology and the precise procedures to be undertaken. It presented the research design, study population, design of sampling, methods of data collection and techniques of data analysis are explained in this chapter.

3.2 Research Design

The researcher assumed a descriptive research design to conduct the research because it used quantitative research methodologies elements. According to Cooper & Schindler (2011) this kind of research design tries to define or describe a system, frequently by creation of a profile of a collection of problems, events or people, via the data collection and the frequencies tabulation on variables of research or their interaction. A descriptive research design defines people, questions, surveyed as well as the analysis method before the start of data collection. Therefore the research focuses on what is' the effects of interest rate capping, firm size and financial performance of small and micro enterprises in agribusiness Nyeri Central Sub County Kenya. Descriptive approach is as well justified because it's resourceful in gathering big amounts of data within a short period of time. The research design doesn't allow variables manipulation (Bichanga & Aseyo, 2013).

3.3 Target Population

Target population is that group of events, objects or individuals having common characteristics that are observable and of which a researcher intends to generalize his/her study on (Mugenda 2003). The study targets licensed SMEs in the Agribusiness sector in the Nyeri Central Sub County, which comprises of a total 950 licensed SMEs as per the Nyeri County records for 2014. Nyeri Central Sub County comprises of Nyeri Town, Kiganjo town, Marua town, Muruguru village ,Kiamuiru village, Gatitu town, wambugu Farm village, Ruring'u estate, King'ong'o estate, Kamakwa estate and Gamerock estate. Given that Nyeri is an agricultural economy town the study generalized on Agribusiness activities like the agro vets, Open air Market hawkers, Poultry farmers, Cattle farmers, Goat farming. The research studied the Agribusiness SMEs who practice animal husbandry, the market hawker who buys produce directly from the farms to agro vets who sell inputs, fertilizers, herbicides and also livestock foods.

3.4 Sampling Design

Sampling design is a working plan, technique or procedure that obtains a sample from a given population (Kothari & Garg, 2014).A sample is made up of some members of a targeted population, an extract from a targeted population which is representative of the target population (Collis & Hussey, 2013). The basic idea of sampling is that by selecting the part of the elements in a population a conclusion may be got representing the entire population (Cooper & Schidler 2008). The objective of the sampling design is to know the characteristic of the population (Saunders, Lewis & Thornhill, 2009).

3.4.1 Sampling Technique

The ultimate test of a sample design is how well it represents the characteristics of the population it purposes to (Saunders, Lewis & Thornhill, 2009). The researcher used stratified sampling to select a sample that represented the entire population of the study. This research employed a stratified sampling technique dividing population in groups or strata such as agro vets, Open air Market hawkers, Poultry farmers, Cattle farmers, Goat farming. Stratified random sampling was preferred since every SME would have an opportunity of being sampled.

3.4.2 Sample Size

The sample size representative of the Agribusiness SMEs in this study is 274 this based on the population of the licensed Agribusinesses SMEs in the Nyeri Central Sub County as per Nyeri County Government records for 2014.

The sample size was determined based on the Krejcie and Morgan's criterion. The sample size determination is shown in Appendix II: Table 3.1. In this study there were 950 of the registered Agribusiness SMEs who practice animal husbandry, the market hawker who buys produce directly from the farms to agro vets who sell inputs, fertilizers, herbicides and also livestock foods.

Table 3.1: Sample Size Classified in Stratas

Agribusiness SMEs Group	Target Population	Percentage	Sample Size
Agro vets	97	29%	28
Open air Market hawkers	396	29%	114
Poultry farmers	203	29%	58
Cattle farmers	99	29%	29
Goat farming	155	29%	45
Total	**950**		**274**

The sample size proportions were arrived at by dividing the sample population size by target population which is 29% of each of the SMEs category.

3.5 Data Collection

The various variables in question were evaluated to establish how the increase for collateral requirement, the increase of credit processing period and increase for customer financial information requirements due to interest rate capping would influence the financial performance of Agribusiness SMEs in the Nyeri Central Sub County. The study used questionnaires as the primary data collection tool. The study took a quantitative approach where numerical data were generated the analysis. Questionnaires were used because the study targets finance of the Agribusiness SMEs. A questionnaire generates data that is straight forward and allows quick analysis (Wellington, 2000).

The questionnaires were administered by the researcher and a research assistant. The researcher was given a letter of introduction from the School of Business Management and economics of Dedan Kimathi University of Technology. The researcher initially visited the sampled Agribusiness SMEs for introduction, familiarization and getting consent from Agribusiness SMEs to the study.

3.6 Pilot Study

In this study, the data collection process was subjected to a pilot test which involved administering the data collection instruments to a small group of 16 each of every SMEs category totaling to 80 Agribusiness SMEs in Nyeri town Centre that have similar characteristics to the target population. The pilot population was determined the same way by use of 29% of the sample size. This assisted the researcher get a feedback on whether the instrument worked as expected in a real situation. The pilot study provided

the researcher with an opportunity to detect and correct the potential problems within the data collection instruments.

3.6.1 Test of Reliability

According to Gay, (1996) reliability refers to the internal stability or consistency of the measuring instrument over time. Reliability is the extent to which the instruments yields the same results on repeated trials (Doodley et.al 2003).The data analyzed to derive a coefficient of reliability. Cronbach's alpha was utilized to measure internal consistency with a scale of 0.7 and above which is suitable. The researcher has used Cronbach's alpha because it is the best test when using multiple Likert scale questions.

A pilot survey was conducted in order to ascertain the data collection instrument reliability using Cronbach's alpha coefficient (α) threshold of 0.7 coefficient. The findings in Table 3.2 shows that all the Cronbach Alpha (α) coefficients are more than 0.7, these indicates that the instrument of research was reliable and hence was relied on in this study.

Table 3.2: Reliability Test Results

Scale	Cronbach's alpha
Collateral requirements	.701
Customer information requirements	.810
Credit processing period	.794

3.6.2 Test of Validity

Validity refers to the extent to which an instrument measures whatever it claims to measure. Unsound instruments may bring about incorrect conclusions of research, which in turn can affect future decisions. To ascertain validity of the questionnaire the research consulted experts and experienced personnel in the research methodology from Dedan Kimathi University of Technology to make criticism and comments on the format of the instrument.

3.7 Data Analysis and Presentation

In the data analysis statistical package for social sciences (SPSS) was used. The qualitative data was analysed using descriptive statistics, linear regression analysis by use of multicollinearity test, normality test, linearity test and a test of independence. Figures and tables were utilized to present appropriately the collected data for easiness of

understanding as well as analysis. This allowed the researcher to do the summary of responses for more analysis and to facilitate comparison. Quantitative data was analyzed using Multiple Linear Regression Model.

$Y=\beta_0+\beta_1X_1+ \beta_2X_2+\beta_3X_3+\varepsilon$

Where,

Y: the dependent variable (Financial Performance of Agribusiness SMEs) expressed as a linear combination of independent variables X_1, X_2 and X_3

β_0: The regression constant i.e. $Y = \beta_0$when X_1, X_2, X_3..... $X_k = 0$

β_1: Coefficient of Collateral Requirement (independent variable X_1)

β_2: Coefficient of Customer Information Requirement (independent variable X_2)

β_3: Coefficient of Credit Processing Period (independent variable X_3)

ε: Error term

Linear regression analysis was utilized for the estimation of the coefficients of the linear equation as well as the Independent variables that best predicted the dependent variable value. From this model, a test of 5% level of significant was carried out on a variety of variables of this research by use of correlation coefficient (R), coefficient of determination (R^2), ANOVA table and F-test so as to check the data's significant to be analyzed.

CHAPTER FOUR
RESEARCH FINDINGS AND DISCUSSION

4.1 Introduction

The chapter outlines statistical findings collected using questionnaires that were administered to respondents in the Agribusiness sector of Nyeri Central Sub County. The key aim was to establish the effects of interest rate capping, firm size and financial performance of small and micro enterprises in agribusiness Nyeri Central Sub County Kenya. Data was coded, analyzed and the results were obtained using descriptive and inferential statistics guided by research objectives and questions. Multiple regression analysis was used to determine the relationship between the dependent and independent variables.

4.2 Response Rate

Data that was analyzed was obtained from two hundred and thirty seven (237). The study targeted two hundred and seventy four (274) respondents operating small and micro enterprises in Agribusiness Nyeri Central Sub County Kenya. The response rate achieved by the study is 86.5% which was very good according to (Mugenda & Mugenda, 2003).

Table 4.1: Response Rate

Response rate	Frequency (n)	Percent (%)
Returned	237	86.5
Unreturned	37	13.5
Total	**274**	**100**

4.2.1 The Period the Business has been in Operation

The study sought to establish how long the respondents had operated the business. Based on Table 4.2 below, 6.8% have operated business for less than 5 years, 29.1% for a period between 6 – 10 years, 36.3% for 11-15 years while 27.8% had operated business for over 16 years. In this case, given that over 93.2% of the entire respondents had in excess of 5 years in business operations, it's anticipated that the respondents had comprehensive information about the influence of interest rate capping on financial performance of SMEs in the Agribusiness sector.

Table 4.2: The Period the Business has been in Operations

Period the Business has Operated	Frequency (n)	Percent (%)
Below 5 years	16	6.8
6 - 10 Years	69	29.1
11 - 15 years	86	36.3
16 years and above	66	27.8
Total	**237**	**100.0**

4.2.2 Category of the Respondents

The researcher sought to evaluate the category of the respondents in the business. As shown in Table 4.3, 19.8% were the directors while 80.2% were in management. This reflects the normal business operations where majority of the people involved in today running of business are both the owners and employees where, the staff constitutes a higher percentage.

