

**VIRTUAL LENDING AND LOAN REPAYMENT IN COMMERCIAL BANKS IN
KENYA**

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Declaration

This research project is my original work and has not been presented for a degree in any other University.

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

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Dedication

I dedicate this research project to my family for all the sacrifices they made to enable me finalize this project. Their concern, love, care, support and encouragement have enabled me to achieve this goal.

Acknowledgement

I am grateful and highly indebted to many outstanding individuals without whom this work would not have been successful. Special gratitude to the Almighty God for the free provision of care, health, and strength he has accorded me, may abundant glory be to God. I am deeply indebted to my supervisor, Dr. Mary Namusonge, for her personal commitment, encouragement, availability, patience and tolerance during the many discussions which immensely contributed to the success of the proposal. I also acknowledge my dear wife Teresiah, for her continuous support and encouragement. Finally to all of you, may our dear Lord richly bless you!

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Acronyms and Abbreviations

KCB:	Kenya Commercial Bank
NACOSTI:	National Commission for Science, Technology and Innovation
NIC:	National Industrial Credit
NPAs:	Non-Performing Assets
NPLs:	Nonperforming Loans
SMEs:	Small and Medium Enterprises
USD:	United States Dollars

Operational Definition Of Terms

Collateral:	This is a property or its equivalent that a debtor deposits with a creditor to guarantee repayment of a debt.
Commercial banks:	This refers to types of financial institutions that provide financial services like accepting deposits and offering loans.
Loan accessibility:	This refers to instant or easily available money for public lending that is characterized by reduced loan approval process
Loan repayment:	This is the act of paying back money previously borrowed from a lender that takes the form of periodic payments that normally include part principal plus interest in each payment.
Virtual lending policy:	These are guidelines that spell out how to decide which customers to give virtual loans, the exact payment terms, interest rates, the limits set on outstanding balances and how to deal with delinquent accounts.
Virtual lending rates:	It is the amount charged, expressed as a percentage of principal, by a lender to a borrower for the use of assets.
Virtual Lending:	This is the provision of loans via mobile platforms.

Abstract

Virtual lending was introduced to fasten loan repayments but the latter is still a challenge to commercial banks. Banks still experience delays in repayment of loans as well as loan defaults. Delays of repayment lead to an increase in in Kenya non-performing loans ratio, which in turn has a significant impact on the liquidity of the bank. Loan repayment in commercial banks in Kenya has been poor for the last five years as evidenced by the increasing non-performing loan ration among commercial banks in Kenya. This study therefore sought to investigate on the relationship between virtual lending and loan repayment in commercial banks in Kenya. The study also sought to determine the effect of virtual lending policy, virtual lending rates, easy loan accessibility and lack of collateral on loan repayment in commercial banks in Kenya. A descriptive research design was used in this study. The target population was all the 88 staff working the credit department in the headquarters of Equity Bank Limited. Simple random sampling technique was used to select 50% of the target population. This study used primary data that was collected by use of semi-structured questionnaires. Before the data collection, a pilot test was conducted to ensure the validity and reliability of the research instrument. This study used content validity by consulting individuals such as the supervisors who are experts in the current area of study. Reliability was measured by use of internal consistency and a Cronbach's alpha of 0.7 was considered acceptable. The research instrument generated both quantitative and qualitative data. Thematic content analysis was used to analyze qualitative data. Quantitative data was analyzed by use of both descriptive and inferential statistics by use of statistical package for social sciences (SPSS version 22). Descriptive statistics included frequency distribution, percentages, means and standard deviation. In addition, correlation analysis and multivariate regression analysis were used to establish whether there is a relationship between the dependent and the independent variables. The study applied a 95% confidence level, which indicates a significance level of 0.05. The data was then presented in tables and graphs. The results indicated that virtual lending policy has a positive and significant influence on loan repayment in commercial banks in Kenya ($\beta_1=0.226$, $p\text{-value}=0.012$). In addition, the study found that virtual lending rates have a significant inverse influence on loan repayment in commercial banks in Kenya ($\beta_2=-0.376$, $p\text{-value}=0.000$). Further, easy loan accessibility has a significant inverse influence on loan repayment in commercial banks in Kenya ($\beta_3=-0.326$, $p\text{-value}=0.000$). Also, lack of collateral has an inverse influence on loan repayment in commercial banks in Kenya ($\beta_4=-0.421$, $p\text{-value}=0.000$). The study concludes that lack of collateral influences loan repayment in commercial banks in Kenya most; followed by virtual lending rates, easy loan accessibility and virtual lending policy. The study recommends that the Central bank of Kenya should come up with a specific virtual lending policy covering factors such as interest rates, credit approval process and requirements for obtaining credit. The study also recommends that the credit department in Equity Bank should enhance the implementation of virtual lending policy. Also, commercial banks in Kenya should come up with ways of reducing misuse of funds by using automated measures such as checking the credit worthiness of an individual in Credit reference Bureau.

CHAPTER ONE: INTRODUCTION

1.1 Background of the Study

Lending practices in the world could be traced back to the period of industrial revolution, which increased the pace of commercial and production activities thereby bringing about the need for large capital outlays for projects (Aduda & Gitonga, 2011). Lending, which may be on short, medium or long-term basis, is one of the main services that commercial banks do render to their customers. According to Asantey and Tengey (2012), lending is undoubtedly the heart of banking business. Therefore, its administration requires considerable skill and dexterity on the part of the bank management.

Loans taken from commercial banks vary from country to country, region to region, sector to sector (Asantey & Tengey, 2012). But most credits of developing countries are found to share one common characteristic: suffer from a considerable amount of default rate (the amount of loans not collected on current and past due loans for the reference period). The capability of borrowers to repay their microcredit is an important issue that needs attention. Borrowers can either repay their loan or choose to default. Borrower defaults may be voluntary or involuntary. According to Viswanadham (2015), involuntary defaults of borrowed funds could be caused by unexpected circumstances occurring in the borrower's business that affect their ability to repay the loan. Unexpected circumstances include lower business revenue generated, natural disasters and borrowers' illness. In contrast, the author further argues that voluntary default is related to morally hazardous behavior by the borrower (Boahene, Dasah & Kwaku, 2012). In this category, the borrower has the ability to

repay the borrowed funds but refuses to because of the low level of enforcement mechanisms used by the institution (Kipyego & Kwambai, 2013).

Repayment performance refers to the total loans paid on time as stated in the loan agreement contract. Boahene, Dasah and Kwaku (2012) define repayment performance in terms of binary variable; based on an arbitrary definition of what constitutes repaying “on time”. Boahene, Dasah and Kwaku (2012) measure repayment performance based on the degree of arrears. While, the term delinquency is defined as a failure to meet the repayment obligations at the date complete repayment was promised and delinquent loans are loans that have been written off (Asantey & Tengey, 2012)

Commercial banks globally have been experiencing low loan repayment rates. In the United States, the amount of non-performing loans rose to 374 billion USD in the year 2010. However, this has since then reduced to 138 billion USD in the year 2015 (Federal Reserve Bank, 2016). In the year 2011, the non-performing loans ration in the United Kingdom was 3.96% (Statistuca, 2016). In Nigeria, Boahene, Dasah and Kwaku (2012) stressed that the spate of bad loans (non-performing loans) was as high as 35% in Nigerian Commercial Banks between 1999 and 2009. According to Central Bank of Kenya (2016), bad loans currently stand at eight per cent of the total loans issued by commercial banks in Kenya. The last time bad loans were more than eight per cent of total loans issued by banks was in October 2005. Emergence of mobile banking has also played a role in the increasing non-performing loans in commercial banks.

The emergence of mobile banking in the last of one decade has led to the advent of virtual lending among both formal and non-formal financial institutions (Bonface &

Ambrose, 2015). The concept of mobile lending has been adopted in various parts of the world. For instance, Manhattan-based OnDeck lending is providing billions of dollars in loans, while Atlanta-based Kabbage grows into mobile lending giant. Conventional lenders are beginning to focus on mobile money lending (Jordan, 2016). CIT bank is doing online lending through Direct Capital, while JPMorgan Chase and Santander have started focusing on mobile lending. Traditional loans can easily take 90 days or longer, online lenders can arrange funding in days and mobile lenders loans are instant, turning this sector into the new face of finance (Reosti, 2015).

Mobile lending is no longer alternative, it is simply what borrowers have come to expect. In mobile lending, where the lender and borrower may never meet face-to-face, there can be a need to manage risks regarding default and even collection. However, despite the high rate of adoption of mobile lending by commercial banks, there are no regulations governing or guiding money lending in most countries. This has therefore led to an increase in non-performing loans in financial institutions.

Besides offering money withdrawal, deposit and transfer services, commercial banks in Kenya have started offering loans via mobile platforms. The provisions of loans through mobile platforms started with the partnership between Commercial Bank of Africa and Safaricom with their product “Mshwari”. M-Shwari has already brought millions of poor, previously unbanked Kenyans the full benefits of a banking product (including interest, deposit insurance, and access to credit) using M-PESA’s unparalleled mobile money infrastructure. In response, other commercial banks have started the mobile money lending (Stenitzer, 2015). Equity bank launched its Eazzy Loan in the year 2015 that is offered through Equitel. Following the suit, Kenya Commercial Bank launched its KCB M-Pesa product in collaboration with Safaricom.

In addition, Co-operative Bank launched its mobile banking service that enables customers to borrow loans through their phones, in a direct challenge to Safaricom's M-Shwari and Equity Bank's Eazzy Loan.

Just a few years after adoption, the provision of mobile money lending services is facing various challenges; the main one being loan default. According to Cytonn Investment (2016), the non-performing loans in Mshwari and KCB-Mpesa stood at 1.9% and 3.6%, respectively. In the year 2014, more than 140,000 users of the mobile phone based bank account M-Shwari were listed in Credit Reference Bureau for defaulting on loans.

With the provision of loans via mobile platforms, it is not possible to exhaustively evaluate the credit worthiness of the borrowers (Stenitzer, 2015). In addition, virtual lending does not require collateral or guarantors and hence the financial institutions bank on the borrowers' character and willingness to pay. Also, mobile money lending is characterized by high interest rates and exorbitant fines upon default. For instance, Kenya Commercial Bank offers its mobile loans at 4% per month for 30 day loan, 3% per month for 90 day loan and 2% per month for 180 day loan. On the other hand, Mshwari offers loans at 7.5 % for 30 days (Cytonn Investment, 2016).

1.1.1 Equity bank(k) Limited

Equity Bank(k) Limited is incorporated, registered under the Kenyan Companies Act Cap 486 and domiciled in Kenya. The Bank is licensed under the Kenya Banking Act (Chapter 488), and continues to offer retail banking, microfinance and related services. The Bank shares are listed on the Nairobi Securities Exchange, Uganda Securities Exchange and Rwanda Securities Exchange. Equity Bank was founded as Equity Building Society (EBS) in October 1984 and was originally a provider of

mortgage financing for the majority of customers who fell into the low income population. Having been declared technically insolvent in 1993, Equity bank rapidly grew into a microfinance and then a commercial bank. Equity positioning statement is that it provides inclusive financial services that transform livelihoods, give dignity and expand opportunities (Equity Bank, 2015).

Equity Bank Group maintains a network of 135 branches across Kenya, which includes 38 branches in Nairobi. The group has also expanded its services to other countries in Africa including Rwanda, South Sudan, Tanzania and Uganda. Apart from increasing its Branch network, Equity bank has been in the forefront in the adoption of technological innovations like agency banking, internet banking and mobile banking (Equity Bank, 2015).

In the year 2015, Equity Bank launched a new product that will allow subscribers access higher loan amounts that are payable over a longer period through the Equitel mobile platform. Equitel launched the 'Eazzy Plus Loan' where customers can now borrow up to Sh3 million which is payable within 12 months. With the introduction of Equitel, Equity bank's loan book grew to Sh275 billion in the first quarter compared to Sh224 billion in March last year while customer savings rose to Sh299 billion from Sh276 billion a year earlier. According to Equity Bank (2016), 81 per cent of its loans are now being disbursed through the mobile platform, allowing it to cut stationery and staff costs. According to Cyttonn Investment (2016), the Equitel Platform has continued to outperform market expectations in the year 2016. First, the number of customers has grown by 179.4% since the first quarter of the year 2015 and the transaction numbers via the platform have grown by 314.5%.

1.2 Statement of the Problem

In all financial institutions, borrowers are typically required to repay their loans in regular installments, soon after loan disbursements (Aduda & Gitonga, 2011). Virtual lending was introduced to fasten loan repayments but the latter is still a challenge to banks (Kathuo, 2015). Banks still experience delays and defaults. A delayed installment is said to be delinquent and a repayment that has not been made is said to be in default. Delays of repayment lead to an increase in non-performing loans ratio, which in turn has a significant impact on the liquidity of the bank. According to Wangui (2010), repayment problems weaken the financial health of financial institutions since they handicap their missions while putting in danger their capitals.

In period of less than 2 years, the Central Bank of Kenya has placed Dubai bank, Imperial bank ltd, Chase bank under receivership citing liquidity challenges. According to Tonui, Muturi and Nyangau (2015), loan repayment plays a major role in ensuring liquidity in commercial banks. Therefore, controlling non-performance of loans is very critical for both the performance of an individual bank and the economy's financial environment (Bonface & Ambrose., 2015).

According to Central Bank of Kenya (2015), monthly economic review report, the value of gross nonperforming loans (NPLs) increased by 32.7% from Ksh 81.4 billion in November 2013 to Ksh 108.0 billion in November 2014. In Equity Bank, non-performing loans grew by 35.8% to Kshs 10.9 billion from Kshs 8 billion in the first of quarter of the year 2015 compared to an increase in gross loans of 22.2% which led to an increase in NPL ratio to 3.9% from 3.5% (Cytonn Investment, 2016). In the last five years, commercial banks have been adopting virtual lending through mobile phone platforms (Kathuo, 2015). Virtual lending is characterized by lack of collateral,

high lending rates, easy loan accessibility. Although, commercial banks have developed some internal virtual lending policies, these policies are weak and contain a lot of loopholes that customers take advantage of. Further, despite the increasing adoption of virtual lending, Kenya has no national policy, specifically guiding the provision of loans through mobile platforms.

