THE IMPACT OF CREDIT REFERENCE BUREAU ON COST OF CREDIT: A STUDY OF COMMERCIAL BANKS IN KENYA.

BY:

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UNITED STATES INTERNATIONAL UNIVERSITY - AFRICA

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A Research Project Report Submitted to the School of Business in Partial Fulfilment of the Requirement for the Degree of Master of Science in Organisational Development (MOD).

UNITED STATES INTERNATIONAL UNIVERSITY - AFRICA

FALL 2016
STUDENT DECLARATION

I, the undersigned student, do declare that this is my own original work which has not been submitted to any other learning institution save for the United States International University in Nairobi Kenya, for academic credit.

Signed: ________________________ Date: ________________________

Ochieng Kennedy Odiwuor (ID 647826)

This project proposal has been presented for examination with my approval as the designated supervisor.

Signed: ________________________ Date: ________________________

Dr. George O. Achoki

Signed: ________________________ Date: ________________________

Dean, Chandaria School of Business.
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ABSTRACT

The purpose of the study was to investigate the impact of credit reference bureau on cost of debt of commercial banks in Kenya. The study, was guided by the following set of research question namely: how the use of credit reference bureau information impacts on credit appraisal and management of bad debts by commercial banks; how the level interest rates are influenced by Credit reference bureau information sharing initiatives and the consequent effect on the need for collateral by commercial banks on borrowings being advanced to clients.

The target population constituted all the 509 low level, middle level and top level management in credit policy department of the 42 Commercial Banks in Kenya, who were subjected to a Stratified Random Sampling to obtain respondents’ from the Corporate and Retail sections of each bank, yielding a sample size of 116 respondents’, constituting, distributed across the three levels of management, which was deemed representative. The sampling technique employed was deemed appropriate, as it accords all the all the members of target population an equal chance of being selected, hence enhancing the representativeness of the sample selected. A Descriptive statistics was employed to analyse the data, such as measures of central tendencies, frequencies and measures of dispersions, coupled with inferential statistics encompassing regression and correlation analysis to establish the relationship between the variables. The tool used for analysis of quantitative data was SPSS (Statistical Package for Social Science) version 20, and out-puts presented in graphs, tables and varieties of charts.

The findings showed an extensive access of CRB reports by commercial banks, which in turn influence to a larger extent the appraisal process of credit applications, gauging the services as critical for credit scoring. All the studied commercial banks representatives’ reported to have access to the negative credit information from the bureaus, though some challenges in accessing the positive aspect was noted on the part of lower tier banks. The cost of funds, level of operating expenditures, risk premiums and incidental costs aggregately contributed significantly to the overall cost of credit advanced to borrowers and guided formulation of terms, which inclined more favourably to customers who have maintained a credible credit history. The reported profit levels registered a positive growth trajectory after the commencement of credit information sharing, depicting direct financial benefits of the initiatives to the commercial banks’ bottom line. Request for collaterals, still
remained a key requirement of all the banks. However, there was a gesture of preferring tangible security to third party guarantees, while positive credit history ranked lowly in comparison to the aforementioned collaterals. A declining trend on the need for collateral is observed, in view of clients maintaining a positive listing status.

The study made two set of recommendations, first and foremost, for policy applications by banking sectors on formulation of initiatives to drive-down the cost of debt charged and by extension, the use by non-banking sectors to extend the wider application of the bureau’s information sharing practice to better manage utilities qualification criteria. Based on the findings of the study, which showed a favourable access to the credit reference bureaus databases, the commercial banks should leverage on the same to eliminate past credit information asymmetry challenge and offer customers who have maintained positive listing status, favourable interest rates coupled with lessened need to provide collaterals in a bid to widen their client base and increase their returns on high volumes-thin margin strategy, a move that would precipitate competitive edge against other banks.

Secondly, suggestions for further research, the study points out areas of interest that when explored by future researchers’, would result to better comprehension of the credit sharing initiatives besides yielding more contributions to the body of knowledge. Taking keen interest on the effects and resulting reaction from the commercial banks and other lending institutions, to the recent implementation of the law capping the level of interest rate, is viewed as necessary to enable greater understanding of the new structure of interest rate determinations factors.

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DEDICATION
To my beloved family, you’re the best gift from Almighty God.

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ABBREVIATIONS

AC: Aggregate Costs
BLR: Base Lending Rate
CBK: Central Bank of Kenya
CF: Competition Forces
CRB: Credit Reference Bureau
DRP: Default Risk Premiums
DV: Dependent Variable
GDP: Growth Domestic Product
IV: Independent Variable
KBA: Kenya Bankers Association
RP: Risk Premiums
SACCO: Savings and Credit Corporative Societies
SME: Small and Medium Enterprises
SPSS: Statistical Package for Social Science
TP: Target Profit
CHAPTER ONE

1.0 INTRODUCTION

1.1 Background of the Study

Globally, competition in the banking and financial sector, is arguable stiffer as financial institutions, especially commercial banks strive to maintain the growth trajectory on profitability. This is more so catalysed by the public scrutiny, financial analyst reports and media coverage of each banks financial performance release, which drives various players to be innovative and device strategies to keep abreast or better still out-wit competition (Cetorelli and Strahan, 2014). By and large, the forces of competition emerge beyond the conventional banking sector, as evidenced by emergence of mobile money transfer and financial services among others, in a bid to cater for financial needs of the clients.

Financial institutions have been compelled to lower their credit appraisal standards in a systematic way, to enable more clients get into the borrowing net as observed by Beck et al (2014). In a volatile economy where fewer clients have access to tangible collateral to secure their borrowings, the lending institutions resort to income oriented and cash flows streams which is essentially not guaranteed to continue, into the foreseeable future till clients settle their debts, as employers result to job cuts in the guise to manage cost and on the other side the business incomes get impacted by the various shocks on the economy, resulting to impaired income flows that lead to a build-up of non-performing loans. The trend is supported by Angulin and Scapens (2000) who assets that the financial institutions faces a deep dilemma in appraising credit applications as its never clear to differentiate good and bad borrowers, which is primarily determined by factors beyond an individual character.

The stiff competition among financial institutions coupled with the moral hazard of serial defaulters necessitated the development of credit information sharing systems (Pagan, 2014). African continent trailing the path trodden by other developed countries a couple of years ago. A review by the Kallberg and Udell (2013), reveals that over 100 countries have established Public credit reference registries which collate information’s on the past performance of borrowers in their respective financial system. The continent clattered with the highest number of public credit reference registries is Latin America, where 23
countries have the bureaus serving developed economies such as Mexico, Colombia, Argentina and Brazil among others.

History records the early countries to have established public credit information registries were in Germany in 1934 then France in 1946, (Klein, 2012). However in the mid-1960s, other strong European economies namely Belgium, Italy and Spain followed in Africa, the Early adopters of the best financial practices were predominantly the former French colonies in Western Africa leading to the formation of West African Monetary Union in 1962, with a spaced timelines following’s by Egypt, 1957; Tunisia, 1958; Morocco, 1966; In some instances, the move was reactionary such as the case of Argentina and Brazil in the 1990s as a response move to the financial crises the need to enhance banking supervision was observed (Kallberg and Udell, 2013).

In the developed countries such those in Europe and America, credit reporting systems are more advanced, characterised by lenders willingness to share both positive and negative credit records, in a bid to eliminate the dual challenges of moral hazards and adverse selection as observed by Japelli et al (2015). The initiative to share information through a set of licensed bureaus thrived on good anchorage on a good regulatory provisions and willingness of players in the sector to rise above the competition selfishness and fear of losing good clients with good credit records to competition, despite the eminent risk posed by competition forces. The best practices were adopted by South Africa which licensed private and government owned credit bureaus, which brought about vibrancy and significant risk reduction, which directly led to drop in cost of debt to affordable interest rates in the financial sector.

In Kenya, the banking sector has been affected immensely by high default rate on borrowings by clients, especially in 1990’s, which led to a drop in profitability and total collapse of two local commercial banks and nine micro-financial institutions (CBK, 2010), which cannot be wished away to date, the sector having registered regulatory move to subject Imperial Bank into receivership. Though the cause of dismal performance and collapse of commercial banks is attributed to a blend of both Systematic and unsystematic factors, default on loans, still rank significantly, propagated by clients who borrow from various banks, with clear intent of not servicing the facilities, a move that exploited the status quo of information asymmetry among lending institutions (Sharpe, 1990).
According to Adudaet al (2012), financial institutions through their association of the Kenya Bankers tend to 'subconsciously' agree on charging high risk premiums on their unsecured loans, which deterred many potential borrowers who could not afford. This was primary catalysed by bad debtors who in contrast were not restrained by high interest rates, but approached various lending institutions for credit facilities with the intent to defraud banks or the genuine cases of those driven by economic pressures and divergent financial needs resorting to multiple borrowings, further impairing their repayment ability. The two sets of credit seekers, developed a trend of not disclosing their existing liabilities, as doing so would out rightly lead to decline of their current applications as they posed a higher default risk, higher than the acceptable level of lending institutions (Brander and Pointevin, 2012).

The lending dilemma prompted the Kenyan Government through the Central Bank of Kenya (CBK 2010) to intervene in a bid to make credit much more affordable and accessible to the larger economy to enhance citizen welfare. These initiatives led to the licencing of two central credit information reference bureaus namely the Credit Reference Bureau- Africa and Metropol, with the primary mandate of enabling lending institutions screen their customers whom they have limited background information on, on their ability to service the credit facilities applied, based on a past record experiences with other lending institutions. Jappelliand Pagano (2012), observes that the bureau gives a credit score to both individual/retail and institutional/corporate clients with ranges from an excellent (credit worthy and non-risky) to worst score (very risky) to aid the lending institutions to make informed lending decision and customer choice. The government asserts (CBK 2010) the need for the commercial banks to work closely with the regulator (CBK), to eliminate barriers’ to credit predominantly in the form of high interest rates.

The role of the bureaus is to avail credit information’s, both good and bad and assign a score on meritocracy for credit (Barron and Staten, 2003). Besides the custody of additional information’s, such as identity; credit accounts and loans; forgeries; frauds; false declarations; bankruptcies; late, skipped and delayed payments; other lenders enquiries on clients; cheque kitting; receiverships; liquidations; defaults and broken promises; presentation of false securities; diverted application of borrowed funds; etc., to aid lenders in their evaluation and appraisal of credit risk which informs the cost of debt. In essence, lenders ability to access critical information on their potential clients would enable them assesses their risk profile, which is scoped in the determination of the interest rates.
1.2 Problem Statement

Deficiency of accurate credit information on the performance history and current financial capacity of prospective borrowers does make it very difficult for lending institutions to appraise their customer’s credit-worthiness and ability to repay the debt, (Brown et al, 2009), hence the need to initiate liaison among commercial banks through the credit reference bureaus to share credits information regarding their clients past borrowings, which aids to eliminate asymmetry in information, which directly is attributed to adverse selection.

Vives, (2016), demonstrate that credit information sharing improves the portfolio of customers pool, hence drastically reduce adverse selection anomaly, through enhanced knowledge of borrowers as demonstrated in the time past, hence efficiency in credit allocation among deserving good clients classes. Sigei (2015), lend support by asserting that efficiency of financial institutions is largely attained through reduction of defaults, in a credit creation system that thrive on ability and commitments of clients to repay their loans, both principle and interest associated with the borrowings. Catorelli (2014), does demonstrates that credit information sharing bureaus, employ incentive effects on curtailing imprudent behaviour of borrowers, which is really valuable and a major contributor to redress moral hazard issues, this encourages borrowers to perform in tandem with banks’ wishes and interests. Miller (2003), asserts that credit information sharing does motivate borrowers to settle their obligations.