Table 4.3: Category of the Respondents

Category of the Respondents	Frequency (n)	Percent (%)
Owner	47	19.8
Staff	190	80.2
Total	**237**	**100.0**

4.3 Descriptive Analysis

The researcher carried out descriptive analysis for the dependent and the independent variables of the study. Financial Performance was the independent variable while
The results were discussed below

4.3.1 Descriptive Analysis for Financial Performance

By use of secondary data, financial performance of the SMEs in the Agribusiness in this study was evaluated in terms of return on assets and profit after tax of small and micro enterprises in Agribusiness in Nyeri Central Sub-County for the year 2013 to 2016.The annual return on assets and profit after tax data was weighted to determine the mean and standard deviation for each financial year. The findings were summarised in the Table 4.4 and Table 4.5.

Table 4.4: Average Return on Assets(Percentage)

Year	Minimum	Maximum	Mean	Std. Deviation
2013	.80	8.40	2.5717	1.79566
2014	1.20	8.30	2.6754	2.02847
2015	1.00	9.40	2.6823	2.05119
2016	1.10	8.90	2.7857	1.98873
Valid N (listwise)				

From Table 4.4, the study revealed that year 2016 had the highest average return with a mean of 2.7857 percent and standard deviation of 1.98873 followed by year 2015 with a mean of 2.6823 percent and a standard deviation of 2.05119. Year 2014 had a mean of 2.6754 percent and standard deviation of 2.02847, while year 2013 had the lowest mean 2.5717 percent and standard deviation of 1.79566. The trends indicated that average return has been in an increasing trend for the period between 2013 to 2016. There was a clear indication that the SMEs with the highest return was at 8.90 percent on the invested capital while the lowest was 0.80 percent of return on the SMEs invested capital.

Table 4.5: Average Profit after Tax(Kshs in Millions)

Year	Minimum	Maximum	Mean	Std. Deviation
2013	-3.80	3.60	.2976	.61205
2014	-.01	3.60	.3440	.62222
2015	-.12	3.80	.3465	.63616
2016	-.22	3.20	.3601	.78501
Valid N (listwise)				

As shown in Table 4.5, year 2016 had the highest average profit before tax with a mean of 0.3601 million and standard deviation of 0.78501 followed by year 2015 with a mean of .3465 million and standard deviation of .63616. Year 2014 had a mean of .3440 million and standard deviation of .62222 while year 2013 had a mean of 0.2976 million and standard deviation of 0.61205. The trends indicated that average profit after tax has been in an increasing trend for the period between 2013 to 2016. The implication is that SMEs were able to embark on marketing strategies, introduction of new improved and technological products which geared towards increasing sales volume with time and also lead cost savings and economies of scale.

4.3.2 Descriptive Analysis for Collateral Requirements

Objective one of the study sought to explore the influence that the increase for collateral requirement has on the financial performance of Agribusiness SMEs in the Nyeri Central Sub County. Descriptive statistic was done to determine the effect of increase of collateral requirement due to interest rate capping on financial performance of Agribusiness SMEs. The results of the descriptive statistics were shown in Table 4.6

Table 4.6: Descriptive Statistic for Collateral Requirements

Collateral Requirements factors	SA (%)	A (%)	N (%)	D (%)	SD (%)	Mean	Std. Dev
Introduction of interest rate capping has affected collateral value required by financial institutions from Agribusiness SMEs	8.4	61.6	17.7	7.6	4.6	3.62	.916
Lack of fixed assets/collateralization is a hindrance to many Agribusiness SMEs access to credit from financial institutions	3.4	22.4	16.5	42.2	15.6	2.56	1.102
The availability of adequate collateral mitigates the Agribusiness SMEs risk factor.	14.3	54.4	11.4	16.5	3.4	3.60	1.031

As shown in Table 4.6, introduction of interest rate capping has affected collateral value required by financial institutions from Agribusiness SMEs with a high extent; this is with a mean score of 3.62 and a standard deviation of 0.916. Lack of fixed assets/collateral is a hindrance to many Agribusiness SMEs access to credit from financial institutions had a mean score of 2.56 and a standard deviation of 1.102. The study further revealed that most respondents indicated that the availability of adequate collateral mitigates the Agribusiness SMEs risk factor with a mean score of 3.60 and a standard deviation of 1.031. The finding of the study supports Bougheas (2005), who noted that collateral is an important prerequisite for to access finance from financial institutions. Etemesi (2017), stated that collateral reduces the risk factor of a loan by giving the financial institution a claim on the tangible asset. A research on the challenges that SMEs face in accessing

finance from financial institutions, revealed that not many SMEs be successful in accessing funding from financial institutions, this is because they fail to meet lending requirements, which include collateral security (Gangata and Matavire, 2013).

4.3.3 Descriptive Analysis for Customer Information Requirements

Objective two of the study sought to assess the influence that customer information requirements has on the financial performance of Agribusiness SMEs in the Nyeri Central Sub County. Descriptive statistic was done to determine the effect of customer information requirements due to interest rate capping on financial performance of Agribusiness SMEs. The results of the descriptive statistics were shown in Table 4.7

Table 4.7: Descriptive Statistic for Customer Information Requirements

Customer Information Requirements factors	SA (%)	A (%)	N (%)	D (%)	SD (%)	Mean	Std. Dev
Some of Agribusiness SMEs are not enlightened in keeping proper books of accounts and therefore they are not able to give credible financial information to the financial lenders.	7.2	48.5	38.8	3.8	1.7	3.56	.755
When the information required is not reliable the cost of lending to the SMEs increases and the credit worthiness of the Agribusiness SMEs reduces	2.5	39.2	27.8	24.1	6.3	3.08	.993
Poor management and skill by small and micro SMEs is an obstacle to the accessibility of finances by the SMEs, since they are not able to meet the lender requirements	4.2	28.7	6.3	43.0	17.7	2.59	1.196

From Table 4.7, most of the respondents indicated that some of Agribusiness SMEs are not enlightened in keeping proper books of accounts and therefore they are not able to give credible financial information to the financial lenders with a mean score of 3.56 and a standard deviation of 0.755. The respondents also indicated that when the information required is not reliable the cost of lending to the SMEs increases and the credit worthiness of the Agribusiness SMEs reduces with a mean score of 3.08 and a standard deviation of 0.993. Poor management and skill by small and micro SMEs is an obstacle to the accessibility of finances by the SMEs, since they are not able to meet the lender requirements had a mean score of 2.59 and a standard deviation of 1.196.

According to Berger (2004), the access to credit information in environments of local lending determines the degree to which small enterprises get adequate external financing for the exploitation of projects that are profitable. The degree to which the environment of business hinders the optimal credit provision determines the funding size gap that the Agribusiness SMEs might face. Berger noted that one challenge faced Agribusiness SMEs when attempting access credit is information asymmetry; this is because they are not able to prove the value and quality of their investment projects to the financial institutions. He further noted that some of Agribusiness SMEs are not enlightened in keeping proper books of accounts and therefore they are not able to give credible financial information to the financial lenders.

Tucker & Lean (2003), stated that financial institutions actually depend on past financial performance as an indicator for the future projects profitability. However SMEs tend to be restrictive when it comes to giving detailed core information about their businesses to external financiers which limit them from accessing credit.

4.3.4 Descriptive Analysis for Credit Processing Period

Objective three of the study sought to evaluate the effect the increase in credit processing period has on the financial performance of Agribusiness SMEs in the Nyeri Central Sub County. Descriptive statistic was done to determine the effect of the increase in credit processing period due to interest rate capping on financial performance of Agribusiness SMEs. The results of the descriptive statistics were shown in Table 4.8

Table 4.8: Descriptive Statistic for Credit Processing Period

Credit Processing Period factors	SA (%)	A (%)	N (%)	D (%)	SD (%)	Mean	Std. Dev
The conditions required by financial institutions after interest rate capping; like adequate collateral, information asymmetry affect the credit processing period	53.2	32.1	13.1	1.3	0.4	4.36	.789
Most SMEs are categorized as high risk borrower hence affecting their credit processing period	53.2	28.7	7.6	9.3	1.3	4.23	1.021
Networks with financial lenders, connections with other enterprises and business associations assist in reduction of the credit processing period	41.8	44.3	8.0	5.1	0.8	4.21	.857

As indicated in Table 4.8, most of the respondents reported that the conditions required by financial institutions after interest rate capping; like adequate collateral, information asymmetry affect the credit processing period with a mean score of 4.36 and a standard deviation of 0.789. The respondents also indicated that most SMEs are categorized as high risk borrower hence affecting their credit processing period with a mean score of 4.23 and a standard deviation of 1.021. Networks with financial lenders, connections with other enterprises as well as business relations assist in reduction of the credit processing period had a mean score of 4.21 and a standard deviation of 0.857.

The finding of the study asserts earlier finding by Porteous, Collins & Abrams (2010), who noted that interest rate caps introduction in Japan lead to reduced loan applications. IFC (2010) noted that firms with adequate access to capital are capable of exploiting growth as well as opportunities of investment. It concluded that aggregated economic performance can be enhanced by increasing the access of adequate capital. In line with a survey carried out by Central Bank of Kenya (CBK, 2007), the period of funding has actually been increased with the introduction of the interest rate caps, this is because the

SMEs are categorized as high risk borrowers. Sengupta's (2011) also noted that financial institutions not only rely on an SMEs creditworthiness to extend finance but also get information from other investor which create trust.

4.3.5 Descriptive Analysis for Firm Size

The fourth objective was concerned with assessing the moderating effect of the firm size on the financial relationship between collateral, customer information requirement and credit processing period on financial performance of agribusiness SMEs. The results of the descriptive statistics was shown in Table 4.9

Table 4.9: Average Capital Base (Kshs in Millions)

Year	Minimum	Maximum	Mean	Std. Deviation
2013	.11	8.90	1.6799	2.30408
2014	.15	9.40	1.7262	2.31481
2015	.15	9.70	1.8289	2.38820
2016	.15	10.00	1.8883	2.46325
Valid N (listwise)				

From Table 4.9, the study revealed that year 2016 had the highest average capital with a mean of 1.888 million and standard deviation of 2.463 followed by year 2015 with a mean of 1.829 million and a standard deviation of 2.388. Year 2014 had a mean of 1.726 million and standard deviation of 2.315, while year 2013 had the lowest mean 1.680 million and standard deviation of 2.304. The trends indicated that average annual capital base has been in an increasing trend for the period between 2013 to 2016. The implication is that annual capital base for the SMEs was adjusted with retained earnings for the year. In addition, SMEs with the highest capital base had invested Kenya shillings ten millions (10.00M) while the lowest capital invested was Kenya Shillings one hundred and ten thousand (0.11M).