Various studies conducted in Kenya have focused on loan repayment in commercial banks in Kenya. For instance, Mukono (2015) conducted a study on the determinants of loan repayment by small and medium enterprises in Nairobi County. In addition, Wangui (2010) conducted a survey of the causes of non - performing loans of commercial banks in Kenya. Despite the increasing adoption of virtual lending and high non performing ratio among commercial banks, there is little empirical evidence on the relationship between virtual lending and loan repayment in commercial banks in Kenya. It is against this background that this study seeks to answer the question: What is the relationship between virtual lending and loan repayment in commercial banks in Kenya?

1.3 Objectives of the Study

1.3.1 General Objective

The general objective was to investigate on the relationship between virtual lending and loan repayment in commercial banks in Kenya.

1.3.2 Specific Objectives

The specific objectives of the study were:

- i. To determine the effect of virtual lending policy on loan repayment in commercial banks in Kenya

- ii. To establish how virtual lending rates affects loan repayment in commercial banks in Kenya
- iii. To find out the effect of easy loan accessibility on loan repayment in commercial banks in Kenya
- iv. To assess how lack of collateral affects loan repayment in commercial banks in Kenya

1.4 Research Hypotheses

The study sought to test the following hypotheses:

H₁1: There is a significant relationship between virtual lending policy and loan repayment in commercial banks in Kenya

H₀1: There is no significant relationship between virtual lending policy and loan repayment in commercial banks in Kenya

H₁2: There is a significant relationship between virtual lending rates and loan repayment in commercial banks in Kenya

H₀2: There is no significant relationship between virtual lending rates and loan repayment in commercial banks in Kenya

H₁3: There is a significant relationship between easy loan accessibility and loan repayment in commercial banks in Kenya

H₀3: There is no significant relationship between easy loan accessibility and loan repayment in commercial banks in Kenya

H₁4: There is a significant relationship between lack of collateral and loan repayment in commercial banks in Kenya

H₀4: There is no significant relationship between lack of collateral and loan repayment in commercial banks in Kenya

1.5 Significance of the Study

This study is of importance to various stakeholders in the banking industry. These include the management of Equity bank and other commercial banks in Kenya, the government policy makers as well as other researchers and academicians.

Being a new concept, globally, there are few theories showing the relationship between virtual lending and loan repayment. The study therefore adds more information to theory and the body of knowledge on virtual lending and loan repayment in commercial banks. In addition, this area of virtual lending is still suffering from lack of information. Research in the various components in this area would help to unearth hitherto unknown information that would go a long way in facilitating further understanding of the relationship between virtual lending and loan repayment in commercial banks in Kenya. The study therefore provides a base upon which further studies can be conducted on the virtual lending and loan repayment success in other financial institutions.

Commercial banks in Kenya are increasingly adopting the concept of virtual lending as a strategy for achieving a competitive advantage. Therefore, to the management of Equity Bank and other commercial banks in Kenya the study provides information the relationship between virtual lending and loan repayment. The institutions may also obtains information on the role of virtual lending policy in loan repayment that can be used to develop strategies to improve loan repayment and improve virtual lending policy.

To the government of Kenya and policy makers, the study provides information on virtual lending and loan repayment in commercial banks that can be used to formulate policies to improve lending and loan repayment through mobile phone platforms in

financial institutions in Kenya. In addition, the findings can be used to formulate policies to protect customers from exploitation by commercial banks through exorbitant lending rates and fines.

1.6 Scope of the Study

This study sought to investigate on the relationship between virtual lending and loan repayment in commercial banks in Kenya. However, the study was limited to only four features of virtual lending, namely; lack of collateral, virtual lending policy, virtual lending rates and easy access to loans. This study only focused on Equity bank headquarters in Nairobi. Further, the study was conducted between January 2017 and February 2017. The target population was all the staff working in the credit department at the headquarters of Equity Bank.

1.7 Limitations of the Study

The management of Equity Bank was reluctant to grant permission to carry out the research. However, the researcher informed the management that the study is meant for academic purpose only. In addition, the research obtained a letter of data collection form the university and from NACOSTI. There were also challenges during data collection where some target respondents failed to give the required information due to fear of victimization and attitude towards the study. The researcher, however, worked at winning their confidence by giving them the reasons for the research and assuring them of confidentiality of information given.

CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

This chapter reviews the literature on virtual lending and loan repayment in commercial banks. The literature is provided in line with the research objectives. The theoretical underpinnings of the study and the conceptual framework will also be highlighted in this chapter. Specifically, the chapter covers the theoretical review, empirical review, summary of the literature, research gaps and conceptual framework.

2.2 Theoretical Review

A theory is a systematic explanation of the relationship among phenomena. Theories offer a generalized description to an occurrence (Bryman & Cramer, 2012). This study will be anchored on three theories, namely; lender-based theory of collateral, credit market theory and the adverse selection theory.

2.2.1 Lender-Based Theory of Collateral

According to the lender-based theory of collateral, collateral pledged by the borrower as a guarantee to the lender is a common feature of bank loan contracts. Theoretical research offers various explanations for the use of collateral, traditionally focused on ex-ante characteristics or ex-post actions of the loan applicants. According to such traditional borrower-based explanations, collateral could be used, among others, as a screening device that allows borrowers to signal ex-ante their private information or as a device that mitigates differences of opinion between borrowers and lenders about project returns. All else equal, under such circumstances the amount of collateral (interest rate) required by banks is inversely (directly) related to the costs of using collateral, such as costs related to its monitoring and repossession (Muellerb, 2007).

Recent theoretical advances have started to shift the paradigm explaining the use of collateral in bank lending from this more established, borrower-based perspective to a lender-based view. According to the latter, collateral is a competitive device used by local banks to attract valuable borrowers when competing with transaction lenders (Inderst & Mueller, 2007). The key distinction in this theory is between local banks, with information advantage and superior ability to assess the value of borrowers' projects, and transaction lenders, with loan underwriting cost advantage. Competition from such lenders limits the ability of the local banks to charge high interest rates and some marginally profitable projects are consequently rejected. Collateral, by increasing the local banks' payoffs in low cash flow states, reduces this inefficiency and makes lending to some firms with small but positive net present value projects feasible. Importantly, the competitive pressure by the transaction lenders is mitigated by the information advantage of the local bank. Thus, the latter can offer credit with lower (higher) collateral, but at higher (lower) interest rates to borrowers who are less (more) likely to be poached by the competing transaction banks, that is, borrowers for whom the information advantage of the local lender is relatively large (small) (Smolyakov, 2011).

In this study the theory of lender-based theory of collateral is used to explain the importance of collateral in lending. The sole role of collateral in credit provision is to minimize distortions in credit decisions based on soft private information. The use of collateral security reduces the risk of default and in case a customer defaults there is a high probability of recovery through the disposal of the collateral. However, virtual lending does not require collateral security. Though the amount provided via mobile platforms is small, it may be hard for the bank to recover the amount given out in case of default.

2.2.2 Credit Market Theory

A model of the neoclassical credit market postulates that the terms of credits clear the market. The theory postulates that if collateral and other pertinent restrictions remain given, then it is only the lending rate that determines the amount of credit that is dispensed by the banking sector (Ogar, Nkamare & Effiong, 2015). Therefore with an increasing demand for credit and a fixed supply of the same, interest rates will have to rise. Any additional risk to a project being funded by the bank should be reflected through a risk premium that is added to lending rate to match the increasing risk of default. Subsequently, there exist a positive relationship between the default probability of a borrower and the interest rate charged on the advance. It is thus believed that the higher the failure risks of the borrower, the higher the interest premium (Ewert et al, 2000).

Although this theory does not explicitly discuss how collateral would effect on the risk premium, it creates the impression that collateral has no effect on lending rate, and if a risky borrower would wish to face the same lending rate as a borrower with a lower risk, then all that is required is to pledge more collateral to lower his risk profile and therefore enjoy a lower risk premium. This brings about the ‘moral hazard’ and ‘adverse selection’ phenomena, firstly because of information asymmetry existing between the lender and borrowers (Bongaerts, De Jong & Driessen, 2011).

The credit market theory is used to explain the influence of the lending rates in loan repayment in commercial banks in in Kenya. Normally, the borrower has a more accurate assessment of the risk profile of this investment that is not known by the lender and thus may perform secret actions to increase the risk of his investment without the realization of the lender. The adverse selection problem appears as lenders

raise their interest rates to shield themselves from default and on the other hand attract only high risk borrowers and eliminate low risk borrowers. Virtual lending is more risky than traditional banking lending and hence commercial banks charge higher rates in virtual lending than in traditional banking lending.

2.2.3 The Adverse Selection Theory

The adverse selection theory of credit markets emanated from Stiglitz and Weiss (1981). Mimra and Wambach (2014) notes that the adverse selection arises when borrowers have characteristics that are unobservable to the lender but affect the probability of being able to repay the loan. The theory rests on two main assumptions: That lenders cannot distinguish between borrowers of different degrees of risk and that loan contracts are subject to limited liability (i.e., if project returns are less than debt obligations, the borrower bears no responsibility to pay out of pocket (Gale, 2010).

The adverse selection theory describes the situation of a bank that cannot distinguish the safe borrowers from risky. In adverse selection, the lender lacks information on the riskiness of its borrowers (Hackmann, Kolstad & Kowalski, 2015). Riskier borrowers should be charged higher interest rates to compensate for the increased risk of default than safer borrowers who are less likely to default. Accordingly, safer borrowers should be charged less provided each type can be accurately identified. Since the lender has incomplete information about the risk profile of its borrowers, higher average interest rates are passed on to all borrowers irrespective of their risk profile (Mimra & Wambach, 2014). To mitigate adverse selection problems, credit providers take their loan applicants through an elaborate screening procedure before granting a loan however, this has been able to reduce loan default among SMEs.

The adverse selection theory is used to explain the importance of credit policy describing the procedure of credit risk among borrowers. However, virtual lending does not put into consideration the profile of the borrowers. It only considers their saving culture and utilization of the mobile money platforms. This inform is often not enough as borrowers can obtain money from their friends to improve their accounts. Therefore, in mobile platforms, lenders have incomplete information about the risk profile of its borrowers.

2.3 Empirical Review Literature

2.3.1 Virtual lending policy and Loan repayment

A credit policy is an institutional method for analyzing credit requests and its decision criteria for accepting or rejecting applications. Credit policy is important in the management of accounts receivables. A firm has time flexibility of shaping credit policy within the confines of its practices (Taylor, Borden & Park, 2015). It is therefore a means of reducing high default risk implying that the firm should be discretionary in granting loans. Policies save time by ensuring that the same issue is not discussed over and over again each time a decision is to be made. This ensures that decisions are consistent and fair and that people in the same circumstance get treated in the same manner (Mulema, 2011).

Written credit policies are the cornerstone of sound credit management, they set objectives, standards and parameters to guide micro finance officers who grant loans and manage loan portfolio. The main reach for policy is to ensure operation's consistency and adherence to uniform sound practices. Policies should be the same for all and is the general rule designed to guide each decision, simplifying and listening to

each decision making process. A good credit involves effective initiation analysis, credit monitoring and evaluation (Owino, 2013).

Kwizera (2011) conducted a study on credit policy and loan recovery in Blue microfinance institution in Tanzania. The study adopted both descriptive and analytical research design based on semi-structured questionnaires to gain an in-depth understanding of credit policy management and loan recovery. The study revealed that credit policies exist in Blue but there was management laxity to effectively implement them and this has negatively impacted on Blue's loan recovery between the periods "2008-2010" where the default rate was steadily increasing. However, the study focused on credit policies used in the traditional banking loans which is different from virtual lending.

In Uganda, Mulema (2011) conducted a study on credit policy and loan portfolio performance in microfinance institutions in Kampala. The study used a cross-sectional survey design. The findings indicated that Uganda Finance Trust Limited used customer particulars for tracking purposes as some of its credit controls when issuing its loans to customers. In addition, there was a positive significant relationship between credit policy and loan performance, implying that credit policies affects the loan performance level of Uganda Finance Trust Limited. Just like Kwizera's (2011) study, this study focused on credit policy within the traditional banking model. Unlike the traditional banking model, virtual lending policy has no sections on collateral.

Kimondo (2013) conducted a study on the effect of credit policy on the financial performance of deposit taking microfinance institutions in Kenya. The study used a census approach for the six deposit taking micro finance organizations in Kenya. The findings indicated a positive significant relationship between credit policies and the

financial performance of deposit taking micro finance institutions. Besides being conducted in the traditional banking model, the study was limited to deposit taking micro finance institutions and hence its findings cannot be generalized to commercial banks in Kenya.

Owino (2013) carried out a study on the effect of the lending policies on the levels of non-performing loans of commercial banks in Kenya. A descriptive survey was employed in this study with the population of interest of being the forty three (43) commercial banks in Kenya. The study found that lending policies and non-performing loans are indeed related. Lending policies helps the banks lend prudently and lowers the risk level to the banks, and strict adherence to lending policies therefore has led to reduced non-performing loans. However, the study was conducted in the lending structure of traditional banking which is different from virtual lending.

2.3.2 Virtual lending rates and Loan repayment

The level of interest rates has a direct effect on a consumer's ability to repay a loan. For example, Ng'etich and Wanjau (2014), assert that when interest rates are low, people are willing to borrow because they find it relatively easy to repay their debt. When interest rates are high, people are reluctant to borrow because repayments on loans cost more. Some consumers may even find it difficult to meet their existing loan repayments, especially if interest rates increase faster than the rise in a consumer's income. If interest rates rise sharply and stay high for a long period, some consumers will default on their loans (Onyeagocha, 2012).

In Pakistan, Siddiqui, Malik and Shah (2012) conducted a study on the impact of interest rate volatility on non-performing loans in Pakistan. The study adopted a cross sectional study design. The results indicated that NPLs are affected but not absolutely

by the volatility of lending rates charged by the lenders in the market. Nevertheless, other macroeconomic factors are also suggested to be studied in addition to selected variables where this study is first of its kind opening doors for future research on non-performing loans in Pakistan's banking sector. Having been conducted in Pakistan, the findings of this study cannot be generalized to Kenya, due to differences in macroeconomic factors and policies governing lending.

