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Interest Rate and Loan Repayment in Commercial Banks in Nyeri County, Kenya

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Abstract:
Interest rates are ordinarily the drivers of financial institutions' financial performance. They are the ones that determine the size of the profit margin for every transaction between a financial institution and its customers. Yet, there are many reported cases of defaults in loan repayment in commercial banks in Nyeri County. In fact, there is plenteous confirmation that the financial/banking emergencies in Kenya were preceded by high nonperforming loans. When borrowers default on in repaying the credit facilities advanced to them, the bank concerned will be negatively affected. There will be limited finances to run its operations and also to loan out to other potential borrowers. In the event the challenge of non-repayment persists for long, the firm will have huge bad debts; a situation that is likely to result in downsizing its workforce, stalls its market expansion, and ultimately collapses. The purpose of this study was to determine interest rate and loan repayment in commercial banks in Nyeri County, Kenya. The study is guided by the following objectives; assess the extent to which liquidity premium, default risk premium, customer classification and risk analysis and appraisal on loan repayment in commercial banks in Nyeri County. Descriptive methodology was used. Primary and secondary data was used in this survey. The secondary data in quantitative form was sourced from industry information like the annual financial reports, and other from research articles, books and casual interviews. The study targeted 57 credit officers in the commercials banks under study. The primary data was collected through a questionnaire with structured questions and a few unstructured questions. Data collected from the field was analyzed by both descriptive and inferential statistics through statistical package for social sciences. The respondents strongly agreed that banks faced liquidity risks and that liquidity risks arose from depending on the type of loan advanced to the client. They also agreed that the larger the amount issued as credit determined the level of risk in terms of liquidity. It was strongly admitted that customers sometimes default in loan repayment and that interest rate on loans was subject to risk of default of the borrower. It was also strongly agreed that their banks blacklists loan defaulters against being awarded future loans. Majority of the respondents strongly agreed those loan customers are classified according to their capabilities which help to reduce loan default rate. Further, the study found that risk analysis had a strong positive correlation with the loan repayment. The study concluded that banks faced loan default on funds advanced. It was concluded that liquidity risk premium contributed to the low loan repayment of loans due to potential rise in interest rate which discourages repayment of loans. The study recommends that customers to be classified according to their loan repayment capabilities and loans advanced accordingly.

Keywords: Interest rate, loan repayment & commercial bank

1. Introduction

1.1. Background of the Study

According to Vogiazas and Nikolaidou (2011), the steadiness of the financial sector has become the basis of most policy of macroeconomics owing to the recent global financial crisis. Loans are a part of the assets of a commercial institution since they are meant to earn interest in the course of time (Kalani, 2009). This, however, is not always the case. Some loans do not perform as expected of them due to poor repayment rate and are thus termed non-performing loans (NPLs). According to Waweru and Kalani (2009), crises do not occur without warning; the best warning signs of financial crises are intermediaries for the vulnerability of the banking and corporate segment.

In the utilization of money the lender normally charges a rate called interest rate (Wanjau, 2011). The rate of interest is normally charged as a percentage of the amount of cash advanced which is normally referred to as principal. In general, interest rates ascend in the midst of rise in prices, more noteworthy interest for loans and advances, supply of money, or because of higher save prerequisites for banks. An ascent in rates of interest has a tendency to decrease business movement

since credit turns out to be costlier and money markets since investors get improved bank deposits returns or returns on the bonds recently issued than from stocks purchase.

Most business banks giving loans is the main business activity. The credit portfolio is ordinarily the biggest resource and the prevail wellspring of income. Accordingly, loans are the best wellsprings of risk to a bank's well-being and determinants of performance. According to the comptroller's hand book (1998), the bank's interest risk level credited from the loaning exercises depends mostly on the organization of its advance portfolio and how much the terms of its advances (e.g., development, structure rate, and implanted alternatives) may render the income streams to the rate of interests which are varying.

Viable managing of the combination of different loans and work of advances from the bank is the most general mainstream and of any bank for a sound and best ever achievement in terms of profitability. Loan portfolio administration is the procedure by which risks that are inalienable in the credit procedure are overseen and maintained. Good combination of different loans administration has concentrated the vast majority of their effort on prudently supporting credits and carefully checking loan reimbursements execution. All banks need fundamental advance portfolio administration standards set up in some form and loan reimbursement plan well kept. This incorporates deciding if the risks related with the bank's loaning exercises are accurately distinguished and properly imparted to senior administration and the governing body, and, when essential, regardless of whether suitable corrective move is made (Comptroller's hand book, 1998)

The main and only one of the commercial banks of business banks' is to give out loans and their main contributor to the credit risks, that is, the vulnerability related with borrowers' reimbursement of these loans, and thus the borrower winds up paying more interest over the long term. A loan which has not been paid for ninety days or more may be characterized as a non-performing loan (NPL) (Greenidge & Grosvenor, 2010). Such kind of credit loans influence the execution of loan portfolio of the bank. For powerful loan portfolio execution banks should focus on a few elements while giving loans with a specific end goal to abridge the level of disabled loans (Khemraj and Pasha, 2009). In particular, business banks need to consider the universal aggressiveness of the local economy since this may debilitate the capacity of borrowers frame the key fare arranged areas to reimburse their loans which thus would bring about higher nonperforming loans. These loaning establishments ought to likewise consider the execution of the genuine economy while broadening credit advanced to the reality that loan misconducts are probably going to be higher amid times of down turns in the economy. Banks ought to always survey the interest rates on loans since loan wrongdoings are higher for banks which increment their genuine interest rates.

The contribution of real interest rates on loan reimbursements is broadly reported in the writing (Pasha & Khemraj, 2009). A few investigations report that real interest rate which is high is emphatically identified with this variable i.e. non-reimbursement of loan. Utilizing a pseudo board-based model for a few Sub-Saharan African nations. Fofack (2005) discovers prove that economic development, genuine conversion scale thankfulness, the genuine interest rate, net interest edges, and between bank loans are huge determinants of loan reimbursement in these nations. According to Fofack there is solid relationship between non-performing loans and macroeconomic elements which are in a nature which is not diversified in some of the economies in Africa. According to the report by UNDP (2005) Kenya commercial banking sector is full of loan portfolio which are poor and evaluated at 36% of the total given out loans which are performing. Business banking section have higher rates of insider loaning and grouping of credit contrasted with their aggregate credit portfolios. This has brought about an expansive offer of low reimbursement rates and ensuing failures.

Rajaan and Dhaal (2003) contend that at whatever point, a fund borrower submits rupture of assertion in regard of reimbursement of schedule of the amount of loans with interest and so forth. We securely say that there are ovedues in the Loan Account. Once the Loan A/c is an overdue due A/c i.e. the borrower has conferred default in reimbursement of loan sum and interest according to the dates indicated in the Agreement, at that point the Banker has fundamentally to embrace measures which will come about into recuperation of late sums. At whatever point the borrower submits default in reimbursement of loan sum, expeditiously the institution should give a notice before issuance of loans to the borrower/s and sureties giving clear details on the principal amount and interest payable thereafter. Such Preliminary Notices ought to constantly say data which is of verifiable nature identifying with: measure of loan endorsed, date of authorize of loan, names of the sureties, and measure of the loan endorsed, and amount of over dues with interest etc. on a specific date. Notwithstanding to the above it should likewise be conveyed the bank shall continue to make additionally move against the original borrower and evidences of sureties in the event of inability to reimburse the loan amounts or over duty. It has been frequently argued that "A stitch done in time saves nine". Thus, the banks should be careful at all time, right from giving out the amount of loans until the recovery of the principal amount and interest hence a stitch done in time (Atieno, 2001). There ought to be successful supervision over the measure of loan endorsed.

Kenya has experienced varying challenges in terms of accessibility to credit which has been blamed to the constraints of the supply side of the economy from the financial institutions. Despite the growth in number of banks in Kenya in bounds and heaps since 1980s, their capability and capacity to have an improved performance has been significantly affected by the banks failure to work within the provisions of the law (Republic of Kenya, 2005). High default rate has been quoted as one of the main and major challenge to their growth financially. Notwithstanding, Kenyan banks have over the years been experiencing very high levels of loans which are not performing and needless to say are occasioned by rate of default which is increasing. According to Moti, Masinde, Mugenda and Sindani (2012) the trend foregoing is thus a threat to their financial performance and very long-term existence. It has been found out that, the major challenges facing the financial institutions in

Kenya include but are not limited to funding, default in loan repayment and government regulations (Githinji, 2008). The author recommends that ways of enhancing their financial sustainability need to be looked at by banks in the country.

1.1.1. Loan Repayment

Repayment is the act of paying back cash previously obtained from a lender. Repayment more often than not appears as periodic payments that ordinarily incorporate part principal in addition to interest in each payment. Failure to keep up with repayments of debt can make a person to be declared bankrupt and severely affect his credit rating. Customers sometimes default in loan repayment and that interest on loans may be subject to risk of default of the borrower (Kimando, 2012). The greatest challenge facing MFIs and Banks today is non-repayment of loans borrowed. Firms' blacklist loan defaulters against being awarded future loans and that customer often default in loan repayment and that small loans attract higher interest rates than big loans.

MFIs and other financial institutions are required to come up with a credit policy to govern their operations according to Pandey (2010) in a study on financial management in India. In the same setting, the author pointed out that, given that most of the micro finance institutions obtain their revenue from the accrued interest from credit facilities advanced to persons with low incomes, the repayment of loans may be not be certain. In the similar aspects, Ditcher (2003) posited that the success of finances lending out is based on an appraisal which is extensive of the risk of giving out such loan facilities and also the borrower loan characteristics. Yet, it is excused that decisions on lending by the various financial institutions are more and most of the time based on the feelings which are subjective in nature regarding risk in relation to borrower's repayment abilities. According to Horne (2007) MFIs' have been employing this kind of appraisal since it is inexpensive and simple (Horne, 2007).

1.1.2. Interest Rate

Rate of Interest is the value a debtor pays for the utilization of money they acquire from a lender/financial foundations or expense paid on obtained assets (Crowley, 2007). It is "rent of money" crucial to an 'industrialist society' and regularly communicated as a rate over the time of one. Interest rate as a cost of cash reflects market information with respect to anticipated change in the buying influence of cash or future inflation (Ngugi, 2001).