4.4 Test of Regression Assumption

Before running a model of regression tests of pre-estimation as well as post estimation were carried out. The tests of pre-estimation carried out in this case were the multicollinearity test whereas the tests of post estimation were normality test. These tests are normally conducted to avoid false regression results from being attained.

4.4.1 Multicollinearity Test for Regressors

The researcher tested the Multicollinearity of the variables before conducting a regression analysis. Multicollinearity occurs when more than two predictor variables are inter-correlated, Kothari (2014). This is an undesirable situation where the correlations among the independent variables are strong as it increases the standard errors of the coefficients. To test for multicollinearity, Variance Inflation Variable (VIF) or tolerance, a diagnostic method was used to detect how severe the problem of multicollinearity is in a multiple regression model. VIF statistic of a predictor in a model indicates how much larger the error variance for the unique effect of a predictor (Baguley, 2012). Using the VIF method, a tolerance of less than 0.20 and a VIF of more than 5 indicates a presence of multicollinearity. If two or more variables have a Variance Inflation Factor (VIF) of five or above five, one of these variables ought to be removed from the regression analysis since this shows multicollinearity presence (Runkle et al., 2013). As shown in Table 4.10 there is no variance inflation factor with a value of five or above five and therefore absence of multicollinearity.

Table 4.10: Multicollinearity Test Results

	Collinearity Statistics	
Model	**Tolerance**	**VIF**
Collateral Requirement	.658	1.519
Customer information requirements	.704	1.421
Credit processing period	.768	1.302
Size of the firm	.885	1.130

4.4.2 Normality Test for Financial Performance

A Q-Q test for normality was performed on the dependent variable (financial performance) to determine normality; the output of normal Q-Q plot was used. For data that are normally distributed, the data points are close to the diagonal line (Scott et al 2011). The results presented in Figure 4.1. Shows a flow of data points close to the diagonal line therefore the data appear to be normally distributed.

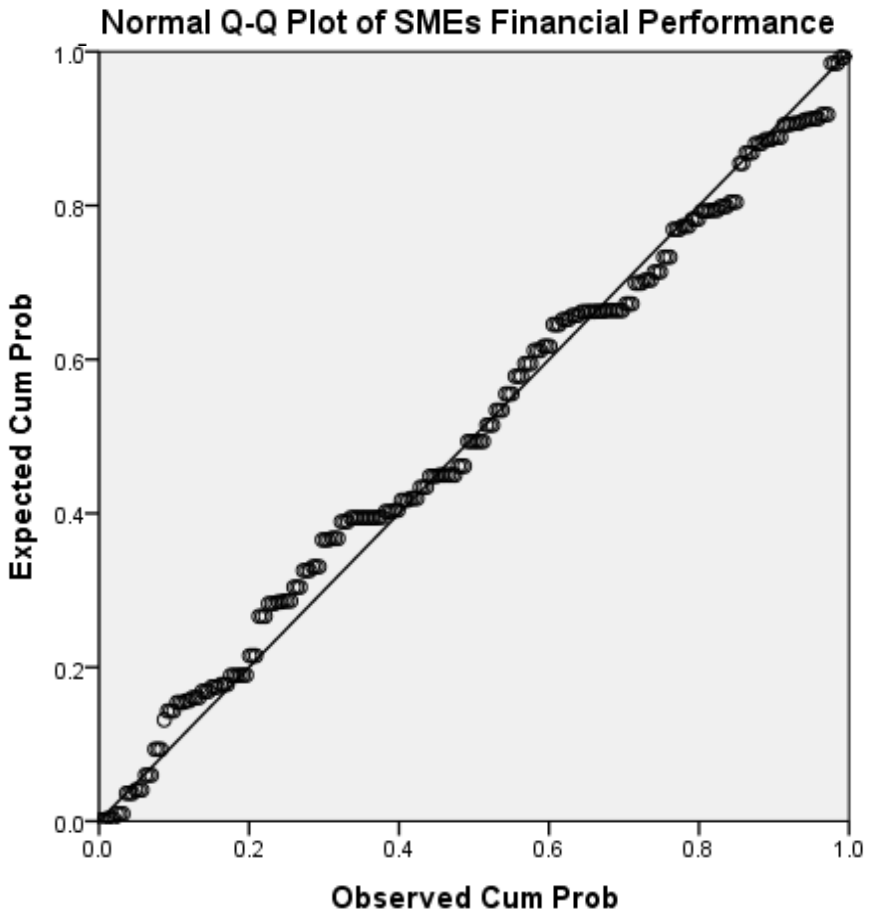

Figure 4.1: Normal Q-Q plot for Financial Performance

4.4.3 Linearity Test

The researcher used Pearson's Product Moment Coefficient Correlation (r) to establish any linear associations among the dependent and independent variables in the study and their strength. Coefficient Correlation (r) values range from -1 to +1, Zero indicates that there is no linear association. Negative (r) values imply that there is negative Correlation while positive (r) values imply positive Correlation. In order to conduct correlation analysis the set of items that measured each variable were aggregated by computing the average. The findings of the correlation analysis as shown in Table 4:11 indicated that Collateral Requirement had negative and insignificant effect on SMEs Financial Performance with r = -0.114, p value 0.079 > 0.05 at 0.05 significance level. Customer information requirements had positive and significant effect on SMEs Financial Performance with r = 0.437, p value 0.000 <0.05 at 0.05 significance level. Credit

processing period had negative and significant effect on SMEs Financial Performance with r = -0.275, p value 0.000 < 0.05 at 0.05 significance level.

Table 4.11: Correlation Test Results

		SMEs Financial Performance	Collateral Requirement	Customer information requirements	Credit processing period
SMEs Financial Performance	Pearson Correlation	1	-.114	.437**	-.275**
	Sig. (2-tailed)		.079	.000	.000
Collateral Requirement	Pearson Correlation	-.114	1	-.112	.064
	Sig. (2-tailed)	.079		.085	.324
Customer information requirements	Pearson Correlation	.437**	-.112	1	-.013
	Sig. (2-tailed)	.000	.085		.838
Credit processing period	Pearson Correlation	-.275**	.064	-.013	1
	Sig. (2-tailed)	.000	.324	.838	
	N	237	237	237	237

**. Correlation is significant at the 0.05 level (2-tailed).

4.4.4 Test of Independence

In statistics, the Durbin–Watson statistic is a test statistic used to detect the presence of autocorrelation. According to Durbin and Watson (1971), the statistic ranges from 0 to 4 with 0 indicating positive autocorrelation and 4 indicating negative correlation. A value of 2 or nearing 2 indicates that there is no autocorrelation. The researcher conducted Durbin Watson test to check the autocorrelation of variables. The Durbin–Watson statistic test results generated statistic value of 1.197, 0.995 and 1.109 as presented in Table 4.12.

Table 4.12: Durbin–Watson Statistic Test Results

Variables	Durbin-Watson Statistic
Collateral requirements	1.197
Customer information requirements	0.995
Credit processing period	1.109

4.5 Collateral Requirements and Financial Performance of SMEs

The results of bivariate linear regression analysis were shown in Tables 4.13 to 4.15

Table 4.13: Model Summary for Collateral Requirements

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.114[a]	.013	.009	.86250

a. Predictors: (Constant), Collateral Requirement

The R value of 0.114 indicated that there was a weak linear relationship between the variable collateral requirement and financial performance. The value of R^2 showed the independent variables explanatory power of 0.013. This means that collateral requirement explains 1.3% of the changes in SMEs Financial Performance.

Table 4.14: ANOVA for Collateral Requirements

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	2.320	1	2.320	3.118	.079[b]
	Residual	174.820	235	.744		
	Total	177.139	236			

a. Dependent Variable: SMEs Financial Performance

b. Predictors: (Constant), Collateral Requirement

The ANOVA showed an F statistic value of 3.118 at p-value of 0.079. This implies that the model was insignificant at 5% significance level. With support of earlier literature, requirements of collateral act as a mechanism of incentive since higher collateral implements a selection projects that are less risky (Bester, 2007). This is because a low risk borrower has a bigger incentive to guarantee collateral as compared to a high risk borrower, hence lower probability of failure and loss of collateral. This means collateral considered alone has an insignificant effect.

Table 4.15: Coefficients for Collateral Requirements

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	4.737	.471		10.059	.000
	Collateral Requirement	-.225	.128	-.114	-1.766	.079

a. Dependent Variable: SMEs Financial Performance

The results of coefficient indicated that there was a negative and insignificant linear correlation between collateral requirement and financial performance. This was because the p-value was 0.079 which was above 0.05. This signifies that increasing the collateral requirement by one unit would lead to a decrease of SMEs Financial Performance by 0.225. As indicated in Table 4.15, the equation of bivariate linear regression model fitted using unstandardized coefficients is; $Y= 4.737 - 0.225CR+ \varepsilon$.

According to Gitman (2003), collateral pledging defined as the degree to which borrowers commit assets to a lender as security for payment of debt. Kihimbo (2012), noted that collateral requirements reduce inappropriate use of the funds by SMEs. From the study, it's obvious that the majority of SMEs are discriminated as well as denied by the lenders in offering financing; this is owing to the high risk associated with them lacking adequate resources to pledge as collateral. A case of Belaway, Zimbabwe revealed that SMEs be unsuccessful in securing loans owing to financial institutions restrictive requirements, top amongst them being lack of collateral, this requirements have been tightened with the introduction of interest rate capping, due to the small profit margin the financial institutions enjoy on interest rate ceilings.