Edakasi (2011) conducted a study on the effect of interest rates on loan repayment in Equity Bank Uganda. The purpose of the study was to analyze the impact of interest rates fluctuation (rising and falling interest rates) on loan repayment in Uganda's Equity Bank. The study established that most Equity Bank customers were aware of the influence interest rates have on micro-credits in regard to business performance. It was established that the provision of loans to entrepreneurs has a great impact on the businesses performance. This partly explains unenthusiastic regard of the management of Uganda Micro Finance Institutions to their improvements, in the credit terms to their clients entrepreneurs. The study also established the most important cause of poor business performance and collapse as being amongst others the high interest rates and limited amount lent. Although the study showed the association between interest rates on loan repayment, the lending rates discussed in the study were the lending rates used in the traditional banking model.

Onyeagocha (2012) conducted a study on the effect of interest rate on loan repayment in micro finance banks in Nigeria. The study used a case study design. A systematic random sampling was used for the data collection. The findings of the research revealed that though interest rate plays a major role in loan repayment, other factors such as loan term and the repayment frequency also influence to a large extent the

loan repayment. Customers indicated that though lower interest rate would enhance loan repayment, the issue of accessibility and availability of funds was paramount. Besides being conducted in a different country, the study was limited to microfinance institutions and hence the findings cannot be generalized to commercial banks in Kenya.

Abbas and Honghui (2016) carried out a study on the impact of interest rate on loan repayment of microfinance institution in Tanzania. The study adopted descriptive assessment techniques and the data were collected through interviewing or administering a questionnaire to a sample of 400 respondents. The results indicated that there was strong negative correlation between interest rates charged by microfinance institutions and loan repayment of microfinance institution in Tanzania. However, the study was conducted among microfinance institutions and hence the findings cannot be generalized to commercial banks.

Mwangi (2014) carried out a study on the effect of interest rates on non-performing loans in commercial banks in Kenya. This study adopted a descriptive research design targeting all the 43 licensed commercial banks in Kenya. The study's findings established significant, negative and good linear relationships between banks' NPLs and interest rate. The study therefore concluded that there is a strong relationship between financial performance of commercial banks with interest rate. Ng'etich and Wanjau (2014) conducted a study on the effects of interest rate on the level of non-performing assets in commercial banks in Kenya. This study adopted a descriptive research design on a sample of all commercial banks in Kenya operating by 2008. The results indicated that interest rate spread affect performing assets in banks as it increases the cost of loans charged on the borrowers, regulations on interest rates have

far reaching effects on assets non-performance, for such regulations determine the interest rate spread in banks and also help mitigate moral hazards incidental to NPAs.

These studies were conducted within the context of traditional banking model lending rates, which different from virtual lending rates.

2.3.3 Easy loan accessibility and Loan repayment

According to Sacerdoti (2005), among the reasons for lack of access to credit from banks in Sub-Saharan Africa are inability of borrowers to provide accurate information on their financial status, absence of reliable and updated company and land registries, weak claim recovery and collateral realization process such as malfunctioning courts and cumbersome legal and judicial procedures. Mayabi (2013) conducted a study on the effect of access to credit on growth of small and micro enterprises in Kenya and found that that for businesses to grow there has to be a level of accessed credit as shown by the significant relationship of between access to credit and level of funds. Campero and Kaiser (2010) conducted a study on awareness and use of formal and informal credit institutions in Mexico. The study found that the formal and informal credit markets in Mexico attend different segments of the population. However, informal lending sources' characteristics are valued per-se by consumers in certain situations, such as emergencies. However, these studies focused on other factors influencing accessibility of loans, but did not show the role of virtual lending.

Mwangi (2010) conducted a study on the determinants of access to credit by individuals in Kenya. The author indicates that the Kenya's National FinAccess Survey, 2009 revealed that 60.4% of Kenya's adult population is totally excluded from the credit market despite concerted government efforts to deepen access. The

study found that increase in household size reduced access to bank loans while it promoted access to loans from buyers of harvest. Increase in distance to service provider led to a decline in access to credit even though the impact was marginal. On the other hand, increase in age; education and income tend to enhance access to credit but the probability of access drops as one draws close to retirement age. The study did not show the influence and the role of virtual lending in loan repayment.

It is a tough struggle especially for the many unemployed people in Africa to obtain credit from financial institutions. Nothing is guaranteed for this lot who neither own bank accounts nor have the safety of formal jobs guaranteeing them loans whenever they fall into tough times (Odeke, 2016). Due to this predicament, they are usually at the mercy of unscrupulous shylocks who charge ridiculous interest rates on the money they lend to these individuals. However, thanks to technology one can easily secure a loan without having to step inside a bank, fill mountains of paperwork or provide security or guarantors. Mobile micro-loans, which have been adopted widely in Kenya are safe and provide unsecured loans offered by various institutions to help out during those tough financial difficult times.

2.3.4 Lack of collateral and Loan repayment

Financial institutions require security to minimize credit risk which might arise when borrowers deliberately or due to uncertain reasons fail to pay back the borrowed funds from the financial institutions. According Khole (2014), financial institutions require security because lending is among the riskiest ventures. They lend to borrowers clients' funds. However, as they are lending, they experience a problem of borrowers not being able to pay back. So it is only through collateral that they are assured that their clients' funds are secured.

In Georgia, Ninua (2008) conducted a study to determine whether a collateralized loan has a higher probability to default. The objective of my research is to investigate the relationship between collateralized loans and probability of default, based on analyses of ProCreditBank's database sample on about 600 loan profiles. The study found a positive relationship between collateralized loans and loan loss ratio. The results also show that the risky clients end up pledging collateral to get a loan from the financial intermediate. Having been conducted in Georgia, a country with different regulatory frameworks from that of Kenya, the findings of this study cannot be generalized to Kenya.

Consolata (2013) carried out a study to evaluate the state of loan repayment on management of microfinance institutions. The study used a descriptive research design. Document analysis conducted in the department concerned revealed the need to understand fully the management of loan repayments and how to improve the same. The study found that type and quality of collateral security influences loan repayment in microfinance institutions. Although, the study highlights the importance of use of collateral in loan provision, it does not show the use of collateral in virtual lending and how it influences loan prepayment.

Itoo, Mutharasu and Filipe (2013) conducted a study on the effect of loan value and collateral on value of mortgage default. A cross sectional research design was used. The results indicate that form of collateral security, Value of collateral security, purpose of loan and secondary finance on collateral security are significantly positively correlated with the defaulter's outstanding loan amount. The study did not show the influence of virtual lending on loan repayment.

In Kenya, Bagaka and Memba (2015) conducted a study on the influence of collaterals used by small and medium microenterprises on loan performance of commercial banks in Kisii County. The descriptive research design was adopted in the study. The results indicated that collateral has been one of the most widely-used features of debt contracts. Collaterals are used as a mechanism to reduce equilibrium credit rationing and other problems that arise due to asymmetric information between borrowers and lenders. The findings also suggested that most banks prefer the use of motor vehicles as security in order to reduce the risk of default. Further, majority of the banks discourage clients from using land and buildings as collaterals. However, in virtual lending there is usually no collateral used.

Khole (2014) carried out a study on the effects of unsecured lending on loan performance of commercial banks in Kenya. The researcher used secondary sources of data that was obtained for the period (2010 to 2013) on the cumulative loans and advances and cumulative number of unsecured lending of all the 42 licensed and operational commercial banks in Kenya. The study revealed that unsecured commercial banks loans have a strong positive effect on the loan performance of Commercial Banks in Kenya. Virtual loans can be classified as unsecured loans because they usually do not require collateral.

2.4 Summary of the Empirical Literature and Research Gaps

This study focused on three theories lender-based theory of collateral, credit market theory and the adverse selection theory. The lender-based theory of collateral explains the importance of collateral in reducing credit risk. The credit market theory explains the influence of money demand and supply on interest rates. The theory indicates that an increasing demand for credit and a fixed supply of the same, interest rates will

have to rise. The adverse selection theory is used to explain the importance of the information of the borrower, which virtual lending does not put into consideration.

The literature above shows that the utilization of credit policy has an influence on loan repayment. However, the credit policy of the traditional banking is different from that of virtual lending. The literature also shows that interest rates have an influence on loan repayment. However, the more risky lending is, the higher the interest rates. Virtual lending is a riskier business as compared to the traditional bank lending and therefore the interest rates are higher. With the advent of mobile banking credit acquisition has become easy and it is not limited by distance and availability of collateral. This makes the borrowers take loans that they do not necessarily need.

Various studies have been conducted on mobile banking and credit both globally and locally. Globally, Björkegren and Grissenb (2015) conducted a study on the role of behavior revealed in mobile phone usage on loan repayment in the United Kingdom and Nandhi (2014) carried out a study on the effects of mobile banking on the savings practices of low income users in India. Having been conducted in other countries with different banking structures and legal frameworks governing the mobile loans and loan repayments, these findings of these studies cannot be generalized to Kenya.

In Kenya, Innovations for Poverty Action (2015) conducted a study on the role of mobile banking in expanding trade credit and business development in Kenya. However, the dependent variable was expansion of credit and business development, which is different from loan repayment. In addition, Ndegwa (2014) carried out a study in the effect of mobile money on non-performing loans of commercial banks in Kenya. The independent variable was mobile money that comprises of elements such as withdrawals, deposits and transfers. In addition, the dependent variable was non-

performing loans of commercial banks, which is different from loan repayment. This study therefore seeks to fill the gap by investigating the relationship between virtual lending and loan repayment in commercial banks in Kenya.

Table 2. 1: Summary of the Literature Review

Author	Topic	Research methodology	Findings	Research Gaps
Björkegrena and Grissenb (2015)	The role of behavior revealed in mobile phone usage on loan repayment in the United Kingdom	The study adopted a descriptive research design	The results showed that that behavioral signatures in mobile phone data predict default with accuracy approaching that of credit scoring methods that rely on financial histories	The independent variable in the study was mobile phone usage, which is different from virtual lending
Nandhi (2014)	The effects of mobile banking on the savings practices of low income users in India	The study adopted a survey research design	The study found that EKO mobile banking service is valued as a boon for small savers and users who depended on risky informal savings practices	The study focused on saving through mobile banking and not virtual lending
Innovations for Poverty Action (2015)	The role of mobile banking in expanding trade credit and business development in Kenya	The study adopted a descriptive research design	The results indicated that mobile banking was planning a major role in expanding trade credit and business development	The dependent variable was expansion of credit and business development, which is different from loan repayment

Ndegwa (2014)	The effect of mobile money on non-performing loans of commercial banks in Kenya	The study used a descriptive research design.	The results indicated that mobile money services offers secure and convenient means for banked and unbanked people to send and receive money with mobile phones at home and abroad; anywhere at any time	The independent variable was mobile money that comprises of elements such as withdrawals, deposits and transfers In addition, the dependent variable was non-performing loans of commercial banks, which is different from loan repayment
Mukono (2015)	The determinants of loan repayment by small and medium enterprises in Nairobi County	The study employed a descriptive research design and a sample of 160 respondents was used.	The study findings established that loan, borrower, firm and lender characteristics are major determinants of loan repayment by small and medium enterprises in Nairobi County, Kenya	The study did not show how virtual lending influences loan repayment. Also, the study focused on borrowers and not the lenders.
Wangui (2010)	The causes of non-performing loans of commercial banks in Kenya	The study adopted the Descriptive Design	The study revealed that non-performing loans of commercial banks in Kenya are positively correlated with inflation rate and interest rates	The study did not show how virtual lending influences loan repayment.

2.5 Conceptual Framework

A conceptual framework for the present study shows the relationship of the components of virtual lending and loan repayment in commercial Banks in Kenya, as depicted in figure 2.1. The independent variables in this study will be virtual lending policy, virtual lending rates, easy loan accessibility and lack of collateral. The dependent variable will be loan repayment in commercial banks in Kenya.

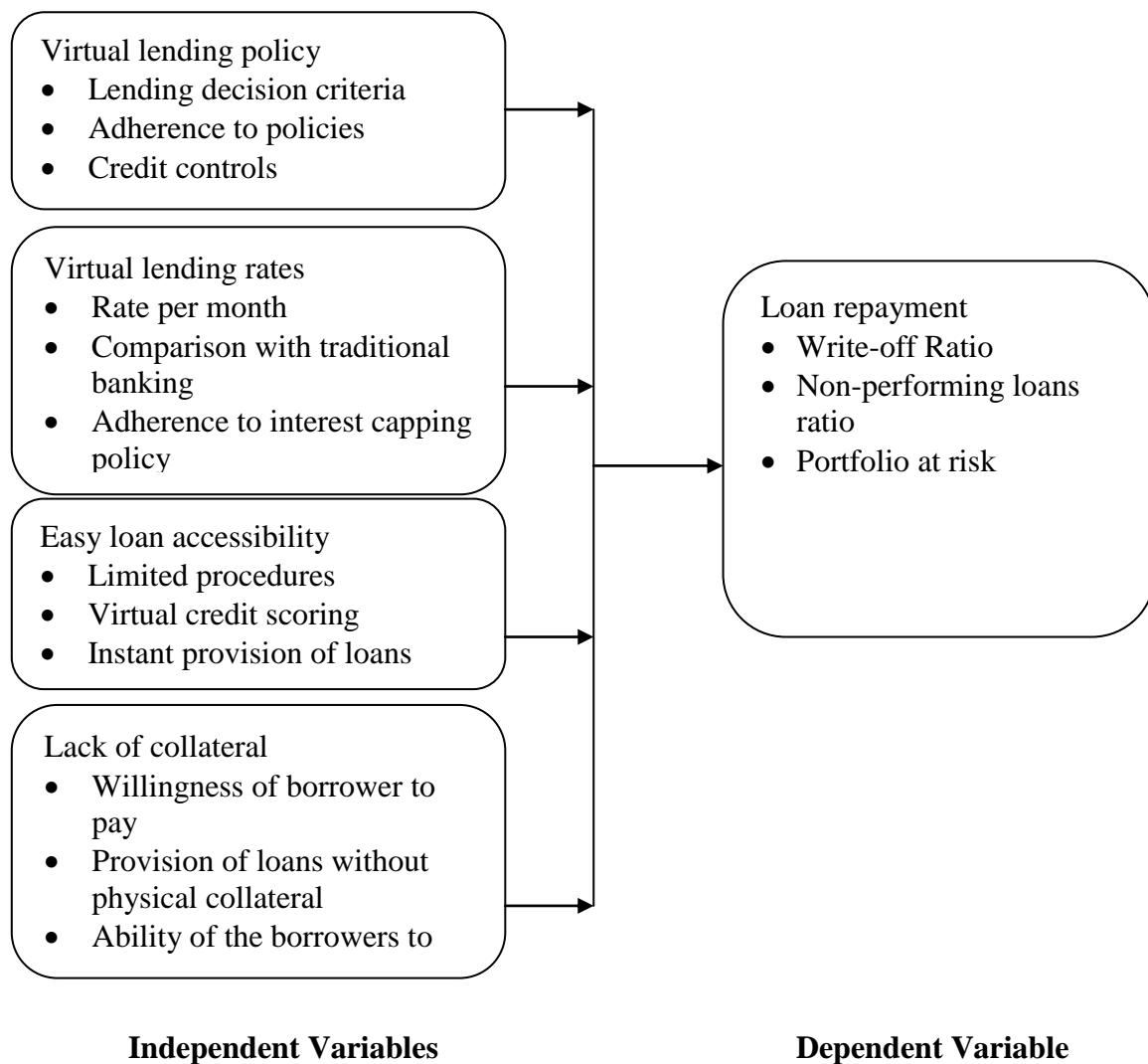


Figure 2. 1: Conceptual Framework

CHAPTER THREE: RESEARCH METHODOLOGY

3.1 Introduction

This chapter presents the methodology that was used in the collection and analysis of data. Specifically, this chapter consists of research design, population of the study, sample size and sampling technique, data collection instruments, pilot testing and data analysis.