On the use of money in the institutions, a specific aggregate of cash paid or got is referred to as rate of interest. Banks and financial institutions gets interest income when he loaned cash and account holder pays interest when he gets. The measure of interest that a lender gets is a level of the measure of cash he loaned and similarly, the measure of interest that a borrower pays is a level of the aggregate sum he obtained (Crowley, 2007). Anybody can make loan to somebody and get the interest or any foundation like bank can acknowledge the deposits and pay the specific measure of interest. Banks urge the general population to store their cash by offering interest rates which propel the general population to influence stores by opening diverse records with the banks and banks to utilize their resources for influencing loan to other to individuals. For all intents and purposes, when bank makes loan to a client it charges higher rate but pays bring down rates to the depositor. With this distinction of interest rates bank makes benefit consequently of giving these administrations. To acquire much benefit bank charges higher interest rate however much as it is conceivable and then again pays bring down rate as much as could be expected. In any case, to pull in a similar borrower and investor banks are contending to each other which keep up the interest rates in comparable range (About.com).

Due to the opposition among the banks interest rate stagnates in a similar range. For following and dealing with the critical improvement interest rate is to be tended to a noteworthy financial issue (Boulier, Huang &Taillard, 2001; Laubach, 2009). Then again, in the profit and loss statement interest rate additionally participate in dealing with the interest segment completely (Buiter and Panigirtzoglou, 2003). What's more, the interest rate likewise compresses the method for entire business obligation synopsis, including the receipt of obligation, brilliance of the obligation, desires of dreams cooperation extents and fixed floating mixture of the debt (Brigo and Mercurio, 2006; Einav, Jenkins, 2012 and Levin, 2008). Interest rates are associated in various forms like there are particular interest rates for saving record and for taking loan. Interest rate set by Central bank to control the rate charged by commercial banks that changes the interest rates to control the vivacious of financial framework. Regardless, the results of the assortment in the rate of interest are not generally the expected results (Jenkins, 2012). Central bank assumes numerous vital roles in the economy however its significant errand is to manage the interest rates which influence the financial system. For example, this can be finished by directing the inter-bank loan rate. The rates that business banks show for sparing and loaning are impacted by inter-bank interest rates and banks as result display their rates which are underneath or above from the inter-bank rate in certain rate. Along these lines business banks acquire their profits (Levin, 2011).

1.1.3. Commercial Banks in Kenya

The Kenyan banking sector comprises of the Central Bank of Kenya (CBK), as the key regulating authority and it regulates; Commercial Bank in Kenya, Non-Bank Financial Institutions in Kenya and Forex Bureaus in Kenya (CBK, 2015). In 2013, the banking segment composed 44 institutions, 43 of which were commercial banks and 1 mortgage finance organizations, and 120 Foreign Exchange Bureaus. Commercial banks and mortgage loan fund organizations are 7 authorized and managed under the Banking Act, Cap 488 and Prudential Regulations issued there under. Outside Exchange Bureaus are

authorized and managed under the Central Bank of Kenya (CBK) Act, Cap 491 and Foreign Exchange Bureaus Guidelines issued there under. Out of the 43 business bank foundations, 31 were privately possessed and 11 were remote claimed. The privately claimed budgetary establishments involved 3 manages an account with huge government shareholding, 27 exclusive commercial banks and 1 contract fund organizations (MFCs). The foreign claimed money related foundations contained 8 privately incorporated remote banks and 3 branches of foreign incorporated banks (CBK, 2014).

1.2. Statement of the Problem

Loan payment ability are normally the driver of the bank and other financial institutions' financial performance. The loan repayment capabilities are the ones that contribute to the profit margin size in every single transaction between the bank/financial institution and its clients. Despite all this, there are several stated cases of high loan repayment defaults in commercial banks in Kenya (Wanjau, 2011). It is acknowledged that the amount or level of non-performing loans (NPLs) is frequently connected with bank failures and financial crisis in both third world and developed nations (Caprio and Klingebiel, 2002). Actually, there is enough proof that the financial/banking crises in Kenya were preceded by high nonperforming loans (Warue, 2013). When individuals loaned fail to pay the principal amount and interests facilities advanced to them, the institutions or banks concerned will be affected negatively. If this happens, then, there will be fewer finances to run its normal operations and also to give out as loan to other borrowers who potential. If the challenge of non-repayment continues to persist for long, the banks will have very huge bad debts; a situation that is may result to generally workforce cut and branches closure as a means of cutting on costs. These may also result to the stall in its market expansion and ultimately collapse of the bank (Atieno, 2012). The banks and other financial institutions plays a significant role in enhancing loan accessibility and other financial services especially to the poor and persons with low-incomes. This indicates that any constraints affecting these banks and financial institutions are more likely to have a far-reaching effect on the households and the country's economy at large.

In Kenya we have witnessed the cost of loans reduced to 14% in August 24, 2016 from overwhelming 18%. It's not clear the impact of such reduction on repayment of loans in commercial banks in Kenya (Njoroge, 2016). A study by Samuelson (2009) demonstrated that when interest rate raises it consequently influences the borrowers but does not influence the bank's execution. The performance of the bank will not be affected by high interest rate but the individual borrowers will try to tolerate the effects of high rate of interest. This is because rate of interest going up will force the commercial banks to charges more on loans advanced than the arrival it pays to investors. Thus, both the debtor and contributor will endure the expense. As per the research of Musleh, (2007), increment in the rate of interest discourages the depositors and borrowers, similar to investment and saving. Therefore, this study sought to evaluate interest rate and loan repayment in commercial banks in Nyeri County, Kenya.

1.3. Objectives of the Study

1.3.1. General Objective of the Study

The general objective of the study was to examine the effects of interest rate on loan repayment in commercial banks in Nyeri County, Kenya.

1.3.2. Specific Objectives of the Study

The specific objectives of this study were;
- To determine the influence of liquidity risk on loan repayment in commercial banks in Nyeri County, Kenya.
- To determine the influence of default risk on loan repayment in commercial banks in Nyeri County, Kenya.
- To establish the influence of customer classification on loan repayment in commercial banks in Nyeri County, Kenya.
- To evaluate the influence of Risk analysis on loan repayment in commercial banks in Nyeri County, Kenya.

1.4. Research Hypothesis

The following null hypothesis was formulated to guide the study;
- H_{01}: Liquidity risk has no significant effect on loan repayment in commercial banks in Nyeri sub-county, Kenya.
- H_{02}: Default risk has no significant effect on loan repayment in commercial banks in Nyeri sub-county, Kenya.
- H_{03}: Customer classification has no significant effect on loan repayment in commercial banks in Nyeri sub-county, Kenya.
- H_{04} Risk analysis techniques has no significant effect on loan repayment in commercial banks in Nyeri sub-county, Kenya

1.5. Significance of the Study

Since the study is one of the few done on correlating of interest rate and loan repayment in commercial banks, therefore, it will be of immense benefit for future researchers and trainers in training purposes given that it forms part of empirical studies and academic knowledge. Future studies therefore, will be benchmarked against the literature and

secondary materials drawn from it. The study will thus act as a reference for such future studies and reference area to scholars. Increased levels of non-repayment of loans depress the economic growth since Commercial banks are reluctant to engage in lending. This affects the national economy since customers who for instance were investing in real estate development which form a big part of our national economy are no longer able to venture into further business. Hence this study enables the national economic leaders, the governments and policy makers to develop plans to mitigate factors that might hinder national economy growth such as non-loan repayment This study by establishing the effect of interest rate on loan repayments will be of use to the management of financial institutions, research institutions such as Kenya Institute of Policy Research and Analysis (KIPPRA) and the regulatory authority such as the Central Bank of Kenya. The study will act as an eye opener on whether the interest rates they charge influences the high level of loan defaults or not. The relevant bodies will thus make appropriate policies regarding their lending and borrowing interest rate that will balance the risk and revenue so as to enhance their performance during economic booms and bust.

1.6. Scope of the Study

The study was conducted to examine the interest rate and loan repayment in commercial banks in Nyeri County, Kenya. The study concentrated on the following variables; Liquidity risk premium, default risk premium, Customer classification and Risk analysis & appraisal. The analysis of the mentioned variables was done to establish their effects on loan repayments in commercial banks in Nyeri County, Kenya. The study covered commercial banks in Nyeri County namely; KCB, FBK, NBK, Co-op Bank, Consolidated Bank, Stanchart Bank, Equity Bank, BBK, I&M Bank and Eco Bank and data collected from credit officers in the above banks. The data to be included in the study was from year 2011 to year 2016 since this was the period in which loan repayment rate has gone down tremendously and interest rate reduced.

1.7. Limitation of the Study

The following are factors that are likely to hinder the achievement of goals on this research. The management of the Organization may be too rigid with information that will be exposed throughout the research. To mitigate this, the researcher had together with the questionnaire a letter of transmittal assuring the Organization that information gathered will be handled with at most confidentiality and used for academic purposes only.

2. Literature Review

2.1. Introduction

This chapter reviews past literature on the loan repayment. This section reviews various theories guiding the study such as Fisher's theory of interest rates and the theory of credit market are reviewed and discussed in the context of interest rates and repayment. The chapter culminates by summarizing the empirical literature and showing the link between the independent variables and dependent variable through a conceptual framework.

2.2. Theoretical Literature Review

This study is guided by the following theories;

<u>2.2.1. The Theory of Credit Market</u>

This theory hypothesises that information which is not symmetrical causes for poor performance of financial markets the nations which are developing. The imperfect information releases two types of results to be specific; adverse selection and moral hazard. Two major highlights of the theory can be distinct as takes after; that banks and financial institutions allocate monies to projects with positive net present values and are risky and may be unbankable, and loans are lent out at the expenses which are comparable to the open-door cost of assets, for instance the value of supply paid to fixed investors and savings. The authentic work of Stiglitz & Weiss (1981) began the taunting of activities at categorising of apportioning of credit in loan markets. In this categorisation, the charged rate of interest by a foundation of credit are seen as having a double part of positioning potential loaners (causing determination which are unfriendly) and impacting on the borrower's activities (causing the positive impact). Rates of interests in this way may affect the concepts of exchange and may not be clear to the market. The two effects are seen and respected because of the data which is flawed automatically in markets of credit. Adverse selection may occur in the vent that the money the bank and the financial institutions may want to differentiate the loaner's willingness to repay their loans since the financial institutions normal profits depends on the likelihood of proper reimbursement. Banks and financial institutions are probably going to use the rates of interests that a person will pay as a mechanism of screening while trying to differentiate debtors with high chances of repayment.