The set back of incorrect assessments are equally undesirable, in instances where a low-risk borrowers is appraised as a high-risk and vice versa, would have a probable outcome of low-risk borrowers charged high interest rates which may be disastrous when they cannot keep pace with repayment due to high cost cum interest rate, translating to high periodic repayments, yet on the flip side, the bad debtors whose have borrowed with the intention not to repay, will still default, despite obtaining the loan at lower rates, hence the aggregate effect of both scenarios’ is default regardless of the cost of debt charged (De Meza and Webb, 2016). These will in effect spike up the average cost of debt and tightened credit rationing attributable to wider default rates, lenders will equally tend to be thorough in the credit appraisal, which will have a twin effect of high staff cost by virtue of employing highly skilled professionals’ such as actuarial coupled with heightened demand for superior
collaterals, which most of the borrowers would not be able to avail. The resulting effect would be locking out more credit worthy borrowers.

Management of the aggregate credit portfolio is very important in ensuring the effectiveness and efficiency of the held portfolio. This is the critical mandate of commercial banks and financial institution’s management aimed to establish a vibrant credit administration framework to ensure that prudent management. This will primarily aid the institutions to predict likely default probability of borrowers, helps in the formulation of mitigating strategies’ to safeguard lent out funds (McGuire, 2015).

Reducing the default risk on loan portfolios has been a key focus for commercial banks who are arguably trapped between the delicate balance of charging high rates to scope the default risk, resulting to scaring customers away and the intrinsic risk of default eating into their funds, necessitating adoption of prudent methodologies by credit providers to sail through the turbulence, further complicated by the high level of competition among them. Stiglitz and Weiss (2015), observes that without credit risk management, no financial institution can service, hence credit reference bureaus help to address the challenge of loan defaults to ensure sustainability of lending business though inference of the risk profiles to weed out bad debtors.

The licensing and subsequent operationalization of the credit reference bureaus have in larger sense resolved the puzzle of credit information asymmetry, as all lending institutions have unlimited access to clients credible information before, during and after credit application appraisal and advancement (Brown et al, 2009).

The role of the bureaus is undoubtedly immense in the screening process, aiding lenders who are expectedly rational, to select clients with positive credit information and minimal credit cum default risk. Arguably, the cost of debt is significantly inflated by default risk as observed by Bonaccorsi-di-pattiet al (2014), who asserts that default rate on the part of the client to repay both principal and interest on a loan, is substantially reduced through an appropriate screening at the on boarding stage.

Since the launch of the CRB in July 2010 and subsequent sharing of credit information between commercial banks in August 2010 (CBK 2010), the effect on borrowers has not been clearly established with regards to how the initiative has aided the lenders in making appraisal of credit applications, which in turn aid banks to reduce the effects of bad debts
coupled with the expected positive effect on profitability levels; Clarity was needed on the benefits that have precipitated to the borrowers due to these initiatives. Further, on how the good credit rating is being adopted as collateral instead of tangibles physical assets. It was therefore imperative that a study that investigates the impact of credit reference bureaus be undertaken with the view to answer the above concerns.

1.3 Purpose of the Study

The purpose of the study was to determine the impact of credit reference bureaus on cost of credit.

1.4 Research Questions

The study was guided by the following research questions:

1.4.1 How the use of credit reference bureau information impacts on credit appraisal and management of bad debts by commercial banks?

1.4.2 How the interest rates are influenced by Credit reference bureau initiatives?

1.4.3 How the Credit reference bureaus influence the demand for collateral by commercial banks?

1.5 Significance of the Study

The findings of the research were deemed of great benefit to the following parties:

1.5.1 Management of financial institutions.

Both the managements of commercial banks and other non-bank lending institutions were enlightened by the findings of the study, as they strived to offer customer focused services, through the cost leadership strategies, by offering appropriate interest rates level for customers, enhancing collection of debts thereby increasing profitability.

1.5.2 The government and its regulatory agencies.

The government being the policies maker and implementer, vide the regulatory authority, the Central Bank of Kenya, would put into use the findings of the study to set policy
guidelines for banks and the citizens at large, through various programmes aimed at enhancing their overall welfare.

1.5.3 Scholars.

Prospective researchers’ would use the study as a basis for further research, by following the suggested pointers for further research, these does gesture potential areas to venture into in a bid to bridge the knowledge gaps.

1.6 Scope of the Study

The study focused on various models the banks employ to determine their interest rates, being the cost of debt, and in particular, how they incorporate the element of past credit information shared by the credit reference bureaus in risk profiling and assessment which helps to determination the risk premiums they charge on customers’ borrowings. The scope of the study also entailed data collection from 116 employees of the 42 commercial banks’ in the credit policy departments, who furnished the researcher with credible information on how they develop and operationalise lending models. The target strata’s were all based in Nairobi, and the study period was scheduled between the time frame of January to August 2016.

1.7 Definition of Terms

1.7.1 Credit Reference Bureau

This refers to a licenced credit information bureau, mandated to facilitate sharing of past information about legal and natural persons regarding their past borrowings (CBK, 2010).

1.7.2 Cost of Debt

This is a term used to define the level of interest rate charged on borrowed amounts (McMenamin, 1999).

1.7.3 Collateral
This refers to the form of security availed by the borrower, to support and cover the liability cum credit being advanced to him by the lending institutions (Beck et al, 2014).

1.7.4 Default

This refers to inability to meet credit obligation as and when they fall due. A client is in default when they are unable to provide for periodic repayments of principle and interest amounts, repayable as part settlement for loans and other credit obligations (Litner, 1996).

1.7.5 Adverse Selection

This refers to impaired appraisal process, which leads to qualifying persons who does not meet the lender’s credit criteria, due to lack of adequate information, at the expense of denying deserving clients’ credit (Koskela et al, 2013).

1.7.6 Risk Premiums

Risk premium refers to the portion of interest rate, which is primarily charged to compensate the lending institution for the possibility that the debtor may not repay, usually determined by profiling the potential clients’ bio-factors (Markowitz, 1959).

1.7.7 Credit risk

This refers to the probability of the lending institutions not getting full repayment of loan plus interest charged on the amount lent (Patersen, 2012).

1.8 Chapter Summary

The scope of chapter one, entailed background studies on development and operationalization of credit reference bureaus, with the mandate to share various sets of clients’ information, relating to previous engagements with lending institutions, to aid banks in the formulation of models to gauge risk profiles. The section is segmented into other sections namely the problem statement, general objectives, specific objectives, significance and scope of the study, coupled with a brief definitions of key terms, used in the concluded project research.
2.0 LITERATURE REVIEW

2.1 Introduction

This chapter gives a detailed account of related information from existing publications, journals and other literature including completed relevant researches which were done in this field. The coverage entails relating the application of credit reference bureau on management of bad debts and cost of debt by commercial banks coupled with need for collateral to secure borrowings.

2.2 Use of Credit Information by Commercial Banks in Credit Appraisal

According to Allen and Santomero (2014), credit reference bureau, is the art of sharing and referencing previous borrowing information through a licensed institution by the regulator, usually the central bank of a country, where banks and other financial institutions players, involved in the lending business submit historical and current credit information about their borrowers and client’s performance and status to the credit reference bureaus to aid sharing and ease of access among them and other persons who wish to use these set of information to aid their decision making, e.g. utility firms, governments when issuing contracts and prospective employers’ screening of candidates credentials. It’s arguably critical process in loan applications appraisal and screening aimed at scoring default risk, in a bid to mitigate defaults on credit advances.

This enables the financial and lending institutions to know how borrowers previously performed with regards to credit repayments and conduct. Thus, according to Padilla (2011), the idea of establishing CRBs’ was mooted in order to enable financial institutions in sharing information on default and non-default among them, elimination of serial bad borrowers whose aims of borrowing from various financial institutions would be not to repay, also to provide professional credit reference bureau to prospective foreign direct and indirect investors to guide their decisions making while dealing with individual and corporate stakeholders. Most importantly was also to identify honest and credible borrowers based on known history and character and conduct who should enjoy lower borrowing rates as they exhibits minimal if no default risks (Black and Strahan, 2012).

2.2.1 Credit Assessments
Credit assessment process involves assessing the credit worthiness of the applicants, in a process that requires wider analysis in order to bar or limit extent of credit access of potential loan defaulters. Effective credit assessment arguably plays a very critical role in the overall management of credit risk, (Adudaet *et al.*, 2012). Credit assessment primarily seeks to review the borrower’s creditworthiness by the prospective credit provider prior to making the decision whether the loan application will be declined or approved.

As envisaged in the Basel Model, the Basel committee required the commercial banks’ board of directors and leadership to take responsibility for ensuring that the said banks put in place appropriate credit risk assessment framework and effective internal controls mechanism to match the scope of the bank's lending activities and consistently review the provisions for loan losses in accordance with the aforementioned policies and procedures, coupled with vibrancy in application of accounting and supervisory principles (Schreiner, 2016).

Most bank's credit-risk assessment model for credit facilities’ does put in place ideal tools, procedures and policies to aid assessing credit risk factors to mitigate impairment on loans and let alone meeting the regulatory requirements on provisions of bad and doubtful debts, analyst argue that these lapses result to adverse eat up on bank capital employed and impedes on credit creation cycle, where funds deposited by other clients in the banking system, is loaned to the borrowers, which again are re-banked and re-loaned in a continuous way (Sigei, 2015). Padilla, (2011) observed the need of the regulatory agencies in discharging their supervisory role with great stringency and greater focus on credit risk assessment and appraisal policies also considering a financial institution’s capital adequacy.

**2.2.2 Elimination of Information Asymmetry**

Information asymmetry is defined as a scenario where one party has extra information that the other party which they’re dealing with, which directly creates imbalance of information power, likely to distort transactions and in the worst case, result to market failure as argued by Angulin and Scapens (2000). The due further observed that information asymmetry is one single most moral hazard that does limit availability of external financing by limiting availability of credit hence thrusting the cost of credit through the free forces of demand and supply in the financial market, In turn, information asymmetry impacts on the
acquisition and use of commercial banks loans for the reasons above. Being that bank credit is a single most external source of liquidity, ability to get the same should be safeguarded.

The glaring effect of asymmetric information, between the borrowers and lenders does inhibit efficient allocation of credit resources. Credit providers are by and large unable to adduce the behaviour of borrowers, encompassing the riskiness of their operating investments and projects, which creeps in adverse selection problems. Lummer and McConnell (1989), observes that credit providers would also be unable to control the borrowers’ action after drawing the loan, including the immediate appropriation of the loan proceeds. Borrowers may loosen their efforts to mitigate default or conceal their proceeds of their investments of the loan, to shelter them from having to settle their obligations. Worth noting, even a case of a very financially solvent borrower may have low commitment to repay his loans, if the credit provider would not observe his or her actions subsequently after loan drawdown (Sigei, 2015).