3.2 Research Design

This study used an explanatory research design. The term explanatory research implies that the research in question is intended to explain, rather than simply to describe, the phenomena studied. Explanatory studies are designed to test whether one event causes another (Glicken, 2008). Explanatory research design was utilized as it helps in identifying the extent and nature of cause-and-effect relationships.

3.3 Target Population

Target population refers to all the members of a hypothetical or real group of subjects, objects or individuals to whom a researcher desires to generalize the conclusions of the study (Ngechu, 2004). The target population of this study was all the staff working in the credit department in the headquarters of Equity Bank Limited. According to Equity Bank (2016) report, there are 88 staff working in the credit department in the headquarters of Equity Bank Limited.

Table 3. 1: Target Population

Sections	Target Population
Corporate credit	28
Personal Credit	44
Eazzy Loan	16
Total	88

3.4 Sample and Sampling Technique

A sample is a selected part of the total population that is set apart as a representation of the whole population under study (Glicken, 2008). Simple random sampling technique was used to select 50% of the target population. Greener (2008) indicates that a 50% of the sample should be used for a population of between 100 and 500 ($100 < N < 500$). Simple random sampling is the basic sampling technique where we select a group of subjects (a sample) for study from a larger group (a population). Each individual is chosen entirely by chance and each member of the population has an equal chance of being included in the sample. The sample size of this study was 44 credit officers.

Table 3. 2: Sample Size

Sections	Target Population	Sample Size
Corporate credit	28	14
Personal Credit	44	22
Eazzy Loan	16	8
Total	88	44

3.5 Data Collection Instruments

This study used primary data, which was collected by use of semi-structured questionnaires. Questionnaires are commonly used for cases where the respondents willingly cooperate and are within reach. This kind of data collection method is convenient as it can be used to reach many people provided such persons can independently read and write. Bryman and Cramer (2012)

notes that the specific objectives of the study and the problem of study can be easily defined using questionnaires. Further this method ensures that the data collected, which is quantitative in nature, can easily be analyzed. Both structured and unstructured questions will be used in the study.

The questionnaire comprised of six sections. The first section contained questions on demographic information. The second, third, fourth and fifth sections contained questions on the four independent variables while the sixth section comprised of questions on the dependent variable.

3.6 Pilot Testing

A pilot study was conducted in an effort to identify and rephrase any ambiguous, misinterpreted or misunderstood questions. In addition, the pilot test facilitated the removal of typographical errors and determination of whether the questions asked are relevant and appropriate (Greener, 2008). The pilot group was sampled randomly and comprised of 10% of the sample size.

3.6.1 Validity of Research Instruments

Validity as explained by Bhattacharjee (2012) is the degree to which the measurement instrument or approach is successful in quantifying or describing the element under measure. Face validity and content validity are the two types validity commonly used. If the question posed is misinterpreted or misunderstood, then this is called face validity. Cooper and Schindler (2006) advise that the use of pre-testing decreases face validity. Content or logical validity is the degree to which the used measure represents all the facets of the provided social construct. This study improved content validity by consulting individuals such as the supervisors who are

experts in the current area of study. Additionally, face validity of the research was improved by use of the pilot test and making clear all the ambiguous and unclear questions.

3.6.2 Reliability of Research Instruments

Reliability determines whether the instrument used for assessment provides similar results every time it used in similar settings with similar subject types. Reliability in this study was measured by use of internal consistency. The internal consistency coefficient gives the reliability of measurement estimate by assuming that items that measure similar constructs are supposed to correlate. Cronbach’s alpha is the most frequently used method for measuring internal consistency. Reliability in this method increases in value where the alpha values used are between 0 and 1. When the coefficient is between 0.6-0.7, then this is an acceptable reliability value while if the value is 0.8 or higher this is considered good reliability (Creswell, 2006). In this study a Cronbach’s alpha of 0.7 was considered acceptable.

Table 3. 3: Reliability tests Results

Construct	Cronbach reliability alpha
Virtual lending policy	0.877
Virtual lending rates	0.743
Easy loan accessibility	0.873
Lack of collateral	0.732
Loan repayment	0.721
Average	0.789

According to the findings, virtual lending policy had a Cronbach reliability alpha of 0.877, virtual lending rates had a Cronbach reliability alpha of 0.743, easy loan accessibility had a

Cronbach reliability alpha of 0.873, lack of collateral had a Cronbach reliability alpha of 0.732 and loan repayment had a Cronbach reliability alpha of 0.721. This clearly shows that the research instrument was reliable and hence no amendments were needed.

3.7 Data Collection Procedure

The researcher applied for a research permit from the National Commission of Science and Technology Council (NACOSTI). The researcher also wrote a letter of transmittal of data collection instruments to individual respondents. The researcher booked appointments with the management of Equity Bank and agree on the period of data collection. A drop and pick later method was used to administer the questionnaires to the credit officers.

3.8 Data Analysis

Data analysis process entails the process of packaging the collected data putting in order and structuring its major elements in a way that the results can be easily and efficiently communicated. The research instrument generated both quantitative and qualitative data. Thematic content analysis was used to analyze qualitative data. Quantitative data was analyzed by use of both descriptive and inferential statistics by use of statistical package for social sciences (SPSS version 22). Preceding the analysis, a codebook for the different quantitative variables was prepared on the basis of the numbering structure of the questionnaires. All the questionnaires were numbered prior to data collection to make the referencing easier.

After confirming that all the data entered is accurate, descriptive statistics were utilized to analyze quantitative data. Descriptive statistics include frequency distribution, percentages, mean and standard deviation. The data was then presented in tables and graphs. Descriptive statistics help the researcher to significantly explain distribution of measurements and to also explain, organize and review data (Bryman & Cramer, 2012). Additionally, correlation analysis

was used to establish whether there is a relationship between the dependent and the independent variables. Further, a multiple regression analysis was used to establish the strength of the relationship between the dependent and the independent variables. The study used a 95% confidence level. A 95% confidence interval indicates a significance level of 0.05. This implies that for an independent variable to have a significant consequence on the dependent variable, the p-value ought to be below the significance level (0.05).

The regression model was:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \epsilon$$

Where Y is the dependent variable, loan repayment and X_1 - X_4 were the independent variables.

β_1 - β_4 = Regression coefficients

β_0 is the regression intercept the value of Y when X values are zero.

X_1 = virtual lending policy

X_2 = Virtual lending rates

X_3 = Easy loan accessibility

X_4 = Lack of collateral

ϵ = Error term normally distributed about the mean of zero

CHAPTER FOUR: RESEARCH FINDINGS AND DISCUSSIONS

4.1 Introduction

This chapter presents the analysis of data and interpretation of the findings. The data analysis, interpretations and discussion of the findings were done as per the objectives of the study. The main objective of this study was to investigate on the relationship between virtual lending and loan repayment in commercial banks in Kenya. The study also sought to determine the effect of virtual lending policy, virtual lending rates, easy loan accessibility and lack of collateral on loan repayment in commercial banks in Kenya.

The sample size of the study was 44 credit officers working at the headquarter of Equity Bank Limited, Nairobi, out of which 43 responses were obtained. This gives a response rate of 97.72%. As indicated by Kothari (2004) a response rate of 50% or more is adequate for analysis, which shows that 97.72% was an acceptable basis for drawing conclusions.

4.2 Demographic Information

The demographic information of the credit officers working at the headquarters of Equity Bank comprised of their gender, age bracket, level of education and the duration of time they had been working in their bank.

4.2.1 Gender of the Respondents

The credit officers were asked to indicate their gender. The results were as presented in figure 4.1.

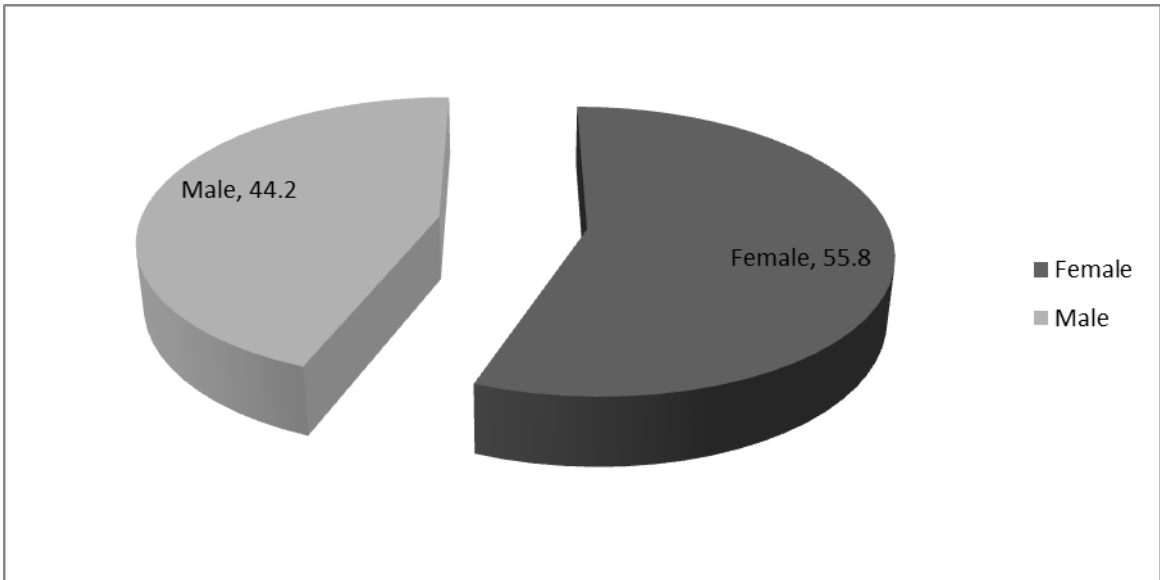


Figure 4. 1: Gender of the Respondents

According to the findings, 55.8% of the respondents indicated that they were female while 44.2% indicated that they were male. This implies that most of the credit officers working at the headquarters of Equity Bank were female.

4.2.2 Age bracket of the Respondents

The credit officers were also requested to indicate their age bracket and the results were as shown in figure 4.2.

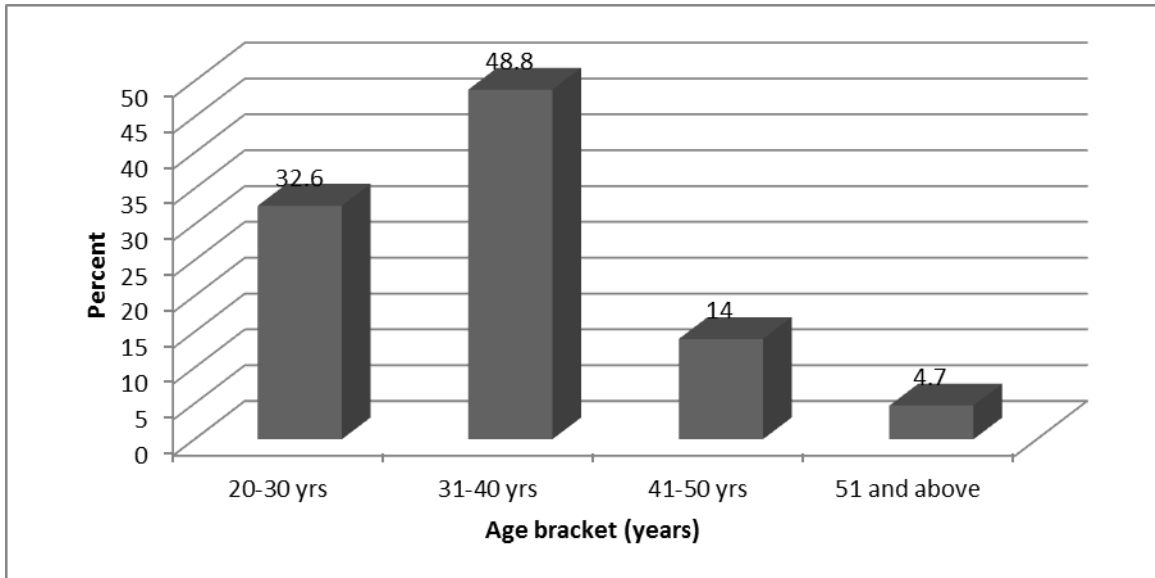


Figure 4. 2: Age bracket of the Respondents

From the findings, 48.8% of the respondents indicated that they were aged between 31 and 40 years, 32.6% were aged between 20 and 30 years, 14% were aged between 41 and 50 years and 4.7% indicated that they were 51 years and above. This shows that most of the credit officers working at the headquarters of Equity Bank were aged between 31 and 40 years.