The adverse determination part of interest rates is a result of various borrowers having diverse probabilities of reimbursing their loans. The anticipated returns to the bank clearly rely upon the likelihood of reimbursement, so the bank might want to have the capacity to distinguish borrowers who are probably going to repay. It is hard to recognize great borrowers and to do so require the bank to utilize an assortment of screening gadgets. The interest rate which an individual will pay may go about as one such screening gadget: the individuals who will pay high interest rates may, all things considered, be more awful risks; they will obtain at high interest rates on the grounds that they see their likelihood of reimbursing the loan

is low. As the interest rates rises, the normal riskiness of the individuals who obtain increments potentially bringing down the bank's profits. In the same case, as the interest rate and different terms of the agreement change, the conduct of the debtor is probably going to change. For example, raising the interest rate diminishes the return on projects with lower probabilities of achievement yet higher pay offs when fruitful (Ibekwe, 2007). In a world with impeccable and costless data, the bank would stipulate precisely every one of the activities which the Borrower could embrace (which may influence the arrival to the loan). In any case, the bank can't specifically control every one of the activities of the borrower; in this manner, it will figure the terms of the loan contract in a way intended to incite the Borrower to take activities which are of interest of the bank, and in addition to attract in low-risk borrowers.

The person with a high-risk task may prevail with regards to getting credit at a high rate of interest. At this high rate of interest, a person with less risk task might be denied credit since it won't make the business practical and debilitate his/her loan reimbursement potential. In the event that the interest rate is raised and the borrower with a higher risk is supported and defaults, this will undermine the capital base of the loan specialist. Moneylenders who need to limit risk will give out their funds at lower instead of higher rates of interest (Smithin, 2003). A realignment of the normal nature of the moneylender's loan portfolio may imply that interest rate component won't achieve advertise rate balance; rather apportioning of access to credit at a lower interest rate will take after. In the event that loan specialists don't keep up various portfolios, interest rates will rise quickly.

Moral hazard phenomenon is a piece of the issue of flawed data concerning borrower's activities. It is the misapplication of obtained reserves that moves the risk to the bank, particularly, if the venture does not succeed. Borrowers might be enticed to redirect affirmed loans to different activities with high risk, consequently lessening loan reimbursement probability. Moneylenders may decline to take activities that will improve loan reimbursement because of motivating forces and fortification issues (Amonoo, 2003). On the off chance that the ethical peril wonder happens, arrangement upheld by the model is credit rationing.

2.2.2. Fisher's Theory of Interest

The theory of Fisher's was proposed in 1930 by Irving Fisher. However, it has been criticized and advanced by several other theorists and scholars such as Harod (1971), Fisher (1974) and Tymoigne (2006). Fisher's theory bases its arguments in that; people are not patient to spend income resources and have no opportunity to spend it. It is also follows that the capital nature and income is mainly supposed to serve a basis for the rate of interest which is closely following it. The Fisher's interest rate theory states that the link between capital and income is the interest rate. The Fisher's theory sees the rate of interest as the per cent of paid premium on the lend money to be paid one year later or at a particular date set by the lender in terms of money. Hypothetically, it is claimed other sorts of goods can be substituted with money. However, basically, in order to merchandize the present and the future you always need money, the arguments foregoing validates why the interest rate is at most time referred to as money price and the market where the future and present money are exchanged for the price or premium is known as money market (Fisher, 1974).

It is posited that Fisher's real rate of interest context is significant for the rate of inflation focusing structure. This is because of the argument that it vindicates the concept that the monetary policy must be basically concerned with inflation management to keep the rate of interest at a level which is steady in improving investment and savings in the economy (Cottrell, 1994; Smithin, 2003). In agreement with the rate of interests and loan bank's performance, the Fisher's theory may be used to expound the implication of risk premium inflation as a component of rate of interests on the loan financial performance.

2.3. Empirical Literature

2.3.1. Loan Repayment

Studies on loan repayment have over the years focused on macroeconomic and bank-related factors. For instance, Kimando, Kihoro and Njogu (2012) studied on the determinants of MFI's sustainability in Murang'a municipality, Kenya. The findings of the study presented that the highest challenge is lack of repayment of loans which was borrowed as was indicated by 88.9% of the total study respondents. It was also found that many MFI's use a credit rationing tool as a means of avoiding the adverse effects of default by borrowers. In this regard, it is necessary that some type of guarantee should be sought by the MFI's before giving out loans. The determinants of loan reimbursement under the indigenous financial framework in southeast, Nigeria (Eze and Ibekwe, 2013). They utilized descriptive statistics and various relapses to break down the information. The dissected information uncovers that measure of loan got, period of recipients, house hold estimate, instructive accomplishment, and occupation can impact on loan reimbursement. According to Bichanga and Aseyo (2013) study on the causes of default on loans in the Kenyan microfinance institutions, the findings established that there several firms that rely on the federal or government and its agent to subsidize prices as a means of minimizing financial losses occurring from defaults on loans. Factors which fall in between these two categories have as a result been given limited attention. Borrower characteristics, though very vital in predicting the risk factor of a loan, have not been directly examined as it influences the non-performance of a loan. There is increasing need to understand exactly how lending procedures determine the probability of a loan becoming non-performing. Regulatory guidelines for commercial banks differ from one country to

another. Even with this difference in practice, what all countries have in common is the endeavor to establish good lending practices and have proper guidelines that will lower the risk factor of loans and improve on their performance.

The variables influencing loan reimbursement execution among Yam agriculturists in the Sene District, Ghana are broken down. In light of investigation, the variables that influence loan reimbursement, he utilized the Two bit show. As indicated by the discovering instruction, Analysis encounter, benefit, age, supervision and off-cultivate pay effect sly affect loan repayment execution (Wongnaa and Awunyo, 2013).

The reasons for loan default inside micro finance organizations in Kenya examined on Causes of loan default inside smaller scale financing establishments in Kenya. The investigation discovered that loan reimbursement default was as aftereffect of non-supervision of borrowers by the MFIs (Okibo, 2014).

2.3.2. Liquidity Rate and Loan Repayment

Hashemi, Morduch and Littlefield (2015) studied the effective strategy of microfinance in achieving the millennium development goals (MDGs). The study utilized the descriptive survey research design and it targeted the managers of various MFIs. The study established that the outreach growth and growth in loan portfolio caused the MFIs exposure to various risks such as liquidity risks. As a result of the funding the MFIs received, the liquidity risks arise. Wang, Huang, (2013) on a scientific evaluation study of liquidity risk premium in China in which the study analysed the liquidity risk premium based on return on prices, amount issued, and age of the bond amongst others. The study established that an increase in the amount issued results to high liquidity levels.

Ivaschenko and De Nicolo (2014) studied the universal liquidity levels, premiums of risk and opportunities of growth. Three key findings were established. One, it was established that there was an increase in the liquidity in the market across the world since early 1990s and they partly influenced loan repayments executions by Yam Ranchers in the Sene District. In the investigation light, the constituents that affects loan reimbursement, he utilized the Tobit show. As per the discovering training, Analysis encounter, benefit, age, supervision and off-farm wage effects on loan reimbursement execution.

Additionally, Lasse and Viral (2015) studied the relationships between liquidity of assets and asset pricing. The study established a model that presented that an asset's required rate of return depends on the liquidity anticipated the co-variance of its return and liquidity with the return on the market and liquidity levels. The model further, presented a harmonious knowledge for the various ways in which risk of liquidity may influence the costs of assets. The study also presented the possibility that the level of liquidity may at times vanish from a certain market and because of that may result to failure when needed; this is an enormous investors source of risk. The greatest challenge in variability and uncertainty of financial liquidity is believed to be amongst users of financial liquidity.

2.3.3. Default Risk and Loan Repayment

Milson (2013) studied the relationship between outreach and sustainability in the microfinance institutions and the global analysis of the micro banks leading in respect of financial performance and found out same and common findings as Cull, Demirguc-Kunt and Morduch (2014). The two research studies found that gross real portfolio growth is a representation for rate of interest charged by banks. Additionally, the studies found that the outreach viability controversial depth determined whether or not rates of interests should be subsidized. The studies presented a practical and contextual analysis touching on the poor, charged rate of interest and default loan repayment. It was demonstrated in occurrence of the rate of interest prevailing in the current market and cannot be afforded by the people who are poor and these individuals continue loans borrowing and banks are unaware they would result to repayment defaults, and if the loss from such rate of interest induced default is overshadowed by the gain in revenue from higher rates of interest, and then yield in real interest rate is expected to contradict operational self-sufficiency (OSS).

Ndulu (2014) studied the factors influencing transformation of institutional with specific interest in Kenyan MFIs. The study found that the requirement to have reserve fund deposit decreases the availability of funds for giving out loans and also tries to limits the firm's insolvency in the long term (Ndulu, 2014). The findings of this study agree with a study by Lyman, Christen and Rosenberg (2013) that the reserve fund is normally used in the periods when financial institutions are becoming insolvent. On the same note, Ndulu found that in various countries such as Kenya, the reserve fund aforestated is normally channeled to and kept by the government bank. The previous action is likely to rise the capital cost and constraints in to microfinance institutions.

The pervasiveness and complexity nature of credit risk presents solid difficulties to directors, one of the most important essential being absence of productive assurance of credit value of a potential client. This, in this manner, implies setting up instruments of protecting the organization's an incentive against huge defaults (Bowman, 2014). Additionally, Aseyo and Bichanga (2013) established the causes of default in loans in Kenyan microfinance institutions. The study established that there are various firms that always depend on the government for subsidizing prices as a means of dealing with losses of financial nature incurred in cases of default in loan. The study also found that loan repayment default was as a result of borrowers neglect and lack of supervision by the bank on how to utilise the loans advanced to them and also proper training of the borrowers on the adequate utilization of the funds advanced before the giving them loans. The study also found that various borrowers face the moral hazard and avert the borrowed funds to various other projects not quoted in the business plan presented to the bank which may not be viable financially thus increasing the default rate risks.