Consequently the credit providers may ration available credit coupled with charging high borrowing rates. It is argued that the only way credit providers would sail through these informational asymmetry problems is to be willing to share information about their customers through screening and monitoring in the hope the other players will reciprocate the kind gesture, for the benefit and welfare of the financial industry (Vives, 2016). For example, they can appraise applicants’ credit application prudently, conduct site visit of their business premises before and after advancing the credit facility, and proceed to gather lots of important information from possible sources and stock it for future references and decision making. With application of prudent information gathering and integration, credit providers operating on a large scale, would use these data for statistical risk management to appraise, grant and price borrowings on the basis of past performances (Collins and Wanjau, 2011).

The information obtainable from the bureau, by checking previous contacts, commercial banks appraise and minimise risk, through engagement in a well appraised contractual loan agreement with higher chances of performance, in a prudent risk management strategies application heightening their productivity and managerial motivation. These abilities are integral components for commercial banks output and influence greater incentives to churn out more innovative financial services within prudential guidelines with efficiently to eliminate capital market frictions as argued by Jappelli and Pagano (2012), who observes
that information asymmetry can have an impactful effect on commercial banks’ lending and in effect, increases liquidity in the financial sector with extensive substitutes. Sigei (2015), summarises the benefits of information asymmetry on the premise that it determines the lenders’ willingness to extend lending facilities to customers.

Several studies does illustrate that past cum historical information aids credit providers to be able to predict with some degree of certainty, probabilities of borrowers defaulting. Kallberg and Udell (2013) observed that historical credit information sharing by the credit reference bureaus gave solid base to aid prediction of default on prospective clients. A complimentary study by Vives (2016), adduced that credit would mitigate default risk through inclusion of various clients information into the prediction model, which is indicative that the more information considered in the formulation of the default model, the lower the default rate registered. Pagan (2014), asserts that financial and credit markets present a challenge in the embodiment of asymmetric information where credit providers are not holding historical behavioural characteristics’ and are unable to predict future patterns of behaviour.

**2.2.3 Reduction of Bad Debts to Enhance Profitability**

Patersen and Rajan (2012), observed that, the global financial crisis, was triggered by the collapse of the sub-prime mortgage market in the United States exposing commercial banks which had higher risk appetite expressed by their willingness to make loans without due regards to possibilities of default, resulted to greater losses, in addition, the portfolios of non-performing loans increased exponentially in 2006 across the financial and other sectors. The non-performing loans have therefore become a key measure of the economic stability of the banking system and a gesture of a depressed economic conditions, aggravated by internal lapses such as bad lending decisions criteria directly impacting on the bank’s asset quality and in turn, it’s financial soundness, with a high ratio indicating un-healthy status because they face exposure of illiquidity. Catorelli (2013), observes that managing non-performing loans is key for the performance of commercial banks and the macro economy’s financial sector, in the glare of eminent default risk enshrined in the lending business.

Koskela and Stenbacka (2013), describes non-performing loan as that portion that has not been serviced for three months and above. The duo further observed that non-performing loans does have a reducing effect on the commercial banks profitability, through making
provisions of bad and doubtful debts and written-off loans, the latter being loans that have not been serviced on schedule and has accumulated arrears for more than six months instalments. These observations are supported by Magara (2011) and Klein (2012), who both asserts that every increase in non-performing loans, directly impact negatively on the financial performance and in return, profitability levels.

Loan default is attributed to moral hazard propagated by serial defaulters who does borrow from various commercial banks and financial institutions such as Sacco’s with no intention to repay their debts (Magara, 2011), this is solely possible because the serial defaulters leverage on the information asymmetry that exist at a time where credit information referencing had not been rolled out. This was a great set-back that had the stakeholders pool together to seek a solution on a menace that seemed to cripple the lending institutions’, Through the intervention of the central bank, Commercial banks, are able to make informed and prudent lending decisions by screening and monitoring borrowers, easily by making reference of their historical performance, hence solve the potential moral hazard and adverse selection problems attributable to the imperfect information between clients and credit lenders as observed by Pagan, (2014).

The concept of moral hazard refers to the risk that a party to a transactional contract has not consented to the contract in utmost good faith, by providing misrepresented information about their standing, with the aim of benefiting himself or herself and not for the mutual benefit of both parties involved. The issue of moral hazard in commercial banks are exhibited by numerous occurrences’, the greatest being the financial crisis (Waddock, 2012). He asserts that modern economic models of banking largely depend on innovations in information economics which was not available in the earlier traditional Keynesian theory era observing the need for deeper insights into the postulates that drives economic stability, resulting to development of superior models that are applicable in economic theories of banking. This was solely observed as a necessity given the absolute dependency of economic growth on financial sector stability based on their sustained good performance and profitability.

Patersen and Rajan (2012), observes that these are early warning signs of financial crisis and failure of both financial and corporate sectors attributing this to external developments causes as was the case in the 1980’s and early 1990’s, when several countries in developed, developing and transition economies did experienced several financial shocks leading to
bank failures and collapse of over thirty banks due to huge write-off of non-performing loans resulting to massive reduction of profitability, to record losses and to very extreme cases, depletion of capital resulting to outright collapse of the financial institutions.

The theory on banks’ risk management procedure adduced that credit and market risks management have a direct effect on their profitability and long term survival profitability (Yunus, 2003). This process of risk management encompasses the critical steps of risk identification, evaluation, analysis and monitoring, informing the creation of mitigation and control mechanism for prudent management. Pagan, (2014) advised that prudent risk management is a good defensive mechanism, which also can be employed as an offensive strategy by commercial banks and other financial sector players to increase their margins, hence, recognising and measuring of risk facets forms a solid basis to mitigate it.

Beck et al (2014), observes that commercial banks are exposed to a variety of risks key among them being credit risk, noting that in some instance, they have made policies and approved credit applications that are not well appraised scaling up the loan defaults and nonperforming loans. Formulation and implementations of policies to minimize the negative effects of adverse selection have largely focused on better banking practices such as stringent lending provisions, lobbying and regulatory engagement to drive review of laws underpinning the drive to have a global standards applicable across geographical frontiers’

2.3 Credit Information Sharing Effect on Cost of Debt

Various theoretical literature and empirical research asserts a threefold effect of lenders’ sharing credit information on the history of their clients. Credit bureaus improve financial institution’s knowledge about clients’ character and guide a more and relatively accurate prediction of repayment probability into the future (Collins and Wanjau). This is important in lending business as it allows the lenders to target and cost the loans fairly better, eliminating adverse selection problems associated with information asymmetry characterising non-sharing of past credit information. To this extent the benefit of establishing a credit reference bureau is greatest where each financial institution is confronted with a huge number of prospective clients on which it has no historical information, especially with the existing competition in the sector instigating high mobility rate and customer switch from one institution to another.
2.3.1 Classification of Borrowers

Credit reference bureaus allow credit providers to segregate safe borrowers and serve them efficiently at low cost, leading to higher aggregate lending cycles. Jappelli et al, (2015) undertook a research which demonstrated that information sharing practice does increases repayment rates, as borrowers strive to register good performance to get top ranked ratings, which not only accord them a better chance to get bountiful credit, but lowers the lenders demand for collateral. These credit information shared by the credit reference bureaus also acts as a deterrence to default. Allen and Santomero (2014), observed that the application of failure prediction models and controlling either by private or public bureaus shows that sharing of other personal information about the customers, exposes them to greater vulnerability and traceability, and the thought of it becomes a propelling force coercing borrowers to strive to maintain good repayment records, hence the urge to evade the tag of blacklisting.

According to Central Bank of Kenya (CBK), (2010), a non-performing loan is any credit facility in repayment instalments are more than 90 days behind repayment schedule, this coincides with the provisions by the global players, which prescribes a the 90 days period, equivalent to three months non repayment of full instalments of scheduled repayments and accrued penalties charges attributable to default. However commercial banks and other financial and utility take additional weeks, which could extend to months, as a window to confirm accuracy of the information yet to be filled with the bureau.

2.3.2 Guide in Credit Rationing

The theory applied by Stiglitz and Weiss (2015), and subsequently expounded in application form by Vives (2016), who empirically proved that asymmetric information directly results to credit rationing, since lenders cannot give distinction and classify bad and good borrowers and further rank high quality and low quality classes of borrowers. De Meza and Webb (2016), however, expressed a dissenting opinion arguing that asymmetric information in credit markets would result to the inverse result, due to excess flow of credit, however their assertions fail to demonstrate mechanism how such can be realised. Stiglitz and Weiss (2015), further observe that financial institutions which succeed in gathering private credit information in their strategy execution on lending as they employ a guided mechanisms to ration available credit among the deserving borrower classes that exhibit
repayment strength, hence increased profitability due to higher returns through loans settlements’ against a marginal cost of credit information gathering.

Cetorelli and Strahan (2014), however admits that despite need for credit information’s to create vibrancy in clients-commercial banks relationships, the lending relationships are never perfect as bankers may suffer periodic informational asymmetries occasioned by evolution of cost of debt in terms of higher interest rates. Yunus (2003), brought up the concept of equilibrium credit rationing, which entails financial market adjustment to all publicly available credit information’s. The due proved this concept by demonstrating that banks charge non-differential rates to different market segments, because they cannot differentiate between borrowers because of the associated high cost of screening them perfectly. This assumption is very simplified hence poses lots of weaknesses in reliability.

2.3.3 Elimination of Risks

The credit information sharing is central in elimination of risks and the associated costs. The practice seeks to address the various types of risks, namely liquidity risk, credit risk and aggregated portfolio at risk.

2.3.3.1 Portfolio Risk

Portfolio risk is defined as the value of the total outstanding principal balances of all loans in arrears, being the portion of the actual cash advanced as loan, which is not yet repaid, usually expressed as a percentage of the total loan book outstanding. Portfolio at risk is a perfect measure of portfolio quality gauging the fraction of total portfolio deemed to be at risk of default due to overdue status. A higher portfolio at risk-rate signifies adverse status of the loan portfolios (Angulin and Scapens, 2000). Padilla (2011), asserts that credit information sharing systems needs to create a screening-effect which improves assessment of credit applicants, with the aim of raising portfolio quality.

2.3.3.2 Credit Risk

Credit risk is defined as the actual and expected risk to earnings against capital due to a debtor’s breach on the repayment terms for the loans. The credit risk exists across the various ranges of credit facilities, hence credit risk management is scored very critical to the stability of any financial institutions, hence the urge to employ usage of various
techniques to minimise credit risk, hence the term credit risk management. The most commonly applied methodologies include collateral requirements, third party guarantees and off-setting liabilities against deposits on instances of term deposit secured loans. In emerging market trends, financial institutions have adopted insurance contracts as a means of reducing or transferring credit risk to the third party being the insurer (Bolton and Scharfstein, 2011). Other general operational are eliminated through mastery of firms operation by the management and subsequent documentation of mitigation process in the procedure manuals, hence the need to periodically review these manuals, to ensure emerging operational risks are addressed adequately and a robust and stringent follow-through in the implementation is conducted.

In the lending business, there is inherent risk of default where part or whole of the loan advanced and interest element not guaranteed to be repayable in full in line with the terms of the loan offer (Catorelli, 2014). This particular risk is referred to as credit risk. As per the Basel Committee on Banking Supervision in 2006, the credit risk is defined as investors’ risk of loss attributable to a borrower who doesn’t make payments as contracted (Catorelli, 2013).