4.2.3 Respondents' Level of Education

The respondents were requested to indicate their highest level of education. The results were as shown in figure 4.3.

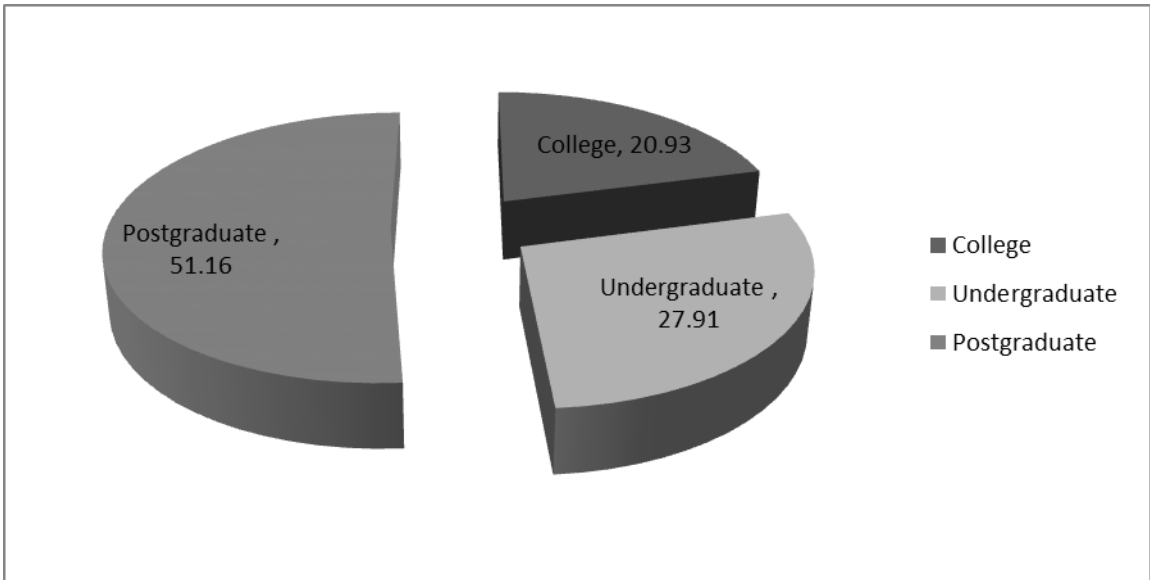


Figure 4. 3: Respondents’ Level of Education

According to the findings, 51.16% of the credit officers indicated that they had postgraduate education, 27.91% indicated that they were undergraduates and 20.93% indicated that they had college education. This implies that majority of the credit officers working at the headquarters of Equity bank had postgraduate education.

4.2.4 Duration of Working in the Organization

The respondents were asked to indicate for how long they had been working in Equity Bank.

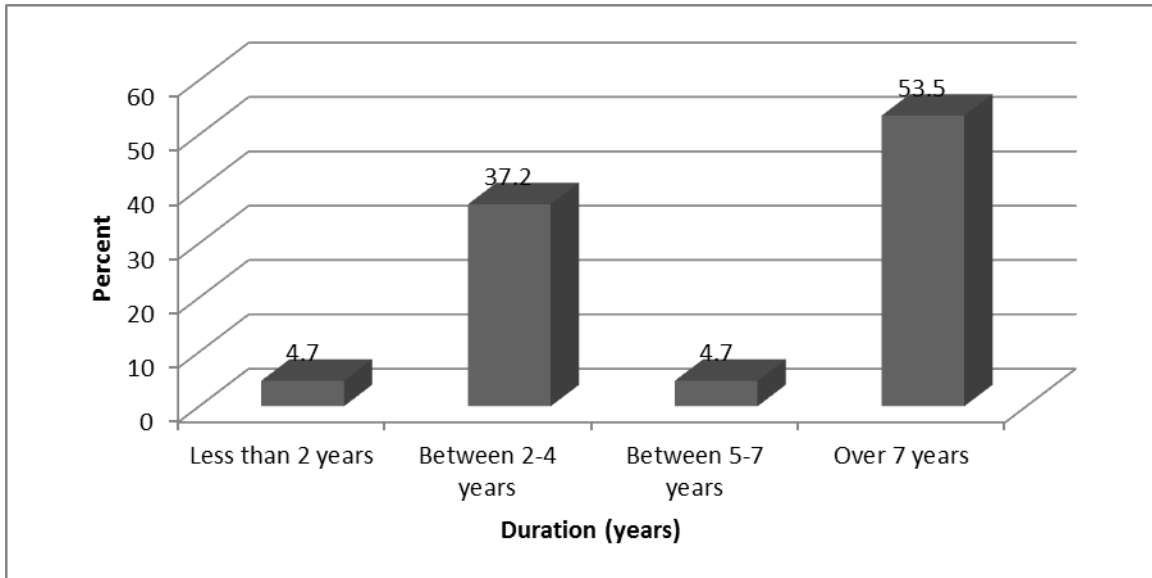


Figure 4. 4: Duration of Working in the Organization

According to the findings, 53.5% of the credit officers indicated that they had been working in the organization for over 7 years, 37.2% indicated for between 2 and 4 years, 4.7% indicated for between 5 and 7 years and the same percent indicated for less than 2 years. This shows that most of the credit officers had been working in Equity bank for more than 7 years.

4.3 Virtual Lending Policy

The first objective of the study was to determine the effect of virtual lending policy on loan repayment in commercial banks in Kenya.

4.3.1 Virtual Lending Policy in the Bank

The credit officers were asked to indicate whether there was a virtual lending policy in the bank.

The results were as presented in table 4.1.

Table 4. 1: Virtual Lending Policy in the Bank

	Frequency	Percent
Yes	43	100.0
No	0	0
Total	43	100.0

From the findings, all the respondents (100%) indicated that the bank had a virtual lending policy. This implies that Equity Bank has a virtual lending policy in place. These findings agree with Taylor et al. (2015) argument that credit policy is important in the management of accounts receivables.

4.3.2 Extent of virtual lending policy Influence on loan repayment

The respondents were requested to indicate the extent to which virtual lending policy influence loan repayment in commercial banks in Kenya. The results were as shown in figure 4.5.

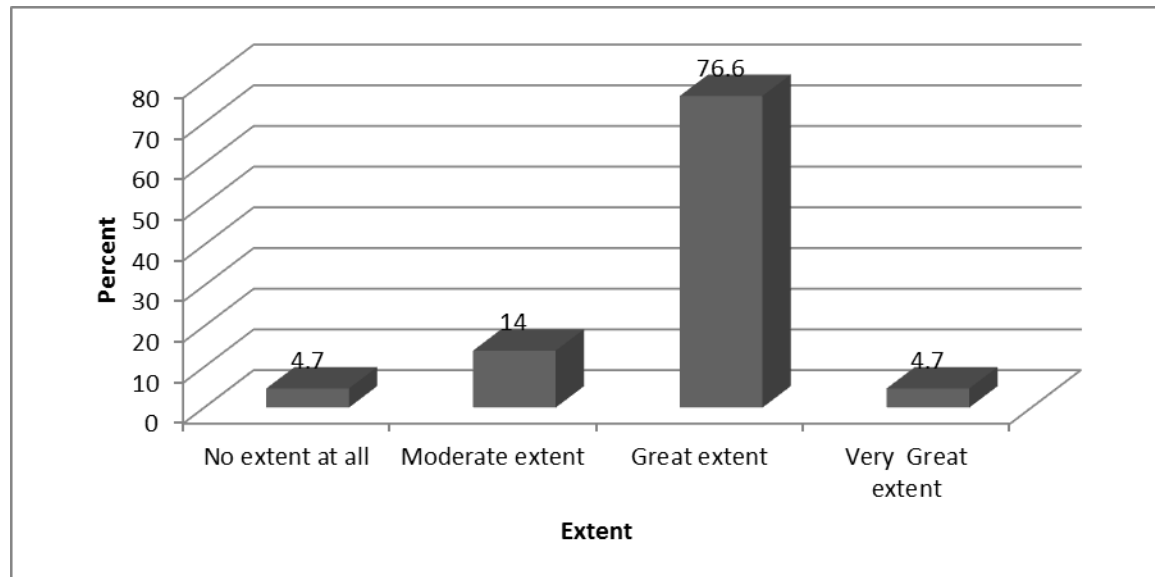


Figure 4. 5: Extent of virtual lending policy Influence on loan repayment

From the findings, 76.6% of the credit officers indicated that virtual lending policy influences loan repayment in commercial banks in Kenya to a great extent, 14% indicated to a moderate

extent, 4.7% indicated to a very great extent and the same percent indicated to no extent at all. This shows that virtual lending policy influences loan repayment in commercial banks in Kenya to a great extent.

4.3.3 Virtual Lending Policy and Loan Repayment

The respondents were asked to indicate their level of agreement with various statements on virtual lending policy and loan repayment in commercial banks in Kenya. Where 1 was no extent at all, 2 was low extent, 3 was moderate extent, 4 was great extent and 5 was very great extent.

Table 4. 2: Virtual Lending Policy and Loan Repayment

	Mean	Std. Deviation
There is a decision criteria for accepting or rejecting applications in virtual lending	3.441	.665
Lending policies are the cornerstone of sound credit management	4.279	.453
Virtual lending policies ensure operation's consistency and adherence to uniform sound practices	3.814	1.029
Virtual lending policies comprise of credit controls	4.604	.728
Strict adherence to lending policies leads to reduced non-performing loans	4.930	.257
Due to lax virtual lending policies borrowers tend to be reluctant to pay their loans on time	4.697	.741

From the findings the respondents strongly agreed that strict adherence to lending policies leads to reduced non-performing loans as shown by a mean of 4.930. These findings concur with Mulema (2011) argument that written credit policies are the cornerstone of sound credit management, they set objectives, standards and parameters to guide micro finance officers who grant loans and manage loan portfolio. In addition, the respondents strongly agreed that due to lax virtual lending policies borrowers tend to be reluctant to pay their loans on time as indicated by a mean of 4.697. The respondents also strongly agreed that virtual lending policies comprise of credit controls as indicated by a mean of 4.604. With a mean of 4.279, the respondents agreed that lending policies are the cornerstone of sound credit management. In addition, the respondents agreed that virtual lending policies ensure operation's consistency and adherence to uniform sound practices as shown by a mean of 3.814. However, the respondents were neutral on the statement that there is a decision criteria for accepting or rejecting applications in virtual lending as shown by a mean of 3.441.

4.3.4 Effect of Virtual Lending on Loan Repayment in Commercial Banks

The respondents were asked to indicate how virtual lending policy affects loan repayment in commercial banks in Kenya. From the findings, virtual lending policy enhances repayment. They also indicated that lax policies lead to poor lending hence high default. These findings agree with Kwizera (2011) findings that credit policies exist in Blue microfinance institution, but there was management laxity to effectively implement them and this has negatively impacted on loan recovery. However, the respondents indicated that good virtual lending policies play a major role in enhancing repayments. They also indicated that although virtual lending is time saving “know your customer” documents are minimal and hence it is not possible to trace a customer when he/she defaults thus leading to poor loan repayment. The

respondents further indicated that repayment laxity is evident where customers switch off their phones after mobile loans. In addition, good lending policy results in timely loan repayment for only those that qualify to access loans and hence reduces non-performance. These findings agree with Owino (2013) argument that lending policies help the banks lend prudently and lowers the risk level to the banks, and strict adherence to lending policies therefore has led to reduced non-performing loans.

4.4 Virtual Lending Rates

The second objective of the study was to establish the effect of virtual lending rates on loan repayment in commercial banks in Kenya.

4.4.1 Virtual Lending Rate and Traditional Banking Model Lending Rate

The respondents were asked to indicate whether the virtual lending rate is higher than the lending rate in the traditional banking model. The results were as presented in figure 4.6.

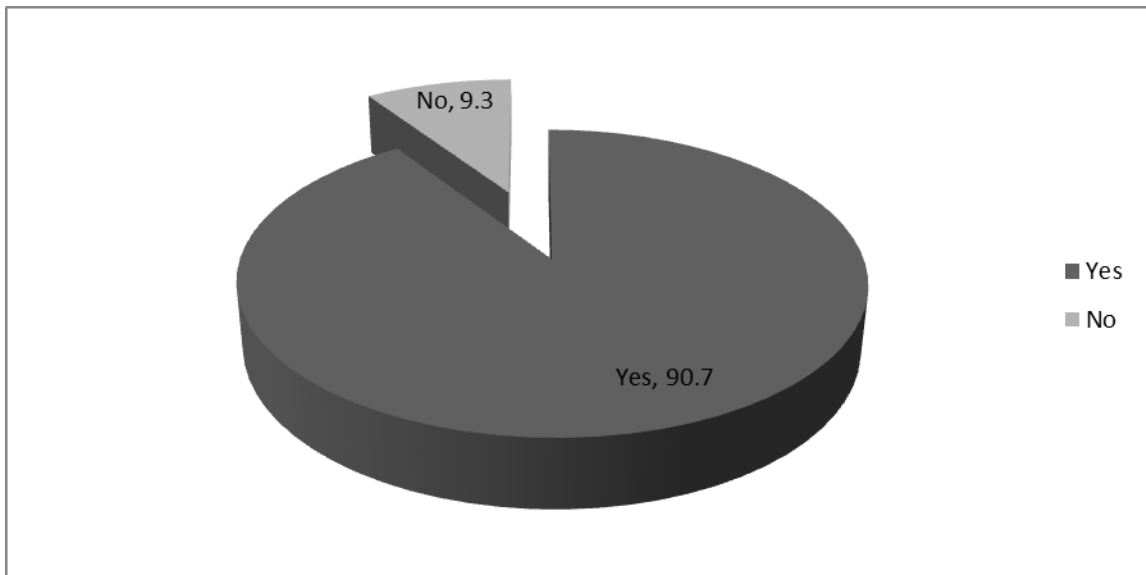


Figure 4. 6: Virtual Lending Rate and Traditional Banking Model Lending Rate

From the findings, 90.7% of the respondents indicated that virtual lending rate is more than the lending rate in the traditional banking model while 9.3% disagreed. This implies that the virtual lending rate in Equity Bank is higher than the lending rate in the traditional banking model. The respondents also indicated that before interest rates capping by the Central Bank of Kenya, virtual lending rates were ranging from 2 to 9%. However, after interest rate capping, virtual lending rate is 1.17%.