4.6 Customer Information Requirements and Financial Performance of SMEs

The results of multiple linear regression analysis were shown in Table 4.16 to 4.18

Table 4.16: Model Summary for Customer Information Requirements

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.437[a]	.191	.188	.78076

a. Predictors: (Constant), Customer Information Requirements

The value of R of 0.437 indicated that there was a linear correlation between the variable customer information requirements and financial performance. The value of R^2 signified the independent variables explanatory power of 0.191. This signifies that customer information requirements explain19.1% of the changes in SMEs Financial Performance.

Table 4.17: ANOVA for Customer Information Requirements

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	33.886	1	33.886	55.588	.000[b]
	Residual	143.254	235	.610		
	Total	177.139	236			

a. Dependent Variable: SMEs Financial Performance

b. Predictors: (Constant), Customer Information Requirements

The ANOVA showed an F statistic value of 55.588 at p-value of 0.000. This implies that the model was significant at 5% level of significance. Tucker & Lean (2003), stated that financial institutions actually depend on past financial performance as an indicator for the future projects profitability, this literature supports the researchers findings of how customer information requirements is significant to the SMEs.

Table 4.18: Coefficients for Customer Information Requirements

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	2.532	.192		13.192	.000
	Customer information requirements	.378	.051	.437	7.456	.000

a. Dependent Variable: SMEs Financial Performance

The coefficient results indicated that there was a positive and significant linear relationship between customer information requirements and financial performance of SMEs. This was because the p-value was 0.000 was below 0.05. This signifies that increasing the customer information requirements by one unit would lead to an increase of SMEs Financial Performance by 0.378 as indicated in Table 4.18, the equation of bivariate linear regression model fitted by the use of unstandardized coefficients is; $Y= 2.532 + 0.378CIR + \varepsilon$.

Vuvor & Ackah (2011), explained that most SMEs are faced with chief challenges in accessing credit because they were unable to give collateral as well as other information required by financial institutions for instance financial statement which are audited coupled with the high loan cost in terms of high interest rates making it very difficult to access loans from banks. Ono (2005), stated that SMEs in Africa sometimes meet the requirements set by financial institutions, though it is quite a challenge for them to provide the required financial information to the financiers.

4.7 Credit Processing Period and Financial Performance of SMEs

The results of multiple linear regression analysis were shown in Table 4.19 to 4.21

Table 4.19: Model Summary for Credit Processing Period

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.275[a]	.075	.072	.83479

a. Predictors: (Constant), Credit Processing Period

The R value of 0.275 indicated that there was a linear correlation between credit processing period and financial performance. The value of R^2 showed the independent variables explanatory power of 0.075. This denotes that credit processing period explains 7.5% of the changes in SMEs Financial Performance.

Table 4.20: ANOVA for Credit Processing Period

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	13.373	1	13.373	19.190	.000[b]
	Residual	163.766	235	.697		
	Total	177.139	236			

a. Dependent Variable: SMEs Financial Performance

b. Predictors: (Constant), Credit Processing Period

The ANOVA showed an F statistic value of 19.190 at p-value of 0.000. This implies that the model was significant at 5% level of significance. According to Oketch (2007) demand for information from SMEs is only met by a small percentage to the SMEs requirements due to the various factors like lack of adequate collateral, information asymmetry. These requirements cause a delay in credit processing period and affect most Agribusiness SMEs financial performance.

Table 4.21: Coefficients for Credit Processing Period

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	4.897	.232		21.153	.000
	Credit processing period	-.232	.053	-.275	-4.381	.000

a. Dependent Variable: SMEs Financial Performance

The results of coefficient indicated that there was a negative and significant linear relationship between credit processing period and financial performance of Agribusiness SMEs. This was because the p-value was 0.000 was less than 0.05. This implies that increasing the credit processing period by one unit would lead to a decrease of SMEs Financial Performance by 0.232. From Table 4.21, the equation of bivariate linear regression model fitted by the use of the unstandardized coefficients is; $Y= 4.897 - 0.232CPP + \varepsilon$. Atieno (2008), noted that with the introduction of the interest rate capping the lending conditions have been tightened further causing the much delay in funding to the Agribusiness SMEs. This delay was found to affect the financial performance of Agribusiness SMEs.

4.7 Firm Size and Financial Performance of SMEs

The results of bivariate linear regression analysis were shown in Tables 4.22 to 4.24

Table 4.22: Model Summary for Firm Size

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.528[a]	.279	.276	.73722

a. Predictors: (Constant), Firm Size

The R value of 0.528 indicated that there was a linear relationship between the variable firm size and financial performance. The value of R^2 showed the independent variables explanatory power of 0.279. This means that firm size explains 27.9% of the changes in SMEs Financial Performance.

Table 4.23: ANOVA for Firm Size

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	49.417	1	49.417	90.923	.000[b]
	Residual	127.723	235	.544		
	Total	177.139	236			

a. Dependent Variable: SMEs Financial Performance

b. Predictors: (Constant), Firm Size

The ANOVA showed an F statistic value of 90.923 at p-value of 0.000. This implies that the model was significant at 5% significance level. Beck et al. (2005) found that the higher the obstacles faced by smaller firms the slower the growth. Small firms therefore don't just report facing higher obstacles of growth; these higher obstacles are as well more limiting for their financial growth and performance as compared to the case of large and medium-size firms (Akinyi, 2014). This literature supports the researchers findings.

Table 4.24: Coefficients for Firm Size

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	2.311	.174		13.246	.000
	Firm Size	.416	.044	.528	9.535	.000

Dependent Variable: SMEs Financial Performance

The results of coefficient indicated that there was a positive and significant linear correlation between firm size and financial performance. This was because the p-value was 0.000 which was less 0.05. This signifies increase of firm size by one unit would lead to an increase of SMEs Financial Performance by 0.416. As indicated in Table 4.15, the equation of bivariate linear regression model fitted using unstandardized coefficients is; $Y= 2.311+ 0.416FS+ \varepsilon$. The finding of study revealed that firm size influence SMEs financial performance support earlier study by Beck et al. (2008), reported that age, ownership as well as size are the mainly dependable predictors of financing obstacles of the firm. Akinyi (2014) noted that earlier scholars found that firms that are larger, foreign-owned and older report lesser obstacles of financing and the association aren't just statistical but as well economically important.

She opined that small firms having demand for small loans face higher costs of transaction as well as face higher premiums of risk because they are usually more opaque

and have fewer collateral to give. According to Beck et al. (2005) the higher the obstacles faced by smaller firms the slower the growth.

4.8 The effect of Interest Rate Capping on Financial Performance of SMEs

A multiple linear regression analysis between the study's dependent and independent variables was done. So as to carry out multiple regression analysis various items which measured every independent variable were weighted. Multiple linear regression analysis was afterward utilized to test whether there was interdependency between independent variables (collateral requirement, credit period and customer financial information requirement after interest rate capping) and dependent variable (financial performance of Agribusiness SMEs). The multiple regression analysis findings for all of the three independent variables are discussed in Table 4.25 to Table 4.27.

Table 4.25: Model Summary for Influence of Interest Rate Capping

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.237[a]	.056	.044	.78086

a. Predictors: (Constant), Credit Processing Period, Collateral Requirement, Customer Information Requirements

The R value of 0.237 indicated that there was a linear correlation between credit processing period, collateral requirement and customer information requirements on financial performance Agribusiness SMEs. The value of R^2 showed the independent variables explanatory power of 0.056. This denotes that credit processing period, collateral requirement combined explains 5.6% of the changes in SMEs Financial Performance.

Table 4.26: ANOVA for Influence of Interest Rate Capping

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	8.450	3	2.817	4.620	.004[b]
	Residual	141.461	232	.610		
	Total	149.911	235			

a. Dependent Variable: SMEs Financial Performance

b. Predictors: (Constant), Credit Processing Period, Collateral Requirement, Customer Information Requirements

The ANOVA showed an F statistic value of 4.620 at p-value of 0.004. This implies that the model was significant at 5% level of significance.

Table 4.27: Coefficients for Influence of Interest Rate Capping

	Unstandardized Coefficients		Standardized Coefficients		
Model	**B**	**Std. Error**	**Beta**	**t**	**Sig.**
(Constant)	3.738	.188		19.871	.000
Collateral Requirement	-.021	.011	-.129	-1.949	.053
Customer Information Requirements	.216	.064	.321	3.359	.001
Credit Processing Period	-.149	.060	-.235	-2.465	.014

a. Dependent Variable: SMEs Financial Performance

The results of B coefficient indicated that there was a negative and insignificant linear relationship between collateral requirement and financial performance of Agribusiness SMEs with slopes of β1= -0.021 at p value of 0.053 which is greater than 0.05. Customer information requirements had a positive and significant effect on SMEs financial performance with slopes of β1= 0.216 at p value of 0.001 which is less than 0.05. Credit processing period had a negative and significant effect on SMEs financial performance with slopes of β1= -0.149 at p value of 0.014 which is less than 0.05. This implies that holding all other variables constant, the financial performance of Agribusiness SMEs decrease by 0.021 units when collateral requirement goes up by one unit, decrease by 0.149 units when credit processing period goes up by one unit and increase by 0.216 when customer information requirement goes up by one unit.

The multiple regression equation can be stated as shown: $Y= 3.738 - 0.021CR + 0.216CIR - 0.149CPP + \varepsilon$. Where Y is Financial Performance of Agribusiness SME, CR is Collateral Requirement, CIR is Customer Information Requirement and CPP is Credit Processing Period. The finding of the study that interest rate capping affects financial performance of Agribusiness SMEs asserts earlier findings by Ryan (2014), who noted that interest rate capping affects the amount of financing SMEs receives which in turn affects the SMEs financial performance. According to Harash, Al-Timimi & Alsaadi (2014), SMEs are a policy priority by many economies of the world; this is because they play a significant role in the economic development and also makes contribution to

employment. Therefore there should be deliberate effort to address the increase in collateral requirement and credit processing period as they affect performance of Agribusiness SMEs negatively. This is because finance access is critical to growth and development of SMEs; finance availability is positively related with financial performance.