The committee defines credit risk as the potential that a bank’s borrower or guarantor would fail to honour his obligations of loan instalments in accordance with agreed (Catorelli, 2014). Credit risk is also defined as the chance that the actual return realised on an investment or loan given will vary from the expected returns (Bertrand et al), who also defines credit risk as summed losses emanating from the refusal or inability of credit client to repay what is owed to the lender, either fully or delayed settlement.

2.3.3.3 Liquidity Risk Management

Liquidity Risk refers to the current and expected risk on earnings. The variation of earnings impairs the banks’ ability to meet their liabilities as and when they fall due which poses a greater risk of more losses upon deteriorations. (CBK, 2010). Observes that the liquidity risk is aggravated by mismatch of liquid assets against liabilities, such that assets held are not sufficient to cater for the institution’s obligations which can only be adequately addressed through vibrancy in liquidity risk management through establishment of systems and procedures to govern the banks operations (Magara, 2011). This should be coupled with effective measurement and monitoring system for sustainability, by enabling prompt notice of variation, for swiftness in taking remedial actions.
This will ensure that the financial institutions will always have sufficient liquidity to meet its liabilities as and when due, whether the conditions are favourable, normal or strenuous without incurring unnecessary costs, losses or reputational damage as observed by Koskela and Stenbacka, (2013). Each Bank’s treasury department ought to maintain a prescribed portfolio of short to mid-term liquid assets largely comprising of liquid and term investment securities, to ensure soundness. Magara (2011), lends support by observing that monitoring becomes key in form of periodic stress testing under a variety of simulated scenarios. The regulator measures liquidity risk management through determining the ratio of net liquid assets against deposits of the banks.

2.3.4 Determination of Information Cost

Credit reference bureaus aid in reducing the informational cost that bank could otherwise incur to obtain accurate data from their customers; this also has an equity effect of levelling the informational playing field, within which the lending institutions operate in the competitive credit market hence resulting to lenders compulsion to price credits more competitively (Catorelli, 2013). Lower cost of debt increase borrower’ net return and instigate the incentives to out-perform each other. Credit reference bureaus inculcate a discipline culture on borrowers through the very knowledge that any form of default would be reported and easily accessed and would dent their reputation and in turn affect their future borrowings negatively either through outright decline or access at high default risk premiums, cutting them off from credit access, on the flip side, this mechanism heightens borrowers’ willingness to repay their obligations, reducing moral hazard (Beck et al, 2014).

2.3.5 Elimination of Moral Hazards

Moral hazard results to a lower average payment rate, which coerces lenders’ to make credit more expensive. Boot (2015), argues that higher interest rates directly yield grounds to adverse selection, purely attributable to the fact that only high-risk borrowers would accept credit facilities priced highly also the borrowers that have historical defaulted with a lender are the set seeking to endear alternative credit sources, a move that drives increase in average risk of lending and related interest rate. Available credit is therefore allocated to
very risky ventures and low-risk borrowers are crowded out due to unaffordability hence a recipe for financial distress.

Efficient credit risk management practice does improve decision making mechanism through linking information on risk to pricing, which is leveraged on constant monitoring and control of credit facilities. The single most causes of credit risk is instigated by weak appraisal process, weak collateral provisions, improper monitoring of adversely rated credits and coupled with ineffective remedial actions (Pagan, 2014).

2.4 Role of Credit Information Sharing on Collateral Requirements

Boot et al., (2013) observed that the security required by the lenders is necessitated by their desire to hedge borrowers chances of default, most of the time, the collateral is valued either by the lenders staffs or by a licensed independent valuer who present a written reports expressing their opinion on the market and intrinsic value to enable the credit provider make a decision on suitability of the properties to secure the loan. The borrower is then made to accept terms envisaged in the loan agreement, empowering the credit provider to liquidate the asset if the borrower defaults for a certain period of time or number of loan repayment instalments’ in conformity to the prescribed laws regulating the lending business.

According to Adudaet al (2012), lenders are urged to appraise the ability of the borrower to repay, instead of solely relying on the security cum collateral provided, as this will enable them gauge the ability of the clients to service the loans as well as mitigate default, this is in tandem with the fact that collateral does not necessarily gesture ability to repay an obligation, but a demonstration of wealth which could be inherited, this leads to most credit providers relying on the cash-flow patterns of clients to determine amounts to advance as loans and periodic repayments of instalments, which can be monthly or quarterly or at some pre-agreed frequency.

2.4.1 Contractual Security

Arguably many borrowers strive to repay their loans, and maintain good credit history; however they don’t get rewarded for this because the good repayment history is not availed to the bank that they approach for new loans (Magara, 2011). Complimentary to this, whenever borrowers fail to repay their loans banks are forced to pass on the cost of defaults
to other customers through increased interest rates and other fees, pooling the two set of borrowers in one basket, hence the discontent that good borrowers are paying for bad.

This ideally should not be the case with the adoption Credit Reference Bureaus which generates reports containing detailed information on a person's credit history, including their identity, current, savings and loan accounts, bankruptcies and delayed and missed payments, and recent enquiries (Barron and Staten, 2003). It can be obtained by prospective lenders only when they have permissible reason as defined in law, to determine his or her credit worthiness. Reporting also allows banks to better distinguish between good and bad borrowers (Klein, 2012). Someone who has failed to pay their loan at one bank will not simply be able to walk to another bank to get another loan without the banks knowing about it. Over time better information on potential borrowers should mean that it will be both cheaper and easier to obtain loans.

McGuire (2015), observes that credit information sharing would be well complimented by legal frameworks that enable borrowers to effectively enforce the legal lending contract which acts as a motivator to both borrow to repay through negative reinforcements forces and to the lender to extend credit in a positive reinforcement through assurance of recouping principle and interest on loan advanced.

The need to reduce risks of default on liabilities has received great attention among financial sector player, including the regulatory agencies, which formed the primary basis for the roll-out of credit information sharing on default history and recent launch of good records sharing adopted primarily to aid reduce and aim at eliminating incidences of default, this led to legislative framework to address the challenge (Barron and Staten, 2003). The role of legal framework to enforce the credit contracts is very critical. The borrower’s knowledge that default will lead to blacklisting, implying impediments to future borrowings’, hence slowed down growth for both institutional as well as individual persons due to constrain from access to credit, being a key ingredient to development, the borrowers will be ideally compelled to repay their liabilities, on the flip side, it helps in the reduction of non-performing loans and credits, aiding firms to be profitable. Jappelli et al (2015), observes that existing borrowers with good moral standings have a chance to get cheap credit, through reduction of default risk, however the commercial bank’s implementations of this still remains a mirage, with the record run-away interest rates, hence necessitating
the need to progress this study to ascertain the benefits that have accrued to the borrowers following the launch of Credit Information Sharing among lenders.

2.4.2 Character Attributes

According to Magara (2011), the "Five-C's" of credit appraisal are the primary components of any credit analysis. They comprise: collateral, conditions, capacity, contribution, and character of the borrower.

As defined by Becket et al (2014), character refers to the moral obligation that a borrowing client feels obliged to repay the loan, being interest and principle debt. The credit provider would investigate the borrowers’ past repayment records, attainable through the credit bureau interrogations’, and apply it while considering other supportive information such as educational background and experiences. Credit providers should commence by evaluating the borrower’s capacity cum ability to repay a loan periodically to full settlement. The lender needs to confirm the ability with the through perusal of supporting documents such as bank statements, income, supported by payslip and trading turnover for institutional clients, (De Meza and Webb, 2016). The duo further observes that banks need to gather information on potential customers and assign the credit risk exposure. Boot (2015), reports that the credit information gathered would steer the bank in assessing the probability or chance of borrower default and translate the score to price the loan appropriately at the point of loan application preliminary processes.

Credit providers equally need to give due consideration to the credit history of the clients, as availed by the credit bureau’s reporting systems as shared by other credit providers, detailing applicant’s past loans records. A good past record accords a customer diverse choice and rich range of credit and would be most preferred borrower type in the eyes of the lenders, as they pose a low risk of any default in the future, (Padilla, 2011). Sharpe, (1990), observes the need for credit providers to rely on additional sources of information including processed information held by the bureaus through rated scores arrived at after analysing many intervening factors parties, same sentiments are supported by Padilla (2011), who observes that raw information communicates low level meanings hence the need to further process the information to ease applicability by persons who are not credit savvy yet need to be guided by the same piece to make informed decisions such as partnerships, tendering and employment opportunities.
Padilla (2011), asserts that credit reports provide a credit score that is unique to a customer’s character, which measures the credit risk computed from a credit bureau report using a standardized formula. A positive score is characterized by frequently paid bills; lack of defaults on outstanding balances; maintaining steady employment; On the other hand, a negative credit score is characterized by late payments; bankruptcy; fraud charges; liens or foreclosures; loss of employment. It is worth noting that sharing of negative credit information does not amount to blacklisting. However, such information is expected to be taken into account by banks while assessing applications for loans and other bank facilities.

2.4.3 Elimination of Adverse Selection

The theory was applied by De Meza and Webb (2016), on their study of the credit markets, founded on two critical postulates, namely: that lenders cannot effectively distinguish between borrowers of different set of risk profiles, and the loan contacts are subjects to limited financing, being the project financed by the loan proceeds, hence repayment is subject to project cash in-flows. This imply that raising interest rates would not only reduce efficiency and the profit margins but will result to crowding out of low risk borrowers from the application pool which leads to an adverse compositional effect of borrowers willing to tolerate high interest rates but with low repayments commitments, which develops to a higher average interest rates trajectory on the borrowers portfolio making the extended credit market expensive, leaving borrowers who either desire low profitability or those with extremely high returns.

Brander and Pointevin (2012), observes that lenders who apply discriminative approach, would still be able to serve a lower layer of borrowers to a limited extent, by providing below market clearing rate, on a selected portfolio of borrowers, built through thorough incurring commensurate cost of past credit information gathering and risk appraisal to mitigate the challenges of adverse selections anomaly on the credit market.

Berger and Uddell (2015), lent support by making observation that borrowers who have greater capacity and wealth value to avail as collateral, often obtain cheaper credit, priced at low interest rates, which acted as an incentive to earn more income. However due to existing assets-inequalities that exist within the borrowing class creates disparity on credit access, which is further aggravated by the obvious effects of free-forces operation of the credit market which widens the gap between the weak and stronger borrowers with regards to capital and wealth accumulation, a phenomenon that causes poverty. In other angle,
sharing credit information aids in the elimination of adverse selection problems in the lending, as well as change borrowers’ incentives to settle their borrowings.

Credit providers are equally urged to assess the micro and macro-economic factors relevant to a given industry the borrower operates in for them to appraise the merit of the borrowers’ application in light of the added strength or weakness’ of a sound future cash in-flows based on industry growth opportunities, which determines the levels of income which have a very significant impact over the performance of loan portfolios. These macroeconomic factors majorly relates to the gross domestic product (GDP) growth rate which are macro-economic factors that could impair or enhance the borrower’s stability to repay debt, hence regarded as economic security (Sullivan and Sheffrin, 2010).

2.5 Chapter Summary

The purpose envisaged in the literature review was to relate existing body of knowledge to explore the impact of credit information sharing through credit reference bureaus on cost of credit. The review predominantly covered the various aspects of credit reference bureau development, operationalization and resulting impact on the level of interest rates. The knowledge obtained in this chapter did support and steered data collection and analysis methodology, geared towards meeting the set objectives of the study. This chapter gives a summary of literature review on Credit Information Sharing mechanism and its applicability by commercial banks and other players in the financial sector as a mitigation measure on non-performing loans, profitability cum financial performance and in the determination of cost of debt and security requirements.