4.4.2 Extent of Virtual Lending Rates Influence in Loan Repayment

The credit officers were also asked to indicate the extent to which virtual lending rates influence loan repayment in commercial banks in Kenya. The results were as shown in figure 4.7.

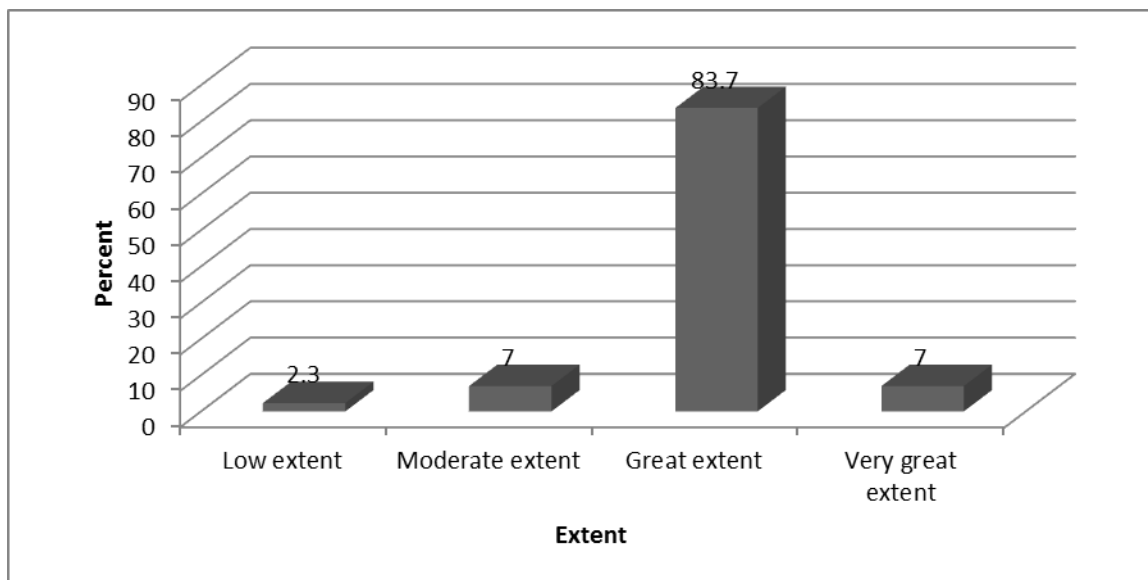


Figure 4. 7: Extent of Virtual Lending Rates Influence in Loan Repayment

From the findings, 83.7% of the respondents indicated that virtual lending rates influence loan repayment in commercial banks in Kenya to a great extent, 7% indicated to a very great extent, the same percent indicated to a moderate extent and 2.3% indicated to a low extent. This implies that virtual lending rates influence loan repayment in commercial banks in Kenya to a great extent.

4.4.3 Virtual Lending Rates and Loan Repayment

The respondents were asked to indicate their level of agreement with statements on virtual lending rates and loan repayment in commercial banks in Kenya.

Table 4. 3: Virtual Lending Rates and Loan Repayment

	Mean	Std. Deviation
Virtual lending rates are higher than the traditional banking lending rates	3.814	1.159
Virtual lending rates increase with the number of months the money is borrowed	3.465	1.315
Virtual lending rates adhere to the central bank interest capping policy	1.697	1.423
High virtual lending rates prevent borrowers from paying back their loans	4.744	.789
Low interest rate would enhance loan repayment	4.325	1.442

From the findings, the respondents strongly agreed that high virtual lending rates prevent borrowers from paying back their loans. This is shown by a mean of 4.744. These findings agree with Ng’etich and Wanjau (2014) argument that when interest rates are low, people are willing to borrow and pay back on time because they find it relatively easy to repay their debt. The respondents agreed with a mean of 4.325 that low interest rate would enhance loan repayment. In addition, the respondents agreed that virtual lending rates are higher than the traditional banking lending rates as shown by a mean of 3.814. However, the respondents were

neutral on the on the statement that virtual lending rates increase with the number of months the money is borrowed as shown by a mean of 3.465. The respondents disagreed with the statement that virtual lending rates adhere to the central bank interest capping policy as shown by a mean of 1.697.

4.4.4 Effect of Virtual Lending Rates on Loan Repayment

The respondents were asked to indicate how virtual lending rates affect loan repayment in commercial banks. According to the findings, the respondents indicated that high lending rates decrease the chances of loan repayment. In addition, high interest rates lead to high cost of servicing the loan/ burden hence low repayment rate. These findings concur with Onyeagocha (2012) argument that if interest rates rise sharply and stay high for a long period, some consumers will default on their loans. Other respondents felt that lending rates do not affect loan repayment. This is because if a customer is not willing to pay they will not pay whether the interest rates are high or low. These findings agree with Siddiqui et al. (2012) argument that NPLs are affected but not absolutely by the volatility of lending rates charged by the lenders in the market.

4.5 Easy Loan Accessibility

The third objective of the study was to find out the effect of easy loan accessibility on loan repayment in commercial banks in Kenya

4.5.1 Accessibility of Virtual Lending

The respondents were asked to indicate whether compared to the traditional banking loans, virtual lending was more accessible. The results were as shown in table 4.4.

Table 4. 4: Accessibility of Virtual Lending

	Frequency	Percent
Yes	43	100.0
No	0	0
Total	43	100.0

As indicated in table 4.4, all the respondents (100%) indicated that compared to the traditional banking loans, virtual lending was more accessible. This implies that virtual lending is more accessible to customers as compared to traditional banking loans.

4.5.2 Extent of Easy Loan Accessibility Influence on Loan Repayment

The respondents were asked to indicate the extent to which easy loan accessibility influences loan repayment in commercial banks in Kenya. The results were as presented in figure

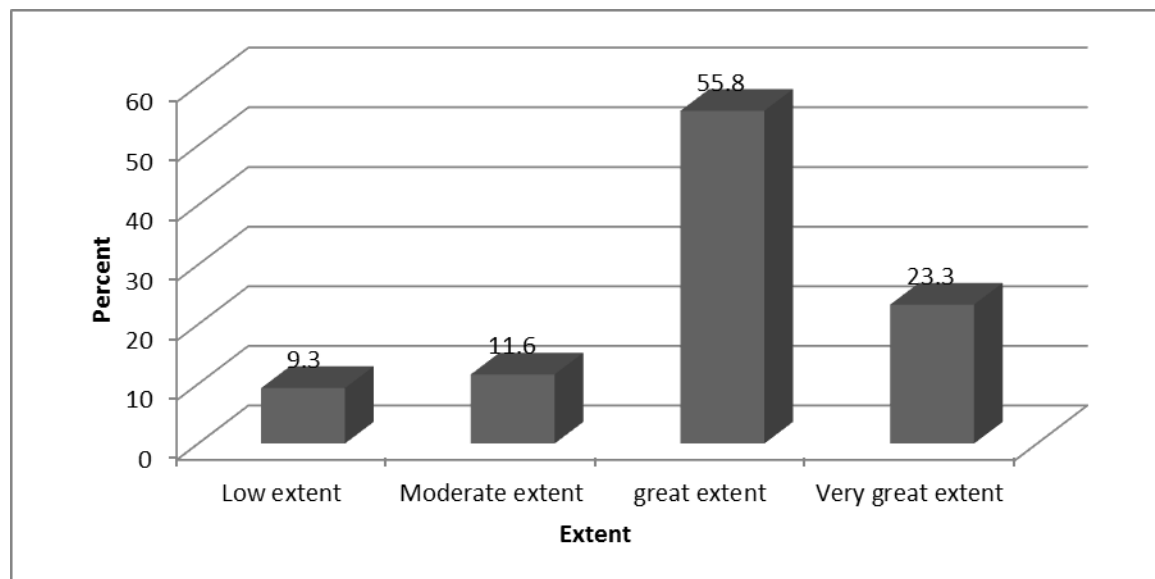


Figure 4. 8: Extent of Easy Loan Accessibility Influence on Loan Repayment

From the findings, 55.8% of the respondents indicated that easy loan accessibility influences loan repayment in commercial banks in Kenya to a great extent, 23.3% indicated to a very great extent, 11.6% indicated to a moderate extent and 9.3% indicated to a low extent. This implies that easy loan accessibility influences loan repayment in commercial banks in Kenya to a great extent.

4.5.3 What Makes Virtual Loans More Accessible

The respondents were asked to indicate what makes virtual loans more accessible compared to traditional loans. According to the findings, the respondents indicated that the fact that there is no security required, no paperwork and no guarantors leads to accessibility of virtual loans. The respondents also indicated that other factors that contribute to accessibility of loans include convenience through mobile phones and hence loans can be accessed from anywhere anytime. Further, the respondents indicated that virtual loans can be accessed at the comfort of the customer's office/home. These findings agree with Odeke (2016) argument that through virtual lending customers can easily secure a loan without having to step inside a bank, fill mountains of paperwork or provide security or guarantors.

4.5.4 Easy Loan Accessibility and Loan Repayment

The respondents were requested to indicate their level of agreement with various statements on easy loan accessibility and loan repayment in commercial banks in Kenya. The results were as presented in table 4.5.

Table 4. 5: Easy Loan Accessibility and Loan Repayment

	Mean	Std. Deviation
Virtual loans are easy to access	4.581	.698
Virtual loans do not follow the normal credit analysis procedures	4.418	.851
Virtual loans are instant and hence borrowers take them even when it is not necessary	4.720	.548
Virtual lending does not consider credit scoring	3.348	1.131
Easy accessibility to loans increase loan defaults	4.511	1.222

According to the findings, the respondents strongly agreed that virtual loans are instant and hence borrowers take them even when it is not necessary. This was shown by a mean of 4.720. The respondents also strongly agreed with a mean of 4.581 that virtual loans are easy to access. In addition, the respondents strongly agreed that easy accessibility to loans increases loan defaults as shown by a mean of 4.511. The respondents agreed with a mean of 4.418 that virtual loans do not follow the normal credit analysis procedures. However, the respondents were neutral on the statement that virtual lending does not consider credit scoring as indicated by a mean of 3.348. These findings agree with Odeke (2016) argument that mobile micro-loans, which have been adopted widely in Kenya are safe and provide unsecured loans offered by various institutions to help out during those tough financial difficult times.

4.5.5 Effect of easy loan accessibility on loan repayment

The respondents were asked to indicate how easy loan accessibility influences loan repayment in commercial banks in Kenya. From the findings, they indicated that due to easy accessibility of loans, most customers borrow without a purpose, misuse the funds and refuse to pay. In addition, the respondents indicated that customers apply for loans without a defined purpose thus defaulting when they feel that the money did not help them in any way.

4.6 Lack of Collateral

The fourth objective of the study was to assess the effect of lack of collateral on loan repayment in commercial banks in Kenya.

4.6.1 Importance of Asking Collateral When Offering Loans

The respondents were asked to indicate the importance of asking collateral when offering loans. According to the findings, they indicated that collateral are used safeguard the interests of the banking incase the loan repayment is defaulted. Other respondents indicated that it is a fallback plan in case of a default. These finding concur with Khole (2014) findings that financial institutions require security because lending is among the riskiest ventures.

4.6.2 Influence of Lack of Collateral on Loan Repayment

The respondents were requested to indicate whether lack of collateral influences loan repayment in commercial banks in Kenya. The results were as shown in figure 4.9.

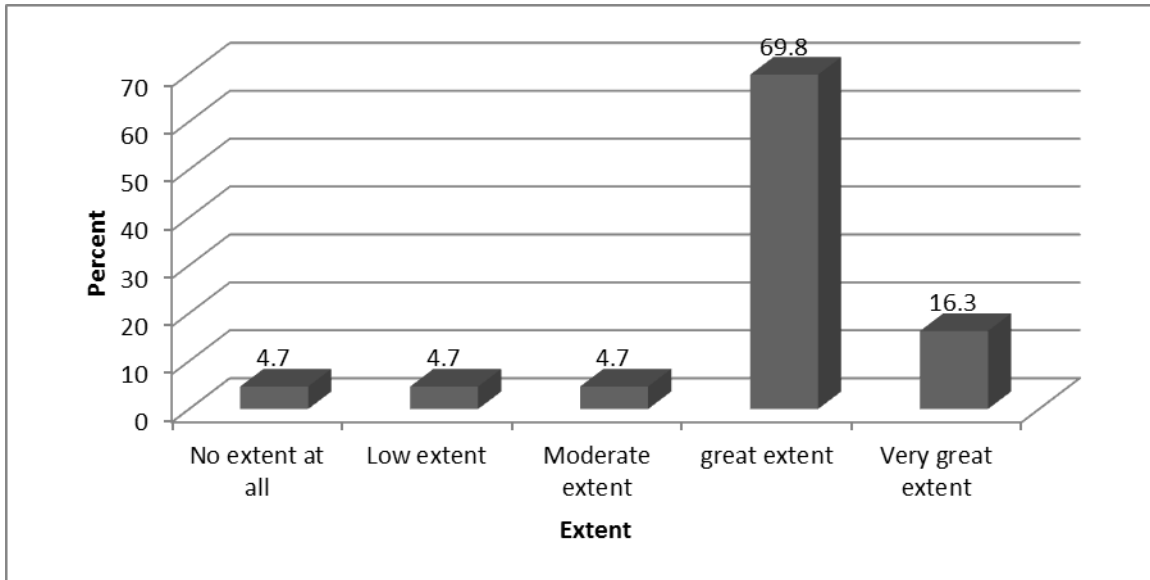


Figure 4. 9: Influence of Lack of Collateral on Loan Repayment

According to the findings, 69.8% of the respondents indicated that lack of collateral influences loan repayment in commercial banks in Kenya to a great extent, 16.3% indicated to a very great extent, 4.7% indicated to a moderate extent and the same percent indicated to no extent at all. This implies that lack of collateral influences loan repayment in commercial banks in Kenya to a great extent. These findings agree with Khole (2014) argument that collateral influences the borrowers' willingness to repay their loans so to get back the collateral.