Kenyan banking industry propels credit to individuals of various classes including low unit workers and independently employed people whose default risks are high yet the banks can't be pushed out of the specialty. What's more, the business environment has turned out to be excessively focused, making it impossible to the degree of not giving up any nature of demographic. This suggests that banks are liable to an elevated acknowledge risk levels instead of different economies with higher income earning possibilities (Gwenyi, 2013)

2.3.4. Customer Classification and Loan Repayment

Bloem and Gorter (2014) found out that despite the fact that issues identifying with non-performing loans may influence all parts, the most genuine effect is on financial foundations, for example, business banks and home loan financing establishments which have a tendency to have extensive loan portfolios. In addition, the expansive awful loans portfolios will influence the capacity of banks to give loans. Immense non-performing loans could bring about loss of certainty with respect to contributors and outside financial specialists who may begin a keep running on banks, prompting liquidity issues.

Research discoveries and productions demonstrate that bad loans happen because of a few variables. Berger and DeYoung (2013) identified poor administration as one of the significant reasons for issue loans. They contend that chiefs in many saves money with issue loans don't practice sufficient loan endorsing, checking and control. A World Bank approach examine working paper on Non-performing Loans in Sub-Saharan Africa uncovered that bad loans are caused by unfriendly financial stuns combined with high cost of capital and low interest margins (Fofack, 2015).

Goldstein and Turner (2012) expressed that 'the aggregation of non-performing loans is for the most part owing to various elements, including economic downturns and macroeconomic unpredictability, terms of exchange crumbling, high interest rate, intemperate dependence on excessively costly between bank borrowings, insider loaning and good peril'. A few writers likewise hold the view that terrible loans can be caused by issue accounts. Rouse (2016) demonstrated in his work that issue loans can radiate from overdrawn account where there is no overdraft restrict, overdraft considered which has not been effectively operated for quite a while and overdraft taken in overabundance of sensible operational cutoff points. He additionally recognized absence of good aptitudes and a judgment with respect to the bank is a conceivable reason for bad loans.

2.3.5. Risk Analysis Appraisal Techniques and Loan Repayment

There are numerous conceptual studies made on risk examination and appraisal by reference to estimation and alleviation of risk. In practice, it is valuable to order the diverse risks as per the measure of harm they potentially cause (Fuser, 2015). This grouping empowers the administration to partition risks that are undermining the presence of the enterprise from those which can cause slight effects. Every now and again, there is a backwards connection between the normal measure of misfortune and its comparing probability, that is; risks that will make a high harm organization, similar to tremors or fire, happen from time to time, while risks that happen day by day, similar to interest rate risks or outside trade risks, regularly cause just moderately minor misfortunes, in spite of the fact that these risks can now and again harm the corporations seriously.

The empirical discoveries by Al-Tamimi and Al-Mazrooei (2014) featured that UAE banks are to some degree proficient in examining and surveying risk and there is a noteworthy distinctive between UAE national and outside banks in the act of risk investigation and appraisal. Moreover, the discoveries demonstrate that risk investigation and evaluation are impacting risk administration rehearses. With regards to managing an account, couple of applied investigations (Sundararajan, 2014) talks about the risk estimation angles especially on the unique risk.

Despite the report title, Risk: Analysis, Perception and Management, the working definitions utilized by the Royal Society Study Group (2012) do exclude the term risk investigation. As indicated by the examination gathering, risk estimation includes recognizable proof of the results and estimation of both the extent of the results and the likelihood of those results. The expansion of risk assessment finishes the procedure of risk appraisal. British Standard 4778 considers risk evaluation to allude to examination of natural risks and their centrality in a fitting setting. It accordingly appears to be conceivable at this phase to presume that risk evaluation and risk investigation are synonymous terms.

Strutt (2013) diagrams a building approach which characterizes risk investigation in indistinguishable terms from the Royal Society Study Group characterizes risk estimation and in fact asserts that risk examination is additionally called risk estimation. This is a smaller definition which now recommends that the preparatory conclusion above is mixed up. In any case, in another paper (Strutt, 2013), a similar creator grows his meaning of risk examination to incorporate assessment of acknowledgment or resistance to the risk.

Strutt (2013) gives the fullest meaning of risk analysis in a third paper where he sets out the idea in seven phases as orderly evaluation (item by item question all aspects of the system), distinguishing proof of risks (neighborhood and worldwide scale), appraisal of risks (frequencies and results). This may include various distinctive examinations like setting up satisfactory or decent levels of risk, assessment of risks, decide if the risks are as low as sensibly practicable, and decide risk diminishing measures where suitable. Risk investigation now goes past assessment to incorporate a portion of the basic leadership procedures of risk administration. Conceptualizing is the principle instinctive method, including a gathering creating thoughts off the highest point of their heads with a theory of no one isn't right - how about we get the thoughts on the board. Albeit brisk and straightforward, it does not have the extensive methodologies of the more advanced procedures. A far-

reaching risk estimation and moderation techniques for different risk emerging from financing exercises and from the idea of benefit and misfortune partaking in the wellspring of assets particularly speculation account holders are clarified by Sundararajan (2014). He presumes that the use of current ways to deal with risk estimation, especially for credit and general managing an account risks is critical for banks. Likewise, he recommends that the need to receive new estimation approaches is especially basic for banks as a result of the pretend, the one of a kind blends of risks in fund contracts.

2.4. Summary of Literature Review and Research Gap

Several studies have been conducted on Loan repayments across the world, Kenya included. Few of the studies in Kenya, however, have specifically focused on the linkage between interest rates and loan repayment. The studies conducted so far do not provide an integrated and holistic view on the problem of loan repayment in the commercial banking sectors. So much of the literature has not drilled down to specific causes. They dwell more on the symptoms and the problem specifically provide applicable remedies to address.

Author	Title	Findings	Recommendation	Gap
Okibo, (2013)	Causes of loan default within micro finance institutions	loan repayment default was as result of non-supervision of borrowers	Other factors on loan default should be sought	Effects of customer follow up on performance
Wongnaa & Awunyo, (2013)	Factors affecting loan repayment performance among Yam farmers in the Sene District, Ghana	Education, Analysis experience, profit, age, supervision and off-farm income have positive effects on loan repayment	Loan default rate on farmers and performance of their investments	Household heads contributions to investments
Bichanga & Aseyo (2013)	Causes of loan default within microfinance institutions in Kenya	Borrower characteristics contribute to high default rate	Effects of government subsidy on loan default	Varying transactional cost in the place of residence and financial performance
Eze & Ibekwe, (2014)	Determinants of loan repayment under the indigenous financial system	loan got, age of beneficiaries, house hold estimate, instructive fulfillment, and occupation can impact loan reimbursement employed people	Loan given should match the capabilities of individual borrowers	Interest rate controls on performance
Kimando, Kihoro & Njogu, (2012)	Factors influencing sustainability of MFIs	Credit rationing is a tool employed by many MFIs	Credit rationing should be encouraged in MFIs	Effects of credit rationing on financial performance
Sundararajan, (2014)	Comprehensive risk measurement and mitigation methods for various risk	Modern approaches to deal with risk estimation, especially for credit and overall banking risks is important for banks	Each risk characteristic should be treated uniquely	Contribution of risk classification on performance of loans
Nicolo & Ivaschenko, (2015)	Global liquidity, risk premiums and growth opportunities	There is an increase in market liquidity across the world since the early 1990s	Information should be readily and cheaply available to all the borrowers	Effects Global systemic liquidity shocks on performance

Table 1
Source: Researcher, (2018)

2.5. Conceptual Framework

The study is conceptualized with the help of the following conceptual framework. The conceptual framework shows the relationship between dependent variable (Loan repayment) and independent variables; Liquidity Risk premium, Default Risk Premium, Customer classification and Risk analysis & Appraisal.
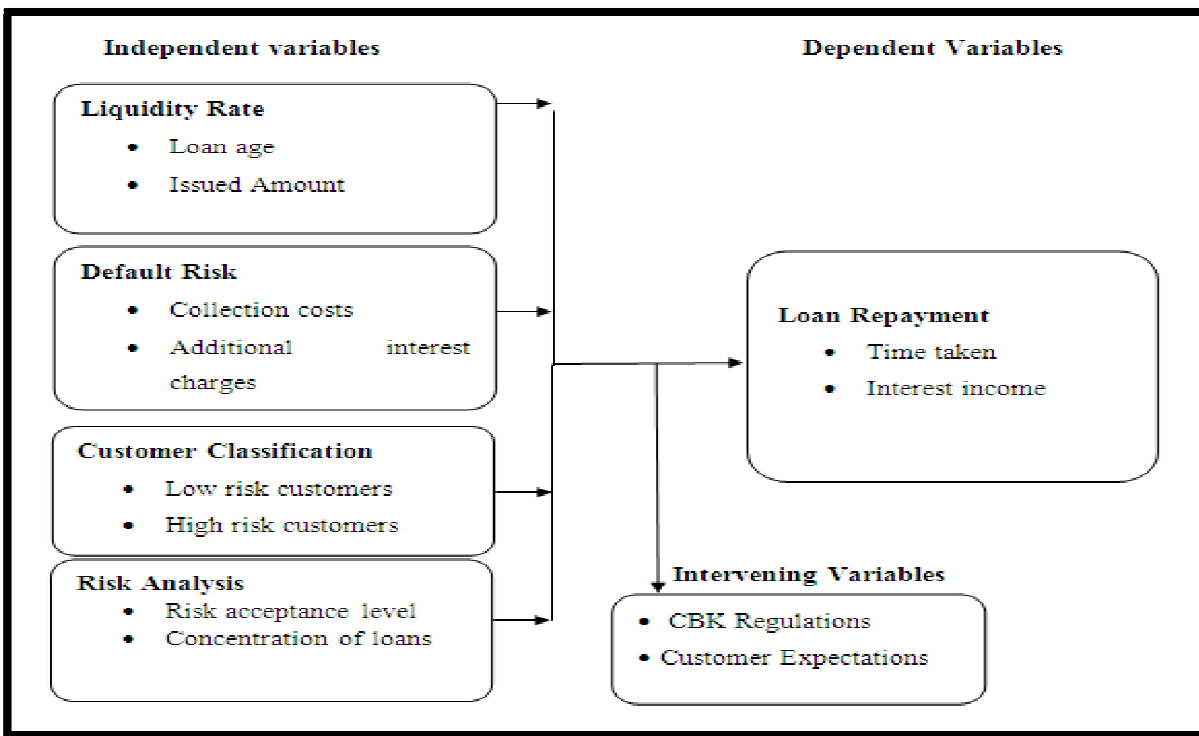
Figure 1
Source: Researcher (2018)

3. Research Methodology

3.1. Introduction

The content of this chapter comprises of target population, research design, data collection instruments and sample procedure, validity and reliability of research and data analysis procedures.