CHAPTER THREE

3.0 RESEARCH METHODOLOGY

3.1 Introduction

The chapter describes the methodology which was adopted by the researcher to achieve the outlined objectives in the study. Here-in, the research methodology is outlined under the following distinct sections namely; research design, population and sampling design, data collection methods, research procedure, data analysis methods, coupled with the chapter summary.
3.2 Research Design

Saunders et al (2013) documented that a research design is an outlined plan, structure and strategy for conducting the research. This entails provision of a blueprint to aid selecting subjects of study, research targets, sites and data gathering procedures to answer the set research questions. The researcher employed the use of Correlational Research Design which was aimed at determining the relationship between variables in a descriptive fashion. Grill and Johnson (2010), asserts that a descriptive study is an evaluative study that seeks to find out, who, what, where, and how of a phenomenon which the study was anchored on. To compliment above assertions, Saunders et al (2013), also lent support by reporting that a descriptive study would be concerned with finding out the what, where and how of a phenomenon thus the approach was deemed fit for this study, since the researcher intended to collect information through descriptive approach which is useful in the identification of variables and elements of the hypothetical constructs on credit information sharing and its main contributions into the banking and the extensive financial sector.

The precepts of the study covered both quantitative and qualitative data, in order to gain a deeper understanding and greater insightful interpretation of the results, (Cooper and Schindler, 2014). This was focused towards providing a clear understanding of Credit Reference Bureau and its application by commercial banks in determination of cost of debt.

3.3 Population and Sampling Design

This section serves to describe the target population and sampling design used by the researcher in the research exercise.

3.3.1 Population

The target population for the study consisted of all the commercial banks in Kenya. According to Saunders et al (2013), population is defined as the total collection of elements that constitute target subjects of study, which the researcher wishes to make inferences on.

Out of the 42 commercial banking institutions currently operating, 29 banks are wholly local owned and 13 banks are foreign controlled. The locally owned banking institutions
comprise three banks with controlling stake by the Government. The target population of this study was the 509 management employees in the three categories of low, middle and top level management in the credit policy departments of the commercial banks in Kenya.

Table 3.1 Banks Ownership Structure

<table>
<thead>
<tr>
<th>Count</th>
<th>Ownership Structure</th>
</tr>
</thead>
<tbody>
<tr>
<td>29</td>
<td>Locally Owned</td>
</tr>
<tr>
<td>10</td>
<td>Locally &amp; Foreign Owned</td>
</tr>
<tr>
<td>3</td>
<td>Government &amp; Locally Owned</td>
</tr>
</tbody>
</table>

Author (2016)

3.3.2 Sampling Design

This section gives an outline of sampling frame, sampling technique and sampling size envisaged in the concluded research.

3.3.2.1 Sampling Frame

Saunders *et al* (2013), defines the sampling frame as a compiled objective list of the population elements’ from which the researcher does make a sample selection to facilitate the study. The sample was collected from the 509 designated credit policy employees in the commercial banks head-offices, covering the retail cum consumer and corporate lending wings of the banks, since these are the staff involved in the formulation of lending policy and debt portfolio reviews, hence are verily conversant with the subject matter of the study.

3.3.2.2 Sampling Technique

The study applied stratified random sampling technique. This is pegged on the evidence exhibited across all banks, as there are two distinct lending functions attending to individuals, dubbed retail banking and corporate for institutional customers, depicting relative homogeneity in the stratified population under study, further supported by the fact that the population would be easily classified into significant strata’s based on the ownership of the banking institutions. Grill and Johnson (2010), argue that classifying population into distinct classes of relevant strata’s would result to a more likely representative sample. In addition, the stratified sampling technique chosen in the study did increase sample’s statistical efficiency, by providing adequate data for analysing the
various aspects of populations elements or strata’s which also enabled varied research methodology and procedures to be applied for different strata’s (Saunders et al, 2013).

3.3.2.3 Sample Size

A sample should be selected very carefully to make it meet the representative threshold (Cooper and Schindler, 2014). This means, the researcher should observe utmost care and due consideration of sub-populations distinctive features, for comprehensive data collection and subsequent analysis.

The sample was selected from the two functions within the credit policy departments, who are mandated to formulate lending policy guidelines that are operationalised within the banks. Taking cognisance of the homogeneity depicted in these functions, the sample did consist of representative employee from the three levels of management from each function, translating to 20 lower-level management; 40 middle-level management and 56 top-level management employees from all the bank’s credit policy department; therefore the total sampling size resulted to 116 target respondents.

Table 3.2 Sampling Size

<table>
<thead>
<tr>
<th>Sample Level</th>
<th>Retail</th>
<th>Corporate</th>
<th>Sum Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low level managers</td>
<td>10</td>
<td>10</td>
<td>20</td>
</tr>
<tr>
<td>Middle level managers</td>
<td>20</td>
<td>20</td>
<td>40</td>
</tr>
<tr>
<td>Top level managers</td>
<td>28</td>
<td>28</td>
<td>56</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td>116</td>
</tr>
</tbody>
</table>

Author (2016)

3.4 Data Collection Method

The primary source of data was predominantly primary data, with a blend of secondary data from the Central Bank of Kenya, Kenya Bankers Association (KBA) and the Commercial bank’s journals, periodic publications’ and reports as a consistency checker to validate the
primary data collected. Primary data was collected using semi-structured and structured questions. Questionnaire method is arguably the most preferred as it precipitates greater cost and time savings for both the respondent and the researcher.

According to Cooper and Schindler (2014), in research, sampling frame is vital, implying a researcher needs to obtain or prepare a list of respondents’ plan upon which the study elements’ is selected and size determined to adequately capture the various aspects of the subjects being studied.

Applying the guide by Kothari (2013), in questionnaire design, section one (1) of the questionnaire did consist of general information on the characteristics of the commercial bank and the respondent, section two (2) captured the credit reference bureau applications and its contribution to default rate(s), section three (3) addressed the cost of debt determination incorporating the credit information sharing considerations by financial institutions in the determination of default risk cost constituent on the borrower coupled with resulting profitability levels, while section four (4) captured the emerging trend on collateral requirement, following the launch of credit information sharing. The questions were outlined in a Likert scale.

3.5 Research Procedure

The researcher designed the questionnaires, which were subjected to pre-testing on 42 respondents in top management, from each of the commercial banks, through the face to face interview mode, with the aim to gauge suitability and fitness for purpose of the data collection tool, as a pilot test on the questionnaire, upon completion of the review process, a set of 116 questionnaires, were distributed across all the commercial banks, by dropping to the targeted respondents in retail and corporate sections of the credit policy departments of the 42 commercial banks, coupled with jotting the specified respondents names and contacts, after which, prompt follow-ups through reminder calls, was done after a week to fast-track process, increase response rate and gauge readiness for collection, all with due care to mitigate biasness which yielded considerable success.

3.6 Data Analysis Methods
Cooper and Schindler (2014), defines data analysis as the technique employed by researcher to make inferential statistical output, through systematic identification and analysis of statistical characteristics from the object being studied.

Descriptive statistics was employed to analyse the data. Data collected from both the primary and secondary sources, which rightly was expected to be both qualitative and quantitative in nature, were systematically organised to facilitate analysis. Editing, data cleaning and coding procedures was undertaken, to build a data base; then subjected to application of descriptive statistical methods namely; measures of central tendencies, frequencies and measures of dispersions. Further, Inferential statistics which entails content analysis was also used encompassing regression and correlation analysis to establish the relationship between the variables. The analysis of quantitative data was carried out using SPSS (Statistical Package for Social Science) version 20, because it is systematic and covers a wider sets of statistical and graphical data analysis from which output is presented in graphs, tables and various forms of charts.

3.7 Chapter Summary

This chapter has set out the methodology that the researcher employed to achieve the objectives of the study. The aggregate methodology is presented under the following subsets: research design, target population, sampling frame, sampling technique, sample size, data collection, research procedure, data analysis and presentation methods. The chapter is followed with results and findings in Chapter 4.
CHAPTER FOUR

4.0 RESULTS AND FINDINGS

4.1 Introduction

This chapter gives a detailed analysis, reports and discussions of the findings from the study which focused on the application of credit reference bureau information’s impact on credit appraisal, interest rate determination, management of bad debts and collateral requirements by commercial banks in Kenya. The researcher collected primary data through self-administered questionnaire, complimented by secondary sources of data of audited and/or published annual reports on financial performance to derive financial performance indicators as well as reviewing the internal periodicals and minutes to bridge the information gap on sensitive information not divulged. CBKs periodic supervisory reports were also used to gather the relevant data necessary for the study.
The response rate realized in the study was 89.66% since 104 respondents’ out of 116 was positive. The counts were compiled manually and entered into the SPSS worksheet. The response statements in the questionnaires were rated using Likert scale and averaging rating obtained with 5 indicating strongly agreed and 1 denoting strongly disagree. Further, for the general information, each responses was assigned a number to denote a specific variable, for instance a “Yes” response was assigned “1” while a “No” response was assigned “2”.

4.2 General Information

The table 4.2.1 shows a summary of the responses regarding: management position cum level of the respondent, function or division where they work and ownership structure of the commercial bank.

Table 4.1 Management Position

<table>
<thead>
<tr>
<th>MANAGEMENT POSITION</th>
<th>Frequency</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Top Level</td>
<td>31</td>
<td>29.81%</td>
</tr>
<tr>
<td>Middle Level</td>
<td>40</td>
<td>38.46%</td>
</tr>
<tr>
<td>Low Level</td>
<td>33</td>
<td>31.73%</td>
</tr>
</tbody>
</table>

Table 4.2 Division and Ownership Structure

<table>
<thead>
<tr>
<th>DIVISION/FUNCTION</th>
<th>Frequency</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Retail Function</td>
<td>56</td>
<td>53.85%</td>
</tr>
<tr>
<td>Corporate Function</td>
<td>48</td>
<td>46.15%</td>
</tr>
<tr>
<td>OWNERSHIP STRUCTURE</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Foreign</td>
<td>1</td>
<td>2.33%</td>
</tr>
<tr>
<td>Wholly Government</td>
<td>2</td>
<td>4.65%</td>
</tr>
<tr>
<td>Locally</td>
<td>13</td>
<td>30.23%</td>
</tr>
<tr>
<td>Government &amp; Foreign</td>
<td>0</td>
<td>0.00%</td>
</tr>
<tr>
<td>Government &amp; Locally</td>
<td>2</td>
<td>4.65%</td>
</tr>
<tr>
<td>Foreign &amp; Locally</td>
<td>25</td>
<td>58.14%</td>
</tr>
</tbody>
</table>

The responses on the name of the commercial banks of the respondents were varied and in some instances incomplete, thus left out in the presentation of general information. There
were 12 (27.91%) responses without names, since the question was optional. The researcher learnt the varied ownership structure of the banks as presented above, besides that different institutions assign different names to their division, functions, departments and sections that handle credit application appraisal responsibilities, hence could not be harmonised quantitatively.