4.6.3 Lack of Collateral in Virtual Lending and Loan Repayment

The respondents were asked to indicate their level of agreement with various statements on lack of collateral in virtual lending and loan repayment in commercial banks in Kenya. The results were as presented in table 4.6.

Table 4. 6: Lack of Collateral in Virtual Lending and Loan Repayment

	Mean	Std. Deviation
Repayment of virtual loans depends on the borrowers willingness to pay	4.627	.724
Failure to use collateral increase the risk of loan default	4.674	.565
Since borrowers will not be having any collateral to stake, their willingness to pay their loans on time decreases	4.511	.797
Failure to use collateral increases credit access to individuals with no collateral	4.790	.411

From the findings, the respondents strongly agreed that failure to use collateral increases credit access to individuals with no collateral. This was shown by a mean of 4.790. The respondents also strongly agreed that failure to use collateral increase the risk of loan default and repayment of virtual loans depends on the borrowers' willingness to pay as indicated by means of 4.674 and 4.627, respectively. The respondents further strongly agreed with a mean of 4.511 that since borrowers will not be having any collateral to stake, their willingness to pay their loans on time decreases. These findings are contrary to Ninua (2008) findings that risky clients end up pledging collateral to get a loan from the financial intermediate.

4.6.4 Effect of Lack of Collateral on Loan Repayment

The respondents were requested to indicate how lack of collateral influences loan repayment in commercial banks in Kenya. From the findings, they indicated that lack of collateral increases

the risk of loss on the side of the bank. They also indicated that many clients do not feel obliged to pay as there is no commitment in terms of security pledged hence increased default.

4.7 Loan Repayment

4.7.1 Rating of Loan Repayment

The respondents were asked to rate loan repayment in their bank. The results were as shown in figure 4.10.

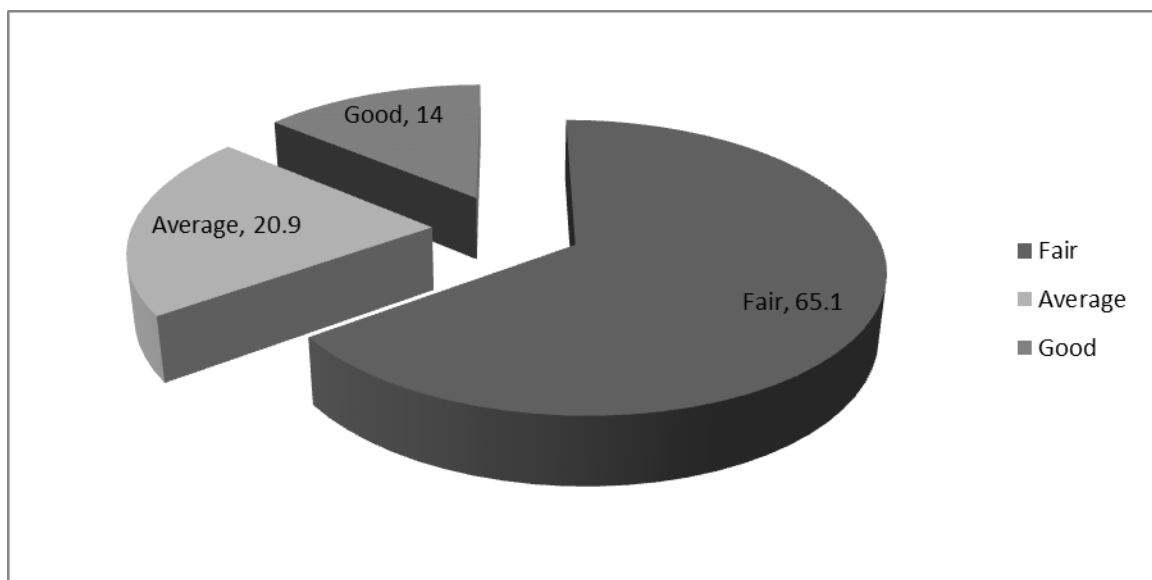


Figure 4. 10: Rating of Loan Repayment

According to the findings, 65.1% of the respondent rated loan repayment in their bank as fair, 20.9% rated it as average and 14% rated it as good. This implies that loan repayment in Equity Bank was fair. However, according to Central Bank of Kenya (2015) non-performing loans in Equity Bank have been increasing over the years.

4.7.2 Measure of Loan Repayment

The respondents were asked to indicate the extent to which virtual lending influences the measures of loan repayment in their bank. The results were as presented in table 4.7.

Table 4. 7: Measure of Loan Repayment

	Mean	Std. Deviation
Total loans paid on time	2.279	.825
Non-performing loans ration	4.534	.882
Write-off Ratio	4.325	1.084
Portfolio at risk	4.581	.663

From the findings, the respondents indicated that virtual lending influences portfolio at risk in their bank to a great extent. This is shown by a mean of 4.581. With a mean of 4.534 the respondents indicated that virtual lending influences non-performing loans ration in their bank to a great extent. The respondents also indicated with a mean of 4.325 that virtual lending influences write-off Ratio in their bank to a great extent. However, the respondents indicated that virtual lending influences the total loans paid on time to a low extent as shown by a mean of 2.279. These findings are in line with Cytonn Investment (2016) findings that Equity Bank has in the last two years experienced an increase in non-performing loans ration and has even gone to an extent of writing off some loans.

4.8 Inferential Statistics

The study used correlation and regression analyses to assess the influence of the independent variables and the dependent variable.

4.8.1 Correlations Analysis

The study used Pearson product moment correlation to examine the association between the independent variables (virtual lending policy, virtual lending rates, easy loan accessibility and lack of collateral) and the dependent variable (loan repayment in commercial banks in Kenya).

Table 4. 8: Correlations Analysis

		Loan repayment	Virtual lending policy	Virtual lending rates	Easy loan accessibility	Lack of collateral
Loan repayment	Pearson Correlation	1	.246	.479**	.531**	.232
	Sig. (2-tailed)		.111	.001	.000	.134
	N	43	43	43	43	43
Virtual lending policy	Pearson Correlation	.426**	1	.726**	.224	.147
	Sig. (2-tailed)	.000		.000	.149	.348
	N	43	43	43	43	43
Virtual lending rates	Pearson Correlation	-.479**	.726**	1	.573**	.242
	Sig. (2-tailed)	.001	.000		.000	.117
	N	43	43	43	43	43
Easy loan accessibility	Pearson Correlation	-.431**	.224	.573**	1	.274
	Sig. (2-tailed)	.000	.149	.000		.075
	N	43	43	43	43	43
Lack of collateral	Pearson Correlation	-.573**	.147	.242	.274	1
	Sig. (2-tailed)	.000	.348	.117	.075	
	N	43	43	43	43	43

** . Correlation is significant at the 0.01 level (2-tailed).

According to the findings, virtual lending policy has a positive influence on loan repayment in commercial banks in Kenya ($r=0.426$, $p\text{-value}=0.000$). The study also found that there exist an inverse association between virtual lending rates and loan repayment in commercial banks in Kenya ($r=-0.479$, $p\text{-value}=0.000$). The findings further indicate that there is an inverse association between easy loan accessibility and loan repayment in commercial banks in Kenya ($r=-0.431$ $p\text{-value}=0.000$). Further, the findings show that there is an inverse association

between lack of collateral and loan repayment in commercial banks in Kenya ($r=-0.573$, p -value=0.000)

4.8.2 Multivariate Regression Analysis

The study used multiple regression analysis to examine the weight of the relationship between the independent variables (virtual lending policy, virtual lending rates, easy loan accessibility and lack of collateral) and the dependent variable (loan repayment in commercial banks in Kenya).

The regression model was;

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \varepsilon$$

Where Y is the dependent variable, loan repayment and X_1 - X_4 were the independent variables; β_1 - β_4 = Regression coefficients; β_0 is the regression intercept the value of Y when X values are zero; X_1 = virtual lending policy; X_2 = Virtual lending rates; X_3 = Easy loan accessibility; X_4 = Lack of collateral; ε = Error term normally distributed about the mean of zero.

Table 4. 9:Model Summary

Model	R	R Square	Adjusted Square	R Std. Error of the Estimate
1	0.818	0.6691	0.6164	0.52814

The R-squared shows the variation in the dependent variable that can be explained by the independent variables being studied. The R-squared in this study was 0.6691. This implies that virtual lending policy, virtual lending rates, easy loan accessibility and lack of collateral influence loan repayment in commercial banks in Kenya.

Table 4. 10: Analysis of Variance

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	19.316	4	4.829	70.605	0.000
	Residual	2.599	38	0.068		
	Total	21.915	42			

The analysis of variance shows whether or not a model is a good fit for the data. The F-calculated (70.605) is greater than the F-critical (2.61), which shows that the model can be used in predicting the influence of the independent variables on the dependent variable. In addition, the p-value (0.000) is less than the significance level (0.05), which shows that the model is a good fit for the data.

Table 4. 11: Regression Coefficients

	Unstandardized Coefficients		Standardized Coefficients		
	B	Std. Error	Beta	t	Sig.
(Constant)	1.598	0.535		2.987	0.000
Virtual lending policy	0.226	0.096	0.069	2.354	0.012
Virtual lending rates	-0.376	0.114	-0.312	-3.298	0.000
Easy loan accessibility	-0.326	0.113	-0.348	-2.885	0.000
Lack of collateral	-0.421	0.111	-0.071	-3.793	0.000

The regression model is;

$$Y=1.598 + 0.226X_1-0.376X_2-0.326X_3-0.421X_4+ \varepsilon$$

From the findings, virtual lending policy has a positive influence on loan repayment in commercial banks in Kenya as shown by a regression coefficient of 0.226. This implies that a unit increase on virtual lending policy would lead to a 0.226 improvement in the loan repayment in commercial banks in Kenya. The relationship was significant because the p-value (0.012) was less than the significance level (0.05). These findings agreed with Mulema (2011) argument that credit policy influences loan performance Uganda Finance Trust Limited.

The results show that virtual lending rates have a significant inverse influence on loan repayment in commercial banks in Kenya as shown by a regression coefficient of -0.376. This implies that a unit increase in virtual lending rates would lead to a 0.376 decrease in loan repayment in commercial banks in Kenya. The relationship was significant because the p-value (0.012) was less than the significance level (0.05). These findings concur with Edakasi (2011) argument that lending rates negatively influence loan repayment in commercial banks. The findings also concur with Abbas and Honghui (2016) argument that interest rate influence loan repayment in Tanzania.

Further, the results indicated that easy loan accessibility has an inverse influence on loan repayment in commercial banks in Kenya as shown by a regression coefficient of -0.326. This implies that a unit improvement in easy loan accessibility would lead to a 0.326 decrease in loan repayment in commercial banks in Kenya. The association was significant as the p-value (0.000) was less than the significance level (0.05). These findings agree with Mwangi (2010) argument that easy loan accessibility influences loan repayment in commercial banks in Kenya.

Lastly, the results indicated that lack of collateral has an inverse influence on loan repayment in commercial banks in Kenya as shown by a regression coefficient of -0.421. This implies that a unit improvement in lack of collateral would lead to a 0.421 decrease in loan repayment in commercial banks in Kenya. The association was significant as the p-value (0.000) was less than the significance level (0.05). These findings are in line with Consolata (2013) argument that lack of collateral has an inverse influence on loan repayment. This infers that lack of collateral influences loan repayment in commercial banks in Kenya most; followed by virtual lending rates, easy loan accessibility and virtual lending policy

CHAPTER FIVE: SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter presents a summary of findings, conclusions drawn from the findings, recommendation and suggestions for further studies. The conclusions and recommendations aimed at addressing the general objective of the study, which was to investigate on the relationship between virtual lending and loan repayment in commercial banks in Kenya.

5.2 Summary

Virtual lending was introduced to fasten loan repayments but the later is still a challenge to banks. Banks still experience delays and defaults. Delays of repayment lead to an increase in non-performing loans ratio, which in turn has a significant impact on the liquidity of the bank. This study therefore sought to investigate on the relationship between virtual lending and loan repayment in commercial banks in Kenya. The study also sought to determine the effect of virtual lending policy, virtual lending rates, easy loan accessibility and lack of collateral on loan repayment in commercial banks in Kenya.

A descriptive research design was used in this study. The target population was all the 88 staff working the credit department in the headquarters of Equity Bank Limited. Simple random sampling technique was used to select 50% of the target population. This study used primary data that was collected by use of semi-structured questionnaires. Before the data collection, a pilot test was conducted to ensure the validity and reliability of the research instrument. The research instrument generated both quantitative and qualitative data. Quantitative data was analyzed by use of both descriptive and inferential statistics by use of statistical package for social sciences (SPSS version 22). Descriptive statistics included frequency distribution,

percentages, mean and standard deviation. In addition, correlation analysis and multivariate regression analysis were used to establish whether there is a relationship between the dependent and the independent variables. The study applied a 95% confidence level, which indicates a significance level of 0.05. The data was then presented in tables and graphs.

5.2.1 Virtual Lending Policy

The study found that virtual lending policy has a positive effect on loan repayment in commercial banks in Kenya. In addition, the study revealed that Equity Bank has a virtual lending policy in place. Virtual lending policies comprise of credit controls and are the cornerstone of sound credit management. The study established that strict adherence to lending policies leads to reduced non-performing loans. In addition, due to lax virtual lending policies borrowers tend to be reluctant to pay their loans on time. Further, the study found that virtual lending policies ensure operation's consistency and adherence to uniform sound practices.

The study also established that virtual lending policy enhances repayment and lax policies lead to poor lending hence high rate of loan default. However, the good virtual lending policies play a major role in enhancing repayments. Although virtual lending is time saving know your customer documents are minimal or just a phone number and hence it is not possible to trace a customer when they default thus leading to high number of unpaid loans. Repayment laxity is often evident where customers switch off their phones after mobile loans. In addition, good lending policy results to timely loan repayment for only those that qualify to access loans and hence reduces nonperformance.

5.2.2 Virtual Lending Rates

The study established that virtual lending rates have an inverse effect on loan repayment in commercial banks in Kenya. The study also established that the virtual lending rate in Equity Bank is more than the lending rate in the traditional banking model. Before interest rates capping by the Central Bank of Kenya, virtual lending rates were ranging from 2 to 9% but after interest rate capping, virtual lending rate is 1.17%. The study revealed that high virtual lending rates prevent borrowers from paying back their loans and low interest rate would enhance loan repayment. In addition, the study found that virtual lending rates are higher than the traditional banking lending rates. The study also revealed that virtual lending rates do not increase with the number of months the money borrowed. The study further revealed that virtual lending rates do not adhere to the central bank interest capping policy. The study established that high interest rates lead to high cost of servicing the loan/ burden hence low repayment rate.