3.2. Research Design

Descriptive survey research design was used in the study. This is because it determines and reports the way things are. It attempts to describe such things as possible behavior, attitude, values and characteristics. Descriptive research aimed at generating knowledge that may be useful to describe or develop a profile of the study.

3.3. Target Population

The study targeted credit officers of the ten banks which have been operating in Nyeri town for the last five years (2011 to 2016). The study targets all the 57 credit officers. These are all the credit officers in the ten banks in Nyeri Town in year 2011-2016.The credit officers were the key respondents in the research since the whole research revolves around their service delivery in their respective Banks.

Banks	Credit Officer	Percentage
KCB	6	100%
BBK	7	100%
NBK	5	100%
EQUITY	8	100%
CBK	4	100%
CO-OP	7	100%
SBK	5	100%
ECOBANK	5	100%
KPSOB	4	100%
FBK	6	100%
Total	57	100

Table 2 Target Population
Source: Researcher, 2018

3.4. Sampling Technique
The study was a census study since the number of the respondents was of manageable size.

3.5. Data collection Instruments
The study used questionnaires as the tool for data collection. A questionnaire is a research instrument comprising of a progression of questions and different prompts to gather data from respondents (Mugenda & Mugenda, 2003). Secondary data was also collected from the published financial statement for the last five years (2011 to 2016) and from each bank respective websites.

3.6. Data collection Techniques
The researcher engaged the use of questionnaires which optimally used semi-structured questionnaire. The questionnaire was self-administered hence the researcher dropped them to the respondent, gave them time to complete, and then picked them at a later date. The researcher also used closed and also open-ended questions which allowed collection of qualitative data. The data collection allowed ease of data as well as save time and allow for un-ambiguity in answering questions and thus a thorough study.

3.7. Validity and Reliability of Research Instruments

3.7.1. Validity of Research Instruments
According to Kathuri and Pals (1993) validity is the exactness and meaningfulness of inferences which are dependent to the examination results. This implies that validity is the extent to which results obtained from the analysis of the data actually represent the phenomenon under study. To enhance content validity, the researcher consulted the experts in the field of research and performed thorough literature review on topic study. These helped in ensure that the questionnaires represent the content, they are appropriate for the sample and that the questionnaires are comprehensive enough to gather all the data needed to address the purpose and goals of the study.

3.7.2. Reliability of the Instruments
Reliability of the research instrument is its level of internal consistency over time. A reliable instrument therefore, is the one that constantly produces the expected results when used more than once to collect data from two samples drawn from the same population. Reliability of the instrument was enhanced through a pilot study; split half method of randomly selected employees. During the pilot study, the instrument was split half into all odd numbers put them in one subset and all even numbers in another subset. The scores of all the odd numbered items of the respondents in the pilot study was computed separately and then compared to see the suitability of the instrument using Cronbach alpha. A Score above 0.7 will be accepted.

Constructs	Alpha Values
Default Risk Premium	0.77
Liquidity Risk Premium	0.76
Customer Classification	0.79
Risk Analysis	0.77
Loan Repayment	0.76

Table 3: Reliability Test Results

3.8. Data Analysis and Presentation
After all of the information accumulations, information cleaning was done keeping in mind the end goal to decide inaccurate, inadequate, or irrational information and after that enhance the quality through amendment of identified blunders and oversights. After information cleaning the information will be coded and entered in the PC for examination. Statistical Package for Social Sciences (SPSS) version 20 for windows was utilized to examine quantitative information. SPSS can deal with vast measure of information, given its wide range of factual methodology reason completely intended for social sciences.
The variable Y is usually defined as:

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

Where: -
Y= Loan repayment
β_0 = Constant
X_1 = Liquidity risk premium
X_2 = Default risk premium
X_3 = Customer classification
X4 = Risk analysis & appraisal

e =Error term of the model.

β, β_2, β_3 andβ_4=Coefficients of independent variables.

Graphs, tables and pie charts were used to present frequencies and rate while tables were readied utilizing every factor or pointer. Since qualitative data was generated, it was analyzed by utilization of themes and categories.

3.9. Ethical Consideration

The researcher was employ Free, Prior and Informed Consent (FPIC) so to ensure a full disclosure of the study. The respondents were informed as much as possible the nature and purpose of the research, the procedures to be used, and the expected benefits to their organizations and other important stakeholders, the potential of reasonably foreseeable risks, stresses, and discomforts, and alternatives to getting involved in the research. The researcher explained and gave the respondents the opportunity to ask questions and have them answered to their satisfactions and comfort. The researcher sought authority from the School of Business to conduct the study and an introduction letter accompanied every questionnaire. This explained the purpose and importance of the study.

4. Data Analysis, Presentation and Interpretation

4.1. Introduction

This chapter presents the analysis of the study findings according to the data collected from the field. It begins with instrument return rate, demographic data of the respondents, while the other sections are based on the research questions of the study. Descriptive and inferential statistics have been used to discuss the findings of the study. Discussion of and interpretation of the findings was done to display the link between independent variables with the dependent variable.

4.2. General Information

4.2.1. Response Rate

The 57 respondents were targeted. 54 of the respondents sought filled and availed the questionnaire. This made a response are of 94.7%. The response rate was satisfactory to draw conclusions for the study. This response rate was satisfactory for data analysis and conformed to Kothari (2003) threshold that stipulates that a response rate of 30% or above is adequate for analysis and reporting.
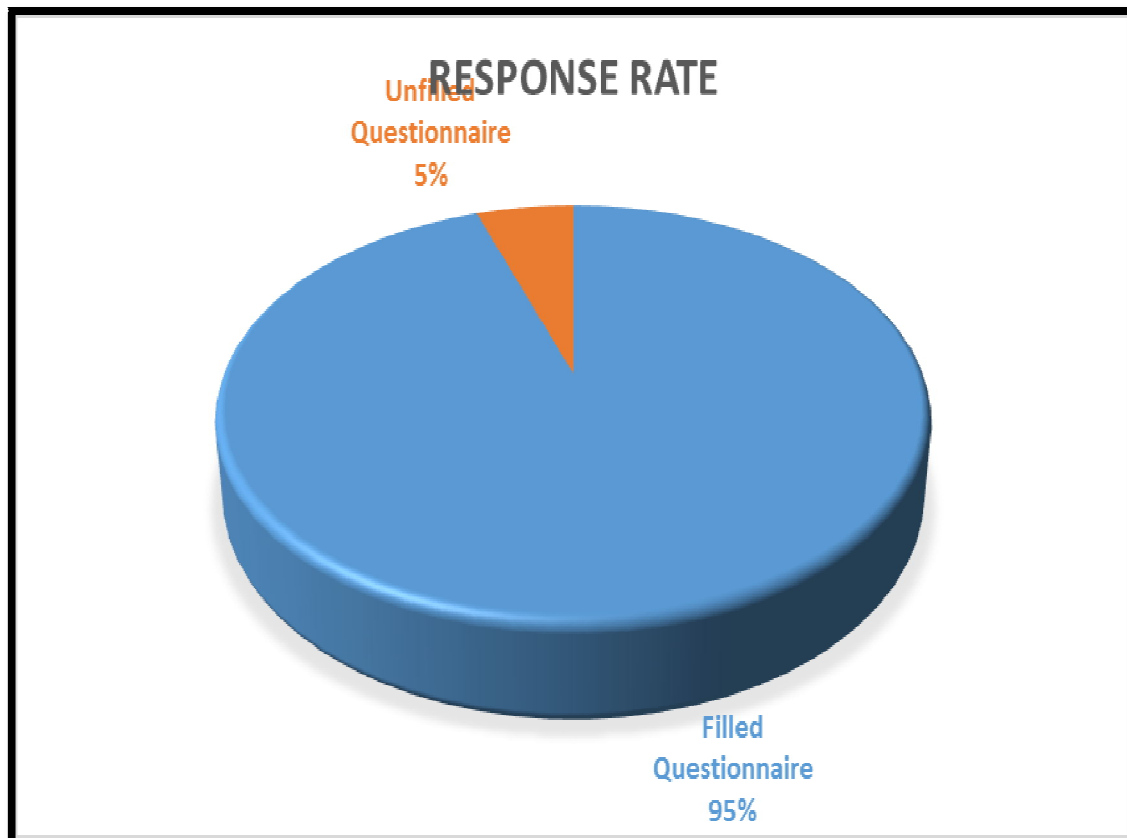
Figure 2: Response Rate

4.2.2. Level of Education

The study sought to establish the level of learning of various respondents. The findings were summarized in the Table 4 above. Majority of the respondents (64%) in the study had a degree certificate and minority had diploma certificate. This indicates that the respondents had knowledge on the concepts under study.