4.3 Use of Credit Information by Commercial Banks in Credit Appraisal

4.3.1 Descriptive Statistics

All the respondents indicated that they have access to CRB, however 88 (84.62%) a majority drawn from middle and top tier banks reported ability to engage both the licenced bureaus, namely the CRB-Africa and Metropol, while the 16 (15.38%) had access to CRB-Africa only, implying the need for both the banks and Metropol to improve on their infrastructures to aid expansive adoption of the services. In the same fashion, all the respondents acknowledge ability to access both positive and negative credit information in a single query coupled with the assertion that CRB services are critical for credit scoring. The application of the information is left to each commercial bank i.e. subjective, as depicted by 5 (4.81%) respondents from 2 banks who indicated that past/historical credit records guides their lending decision to a low extent.

From the findings, 104 respondents drawn from all banks confirmed absolute clarity of the CRB role, though subsequent responses registered various trends as tabulated below:

Table 4.3 Use of Credit Information

<table>
<thead>
<tr>
<th>Use of Credit Information by Commercial Banks in Credit Appraisal:</th>
<th>strongly agree</th>
<th>agree</th>
<th>uncertain/not applicable</th>
<th>disagree</th>
<th>strongly disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Credit appraisal should start with CRB screening</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Past payments records mirror future trend</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Bad past records should inform immediate loan decline</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. There is adequate awareness of the CRB functionality across the country by all stake-holders</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
5. CRB as an institution is well regulated

6. 7-years blacklisting duration after total loan clearance is a suitable deterrence to default.

7. Banks enjoy equal access rights to CRB records

8. Roles of CRB are clearly defined and known by banks

9. Without the client’s past credit history, it is most likely to result to wrong lending decisions - Adverse Selection

10. CRB initiative was a prudent CBK-regulator’s action

11. CRB services are easily accessible and easy to use

Author (2016)

On the view that credit appraisal should start with CRB screening registered a minimum of 0 (0.0%) with a maximum of 0.79 (79.07%), with a mean of 0.7113 (71.13%) and a standard deviation of 0.01473 (1.473%). This is by and large attributed to the authenticity and accuracy of initiatives by the Central Bank of Kenya to formulate an industry wide screening against the database held by the bureaus. On loan repayment trends, the minimum was 0.019 (1.9%) with a maximum of 0.54 (53.85%), the mean was 0.38 (38.62%) with a standard deviation of 0.33, same pattern was observed for the decision to decline application owing to unfavourable past records which registered a minimum of 0.019 (1.9%) with a maximum of 0.26 (25.96%), the mean was 0.41 (41.12%) with a standard deviation of 0.36.

The distribution on level of awareness on CRB functionality among the banking fraternity and related stakeholders assumed a near normal distribution, with the highest frequency of 31 reporting uncertainty, depicting a knowledge gap which would interest the stakeholders to drive initiative in a bid to eliminate the same. On the flip side, score on CRB regulation had strong commendation with a maximum of 0.93 (93.02%) and a minimum of 0 (0.0%),


sighting larger extent of CBK involvement on CRB operations. The 7-years blacklisting period after loan clearance was considerably opposed with a simple majority of 56 (53.49%) of respondents registering uncertainty to strongly disagree.

The banks score on CRB accessibility and usage depicts a strong positive correlation with the number of bureaus accessible to the banks with a majority score of 77 (74.42%) strongly agreeing and a minimum of 0 (0.0%). Worth noting is the 2 (1.92%) and 17 (16.35%) who checked disagree and uncertainty respectively, which was attributed to strained accessibility of Metropol by the tier 3 commercial banks. The responses above also portrayed a strong positive correlation with the score on ease of using the credit reference bureau’s database by the banks. The risk of adverse selection without CRB and an appraisal of the regulator’s initiative of the bureau had a tied score of 99 (95.19%) strongly agreed response, denoting a positive skew in appreciation of the services churned by the two bureaus.

The reason for the minimum value of credit information sharing being zero was because a number of commercial banks had not implemented fully the credit information sharing practice over the study period and were still conducting only negative information sharing.

<table>
<thead>
<tr>
<th>Giving Feedback To Clients</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
</tr>
<tr>
<td>94; 91%</td>
</tr>
<tr>
<td>No</td>
</tr>
<tr>
<td>10; 9%</td>
</tr>
</tbody>
</table>

Chart 4.3.1 (Source: Research data)

The commercial banks to a larger extent, gives feedback to the customer where loan application is declined on account of poor credit history, driven by customers’ inquiry on fate of loan application.
Chart 4.3.2 (Source: Research data)

Most of the banks (87 respondents representing 83.65%) explored the listing option and sharing of this information with the clients as a strategy to have them settle their outstanding debts.

4.4 Credit Information Sharing Effects on Cost of Debt and Profitability

Chart 4.3.3 (Source: Research data)

The bank’s profitability distribution depicted a positive relationship with the bank’s size, with the mode, being in the range of 10-14 Billions. On the same breath, the banks showed
aggressive lending volumes by registering a mode of over 30 billion in the upper class as depicted below.

Chart 4.3.4 (Source: Research data)

Despite the high level of lending activities, the default rate registered by 42 banks is below 25%, which may be partly attributable to the CRB initiatives as commercial banks apply prudential guidelines in booking borrowings.

Chart 4.3.5 (Source: Research data)

On factors that directly inform the level of interest rates, all the five factors namely: Target Profits (TP) expressed as profit margin percentage; Aggregate Costs (AC) being average
operating cost apportionment to each department; Risk Premiums (RP) being a modelled apparatus on gauging default rates per grouped customer profiling in cases of bank to specific organization directly negotiated loans terms in a scheme arrangements’ and for customers with homogeneous characteristics; Base Lending Rate (BLR), being the interest rates commercial banks borrow at from the Central Bank of Kenya, and Competition Forces (CF), i.e. a market driven pricing intervention. With regards to the latter, the research revealed that the banks set the interest rates in liaison with the Kenya Bankers Association (KBA), which is essentially involving each other, in arriving at the Kenya Bankers Reference Rate (KBRR), which is standard across the board, but the total lending rate is further determined by individual bank specific considerations but with due consideration of other competitor’s rates to avoid losing customers to them.

The research also revealed a low extent influence by the regulator (CBK) as indicated by 98 respondents (94.23%), in influencing the level of interest rates by virtue of setting the base lending rates by the agency, monetary regulation committee as part of the measures to manage the liquidity flow in the market. On the flip side, a reverse trend is observed by 77 (74.4%) respondents’ which attest that Kenya Bankers Association and other Joint Banks’ Bodies influence the level of interest rates at a larger extent through the determination of the KBRR.

<table>
<thead>
<tr>
<th>Correlations</th>
<th>Interest Rate</th>
<th>Kenya Bankers Reference Rate (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Correlation</td>
<td>Interest Rate</td>
<td>1.000</td>
</tr>
<tr>
<td></td>
<td>Kenya Bankers Rate (%)</td>
<td>.661</td>
</tr>
<tr>
<td>Sig. (1-tailed)</td>
<td>Interest Rate</td>
<td>.</td>
</tr>
<tr>
<td></td>
<td>Kenya Bankers Rate (%)</td>
<td>.000</td>
</tr>
<tr>
<td>N</td>
<td>Interest Rate</td>
<td>74.4</td>
</tr>
<tr>
<td></td>
<td>Kenya Bankers Rate (%)</td>
<td>74.4</td>
</tr>
</tbody>
</table>

Figure 4.1.1. (Source: Research data)

Regarding the opinion on increased profitability levels registered after the CRB initiatives, registered a minimum of 0.0096 (0.961%) and a maximum of 0.7404 (74.04%) attributed to benefits of the bureau to aid in reduction of moral hazards which separately registered a strong agreement of 95.19%. in similar fashion, strong agreement is observed on elimination of effects of serial defaulters by 94.23% of respondents and a complete consensus that the initiative results to both Financial and Non-Financial benefits to the
stakeholders. A scattered opinion is reported compulsion of customers to repay their loans, with a minimum of 0 (0.0%), a maximum of 0.48 (48%) and intermediary distributions of the 0.52 (52%) between the 3 categories of opinions.

Deduced from the 104 respondents drawn from all banks, the research revealed varied opinions as tabulated below on Credit Information Sharing effects on cost of credit, default rates and in turn, profitability levels:

<table>
<thead>
<tr>
<th>Credit Information Sharing Effects on Cost of Debt and Profitability:</th>
<th>strongly agree</th>
<th>agree</th>
<th>uncertain/not applicable</th>
<th>disagree</th>
<th>strongly disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. CRB initiatives have led to increased profit levels for commercial banks</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. CRB has led to decrease the effects of serial defaulters</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. CRB has compelled customers to pay their debts</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Good Customers/Clients like CRB initiatives for the good credit scores</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Credit Information Sharing has stiffened competition and customers' hunting in the banking sector</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. CRB process would lead to decline of moral hazards in the financial and related sectors</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Worth noting are the contrasted opinions as to whether Credit Information Sharing has stiffened competition having a 61.54% strong agreement and customers’ hunting in the banking sector and whether Commercial Banks like the CRB initiative which registered 75% strong support, denoting the trade-off effect of eliminating moral hazard and adverse selections’, yet plunge the commercial banks into the risk of unhealthy competitive actions poaching customers. However all the respondents unanimously observed that the banking sector is not facing threats of instability.

There is a weak positive correlation of +0.4841 between opinions as to whether the good clients liked CRB initiatives for the character asset on account of good credit scores and whether the initiatives has led to increased lending activities with a mode distribution lying on uncertainty region, this calls for a greater need to enhance awareness’ of the bureau services to the lending market participants. Coupled to this, the bureaus and participating commercial banks need to meticulously verify the credit information held in the databases to upscale the opinion on accuracy of information from registered 0% strongly agreed to the ideal 100% position.
All the respondents indicated that default risk premium, which is credit determination model facet measuring probability of default expressed as a rate, constituted less than 25% of the total cost of debt exuding confidence commercial banks have on clients’ willingness and ability to honor their obligations. Observations regarding the single most key factor in determination of the interest rates, the responses were distributed among: 51 (49%) for Kenya Bankers Reference Rates (KBRR); 31 (30%) for Aggregate Costs and 22 (21%) for Default Risk Premiums.

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>60178217760.0</td>
<td>1</td>
<td>60178217760.0</td>
<td>365.381</td>
<td>.000</td>
</tr>
<tr>
<td>Residual</td>
<td>77738277676.3</td>
<td>472</td>
<td>164699740.840</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>137916495436.3</td>
<td>473</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Dependent Variable: Interest Rates  
b. Predictors: (Constant), Default Rate

Figure 4.1.2. (Source: Research data)

Despite the least score of the Default Risk Premiums (DRP) rates, the researcher holds the opinion that 21% is a significant value. All the banks indicated they offer negotiated interest rates based on various reasons namely: Income levels, nature of collateral provided, number of current and potential clients from the same institutions for cases of scheme specific contracts, credit history, age of the client, purpose/type of loan applied and loan repayment term (expressed in months/years), which serves to explain as to why various banks price their credit facilities differently.
4.5 Role of Credit Information Sharing on Collateral Requirements:

The commercial banks are arguably diversifying as supported by their client base, constituting a blend of retail/individuals, SME’s and corporate customers, with only a single bank, namely City bank specialising in Corporate clients only. In addition, all the respondents indicated their appreciations to customers who have maintained good borrowing relationship and never defaulted on credits and at times offer unsecured lending’s to all classes of their customers. In support to earlier assertions, all the commercial banks apply credit score based on the Credit Reference Bureaus rating to determine the level of interest rates to a larger extent. They all vouched for Credit Reference Bureau services as vital to the lending institutions, with a split appraisal of the services as good and very good.