5.2.3 Easy Loan Accessibility

The study established that easy loan accessibility has an inverse effect on loan repayment in commercial banks in Kenya. The study found that virtual lending is more accessible to customers as compared to traditional banking loans. This is because there is no security required, no paperwork and no guarantors. In addition, virtual loans are acquired at customers' convenience through mobile phones and hence loans can be accessed from anywhere anytime.

The study established that virtual loans are instant and hence borrowers take them even when it is not necessary. In addition, the study found that easy accessibility to loans increases loan defaults. Further, virtual loans do not follow the normal credit analysis procedures. However, virtual lending does not consider credit scoring. Due to easy accessibility of loans, most customers borrow without a purpose, misuse the funds and refuse to pay. In addition, customers

apply for loans without a defined purpose thus defaulting when they feel that the money did not help them in any way.

5.2.4 Lack of Collateral

The study revealed that lack of collateral has an inverse influence on loan repayment in commercial banks in Kenya. The study found that in traditional banking systems, collateral are used safeguard the interests of the banking case the loan repayment is defaulted. In addition, collateral is used as a fallback plan in case of a default.

The study found that failure to use collateral increases credit access to individuals with no collateral. In addition, failure to use collateral increase the risk of loan default and repayment of virtual loans depends on the borrowers' willingness to pay. The study established that since borrowers will not be having any collateral at stake, their willingness to pay their loans on time decreases. The study established that lack of collateral increases the risk of loss on the side of the bank. They study also found that many clients do not feel obliged to pay as there is no commitment in terms of security pledged hence increased default.

5.3 Conclusions

The study concludes that virtual lending policy has a positive and significant influence on loan repayment in commercial banks in Kenya. The study found out that virtual lending policy enhances loan repayment while laxity in lending policies leads to poor lending hence high default. Also, the study established that strict adherence to lending policies leads to reduced non-performing loans.

The study also concludes that virtual lending rates have a significant inverse influence on loan repayment in commercial banks in Kenya. The study revealed that high virtual lending rates

prevent borrowers from paying back their loans and low interest rate would enhance loan repayment. In addition, the study established that virtual lending rates are higher than the traditional banking lending rates and hence do not adhere to the central bank interest capping policy. The study further concludes that high interest rates lead to high cost of servicing the loan/ burden hence low repayment rate.

Further, the study concludes that easy loan accessibility has a significant inverse influence on loan repayment in commercial banks in Kenya. The study found out that that virtual lending is more accessible to customers as compared to traditional banking loans as there are no security required, no paperwork and no guarantors required. Moreover, it was established that virtual loans are instant and hence borrowers take them even when it is not necessary.

Lastly, the study concludes that lack of collateral has an inverse influence on loan repayment in commercial banks in Kenya. The study established that failure to use collateral increases credit access to individuals with no collateral, which in turn increases the risk of loan default and repayment of virtual loans depends on the borrowers' willingness to pay and further that since borrowers will not be having any collateral to stake, their willingness to pay their loans on time decreases

5.4 Recommendations

The study found that despite the presence of a virtual lending policy, there was laxity in its implementation. This study therefore recommends that the credit department in Equity Bank should enhance the implementation of virtual lending policy.

The study found that virtual lending rates in Equity Bank are higher than the traditional banking lending rates and hence do not adhere to the central bank interest capping policy. The study therefore recommends that Equity Bank should reduce its virtual lending rates to the recommended Central Bank lending rate.

The study found that easy accessibility to virtual loans lead to borrowing without purpose, misuse of funds and failure to repay. This study recommends that commercial banks in Kenya should come up with ways of reducing misuse of funds by using automated measures such as checking the credit worthiness of an individual in Credit reference Bureau.

The study found that since virtual borrowers will not be having any collateral at stake, their willingness to pay their loans on time decreases. This study recommends that commercial banks in Kenya should come up with online guarantors via mobile phones.

5.5 Suggestions for Further Studies

The study focused on virtual lending and loan repayment in Equity bank only and hence the findings cannot be generalized to other commercial banks in Kenya. The study therefore recommends further studies on the relationship between virtual lending and loan repayment in other commercial banks in Kenya and in the whole banking sector. The study also found that despite the high default rate in virtual loans, Equity bank had a virtual lending policy in place. The study therefore recommends further studies on the challenges facing the implementation of virtual lending policy in Equity Bank.

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APPENDICES

Appendix I: Questionnaire

I'm kindly requesting for your support in terms of time, and by responding to the attached questionnaire. Your accuracy and candid response will be critical in ensuring objective research.

Kindly tick appropriately.

General Information

1. Please indicate your gender

Female Male

2. Indicate your age bracket

20-30 yrs 31-40 yrs

41-50 yrs 51 and above

3. State your highest level of education

Primary level Secondary level

College University

Postgraduate

4. How long have you worked at this institution?

Less than 2 years Between 2 - 4 years

Between 5 - 7 years Over 7 years

Virtual Lending Policy

5. Is there a virtual lending policy in your bank?

Yes No

6. To what extent does virtual lending policy influence loan repayment in commercial banks in Kenya?

Very Great extent [] Great extent []
 Moderate extent [] Low extent []
 No extent at all []

7. To what extent do you agree with the following statements on virtual lending policy and loan repayment in commercial banks in Kenya? (Key: 1=no extent at all, 2=low extent, 3=moderate extent, 4=great extent, 5=very great extent)

	1	2	3	4	5
There is a decision criteria for accepting or rejecting applications in virtual lending					
Lending policies are the cornerstone of sound credit management					
Virtual lending policies ensure operation's consistency and adherence to uniform sound practices					
Virtual lending policies comprise of credit controls					
Strict adherence to lending policies leads to reduced non-performing loans					
Due to lax virtual lending policies borrowers tend to be reluctant to pay their loans on time.					

8. How does virtual lending policy affect loan repayment in commercial banks

.....

Virtual Lending Rates

9. What is the monthly virtual lending rate in your bank?

10. Is the virtual lending rate more than the lending rate in the traditional banking model?

Yes [] No []

11. To what extent do virtual lending rates influence loan repayment in commercial banks in Kenya?

Very Great extent [] Great extent []

Moderate extent [] Low extent []

No extent at all []

12. To what extent do you agree with the following statements on virtual lending rates and loan repayment in commercial banks in Kenya? (Key: 1=no extent at all, 2=low extent, 3=moderate extent, 4=great extent, 5=very great extent)

	1	2	3	4	5
Virtual lending rates are higher than the traditional banking lending rates					
Virtual lending rates increase with the number of months the money is borrowed					
Virtual lending rates adhere to the central bank interest capping policy					
High virtual lending rates prevent borrowers from paying back their loans					
Lower interest rate would enhance loan repayment					

13. How do virtual lending rates affect loan repayment in commercial banks?

.....
.....
.....

Easy Loan Accessibility

14. Compared to the traditional banking loans, is virtual lending more accessible?

Yes [] No []

15. To what extent does easy loan accessibility influence loan repayment in commercial banks in Kenya?

Very Great extent [] Great extent []
Moderate extent [] Low extent []
No extent at all []

16. Compared to traditional loans, what makes virtual loans more accessible?

.....
.....
.....

17. To what extent do you agree with the following statements on easy loan accessibility and loan repayment in commercial banks in Kenya? (Key: 1=no extent at all, 2=low extent, 3=moderate extent, 4=great extent, 5=very great extent)

	1	2	3	4	5
Virtual loans are easy to access					
Virtual loans do not follow the normal credit analysis procedures					
Virtual loans are instant and hence borrowers take them even when it is not necessary					
Virtual lending does not consider credit scoring					
Easy accessibility to loans increase loan defaults					

18. How does easy loan accessibility influence loan repayment in commercial banks in Kenya?

.....

.....

.....

Lack of Collateral

19. What is the importance of asking collateral when offering loans?

.....

.....

20. To what does lack of collateral influence loan repayment in commercial banks in Kenya?

- Very Great extent [] Great extent []
- Moderate extent [] Low extent []
- No extent at all []

21. To what extent do you agree with the following statements on lack of collateral in virtual lending and loan repayment in commercial banks in Kenya? (Key: 1=no extent at all, 2=low extent, 3=moderate extent, 4=great extent, 5=very great extent)

	1	2	3	4	5
Repayment of virtual loans depends on the borrowers willingness to pay					
Failure to use collateral increase the risk of loan default					
Since borrowers will not be having any collateral to stake, their willingness to pay their loans on time decreases					
Failure to use collateral increases credit access to individuals with no collateral					

22. How does lack of collateral influence loan repayment in commercial banks in Kenya?

.....

.....

.....

Loan Repayment

23. How do you rate loan repayment in your bank?

- Excellent [] Good []
- Average [] Fair []
- Poor []

24. To what extent does virtual lending influence the following measures of loan repayment in your bank? (Key: 1=no extent at all, 2=low extent, 3=moderate extent, 4=great extent, 5=very great extent)

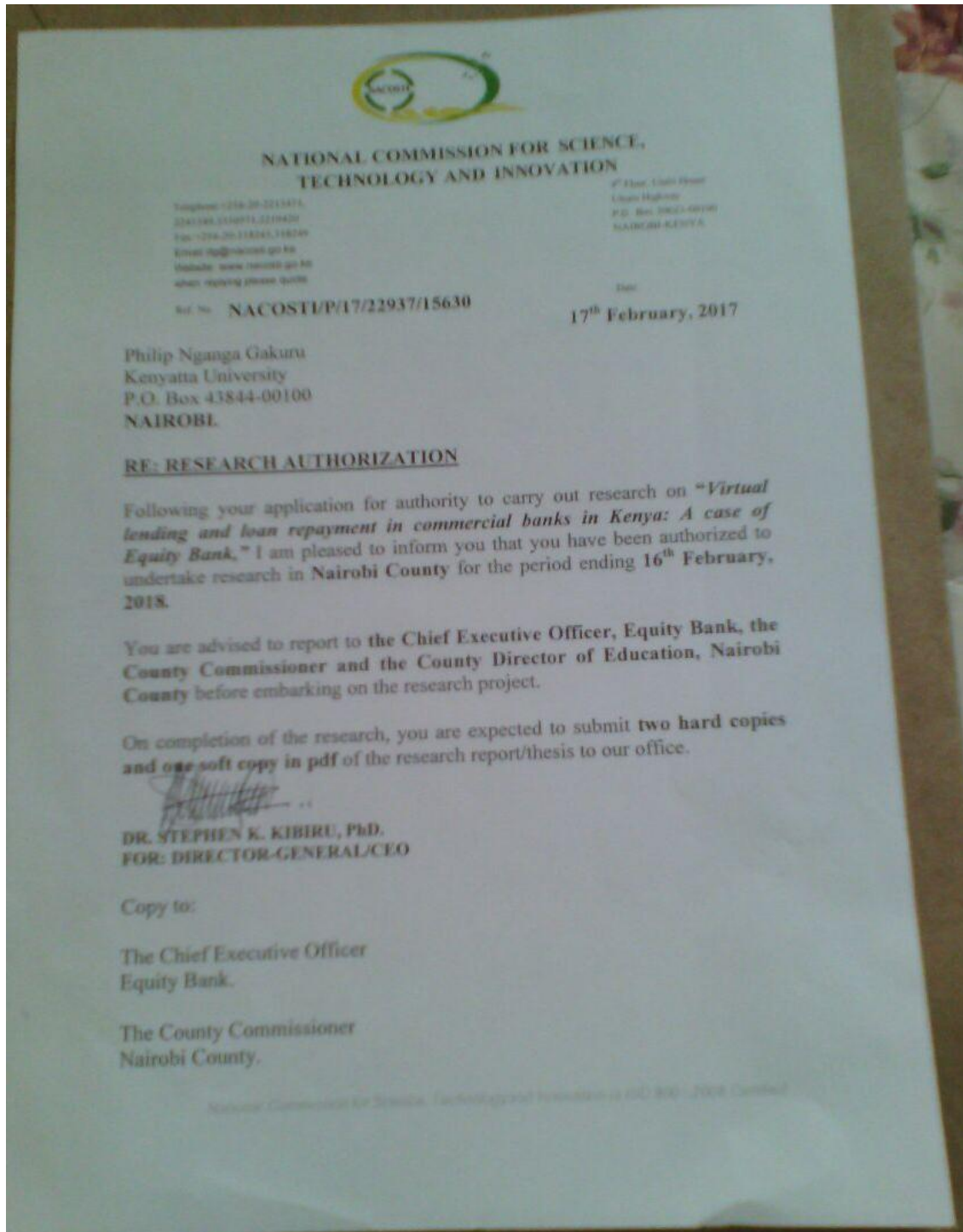
	1	2	3	4	5
Total loans paid on time					

Non-performing loans ration					
Write-off Ratio					
Portfolio at risk					

Appendix II: Checklist

	2011	2012	2013	2014	2015
Non-performing loans ration					
Write-off Ratio					
Portfolio at risk					
Total loans paid on time					

Appendix III: NACOSTI Authorization Letter



Appendix IV: Research Authorization Letter



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Our Ref: D53/OL/22094/2011

DATE: 31st January, 2017

Director General,
National Commission for Science, Technology
and Innovation
P.O. Box 30623-00100
NAIROBI

Dear Sir/Madam,


RE: RESEARCH AUTHORIZATION FOR PHILIP GAKURU – REG. NO. D53/OL/22094/2011

I write to introduce Mr. Philip Gakuru who is a Postgraduate Student of this University. He is registered for M.B.A degree programme in the **Department of Business Administration**.

Mr. Philip intends to conduct research for a M.B.A Project Proposal entitled, **“Virtual Lending and Loan Repayment in Commercial Banks in Kenya: A Case of Equity Bank”**.

Any assistance given will be highly appreciated.

Yours faithfully,


MRS. LUCY N. MBAABU
FOR: DEAN, GRADUATE SCHOOL

HI/awn