Figure 3: Level of Education

The study sought to establish the level of education of various respondents. The findings were summarized in the Table 5 above. Most of the respondents (64%) in the study had a degree certificate and minority had diploma certificate. This indicates that the respondents had knowledge on the concepts under study.
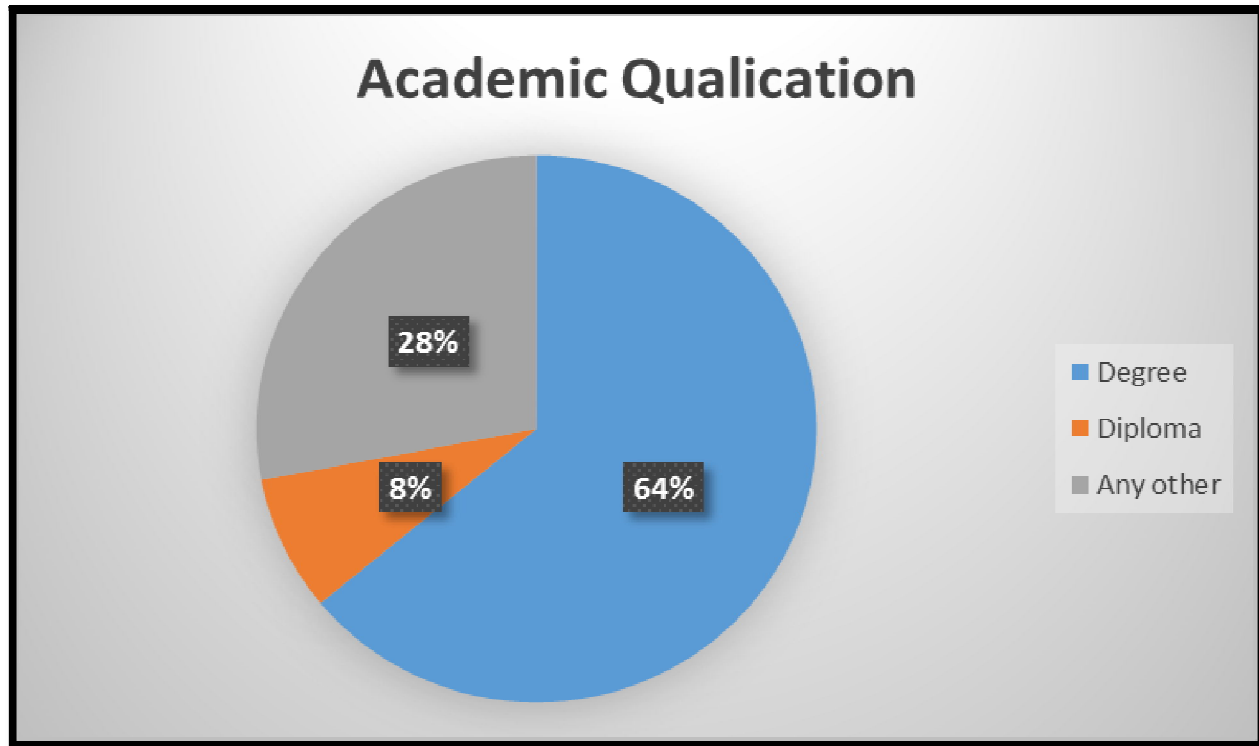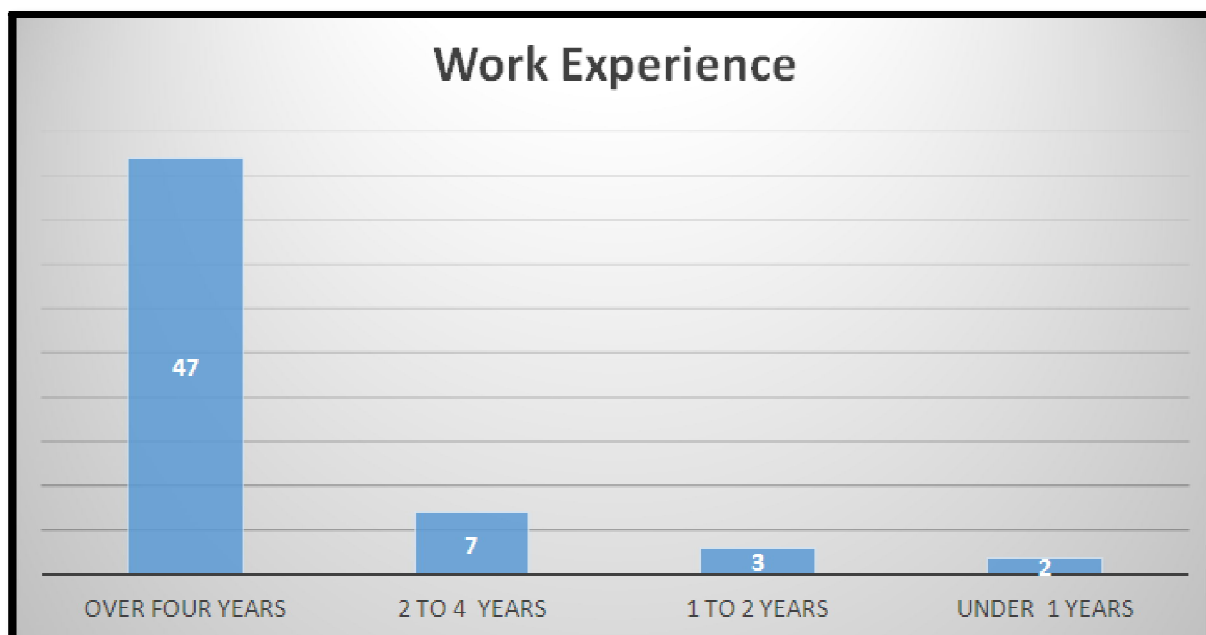
4.2.3. Working Experience

Figure 4: Working Experience

The study sought to establish the working skills of the employees. From the findings in Figure 3 above, it noted that majority of the respondents (79.9%) had a working experience of more than five years. Employees with an experience of 2 to 4 years followed with 11.5%. This is an indication that the data collected was from the right target population with readily available information and that the data will be reliable for analysis.

4.3. Effects of Interest Rates

4.3.1. Liquidity Risk Premium
The research further sought to establish the levels of liquidity risk premium and their views on the same. The findings on the level of liquidity and aspects on liquidity risk premium were summarized and presented in the Table 5 below.

	Response	Rating					Mean	Std Deviation
		Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree		
The larger the disbursement the higher the risk	F	5	7	1	9	32		
	%	59.2	14.1	1.4	15.5	9.8	4.39	0.955
The more the grace period the higher the default rate	F	2	32	17	1	2		
	%	2.8	60.6	32.4	1.4	2.8	4.77	0.497
The number of months a loan is outstanding affects loan repayment	F	39	14	0	1	0		
	%	73.2	25.4	0	1.4	0	4.23	0.884

Table 4: Liquidity Risk Premium
Source: Research Data (2018)

From table 5 above, many of the respondents (59.2%) strongly agreed that the larger the disbursement the higher the risk. Most of the respondents (60.6%) agreed that the more the grace period the higher the default rate and majority of the respondents 73.2%) strongly agreed that the number of months a loan is outstanding affects loan repayment. These findings tally with a study by Lasse and Viral (2015) who studied the relationships between liquidity of assets and asset pricing. The study established a model that presented that an asset's required rate of return depends on the liquidity anticipated the co-variance of its return and liquidity with the return on the market and liquidity levels. The model further, presented a harmonious knowledge for the various ways in which risk of liquidity may influence the costs of assets. The study also presented the possibility that the level of liquidity may at times vanish from a certain market and because of that may result to failure when needed, this is an enormous investors source of risk. The greatest challenge in variability and uncertainty of financial liquidity is believed to be amongst users of financial liquidity.

4.3.2. Default Risk Premium
The respondents were asked to specify the magnitude to which default risk premium influences loan repayment and the following were the findings as shown in Table 6 below:

	Response	Rating					Mean	Std Deviation
		Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree		
Collection cost for the loans are huge	F	35	17	2	0	0		
	%	64.8	31.5	3.7	0	0	4.74	0.445
The default rate is associated with increase in interest rate	F	2	3	17	30	2		
	%	3.7	5.6	31.5	55.6	3.7	4.52	1.061
We have experienced increase in default rate for the last five years	F	49	4	1	0	0		
	%	90.7	7.4	1.9	0	0	4.81	0.447

Table 5: Default Risk Premium
Source: Research Data (2018)

The results above show that many of the respondents (64.8%) strongly agreed that collection cost for the loans are huge. Many of the respondents (55.6%) disagreed that the default rate is associated with increase in interest rate while majority of the respondents (90.7%) strongly agreed that they have experienced increase in default rate for the last five years. Kimando, Kihoro and Njogu (2012) studied on the determinants of MFI's sustainability in Murang'a municipality, Kenya. The findings of the study presented that the highest challenge is lack of repayment of loans which was borrowed as was indicated by 88.9% of the total study respondents. It was also found that many MFI's use a credit rationing tool as a means of avoiding the adverse effects of default by borrowers. In this regard, it is necessary that some type of guarantee should be sought by the MFI's before giving out loans. According to Bichanga and Aseyo (2013) study on the causes of default on loans in the Kenyan microfinance institutions, the findings established that there several firms that rely on the federal or government and its agent to subsidize prices as a means of minimizing financial losses occurring from defaults on loans. Factors which fall in between these two categories have as a result been given limited attention. Borrower characteristics, though very vital in predicting the risk factor of a loan, have not been directly examined as it influences the non-performance of a loan. There is increasing need to understand exactly how lending procedures determine the probability of a loan becoming non-performing. Regulatory guidelines for commercial banks differ from one country to another. Even with this difference in practice, what all countries have in common is the endeavor to establish good lending practices and have proper guidelines that will lower the risk factor of loans and improve on their performance.

4.3.3. Customer Classification
        The study further sought to establish whether customer classification influences loan repayment and the following were the findings as shown in table 7 below: The results are as below;

	Response	Rating					Mean	Std Deviation
		Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree		
We classify customer depending on their repayment capabilities	F	42	10	2	0	0		
	%	77.8	18.5	3.7	0	0	4.24	0.98
Customer group risk level is reviewed occasionally	F	6	42	4	2	0		
	%	11.1	77.8	7.4	3.7	0	2.17	0.89
Defaulters are recommended for CRB listing	F	52	1	1	0	0		
	%	96.3	1.8	1.8	0	0	4.02	1.25

Table 6: Customer Classification
Source: Research Data (2018)

Majority of the respondents (77.8%) strongly approved that they classify customer depending on their repayment capabilities. Majority of the respondents (77.8%) Strongly agreed that customer group risk level is reviewed occasionally and

majority of the respondents (96.3%) strongly agreed that defaulters are recommended for CRB listing. Berger and DeYoung (2007) identified poor management of loans and lack customer classification as some of the major causes of problem loans. The research additionally found that many bank managers with default loans don't practice satisfactory loan guaranteeing, checking and control. A World Bank arrangement inquire about working paper on Non-performing Loans in Sub-Saharan Africa uncovered that bad loans are caused by antagonistic financial stuns, lack of customer information grading and sharing and low interest margins.