The respondents’ opinion regarding impact on collateral requirements as influenced by credit information sharing was very erratic, depicting lack of unanimity among the commercial banks on clear guiding principles as well as subjective approach to this, fashioned by each banks independently as shown below.

The respondents were not supportive of the opinion that all borrowings’ should be secured as none registered agreement the same. The research also depicted indecisiveness with regards to whether lending to individual clients is riskier than corporates and banks setting thresholds to determine the extent of collateral requirements with both registering mode on
uncertainty and non-applicability, contrasted to the view on corporate clients having ideal fundamentals being exempted from provision of tangible security and collateral valuation being key consideration in security determination, as both registered 104 (100%) strong agreement. In addition, adoption of credit score and rating in guiding lending institutions on the quality of collateral request on clients’ also registered firm support since 98 (94.23%) respondents were in strong agreements.

Table 4.5 Effects on Collateral Requirements

<table>
<thead>
<tr>
<th>Role of Credit Information Sharing on Collateral Requirements:</th>
<th>strongly agree</th>
<th>agree</th>
<th>uncertain/not applicable</th>
<th>disagree</th>
<th>strongly disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. All borrowings should be secured</td>
<td>0</td>
<td>0</td>
<td>38</td>
<td>57</td>
<td>9</td>
</tr>
<tr>
<td>2. Lending to individual clients is riskier than corporates</td>
<td>7</td>
<td>11</td>
<td>74</td>
<td>12</td>
<td>0</td>
</tr>
<tr>
<td>3. The credit score and rating should guide lending institutions on the quality of collateral request on clients</td>
<td>98</td>
<td>6</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>4. Secured loans should attract averagely lower borrowing costs/charged low interest rates</td>
<td>64</td>
<td>30</td>
<td>10</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>5. Loan contracts replaces need for tangible security</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>104</td>
</tr>
<tr>
<td>6. Banks should set amounts thresholds/ranges to determine the scaling of collateral requirements</td>
<td>1</td>
<td>19</td>
<td>43</td>
<td>41</td>
<td>0</td>
</tr>
<tr>
<td>7. The Corporate clients with good fundamentals need not to provide tangible collateral</td>
<td>104</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>8. Borrower’s guarantors are formidable security</td>
<td>34</td>
<td>54</td>
<td>16</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>9. Collateral valuation is key in security determination</td>
<td>104</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>10. Government’s policy on debt service ratio is sufficient security for clients with non-tangible assets</td>
<td>0</td>
<td>7</td>
<td>0</td>
<td>97</td>
<td>0</td>
</tr>
<tr>
<td>11. Economic conditions determines repayments of debts by clients</td>
<td>21</td>
<td>37</td>
<td>17</td>
<td>23</td>
<td>6</td>
</tr>
</tbody>
</table>

Author (2016)
In absolute contrast, loan contracts replacement of tangible security was rejected by all the respondents and a further 97 (93.30) disagreeing that government’s policy on debt service ratio (1/3rd rule on net pay take home) is sufficient security for clients with non-tangible assets.

Chart 4.3.7 (Source: Research data)

On security cum collateral requirements, majority of respondents’ vouched for both good credit history and third party guarantees (individuals) with each registering 29 (27.88%), evenly distributed between corporate and managers; closely followed by salary at 21 (20.19%) as expressed solely by retail managers. 14 (13.46%) respondents’ expressed preference for cash-flows of SME’s and Corporate clients, and a further 11 (10.58%) indicted bank guarantees for the same clients set.

There was a spread opinion on economic conditions determining repayments of debts by clients with registered a minimum of 0.0577 (5.77%) and a maximum of 0.2019 (21.19%) and the mode opinion on agreement, a more skewed opinion towards agreement was expressed on guarantor-ship as a formidable type of security and a similar distribution mirrored on lowering borrowing costs for secured debts.

On risk profiling, there was a close to even distribution as 48 (46.15%) regarded new clients to be highly risky to accord credit to, while the remaining 56 (53.85) held a contrary opinion. This is reflective on their opinion on the state of competition among them, by all checking fierce and very fierce opinion; hence all recommended that a good client-bank
relationship is necessary and engagement of a fully-fledged debt collections and outsourced agency teams to oversee repayments of loans.

4.6 Regression Analysis

In addition to descriptive statistics and correlation analysis, the study also adopted use of a cross-sectional multiple regressions as per the findings presented below:

Dependent Variable (DV): Cost of credit/Interest rates

Independent Variable: (IV): Default Risk Premium, Aggregate Cost, KBRR and Target Profit Level

The data findings were analysed using the SPSS. The ANOVA statistics at 5% level of significance indicated that the value of computed $F$ was 21.134 and the model was appraised critical at the level of significance at degrees of freedom being 4 at the 5% significance level.

4.6.1 Dependent Variable: Interest Rates

Predictors: (Constant), profit margin, default risk premium, aggregate cost, competition effects and target profit level

\[
\text{Interest Rate, } Y = 8.9 + 0.173 X_1 + 0.584 X_2 + 0.146 X_3 - 0.014 X_4
\]

Where:

$Y$ = Interest Rate/Cost of Credit

8.9% is the KBRR rate

$X_1$ = Profit Margin
X2= Aggregate Cost

X3= Default Risk Premium

X4= Competition Effect

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
<th>Change Statistics</th>
<th>Change Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>.661a</td>
<td>.436</td>
<td>.435</td>
<td>$12,833.540</td>
<td>.436</td>
<td>365.381</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>R Square Change</th>
<th>F Change</th>
<th>df1</th>
<th>df2</th>
<th>Sig. F Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), Aggregate Factors

Figure 4.1.4. (Source: Research data)

From the coefficients derived, all the independent variables were positively correlated with Interest Rates except Competition Effect. Taking consideration of all the factors; profit margin, aggregate cost, default risk premium, and competition effect constant at zero, Interest Rate/Cost of Credit was 8.9% being the current KBRR rate applicable to all commercial banks. The data findings analysed also showed that taking all other independent variables at zero, a unit increase in default risk (premium charged due to default risk) lead to 0.146 increase in interest rate, also a unit increase in aggregate operation cost lead to 0.584 increase in cost of credit, also a unit increase in profit margin increased cost of credit by 0.173 and a unit increase in competition effect reduced cost of credit by 0.014. Their significance values were less than 0.05. Effect of profit margin, aggregate cost and default risk premium were statistically insignificant as their significance values were greater than 0.05.

4.7 Discussions

The finding revealed that application of credit information sharing impacts on credit appraisal, cost of debt determination, management of bad and doubtful debts and loan security requirements. Koskela & Stenbacka (2013), observed that adverse selection anomaly would be eliminated through application of prudential lending principle of according good borrowers credit and declining or reducing value exposure to clients with tainted repayments history directly impacting favourably the profitability levels. In addition, default risk was positively correlated with cost of credit as default risk premiums was an additional cost to the overall borrowing rate. Aduda et al (2012), found that whilst commercial banks have access to the historical credit information of a borrower, to inform
their credit appraisal decision, by and large, they exercise free choice of its usage, further noting that denying a client new credit on the basis of unpaid historical debt, would compel them to make efforts to clear the outstanding liabilities.

The role of Kenya Bankers Association (KBA), was scored vital in interest rate determination through the negotiated Kenya Bankers Reference Rate (KBRR) which the banks adopt in place of the Base Lending Rate, which is standard across the board and reviewed after every 6 months. The role of the regulator, CBK in the determination of interest rates was revealed to have declined attributed to the shift from BLR to KBRR stated above; also the confidence in the stability of the banking sector was gauged as steady courtesy of the regulatory role of the CBK through the introduction of stringent guidelines. However, the competition effect brought about the adverse selection effect as banks strived to loosen their lending terms, including thorough screening and decision making based on past credit information, down ward review of interest rates etc., in order to remain competitive, depicting a trade-off dilemma of growing loan book value against the risk of booking potentially risky clients who would default on their borrowings.

The research further revealed the flexibility in collateral requirements’ in terms of the nature of security, with the SME’s and corporate customers being appraised on their cash flows from operations and individuals on monthly regular income/salaries, hence lowering the need to provide tangible security such as title deeds, log-books etc. risk profiling of clients was portrayed to be non-discriminative between individuals and legal persons.
CHAPTER FIVE

5.0 SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This study focused on the application of credit reference bureau information’s impact on credit appraisal, interest rate determination, management of bad debts and collateral requirements by commercial banks in Kenya. This study focused on analysing the extent to which credit information sharing directly contributes to the interest rate levels, profitability and need to secure the liabilities. The study employed the use of both primary and secondary sources of data. This chapter also brought fourth suggestions for further research based on researcher’s observation on exercises that would enhance wider applicability.

5.2 Summary of Findings

Access to CRB, was reported favourable at 104 (100%) with a mild disadvantage on the lower tier banks as 88 (84.62%) of the middle and top tier banks reported ability to access the two licenced bureaus. In contrast the application of the information is subjective, evidenced by 5 (4.81%) respondents from 2 tier-3 banks who indicated that credit reference bureaus influence their lending decision to a low extent. CRB screening registered a maximum of 0.79 (79.07%), with a mean of 0.7113 (71.13%) and a standard deviation of 0.01473 (1.473%) indicative of the confidence in the authenticity and accuracy of the bureaus’ data bases. Appraisal decision based on past records registered a minimum of 0.019 (1.9%) with a maximum of 0.26 (25.96%), the mean was 0.41 (41.12%) with a standard deviation of 0.36, showing significance in consideration of the past credit history. The banks score on CRB accessibility and usage depicts a strong positive correlation with the number of bureaus accessible to the banks with a majority score of 77 (74.42%) strongly agreeing.

The profitability levels registered growth trajectory after the CRB initiatives, registering a minimum of 0.0096 (0.961%) and a maximum of 0.7404 (74.04%) demonstrating a financial benefits of the initiatives, further, a reduction in moral hazards opinion was favourable at 95.19%, supported by reduced effects of serial defaulters by 94.23% though a scattered opinion is expressed on coercing defaulted customers to settle their obligations, registering a minimum of 0 (0.0%), a maximum of 0.48 (48%) and in between distributions of 0.52 (52%) among the 3 categories of opinions.
A weak positive correlation at + 0.4841 linking the good clients’ liking of CRB initiatives to increased lending activities after roll-out of the initiatives depicting an implementation gap of the envisaged affordable credits to good borrowers. Key factors determining the interest rates were distributed among: 51 (49%) for Kenya Bankers Reference Rates (KBRR); 31 (30%) for Aggregate Costs and 22 (21%) for Default Risk Premiums all being significant value. Corporate clients who are regarded safer class with ideal fundamentals was opiated for non-exemption on tangible collateral requirements coupled with applications of credit score to guide commercial banks on prescribing the collateral quality had a support of 98 (94.23%) respondents in strong agreements.