4.9 Moderating role of Firm Size on Financial Performance of SMEs

The fourth objective was concerned with establishing whether the size of the Agribusiness SMEs have moderating effect on financial performance of Agribusiness SMEs. Multiple linear regression analysis was conducted to determine the moderating effect of Firm size of the Agribusiness SMEs on collateral requirement, customer information and credit processing period on financial performance of Agribusiness SMEs as presented in Table 4.28 to 4.30

Table 4.28: Model Summary of Moderating variable on financial performance

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.447[a]	.200	.189	.71769

a. Predictors: (Constant), Credit*Size, Customer*Size, Collateral*Size

From Table 4.28 above, it is clear that size of the Agribusiness moderates the relationship between collateral requirement, customer information and credit processing period on financial performance of Agribusiness SMEs since when the independent variables are regressed against financial performance of Agribusiness SMEs R^2 was 0.056 but when the moderating variable (size of the Agribusiness) was introduced, R^2 changes to 0.200. This implies that the combined model can explain 20.0% percent of the outcome up from just 5.6% percent of financial performance of Agribusiness SMEs which represents 14.4% increase. Further, R (correlation coefficient) changes from 0.237 to 0.447, an increase of 0.21.

Table 4.29: ANOVA of Moderating Variable on Financial Performance

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	29.910	3	9.970	19.356	.000[b]
	Residual	120.014	233	.515		
	Total	149.924	236			

a. Dependent Variable: SMEs Financial Performance

b. Predictors: (Constant), Credit*Size, Customer*Size, Collateral*Size

The results of ANOVA revealed that the entire model after introducing the moderating variable was significant with the F ratio = 19.356 at p Value 0.000< 0.05. This is an indication that the model can be relied upon.

Table 4.30: Coefficient Table of Moderating variable on Financial Performance

	Unstandardized Coefficients		Standardized Coefficients		
Model	**B**	**Std. Error**	**Beta**	**t**	**Sig.**
(Constant)	3.931	.165		23.823	.000
Collalteral*Size	-.027	.008	-.237	-3.539	.000
Customer*Size	.058	.010	.397	5.980	.000
Credit*Size	-.065	.013	-.294	-4.845	.000

a. Dependent Variable: SMEs Financial Performance

Coefficient Table 4.30 presents the beta coefficients of the resulting model after introducing moderating variable size of the Agribusiness which indicated that collateral requirement and credit processing period had negative effect on financial performance of Agribusiness SMEs with slopes of β_1= -0.027 and β_3= -0.065 respectfully. This implies that holding all other variables constant, the financial performance of Agribusiness SMEs decrease by 0.027 units when collateral requirement goes up by one unit and decrease by 0.065 units when credit processing period goes up by one unit. Customer information requirement had a positive effect on financial performance of Agribusiness SMEs with slopes of β_2= 0.058 which plies that holding all other variables constant, the financial performance of Agribusiness SMEs increase by 0.058 units when customer information requirement goes up by one unit. From the findings of the study, it is clear that the introduction of the moderating variable, size of the Agribusiness had an impact on

collateral requirement, customer information and credit processing period on financial performance of Agribusiness SMEs as reflected by changes in B coefficient.

In addition, at 5% significance level collateral requirement, customer information and credit processing period had statistically significant effect on financial performance of Agribusiness SMEs with p value of 0.000 which is less than 0.05. The multiple regression equation for the effect can be stated as shown: Y= 3.931- 0. 027CR + 0. 058CIR- 0. 065CPP+ ε. where Y is Financial Performance of Agribusiness SME, CR is Collateral Requirement, CIR is Customer Information Requirement and CPP is Credit Processing Period.

A moderator variable specifies when or under which conditions a predictor variable influences a dependent variable (Baron and Kenny, 1986). A moderator variable might enhance or reduce the relationship direction between a predictor and a dependent variable, or it might even change the relationship direction between two variables from positive to negative or vice versa (Lindley and Walker, 1993).

The finding of the study that increase in collateral requirement and credit processing had negative impact on financial performance of Agribusiness SMEs even after introducing size of Agribusiness as a moderating factor is a clear indication that finance is important in every business regardless of the size of the business. This finding supports Nyeduko, (2014), who stated that finance is the life blood of every business, it does not matter how well a business is ran and managed, if it does not have enough funds for fixed assets investment, working capital, skilled employees employment and development of new products and markets then business may not perform. Mwaniki (2017) also noted that with the new capping on lending regulations SMEs have been locked out since they are categorized as high risk borrowers and this has led to the decline of 5.7% of loans in value which is a reflection of recent statistics.

4.10 Review of Interest Rate Capping, Firm Size and Financial Performance of Agribusiness SMEs

The aim of introducing moderating factor was to establish the joint effect of the moderating variable (Firm Size of the Agribusiness) on collateral requirement, customer information and credit processing period on financial performance of Agribusiness SMEs. The study revealed that firm size when considered singly had positive and statistically significant effect. When firm size

was used to moderate collateral requirement, customer information and credit processing period the correlation coefficient (R) changed from 0.237 to 0.447, an increase of 0.21. In addition, coefficient of determination (R^2) increased from 0.056 to 0.200 which implied that the combined model after introducing moderating effect explain 20.0% percent of the outcome up from 5.6% percent of financial performance of Agribusiness SMEs which represents a 14.4% increase.

Table 4. 31: Comparison before and after introduction of moderating variable

Results	Before moderating	After moderating
R	.237[a]	.447[a]
R^2	.056	.200
F-Statistics	4.620	19.356
P-Value	.004[b]	.000[b]

The aim of introducing moderating factor was to establish the joint effect of the moderating variable (size of the Agribusiness) on collateral requirement, customer information and credit processing period on financial performance of Agribusiness SMEs. Aldwin (1994), noted that the moderation effect is normally expressed as an interaction between moderator and predictor variable. It is therefore recommended that the SMEs increase the size of their firms which leads to better financial performance. The conclusion is that larger firms perform better financially than small and micro firms.

CHAPTER FIVE
SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This chapter is a synthesis of the whole report and contains the findings' summary, conclusion made and policy recommendations that arose from the research. Research gaps identified during the research are as well identified as foundation for future studies.

5.2 Summary of the Findings

This research aimed at establishing the effects of interest rate capping, firm size and financial performance of small and micro enterprises in agribusiness Nyeri Central Sub County Kenya. The specific objectives of the study were to explore the influence that collateral requirement, the effect of credit processing period has on the financial performance of Agribusiness SMEs in the Nyeri Central Sub County. In addition, the study sought to assess the influence that customer information requirements has on the financial performance of Agribusiness SMEs in the Nyeri Central Sub County. The study also intended to assess the moderating effect of the size of the business on the financial performance of the Agribusiness SMEs in the Nyeri Central Sub County.

5.2.1 Collateral Requirements and Financial Performance of SMEs

Objective one of the study sought to explore the influence that the collateral requirement has on the financial performance of Agribusiness SMEs in the Nyeri Central Sub County. Descriptive statistic revealed that introduction of interest rate capping has affected collateral value required by financial institutions from Agribusiness SMEs. In addition, lack of fixed assets/collateral was found to be a hindrance to access to credit from financial institutions by many Agribusiness SMEs. Bivariate regression revealed that there was a negative and insignificant linear relationship between collateral requirement and financial performance. Multiple regression further revealed that increase in collateral requirement due to interest rate capping had negative and statistically insignificant effect

5.2.2 Customer Information Requirements and Financial Performance of SMEs

Objective two of the study sought to establish the effects of interest rate capping, firm size and financial performance of small and micro enterprises in agribusiness Nyeri Central Sub County Kenya. Descriptive statistic revealed that some of Agribusiness SMEs are not enlightened in keeping proper books of accounts and therefore they are not able to give credible financial information to the financial lenders. In addition, when the

information required by financial institutions is not reliable the cost of lending to the SMEs increases and the credit worthiness of the Agribusiness SMEs reduces. Bivariate regression revealed that there was a positive and significant linear relationship between customer information requirements and financial performance. Multiple regression further revealed that increase in customer information requirements due to interest rate capping had positive and statistically significant effect.

5.2.3 Credit Processing Period and Financial Performance of SMEs

Objective three of the study sought to evaluate the effect that increase in credit processing period has on the financial performance of Agribusiness SMEs in the Nyeri Central Sub County. Descriptive statistic revealed that the conditions required by financial institutions after interest rate capping; like adequate collateral, information asymmetry affect the credit processing period. In addition, most SMEs are categorized as high risk borrower hence affecting their credit processing period. Bivariate regression revealed that there was a negative and significant linear relationship between credit processing period and financial performance. Multiple regression further revealed that increase in credit processing period due to interest rate capping had a negative and significant effect.

5.2.4 Moderating Effect of Firm Size on Financial Performance

The fourth objective was concerned with evaluating whether the size of the Agribusiness SMEs have moderating effect on financial performance of Agribusiness SMEs. First, a multiple regression analysis was done to determine the effect of collateral requirement, customer information and credit processing period on financial performance of Agribusiness SMEs. Then another regression analysis was done to determine the moderating effect of size of the Agribusiness on collateral requirement, customer information and credit processing period and financial performance of Agribusiness SMEs. The finding of the study revealed that introduction of the moderating variable; the Firm size of the Agribusiness had an impact on collateral requirement, customer information and credit processing period on financial performance of Agribusiness SMEs as reflected by changes in B coefficient. In addition, the coefficient of determination (R^2) increased from 0.056 to 0.200 which implied that the combined model after introducing moderating effect explain 20.0% percent of the outcome up from just 5.6% percent of financial performance of Agribusiness SMEs which represents 14.4% increase. Further, R (correlation coefficient) changed from 0.237 to 0.447, an increase of 0.21.