4.3.4. Risk Analysis

The study further sought to determine whether risk analysis influences loan repayment and the following were the findings as shown in table 8 below: The results are as below

	Response	Rating					Mean	Std Deviation
		Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree		
The bank has been exposed to various loan customers	F	37	9	5	3	0		
	%	68.5	16.7	9.3	5.5	0	2.86	1.06
Loans have been concentrated to few major groups of loan customers	F	37	12	3	2	0		
	%	68.5	22.2	5.6	3.7	0	3.11	0.83
Loans are appraised occasionally by credit officers	F	52	2	0	0	0		
	%	96.3	3.7	0	0	0	2.89	1.18

Table 7: Risk Analysis

Majority of the respondents (68.5%) strongly agreed the bank have been exposed to various loan customers. Majority of the respondents (68.5%) strongly agreed that loans have been concentrated to few major groups of loan customers and majority of the respondents (96.3%) strongly agreed that loans are appraised occasionally by credit officers. Contrary a study by Fuser (2015) found that discovered that there is an inverse connection between the normal measure of misfortune and its comparing probability, that is; risks that will make a high damage to partnership, similar to earthquakes or fire, happen rarely, while risks that happen every day, similar to interest rate risks or remote trade risks, frequently cause just generally minor misfortunes, despite the fact that these risks can in some cases hurt the organizations genuinely. However, the examination counts with Al-Tamimi and Al-Mazrooei (2014) ponder which found that that UAE banks are to some degree productive in dissecting and evaluating risk and there is a noteworthy difference between UAE national and outside banks in the act of risk investigation and appraisal. The discoveries demonstrate that risk examination and evaluation are affecting risk administration practices.

4.3.5. Loan Repayment

The study sought to establish the average time taken to repay loans and interest income earned from 2007 to 2016. The study found that on average the loan customers took more time than the agreed time in the contract and that the interest on loans collected from the customers are decreasing at an alarming rate across all the banks in Kenya. The respondents felt that the interest capping by the government has adversely affected the growth in their loan books. The findings tally with a study on the determinants of loan reimbursement under the indigenous financial system in southeast, Nigeria by Eze and Ibekwe (2007). The study employed descriptive statistics and multiple regressions to analyze the determinants of loan repayment and found that that amount of loan received, age of beneficiaries, house hold size, educational achievement, and career can influence loan repayment.

4.4. Correlation Analysis

4.4.1. Relationship between Liquidity Risk Premium and Loan Performance

Chi-Square Tests			
	Value	Df	Asymp. Sig. (2-Sided)
Pearson Chi-Square	46.741[a]	12	.0001
Likelihood Ratio	22.711	12	.032
Linear-By-Linear Association	5.333	1	.024
N Of Valid Cases	71		

Table 8: Relationship between Liquidity Risk Premium and Loan Performance
Source: Researcher 2018

The study sought to determine whether there exists a link between liquidity risk premium and loan repayment. The computed chi-square value (46.741) at 12 degrees of freedom the study found that there is a significant link between liquidity risk premium and loan performance since the computed p-value (0.0001) is less than 0.05 at 95% confidence level.

4.4.2 Relationship between Default Risk Premium and Loan Repayment

Chi-Square Tests			
	Value	Df	Asymp. sig. (2-sided)
Pearson Chi-Square	23.117[a]	12	0.012
Likelihood ratio	22.279	12	0.005
Linear-by-linear Association	5.161	1	0.012
N of Valid cases	71		

Table 9: Relationship between Default Risk Premium and Loan Repayment
Source: Researcher 2018

The study sought to determine whether there exists a link between default risk premium and loan repayment. The computed chi-square value (23.117) at 12 degrees of freedom, the study found that there is a significant link between default risk premium and loan repayment since the computed p-value (0.012) is less than 0.05 at 95% confidence level.

4.4.3. Relationship between Customer Classification and Loan Repayment

Chi-Square Tests			
	Value	Df	Asymp. Sig. (2-Sided)
Pearson Chi-Square	27.277[a]	12	.005
Likelihood Ratio	26.787	12	.032
Linear-By-Linear Association	5.999	1	.014
N of Valid Cases	71		

Table 10: Relationship between Customer Classification and Loan Repayment
Source: Researcher 2018

The study sought to determine whether there exists a relationship between customer classification and loan repayment. The computed chi-square value (27.277) at 12 degrees of freedom, the study found that there is a significant relationship between customer classification and loan repayment since the computed p-value (0.005) is less than 0.05 at 95% confidence level.

4.4.4. Relationship between Risk Analysis and Loan Repayment

Chi-Square Tests			
	Value	Df	Asymp. sig. (2-sided)
Pearson Chi-Square	25.875[a]	12	.013
Likelihood ratio	21.333	12	.002
Linear-by-linear Association	5.465	1	.027
N of Valid cases	71		

Table 11: Relationship between Risk Analysis and Loan Repayment
Source: Researcher 2018

The study sought to establish whether there exists a link between risk analysis and loan repayment. The computed chi-square value (25.875) at 12 degrees of freedom, the study found that there is a significant link between risk analysis and loan repayment since the computed p-value (0.013) is less than 0.05 at 95% confidence level.

4.5. Regression Analysis

Model	R	Goodness of Fit	Adjusted R Square	Std. Error of The Estimate
1	0.748	0.894	0.789	0.7273

Table 12: Model Summary

R squared is coefficient of determination which explains the variation in the dependent variable due to changes in the independent variable, from the results above table the value of adjusted R squared is 0.789 an indication that there is a variation of 78.9% on the loan repayment due to variations in liquidity risk premium, default risk premium, customer classification and risk analysis at 95% confidence interval. This shows that 78.9% changes in loan repayment in the bank could be accounted to changes in liquidity risk premium, default risk premium, customer classification and risk analysis while other factors not considered in this study account for only 21.1% of the changes in loan repayment in the bank.

4.6. Model Testing

4.6.1. ANOVA Analysis

To determine the goodness of the study model, ANOVA analysis was done. Table 4.16 below shows the results after the test.

ANOVA[a]					
Model	Sum of squares	Df	Mean Square	F	Sig.
Regression	13.889	8	1.733	2.344	0.011[b]
Residual	16.799	26	.633		
1 Total	32.686	34			

Table 13: ANOVA Analysis
Source: Research Data, (2018)
a. Dependent Variable: Loan Repayment
b. Predictors: (Constant), Liquidity Risk Premium, Default Risk Premium,
Customer Classification and Risk Analysis

The results from Table 14 indicate that the ANOVA analysis was significant as the P-value was less than 0.05 (sig=0.011) this indicates the goodness of fit in the study model. The regression model used was significant with the F statistic of 2.344 was significant at P= 0.011 as shown in the Table 14 above which falls within the satisfactory significance level of 0.05. This means that the independent variables have a positive influence on Loan repayment and their influence is significant. Based on this outcome, the prediction of the outcome of the study using this model was satisfactory.

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	1.555	1.231		1.973	.106
Liquidity Risk	-0.774	0.240	-0.71	-1.850	.0028
Default Risk	-0.112	0050	-0.099	-3.616	.006
Customer Classification	0.353	0.017	0.275	3.159	.015
Risk Analysis	0.493	0.112	0.211	3.432	.0012

Table 14: Coefficients Table

From the above regression equation, it was noted that holding liquidity risk premium, default risk premium, customer classification and risk analysis to a constant zero, loan repayment would be at 1.555. A unit increase in liquidity risk premium would lead to decrease in loan repayment by a factor of 0.774 (B= -0.774, P<0.05), a unit increase in default risk would lead to decrease in loan repayment by a factor of 0.112 (B= -0.112, P<0.05), a unit increase in customer classification would lead to increase in loan repayment by a factor of 0.353 (B=0.353, P<0.05) and a unit increase in risk analysis would lead to increase in loan repayment by a factor of 0.493 (B=0.493, P<0.05. Therefore, there is a significant relationship between all the independent variables since all the P values a less than 0.05. Therefore, the below indicated model was adopted; - $Y = 1.555 - 0.774X_1 - 0.112 X_2 + 0.353 X_3 + 0.493 X_4$. Goldstein and Turner (2012) found that the accumulation of non-performing loans is

by and large owing to various variables, including financial downturns, poor information on customers, increase in risk and default arte and macroeconomic volatility, terms of trade deterioration, high interest rate, excessive reliance on overly high-priced inter-bank borrowings, insider lending and moral hazard. While Rouse (2009) discovered that problem loans can radiate from overdrawn account where there is no overdraft confine, overdraft taken on an account which has not been effectively operated for quite a while and overdraft taken in abundance of sensible operational breaking points. The examination additionally found that absence of good aptitudes and a judgment with respect to the bank is a conceivable reason for bad loans.

5. Summary Conclusions and Recommendations

5.1. Introduction
The study entailed the establishment of the effect of interest rate on loan repayment. The chapter therefore includes the summary of the major findings, the conclusions reached, recommendations and highlights of the area that require further research.

5.2. Summary of Findings

5.2.1. Liquidity Risk Premiums
The respondents strongly agreed that the larger the funds advanced out as loans determined the level of risk in terms of liquidity. Further, the findings showed that the risk of liquidity premium had an adverse impact and statistically negative relationships with loan repayment. Many of the respondents (59.2%) strongly agreed that the larger the disbursement the higher the risk. Majority of the respondents (60.6%) agreed that the more the grace period the higher the default rate and majority of the respondents 73.2%) strongly agreed that the number of months a loan is outstanding affects loan repayment. These findings tally with a study by Lasse and Viral (2015) who studied the relationships between liquidity of assets and asset pricing. The study established a model that presented that an asset's required rate of return depends on the liquidity anticipated the co-variance of its return and liquidity with the return on the market and liquidity levels.