5.3 Conclusion of the study

The main objective of the study was to establish the effects of interest rate capping, firm size and financial performance of small and micro enterprises in agribusiness Nyeri Central Sub County Kenya. The study revealed that increase for collateral requirement due to interest rate capping had a negative and statistically insignificant effect on financial performance of Agribusiness SMEs when considered alone and when combines with other variables considered in the study. This could be associated with the fact that collateral alone could not be the main consideration to determine how much an Agribusiness trader can access from financial institution though it is a consideration as security. The study further revealed that after introducing the size of Agribusiness as a moderating variable increase for collateral requirement due to interest rate capping had a negative and statistically significant effect on financial performance. Therefore increase for collateral requirement due to interest rate capping was found to have an effect on financial performance of Agribusiness SMEs as it has affected collateral value required by financial institutions from Agribusiness SMEs.

The study further revealed that additional customer information requirement due to interest rate capping had a positive and statistically significant effect on financial performance of Agribusiness SMEs when considered alone and when combines with other variables considered in the study. The study further revealed that after introducing the size of Agribusiness as a moderating variable additional customer information requirement due to interest rate capping had a positive and statistically effect on financial performance. Therefore additional customer information requirement such as financial statements, cash flow statements, sales projections among others enables Agribusiness SMEs to manage their businesses effectively hence improving their financial performance. This was due to the fact that some Agribusiness SMEs which were not able to maintain their records and books of accounts could not be able to give credible financial information to the financial lenders.

The study also revealed that increase in credit processing period due to interest rate capping had a negative and statistically significant effect on financial performance of Agribusiness SMEs when considered alone and when combines with other variables considered in the study. The study further revealed that after introducing the size of Agribusiness as a moderating variable increase in credit processing period due to interest rate capping had a positive and statistically effect on financial performance. The finding

could be attributed to critical analysis that financial institution undertakes to mitigate the risk of default since they are not able to charge varied interest rates based on the level of risk involved hence affecting business prospects and ultimately financial performance.

5.5 Recommendations for Policy Implication

A number of recommendations can be made. The study findings show that increase for collateral requirement due to interest rate capping had a negative and statistically insignificant effect on financial performance of Agribusiness SMEs but a statistically significant effect considering the size of the business as a moderating variable. The study therefore recommends that Agribusiness SMEs should expand their operations as the size of their business is a factor that enhance access to credit and collateral considerations

The study revealed that additional customer information requirement due to interest rate capping had a positive and statistically significant effect on financial performance of Agribusiness SMEs. The study therefore recommend that Agribusiness SMEs should maintain all the records and books of accounts required and prepare final accounts as this may enhance financial performance.

The study further revealed that increase in credit processing period due to interest rate capping had a negative and statistically significant effect on financial performance of Agribusiness SMEs. The study therefore conclude that financial institutions should appraise and disburse credit within reasonable time to ensure that Agribusiness do not lose business opportunities due to prolonged delay in loan processing hence affecting their financial performance negatively.

The study also revealed that the introduction of interest rate capping has a major impact financial performance due to additional conditions introduced by financial institutions. The study recommends that financial institutions have clear policy and guidelines of all the requirements to enable the Agribusiness SMEs make informed decisions when considering applying for the credit facilities. This study further recommended that the government should play its role of enabling SMEs to access finance from financial institutions by intervening or providing alternative options.

5.6 Suggestions for Further Research

This research makes a significant contribution in our understanding establish the effects of interest rate capping, firm size and financial performance of small and micro enterprises in agribusiness Nyeri Central Sub County Kenya. Arising from this research, the researcher makes several recommendations for further research. Conduct a research focusing on the benefits of interest rate capping on financial performance of SMEs. Future researchers might as well adopt a case study research design for other sector other than Agribusiness sector that would further add value in understanding the influence of interest rate capping on financial performance. This study considered three variables, increase for collateral requirement, additional customer information requirements and increase in credit processing period due to interest rate capping has on the financial performance of Agribusiness SMEs. Future researchers should also focus on other types of composite variables of that may affect financial performance of SMEs after interest rate capping.

REFERENCES

Aghion, J. & Bolton, M. (2008). Finance for All?: Policies and Pitfalls in Expanding Access. *The World Bank; Washington, D.C.*

Akinyi S. I., (2014). The effect of bank financing on the financial performance of Small and medium-sized enterprises in Nairobi County.*University of Nairobi*

Aldwin, C. M. (1994). Stress, coping, and development: An integrative perspective. New York: Guilford.

Andries, A. M., & Cuza, A. L., (2009).Theories Regarding Financial Intermediation and Financial Intermediaries – A Survey.*University of Iasi, Romania*.

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

Atieno, P., (2008) Capital and Performance of Small Enterprises in Kenya, in D.McCormick and P.O. Pedersen (eds.), Small Enterprises*: Flexibility and Networking in an African Context Longhorn Kenya Ltd.*

Avo.S., (2013).Performance Measurement and Management with Financial Ratios – the BASF SE Case.

Baguley, T. (2012). Calculating and graphing within-subject confidence intervals for ANOVA. *Behavior Research Methods,* 44, 158-175. DOI: 10.3758/s13428-011-0123-7.

Baker, M. &Wurgler, J., (2002).Market timing and capital structure.*Journal of Finance,* 57, 1–32.

CBK. (2016). Banking Amendment Act No. 25

Barclay, M. & Smith, C., (2005). The capital structure puzzle: The evidence revisited. *Journal of Applied Corporate Finance* 17, 8–17.

Baskerville, P., (2013). Introduction to financial accounting. What is revenue in accounting? *http://knol.google.com/k/nowmaster-accounting/what-is-the-income statement*

Bawuah B., Yakubu A. S., &Musah, A., (2014). *The Effects of Interest Rate on Micro, Small and Medium Enterprises Financing Decision in Wa Municipality of Ghana*.

Beck, T. &Demirgüç-Kunt, A., (2006). Small and Medium-Size Enterprises: Access to Finance as a Growth Constraint. *Journal of Banking and Finance*, 30, 2931–2943.

Beck, T., Demirgüç-Kunt, A., &Maksimovic, V., (2005). Financial and Legal Constraints to Firm Growth: Does Firm Size Matter? *Journal of Finance,* 60, 137-177.

Beck, T., Demirgüç-Kunt, A., &Maksimovic, V., (2008). Financing Patterns around the World: Are Small Firms Different? *Journal of Financial Economics,* 89, 467-87.

Beck, T., Demirgüç-Kunt, A., Laeven, L., &Maksimovic, V., (2006).The Determinants of Financing Obstacles.*Journal of International Money and Finance* 25, 932-952.

Berger, A. (2006). Potential competitive effects of Basel II on banks in Small and Micro Enterprises credit markets in the United States, *Journal of Financial Services Research,* 28, 5-36.

Berger, A. and G. Udell (2002), Small business credit availability and relationship lending: the importance of bank organizational structure, *Economic Journal*, 112, 32-53.

Bester, W., (2007).Credit rationing in markets with imperfect information.

Bichanga, W. O., &Aseyo, L., (2013). Causes of Loan Default Within Micro Finance Institutions in Kenya. *Interdisciplinary Journal of Contemporary Research in Business,* 316-335.

Binks, M., Starkey, K. and Mahon, C. L. (2006) Entrepreneurship Education and The Business School. Technology Analysis & Strategic Management, 18(1), 1-18

Bonyane, B. &Ladsani, W., (2011).Factors that hinder the growth of small businesses in South African townships.*European Business Review,*.23: 6, pp.550-560.

Bougheas, E. (2005). Access to Bank Credit in Sub-Saharan Africa: Key issues and Reform Strategies. *International Monetary Fund (IMF) Working Paper WP/05/166, August.*

Childs, P., Mauer, D. & S. Ott (2005). Interactions of corporate financing and investment decisions: The effects of agency conflicts. *Journal of Financial Economics* 76, 667–690.

Chirinko, R. S., &Singha, A. R., (2000).Testing static trade off against pecking order models of capital structure: a critical comment. *Journal of Financial Economics*, 58, 417–425.

Coco, B., (2000). Firm Size and the Business Environment: Worldwide survey Results. *University of Ireland.*

Collis, J., & Hussey, R., (2013). Business Research: A practical guide for undergraduate and post graduate students. *New York, Palgrave MacMillan.*

Cook, P., & Nixson, F. (2009). Finance and Small and Medium-Sized Enterprise Development.

Cooper, D. R., & Schidler, P. S., (2008). Business Research Methods: 10th edition *McGraw-hill, New Delhi India.*

Cooper, D. R., & Schindler, P.S. (2003). Business Research Methods.*New York: McGrawHill/Irwin.*

Cooper, K. B., (2002). Corporate Profits Before Tax, Profits Tax Liability, and Dividends. *Bureau of Economic Analysis.*

Dalberg,. (2011)Report on Support to SMEs in Developing Countries Through Financial Intermediaries.

Damoradan, A. (2007). Return on Capital (ROC) Return on Invested Capital (ROIC) and Return on Equity: Measurements and Implications.

Daniel, N. W., Wouldy, M. M., (2015). Factors influencing access to finance by micro, small and medium enterprises in Merucounty, Kenya. *International Journal of Economics, Commerce and Management, United Kingdom*

David, P., Collins, D.,,& Abrams. J., (2010).Interest Rate Policy.*Policy Framing Note 4, Financial Access Initiative.*

Dierker,. M. J., Kang,. J. K., Lee, I. &Seo S. W., (2015). Risk changes and the dynamic trade-off theory of capital structure.*Korea Advanced Institute of Science and Technology (KAIST).Nanyang Technological University of Singapore.University of Texas at Austin &Dongguk University.*

Doodley, L. M., & Linder, J. R., (2003). The handling of non-response error, *Human Resource Development Journal,* Vol 14.

Dudley, E., (2007). Testing Models of Dynamic Trade off Theory.*SSRN Electronic Journal.*

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

Fama, E., French, K., (2002). Testing tradeoff and pecking order predictions about dividends and debt.*Review of Financial Studies* , 15, 1–33.

Frank, M. Z., &Goyal, V. K., (2003). 'Testing the Pecking Order Theory of Capital Structure', *Journal of Financial Economics,* 67(2): 217–48.

Galindo, A., Schiantarelli, F. (Eds.) (2003).Credit Constraints and Investment in Latin America.*Inter-American Development Bank, Washington, DC.*

Gangata, J. & Matavire, U. (2013). Economic Implications of lending of microfinance institutions on micro- and small- scale enterprises. *University of Nairobi*.

Garrett., (2009).Micro-financeProgramClientsandImpact:anassessmentofZambuko TrustZimbabwe, *AIMS project report; USAID,Washington.*

Gay, L. R., (1996). Education research: Competencies for analysis and application. (*5th Ed.).(New Jersey: Merrill.*

Gitman,C.,(2003).SmallandMediumEnterprisesacrosstheGlobe: *A New Database, New York Publishers, New York.*

Goldsmith, R. W., (1969). Financial Structure and Development.New Haven, Yale University Press.

Gorman, C., (2001). Capital Structure. *Journal of Economic Perspectives,* Vol 15.

GPFI,. 2012. Impact Assessment Framework: SME Finance. *World Bank*

Gurley, J.G., & Shaw, E. S., (1960) "Money in a theory of finance", Brookings

Haniffa, R., & Hudaib, M., (2006). Corporate governance structure and performance of Malaysian listed companies. *Journal of Business Finance and Accounting,* 33 (7-8), 1034-1062.

Harash, E., Al-Timimi, S., &Alsaadi, J., (2014).The Influence of Finance on Performance of Small and Medium Enterprises (SMES).*MadenatAlelem University College, Department of Accounting., University of Basra, College of admin and Economics.*

Heikal, M., Khaddafi, M., &Ummah, A., (2014). Influence Analysis of Return on Assets (ROA), Return on Equity (ROE), Net Profit Margin (NPM), Debt to Equity Ratio (DER), and current ratio (CR), Against Corporate Profit Growth In Automotive In Indonesia Stock. *International Journal of Academic Research in Business and Social Sciences,* Vol. 4, No. 12 ISSN: 2222-6990.

Hennessy, C., & Whited, T., (2005).Debt dynamics. *Journal of Finance LX,* 1129–1165.

Hovakimian, A. T., Opler, & Titman, S., (2001). The debt-equity choice.*Journal of Financial and Quantitative Analysis,* 36, 1–25.

Hovakimian, A., Hovakimian, G., &Tehranian, H., (2004). Determinants of target capital structure: The case of dual debt and equity issues. *Journal of Financial Economics,* 71, 517–540.

Ibrahim, Haslindar, &AbdulSamad, F. A.(2011). Corporate governance mechanisms and performance of public-listed family-ownership in Malaysia.*International Journal of Economics and Finance,* 3(1), 105–115.

Irungu, P., (2013). The Effect of Interest Rate Spread on Financial Performance of Commercial Banks in Kenya, *University of Nairobi, Unpublished Master Thesis,* pp. 1-56.

Islam, A,.Fauzias, M,.Izani, I,.&Ruzita, A, R,. (2013). Dynamic Capital Structure Trade-off Theory: Evidence from Malaysia. *International Review of Business Research Papers,* Vol. 9.No. 6.Issue. Pp. 102 – 110

IFC. 2010. Where Innovation Meets Impact, Vol. 2.

IFC. (2011). SMEs Small & Medium Enterprises. world bank group .Vol. 5 / Issue 1

Jensen, M. (1993).The modern industrial revolution, exit, and the failure of internal control systems.*The Journal of Finance,* 48 (3), 831-880.

Junjie, W,.Jining, S,. Catherine, Zeng,. (2008). An empirical evidence of small business financing in China. *Management research news* ,Vol.31,Iss 12pp, 959-975

Kamunge, S., Njeru, A., & Tirimba, I., (2014).Factors Affecting the Performance of Small and Micro Enterprises in Limuru Town Market of Kiambu County, Kenya.

Kang'ethe, K., (2016). Kenya: Interest Cap 'Complicates' Monetary Policy.

Kellen, V., (2003).Business Performance Measurement: At the Crossroads of Strategy, Decision-Making, Learning and Information Visualisation.

Kenya Bureau of standards. (2007)

Kenya Government Finance Statistics Manual. (2000).

Kihimbo,M.,(2012).Creditrationingbymicrofinanceinstitutesanditsinfluenceonthe operations of SMEs. *(Unpublished MBA Thesis)University of Nairobi.*

Kothari, C. R., &Garg, G., (2014). Research Methodology: Methods and techniques, 3rd edition, *New Delhi, New Age International Publishers.*

Krejcie, R.V. & Morgan, D. W (1970). Determining sample size for research activities. *Educational and psychological measurement journal,* 30,607-610

La Rocca, M., La Rocca, T. & Cariola, A. (2009). Small Business Financing.Financial Preference throughout the life cycle of a firm.*Working paper.*

Leary, M. & Roberts, M. (2005). Do firms rebalance their capital structures? *Journal of Finance.*

Levine, R. (1997). Financial development and economic growth: Views and agenda, *Journal of Economic Literature,* 35, 688-726.

Levine, L., (2002) More on Finance and Growth: More Finance, More Growth? *Department of Finance Carlson School of Management University of Minnesota*

Levy B (2015). 'Obstacles to Developing Indigenous Small and Medium Enterprises: An Empirical Assessment', *The World Bank Economic Review,* 7 (1), 65-83.

Liedholm, Can & D. Mead, (2007). Small Enterprises and Economic Development: The Dynamic Role of Micro and Small Enterprises. *London; Routledg*

Akinyi,. L. O., (2013). The effect of changes in interest rates on the demand for credit and loan repayments by small and medium enterprises in Kenya.

Liu, L., (2005). Do firms have target leverage ratios? Evidence from historical market to book and past returns.*Working paper.*

Maimbo, S. M., & Gallegos, C. A., (2014).Interest Rate Caps around the World Still Popular, but a Blunt Instrument.*World Bank Group.*

Maimbo, S., Henriquez G., & Claudia A., (2014). Interest Rate Caps around the World: Still Popular, but a Blunt Instrument. Policy Research Working Paper; No. 7070. *World Bank Group. Washington DC.*

Makena, P., Kubaison, S. &Njati, C., (2014). Challenges Facing Women Entrepreneurs in Accessing Business Finance in Kenya: Case of Ruiru Township, Kiambu County.

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

Mbua,. S, N. 2017. Effect of Interest Rates Capping by the Central Bank of Kenya on the banks listed on the Nairobi Securities Exchange. *United States International University*

McKinnon, R., (1973). Money and Capital in Economic Development.*Washington DC, Brookings Institution.*

Metcalf. R. W.,&Titard. P. L., (1976). Principles of Accounting, *Philadephia W.B. Sauders.*

Miller, H, (2013). Interest rate caps and their impact on financial inclusion.

Miller, M. H., & Modigliani, F. (1963). Corporate income taxes and the cost of capital: A correction. *American Economic Review,* 53(3*)* 433-444.

Modigliani, F., & Miller, M. H., (1958).The cost of capital, corporation finance and the theory of investment.American*Economic Review,* 48(3), 261-295.

Mostafa, H. T., &Boregowda, S., (2014). A Brief Review of Capital Structure Theories.*Research Journal of Recent Sciences,* 3(10), 113–118.

Mugenda, A., &Mugenda, O., (2003); Research Methods, Quantitative and Qualitative Approaches, *ACTS Press, Nairobi.*

Mulei, S. &Bokea, G., (2000), Response of micro-finance institutions in Kenya to the turbulent business environment.*Published MBA Thesis University of Nairobi.*

Musando J. A., (2013). The relationship between financial planning and the financial performance of small and medium Enterprises in Nairobi city centre Kenya.

Mwaniki, C., (2017). Central bank says drop in SME loans risks jobs, growth.

Myers S. C., &Majluf N., (1984). Corporate financing and investment decisions when firms have information that investors do not have, *Journal of Financial Economics, 13, 187-221*.

Myers, S. C., (2001). Capital structure. *Journal of Economic Perspectives*, 15, 81–102.

Ndichu, J. W., (2014). The effect of interest rate spread on financial performance of deposit taking microfinance banks in Kenya.

Ndung'u, C. W,.(2016). Factors affecting credit access among small andMedium enterprises in Murang'a county.*Nairobi University.*

North, D, C., John, J, Wallis,. Steven B,. Webb, and Barry R. W,. (2007). "Limited Access Orders in the Developing World: A New Approach to the Problems of Development." *Policy Research Working Paper 4359, September. World Bank, Washington, DC*

Nyeduko, W. T., (2014). Money is the lifeblood of any business entity.

OECD. (2015). New Approaches to SME and Entrepreneurship Financing: Broadening the Range of Instruments

OECD. (2017). Financing SMEs and Entrepreneurs. An OECD scoreboard

Oketch, H., (2007). The demand and supply of micro and small enterprise finance in Kenya. *K-REP, Nairobi.*

Olaka,.H. (2017). The Capping Interest Rates Debate: Market Failure or Necessary Intervention?

Ono, B., (2005). Improving access to finance for SME: international good experiences and lessons for Mongolia, *master thesis, Hitotsubashi university of Japan.*

Petersen, M. A., &Schoeman, I., (2008).Modeling of Banking Profit via Return-on-Assets andReturn-on-Equity.*Proceedings of the World Congress on Engineering*, Vol. II.

Porteous, D,. Daryl, C,.& Jeff A,. 2010. "Interest Rate Policy." Policy Framing Note 4, Financial Access Initiative. *The Financial Access Initiative is a consortium of researchers at New York University, Harvard, Yale and Innovations for Poverty Action.*

Priyanka S., Brajesh K., & Ajay P., (2008). Price and Volatility Spillovers across North American, European and Asian Stock Markets: With Special Focus on Indian Stock Market.*Indian Institute of Management Ahmedabad India.*

Richard, P., Devinney, T., Yip, G., & Johnson, G. (2008). Measuring Organisational Performance as a Dependent Variable: Towards Methodological Best Practice.