5.2.2. Default Risk Premium
The study found that clients at times default on loan repayment and the rate of interest on loans advanced because of the default risk of the borrower of the loans. The study also established that banks carry out blacklisting of those individuals who default and the information is shared with other financial institutions and deters future possibility of loans awards. Additionally, the study established that customers on loan often fail to pay the interest and the principal amount and that the small loans advanced do attract a higher interest rates than bigger loans. Further, the study found that default risk premium had a strong negative correlation with the loan repayment. Many of the respondents (64.8%) strongly agreed that collection cost for the loans are huge. Many of the respondents (55.6%) disagreed that the default rate is associated with increment in interest rate while majority of the respondents (90.7%) strongly agreed that they have experienced increase in default rate for the last five years. Kimando, Kihoro and Njogu (2012) studied on the determinants of MFI's sustainability in Murang'a municipality, Kenya. The findings of the study presented that the highest challenge is lack of repayment of loans which was borrowed as was indicated by 88.9% of the total study respondents. It was also found that many MFI's use a credit rationing tool as a means of avoiding the adverse effects of default by borrowers. In this regard, it is necessary that some type of guarantee should be sought by the MFI's before giving out loans.

5.2.3. Customer Classification
Majority of the respondents strongly agreed that loan customer is classified according to their capabilities which helps to reduce loan default rate. The respondents also strongly agreed that the defaulters are recommended to the credit reference bureau who shares with other banks to avert future default risk. Further, the study found that customer classification had a strong positive correlation with the loan repayment. The study sought to determine whether there exists a link between customer classification and loan repayment. The computed chi-square value (27.277) at 12 degrees of freedom, the study found that there is a significant relationship between customer classification and loan repayment since the computed p-value (0.005) is less than 0.05 at 95% confidence level.

5.2.4. Risk Analysis
The study found that risk analysis influences loan repayment to a great extent. Majority of the respondents strongly agreed that they are exposed to various levels of loan customers and that loans in the banks are concentrated to a group of potential customers. However, majority of the respondents agreed that loans are appraised occasionally by the loan officers. Further, the study found that risk analysis had a strong positive correlation with the loan repayment. The study sought to establish whether there exists a link between risk analysis and loan repayment. The computed chi-square value (25.875) at 12

degrees of freedom, the study found that there is a significant relationship between risk analysis and loan repayment since the computed p-value (0.013) is less than 0.05 at 95% confidence level.

6. Conclusions

The study concludes that banks faces loan default on funds advanced. This is attributed to the risk of debtors. The study concludes that the rate of interest on loans charges leads to failure to pay in time and thus loan low repayment. It was also concluded that banks need to classify customers to mitigate on failing to pay loans and that preventing defaulters from receiving more loans from any other bank in the future is compulsory. It was concluded that banks face risk of liquidity which is determined by the funding type that they get, the credit amount issued and the banking sector competition. Moreover, the study concludes that the risk premium liquidity contributes to decreased loan repayment rate because of potential increase in the rate of interest which in turn discourages loan repayment.

The study discovered that the key indicator of financial execution and proficiency of business banks is the spread between loaning and deposit rates. On the off chance that this spread is large, it fills in as an obstacle to the extension and improvement of financial intermediation. This is on the grounds that it disheartens potential savers because of low profits for stores and therefore restricts financing for potential borrowers. This has the far-reaching impact of decreasing achievable speculation openings and subsequently restricting future development potential. It has been watched that huge spreads happen in creating nations because of high working costs, financial tax collection or restraint, absence of an aggressive financial/managing an account area and macroeconomic instability. That is, risks in the commercial banks are high.

The study revealed that the degree of interest rate spread differs and it is converse to the level of proficiency of the financial part, which is a branch of a focused domain. The nature and effectiveness of the financial segments is observed to be the real explanations for differences in spread.

7. Recommendations

Since many of the defaulters of loans mainly results from the short-term loans, commercial banks should charge a fair and reasonable rate which the short-term borrowers ca afford and the same time avoid risk of default in the long run. The study recommends also that commercial banks should screen and try to classify their loan customers to avoid issuing loans to the wrong class with the wrong amounts and these may result to increased loan repayment. The study also recommends that, in order to reduce risk of liquidity and increase rate of loan repayment, commercial banks and several other financial institutions should be encouraged to consider loan portfolio diversification by loaning out to different classes of individual since too much concentrated lending would lead to liquidity problems if that sector is affected negatively. Furthermore, the study recommends that commercial banks introduce collateral requirements depending on the size of the loans advanced to the customers.

Banks should endeavor to embrace KYC know your customer before the credit can be sanctioned. This are the means employed to know and understand all the particulars and character of the borrower before giving out the money. It can be achieved through scrutinizing the previous banking's from the statements, employment or the business transactions from the borrower. Banks should not mainly hang on collateral for them to secure the loans so that they can lend. Banks ought to likewise apply productive and powerful credit risk management that will guarantee that loans are coordinated with capacity to reimburse, loan defaults are anticipated in like manner and pertinent measures taken to limit the same. Banks ought to likewise upgrade periodic credit risk checking of their loan portfolio to lessen the level of NPA. This can be accomplished by enlisting qualified debt collectors and competent work force.

It is further recommended that commercial banks should use the services provided by Credit Reference Bureaus for the purpose of determining the credit worthiness of borrowers as a means of minimizing bad loans. CRBs help creditors make faster and more accurate credit decisions. It is recommended that commercial banks need to invest on debt collections and this will entail hiring qualified and experienced debt collectors, lawyers so as to increase litigation of defaulters and auctioneers. This is from the fact that there is an inverse relationship between debt collection costs and the level of NPA.

8. Suggestions for Further Studies

The study suggests that more research should be done on the factors causing the rise in default rate in commercial banks in Kenya. Since, from R-squared results shows that a proportion of 21.1% which is not explained by the four variables of interest rates, another study needs to be done to explain the remaining proportion. Also, a similar study should be carried out in another country for comparison purposes.

9. Acknowledgements

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Appendix I

Specimen Letter to Respondents
Dear sir/ madam,
Ref: Introductory Letter
I am a student at Kenyatta University, pursuing a MBA Degree. I am doing a research on the effects of interest rate on loan repayment in commercial banks in Nyeri County, Kenya. I request to be kindly answer to the questionnaire as truthfully as possible. The information gathered will be for academics purposes only.
Your response will be highly appreciated.

Thank you.
 Yours Faithfully,
Irene Maina

Appendix II

Research Questionnaire
Section A: Respondents Profile
Tick or write answers in full where applicable.
SECTION A: Background information
1. Gender
a) Male   [ ]
b) Female   [ ]
2. Marital status:
a) Single   [ ]
b) Married   [ ]
c) Widow(er)   [ ]
d) Divorced   [ ]
3. Age bracket (yrs)
a) 21-30   [ ]
b) 31-40   [ ]
c) 41 and above   [ ]
4. Highest level of education attained
a) Primary education   [ ]   b) Secondary [ ]
c) College certificate   [ ]   d) graduate   [ ]
5. When did you join the bank?
a) 1yr back   [ ]   b) 2yrs back   [ ]
c) 3yrs back   [ ]
d) Above 3yrs back [ ]
Part III Liquidity Risk Premium on Loan Performance
6. In this section, please tick the appropriate section that best reflects the degree to which the following variables affect your loan repayment. 5 strongly agree, 4 = agree, 3 = moderately agree, 2 = disagree, 1 = not at all.

To What Extent Do You Agree with the Following Statements: Liquidity Risk Premium	5	4	3	2	1
The number of months a loan is outstanding affects loan repayment					
The large the amount the higher the default rate					
The larger the disbursement the higher the risk					
The more the grace period the higher the default rate					
The grace period affects loan repayment					
The large amount loaned affects loan repayments					

7. Kindly comment on the liquidity position in your Bank and how it affects loan repayment..
....

Part IV: Default Risk Premium and Loan repayment
8. In this section, please tick the appropriate section that best reflects the degree to which the following variables affect your loan repayment. 5 strongly agree, 4 = agree, 3 = moderately agree, 2 = disagree, 1 = not at all.

To What Extent Do You Agree with the Following Statements: Default Risk Premium	5	4	3	2	1
Collection cost for the loans are huge.					
Loan collection cost affects loan repayment					
We have experienced interest rate changes on loans					
Change in interests rate on loan affects loan repayment					
We have experienced increase in default rate for the last five years					
The default rate is associated with increase in interest rate					

9. Other than collection costs on loans and changes in interest rate, kindly comment on any other factor contributing to the default   rate   in   the   bank
....
....

10.   On   the   factors   you   have   listed   in   (9)   above,   kindly   comment   on   their   effects   on   loan repayment...
....
....

Part IV: Customer classification and loan repayment
11. To what extent do you agree with the following statements?

Statement	SA	A	N	DA	SDA
We classify customer depending on their repayment capabilities i.e low risk and high risk					
Customer classification affects on loan repayment					
Customer group risk level is reviewed occasionally					
Defaulters are recommended for CRB listing					
Listing of loan defaulters in CRB affects loan repayment					
Classifying customers into their risk levels affects loan repayments					

12.   On   your   view   do   you   think   classifying   customers   in   risk   group   helps   to   reduce   loan   default rate...
....

13.   Comment   on   any   other   classification   other   than   risk   levels   that   you   use   to   classify   loan customers...
....
....

Part V: Risk analysis & Appraisal and loan repayment
14. To what extent do the following factors affect loan repayment?
5 Great extent, 4 = extent, 3 = moderately, 2 = low extent, 1 = very low extent.

Statement	5	4	3	2	1
We have been exposing the bank to various/different kind of loan customers i.e Farmers, students, Businessmen					
We have been concentrating our loans of few major groups of loan customers					
Exposing banks to various levels of loan customers affects loan repayment					
Concentrating loans in one sector affects loan repayment					
Loans are appraised occasionally by credit officers					
Loan appraisal affects loan repayments					

15. Other than exposure to different loans and concentration of loans to specific customers, kindly comment on any other way risk analysis and appraisal can be categorized... ....
....
16.   Kindly   comment   on   other   forms   of   loan   risk   analysis   and   appraisal   and   their   effects   on   loan repayment..
....
....
Part VI: Loan Repayment
17. Indicate on average the time taken and interest income earned for the following years

Years	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Average loan repayment period										
Average interest income collected										

18. Kindly comment on the major causes of the above trend in the table above……..
………
………
………………………………………………………………
19.   Kindly   comment   on   what   should   be   done   to   improve   loan   repayment
rates……
………………………………………………………………………………

Thank You for Your Participation