Runkle, D.E, Glosten, L. R., Jagannathan, R. (2013) "On the relation between the expected value and the volatility of the nominal excess return on Stocks," *Journal of Finance*, 48, p. 1779-1801.

Ryan, B., (2014). SMEs, Financial Constraints and Growth.Monetary and Economic Department.Bank for International Settlements.*JEL classification: E22, G30, L16, O16*

Saunders, M., Lewis, P., &Tornhill, A. (2009).Research Methods for Business Students.Gosport: *Prentice Hall.*

Schiffer, M. and Weder, B. (2001). "Firm Size and the Business Environment: Worldwide Survey Results". IFC Discussion Paper, 43.*The World Bank, Washington DC*

Scholtens, B., &Wensveen, D. V., (2003). The theory of financial intermediation: An essay on what it does (not) explain. *SUERF – The European Money and Finance Forum Vienna.*

Schumpeter, J. A., (1934). The theory of Economic Development: An Inquiry into Profits, Capital, Credit, Interest and the Business Cycle. *New Brunswick, Transaction Publishers.*

Sengupta, R., (2011). Foreign Entry and Bank Competition, *Journal of Financial Economics*,84(2), 502-528.

Shaw, E., (1973). Financial Deepening in Economic Development.*New York. Oxford University Press.*

Shyam S. L., & Myers, S.C., (1999).Testing static tradeoff against pecking order models of capital structure. *Journal of Financial Economics*, 51, 219–244.

Sshayek, R., (2011). The Effect of Strategic Planning, Entrepreneurship, Human and Financial Resources and Market Orientation on Small Business.

Stiglitz, J. & Weiss, U. (1981). Poverty reduction in Sub-Saharan Africa: Is there a Role for the private sector? *African Development Bank Economic Research*, Paper No.52.

Strebulaev, I. A., (2007). Do tests of capital structure theory mean what they say?,*Journal of Finance*, 62, 1747-1787.

Strebulaev, I., (2004). Do tests of capital structure theory mean what they say? *working paper.*

Thorsten, B,.(2007). Financing Constraints of SMEs in Developing Countries: Evidence, Determinants and Solutions.*World Bank, Development Research Group.*

Thorsten, B,.& Robert, C,. (2014). Small and Medium sized enterprise finance in Africa. *Africa growth initiative working paper* 16

Tippins, M. J., &Sohi, R. S., (2003). It Competency and Firm Performance: is organizational learning a missing link? *Strategic Management Journal*, 24(8), 745-761

Torre, A, d, l,. Emily, S,. John, N,. (2010). Natural Resources in Latin America and the Caribbean. Beyond Booms and Busts.*The World Bank. Washington D C*

Tucker, J. & Lean, J., (2003).Small firm finance and public policy.*Journal of Small Business and Enterprise Development*, 10 (1). pp. 50-61. *ISSN 1462-6004 Available from: http://eprints.uwe.ac.uk/27956*

Tushabonwe- Kazooba, C. (2006). Causes of Small Business Failure in Uganda: A Case Study from Bushenyi and Mbarara Towns. *African Studies Quarterly, 8(4) Retrieved from http// web.Africa.ufl.edu]asq/v8/v8i4a3.htm*

Van Stel, A. J., & D. J. Storey (2004): The link between firm births and job creation: Is there a up as tree effect? *Regional Studies,* 38(8), 893–909.

n Ltd*, International Journal of Business and Management, India.*

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

Wairimu,. G. (2016). Effects of working capital management on financial performance of micro and small enterprises in Tetu Sub County Nyeri.*Deaden Kimathi University*

Welch, I., (2004). Capital structure and stock returns. *Journal of Political Economy* 112, 106–131.

Winborg, J., & Landström, H. (2000). "Financial Bootstrapping in Small Businesses: Examining Small Business Managers' Resource Acquisition Behaviors" *Journal of Business Venturing, 2000.*

World Bank. (2017). Small and Medium Enterprises (SMES) Finance. Improving SMEs' access to finance and finding innovative solutions to unlock sources of capital

APPENDICES

APPENDIXI: LETTER OF INTRODUCTION

DEDAN KIMATHI UNIVERSITY OF TECHNOLOGY

P.O. BOX 657, 10100 – NYERI, KENYA

TELEPHONE: 0713-835965, EMAIL schoolofbusiness@dkut.ac.ke

OFFICE OF THE CHAIRMAN,DEPARTMENT OF BUSINESS ADMINISTRATION

TO: whom it may concern

FROM: Dean School Business Management and Economics

DATE: 24th November 2017

SUBJECT: ASSISTANCE IN DATA COLLECTION

This is to certify that **CAROLINE WANJA GITHINJI**-Registration No. **B211-01-0081/2016** is registered in the Masters of Business Administration Programme at Dedan Kimathi University of Technology. In partial fulfillment of the requirements for the award of the degree the candidate is required to undertake an empirical study to enable her write a thesis.

To this end **CAROLINE WANJA GITHINJI** is carrying out a study entitled **"INFLUENCE OF INTEREST RATE CAPPING ON FINANCIAL PERFORMANCE OF SMALL AND MEDIUM ENTERPRISES AGRIBUSINESS IN NYERI CENTRAL SUB COUNTY KENYA".** This is to request you to offer her the necessary support to enable her collect primary data, which would be used for academic purposes only.

Thank you.

Dr. D.N. Kiragu., PhD

Dean School Business Management and Economics

APPENDIX II: TABLE FOR DETERMINING SAMPLE SIZE FROM A GIVEN POPULATION

N	S	N	S	N	S
10	10	220	140	1200	291
15	14	230	144	1300	297
20	19	240	148	1400	302
25	24	250	152	1500	306
30	28	260	155	1600	310
35	32	270	159	1700	313
40	36	280	162	1800	317
45	40	290	165	1900	320
50	44	300	169	2000	322
55	48	320	175	2200	327
60	52	340	181	2400	331
65	56	360	186	2600	335
70	59	380	191	2800	338
75	63	400	196	3000	341
80	66	420	201	3500	346
85	70	440	205	4000	351
90	73	460	210	4500	354
95	76	480	214	5000	357
100	80	500	217	6000	361
110	86	550	226	7000	364
120	92	600	234	8000	367
130	97	650	242	9000	368
140	103	700	248	10000	370
150	108	750	254	15000	375
160	113	800	260	20000	377
170	118	850	265	30000	379
180	123	900	269	40000	380
190	127	950	274	50000	381
200	132	1000	278	75000	382
210	136	1100	285	100000	384

Krejcie and Morgan's Table

Where is:

S = Required Sample size

N = Population Size

APPENDIX III: QUESTIONNAIRE

SECTION A: BACKGROUND INFORMATION

In this section, you were provided with the factors of interest rate capping that influences the financial performance of Agribusiness SMEs Nyeri Central Sub County. Each factor is divided into sub-sections. You are required answer all questions in the sub-sections by ticking accordingly in the box provided.

QUESTIONNAIRE

1. Specify the name of your business in the space provided below:

   _____

   _____

2. How many years have you been in this business?
   a) Below 5 years [ ]
   b) 6-10 years [ ]
   c) 11-15 years [ ]
   d) 16 years and above [ ]

3. In which category do you belong?
   a) Owner [ ]
   b) Staff [ ]
4. How many staff have you employed?

SECTION B: FINANCIAL PERFORMANCE OF SMEs

To what extent do you agree with the following statements that relate to the financial performance of Agribusiness SMEs?

Statements	**Strongly Disagree**	**Disagree**	**Neutral**	**Agree**	**Strongly Agree**
Since the introduction of the interest rate capping, the business Turnover has declined.					
The Return on Assets (ROA) has declined due to the underutilization of the business assets.					
If the interest rate capping regulation stays the Agribusiness SMEs expect that the value of the business value may gradually decline.					
Since the implementation of the interest rate capping the profitability of Agribusiness SMEs declined					

What was the Return on Assets (ROA) of your organization for the period 2013 to 2016 in percentage and Profit after tax in Kenya shillings

Statements	**2013**	**2014**	**2015**	**2016**
Return on Assets				
Profit after tax				

SECTION C: INTEREST RATE CAPPING

To what extent do you agree with the following statements that relate to the influences of interest rate capping on the financial performance of Agribusiness SMEs?

COLLATERAL REQUIREMENTS

Tick appropriately, the effects of collateral requirements in accessing credit from financial institutions

Statements	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
Do you think that the introduction of interest rate capping has affected collateral value required by financial institutions from Agribusiness SMEs					
Lack of fixed assets/collateralization hindrance to many Agribusiness SMEs access to credit from financial institutions					
Do you think that the availability of adequate collateral mitigates the Agribusiness SMEs risk factor.					

CUSTOMER INFORMATION REQUIREMENTS

Tick appropriately, the effects of customer information requirements in accessing credit from financial institutions

Statements	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
Some of Agribusiness SMEs are not enlightened in keeping proper books of accounts and therefore they are not able to give credible financial information to the financial lenders.					
When the information required is not reliable the cost of lending to the SMEs increases and the credit worthiness of the Agribusiness SMEs reduces					
Poor management and skill by small and micro SMEs is an obstacle to the accessibility of finances by the SMEs, since they are not able to meet the lender requirements					

CREDIT PROCESSING PERIOD

Tick appropriately, the effects of Credit Processing Period in accessing credit from financial institutions

Statements	**Strongly Disagree**	**Disagree**	**Neutral**	**Agree**	**Strongly Agree**
Does the conditions required by financial institutions after interest rate capping; like adequate collateral, information asymmetry affect the credit processing period					
Most SMEs are categorized as high risk borrower, does this affect the credit processing period					
Networks with financial lenders, connections with other enterprises and business associations also help to promote access to financial services					

AGRIBUSINESS SMEs FIRM SIZE

Tick appropriately, the effects of Credit Processing Period in accessing credit from financial institutions

Statements	**2013**	**2014**	**2015**	**2016**
Capital Base Value				