Risk profiling, had even distribution as 48 (46.15%) perceived new clients to be highly risky and 56 (53.85%) thought the contrary. Positivity and significance of all values of R showed that model summary was significant and therefore gives a logical support to the study model. Accounting for the primary factors that directly influence the interest rates; profit margin, aggregate operating cost, default risk premium, and competition effect, had a direct effect on cost of credit building on the Kenya bankers reference rate. The unit analysis showed absolute increments’ by default risk premium contributed to 0.146; aggregate operation cost was 0.584 and profit margin effect was 0.173. However a unit increase in competition effect reduced cost of credit by 0.014, with significance values of less than 0.05.

5.3 Conclusions

The study concluded that to a very large extent, credit reference bureau information’s is considered by the commercial banks, in the appraisal process of credit applications, save for case by case considered dispensations given by designated bank authorities, for the clients with low cum adverse credit score. All the commercial banks reported to have access to the negative credit information from the CRB, save for a few, mainly from the tier 3 banks, registered challenges in accessing the positive aspect of credit information. This lent support to their assertion that the aforementioned services are critical for credit scoring and is user friendly, denoting a by and large widespread embrace for the initiative, though with some efficiency gap observed, on the part of those who access and share solely the adverse credit information on their clients.

The cost of sourcing funds and level of operating expenditures contributed positively to the overall cost of credit to borrowers i.e. interest rates applied on both long term and short
term borrowings, while credit risk also made significant contribution to the same. The study equally established that average cost of sourcing capital, operating costs and other incidental costs such as negotiation fees, insurance etc., coupled with other general terms such as repayment period, were made favourable to customers who have maintained a credible credit history. The profitability levels registered a growth trajectory after the these initiatives, depicting a direct financial benefits of the initiatives to the commercial banks, further, a reduction in moral hazards opinion was vouched as a realised benefit.

Deduced from the study, there is a declining trend on the need for tangible security from borrowers, in view of them maintaining a positive listing, which to the effect, brings the twin benefit of driving down the interest rates levels, hence making borrowings more affordable to the right target set of customers who’ve exhibited clean repayment history. It was observed that most of the commercial banks vouched for both good credit history and third party guarantees (from individuals guarantors of borrowers), closely followed by salary as expressed solely by retail managers who lend to salaried clients, which serve as collateral for the credit extended. As for the institutional clients, the banks expressed preference for cash-flows realised by SME’s and Corporate clients, coupled with bank guarantees for the same clients set. This depicts benefits that accrue to customers who attribute greater importance in maintaining good borrowing records.

5.4 Recommendations of the Study

5.4.1 Policy Recommendation

Based on the findings above, the researcher does recommend that the commercial banks in Kenya and those that operate within the wider continent and beyond, should establish and operationalise a credit management team tasked with the responsibilities of ensuring that all customers who seek to take up a credit facility with their institutions are properly screened and appraised against the licensed credit information shared by the reference bureau’s meticulously before granting the approval of the facility.

The researcher would also recommend that the other sectors in the industry may make good use of credit information sharing as provided by the licenced credit bureaus by screening their prospective and current employees; customers, also their suppliers for their credit reports which are easily accessible from the credit reference bureau’s before employing,
transacting or doing business with them as this would go a long way in enhancing a positive culture of credit worthiness and trust.

In addition, the study does recommend that cost of credit expressed as interest rates on credits and advances by the commercial banks in Kenya should be guided by the default rate aspects, intrinsically exhibited by potential clients, applied through stratification of clients classes on the basis of their potential to default or not, hence a favourable focus on those with clean past credit information positively profiled, commanding a scale down of interest levels by lending institutions in order to make credit facilities in the country more available and affordable to these customer base, which would directly have a favourable effect on their lending business through registering higher returns in terms of well selected customer portfolio without the taint of adverse selections’ leading to moral hazards.

On the part of the government and its regulatory agencies, more bureaus should be licenced and co-ordinations with other countries bureaus operationalised, to enhance the availability of past credit information among the financial sector players and also other interested parties to redress the challenges of information asymmetry with a wider scope. Further, the regulations should place emphasis on upholding confidentiality of information accessed from the credit reference bureaus by placing punitive and stringent restrictions on usage for the right purposes, coupled with hefty penalties on the miss-use and registered breach. The government should enhance the credit information systems usage to other non-bank credit providers, to have a wider integration across the country’s various sectors and beyond the frontiers. This is justified on the grounds that lots of clients get access to credit from a wider spectrum of non-banks including, microfinance institutions, higher education loans board, mobile phone based credits, SACCO’s, other financial sector participants such as securities exchange and the various utility firms.

Commercial Banks and credit reference bureaus should adhere to non-sharing of past credit information with unauthorized third parties unless authorised by the law or with express written consent from the client in question. This should be preceded by the stakeholders undertaking awareness campaigns about the credit information sharing policies and system to clear the negative notion of ‘blacklisting’ from the clients of main stream commercial banks by enlightening the public on the benefits that accrue to them for holding positive
historical credit information, in terms of having the ability to negotiate discounted interest rates for all credit applications and enjoy favourable terms on collateral requirements

5.4.2 Suggestions for Further Research

This study focused on the application of credit reference bureau information’s impact on credit appraisal, interest rate determination, management of bad debts and collateral requirements by commercial banks in Kenya. In order to facilitate the generalization of the findings in the banking and related sector; this study recommends that a further studies should be conducted on microfinance institutions in the country on the enlisted dimensions above which may result in different findings and would enhance generalization of outcomes.

Further study could also be carried out on the effect of credit reference bureau’s information sharing on non-performing loans and an extension of the model applied to accommodate more than one event that affect the default rates e.g. loss of employment, economic factors, fraudulent cases etc. in addition, multi-regression could also be applied with multiple factors affecting the level of non-performing loans, done over a wider period of time, for instance 10 years which may result in different findings.

5.5 Limitations of the Study

Notwithstanding the researcher’s determination to undertake the study to full completion within the set timeframe, various constrains were encountered for instance: some of the information sought were of confidential nature which the respondent either deliberately refused to divulge or did not have access to, infringing on data completeness.

In addition, though the researcher would have wished to obtain responses on the data collection tool from targeted top leadership of the commercial banks, this was not realised in totality as some of them (3 cases namely: Bank of India, First Community Bank and Prime Bank) had to delegate to their immediate assistants as they themselves were either busy or away on official duties. It was therefore presumed that the respondent would be able to give similar content of information which would have been availed by the intended respondents.

To make up for the two sets of setbacks, the researcher sought to compliment the primary data collected through the questionnaires, with a review of secondary sources such as the
audited financial statements, internal magazines and minutes of the key departments, which by and large, depicted consistency and served well to authenticate the information given through other sources.

REFERENCES


Appendix 1

Questionnaire

Kindly answer all questions as directed.

**Section A: General Information:**

1. Name of the Commercial Bank
   (Optional)……………………………………………………………………………………………………………………………………………………………………………………

2. Your management position (Position of the respondent) in the Bank.
   [ ] Low Level  [ ] Middle Level  [ ] Top Level

3. Which of the Function do you work?
   [ ] Retail Function  [ ] Corporate Function

4. What is the ownership structure of the Bank?
   [ ] Foreign Ownership
   [ ] Wholly Government Owned
   [ ] Locally Owned
   [ ] Government/Foreign Owned
   [ ] Government/Locally Owned

**Section B: Use of Credit Information by Commercial Banks in Credit Appraisal**

5. Does the bank have access to CRB?
   [ ] Yes  [ ] No

   If YES, Which Credit Reference Bureaus does the Bank access?
   [ ] Credit Reference Bureau-Africa  [ ] Metropol  [ ] Both

6. Does the Bank access both the positive (+) and Negative (-) credit information?
   [ ] (+) Positive Only  [ ] (-) Negative Only  [ ] Both

7. To what extent does the past/historical credit record determine the Banks Decision to advance or not to advance credit facility?
   [ ] Larger Extent  [ ] Low Extent  [ ] No Effect
8. To what extent do you agree with the statement: CRB services are critical for Credit Scoring?

[ ] Strongly disagree [ ] Disagree [ ] Neutral [ ] Agree [ ] Strongly agree

9. The following are sentiments associated with Credit Reference Bureau usage, in relation to scoring of customer’s borrowings. Please rate them in a scale of 1-5. (Where 1=Strongly Disagree; 2=Disagree; 3=Indifferent/Neutral; 4=Agree; and 5=Strongly Agree)

<table>
<thead>
<tr>
<th>Use of Credit Information by Commercial Banks in Credit Appraisal:</th>
<th>strongly agree</th>
<th>agree</th>
<th>uncertain/not applicable</th>
<th>disagree</th>
<th>strongly disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Credit appraisal should start with CRB screening</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Past payments records mirror future trend</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Bad past records should inform immediate loan decline</td>
<td></td>
<td></td>
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<tr>
<td>4. There is adequate awareness of the CRB functionality across the country by all stakeholders</td>
<td></td>
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<tr>
<td>5. CRB as an institution is well regulated</td>
<td></td>
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<tr>
<td>6. 7-years blacklisting duration after total loan clearance is a suitable deterrence to default.</td>
<td></td>
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<tr>
<td>7. Banks enjoy equal access rights to CRB records</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Roles of CRB are clearly defined and known by banks</td>
<td></td>
<td></td>
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<tr>
<td>9. Without the clients past credit history, its most likely to result to wrong lending decisions-Adverse Selection</td>
<td></td>
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<tr>
<td>10. CRB initiative was a prudent CBK-regulator’s action</td>
<td></td>
<td></td>
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<tr>
<td>11. CRB services are easily accessible and easy to use</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

10. Does the bank give feedback to the customer where loan application is declined on account of poor credit History?

[ ] Yes [ ] No
If YES, What is the reason for availing feedback (Tick all applicable reasons)?

[ ] Encourage Good Conduct
[ ] Act as Example to other borrowers
[ ] Encourage Loan Repayment/Clearance
[ ] Limit Clients Access of Credit with other financial institutions
[ ] Other Reasons (Please list/explain below)……………………………. …………………

Section C: Credit Information Sharing Effects on Cost of Debt and Profitability:

11 What was the bank’s published net profit levels for the previous year (2015).

[ ] Less than 5 Billions
[ ] 5-9 Billions
[ ] 10-14 Billions
[ ] 15-20 Billions
[ ] Above 20 Billions

12 What is your loan volume base? (In Millions of Shillings)

[ ] Less than 10,000
[ ] Between 10,000-20,000
[ ] Over 20,000 but less than 30,000
[ ] Above 30,000

13 What is the average fraction of your loans issued which gets defaulted? (In percentages)

[ ] Below 25%
[ ] Above 25% but below 50%
[ ] Between 50% to 75%
[ ] Above 75%

14 Please rate the extent to which the following factors determine interest rate levels

<table>
<thead>
<tr>
<th>Factors/Ratings</th>
<th>Larger Extent</th>
<th>Low extent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Target Profits</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>Aggregate Costs</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>Risk Premiums</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>Base Lending Rate</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>Competition Forces</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

Any Other Factors (Kindly List and Rate The Same)

......................................................................................................................
15 To what extent, do the government and the regulatory agency (e.g. CBK) influence the level of interest rates?

[ ] Larger Extent [ ] Low extent

16 To what extent, do the Kenya Bankers Association (e.g. KBA) and other Banks’ Bodies influence the level of interest rates?

[ ] Larger Extent [ ] Low extent

17 To what extent do you rate the following mechanism in your bank’s lending procedure (Please indicate the influence of each using a rating scale of 1-5. (Where 1=Strongly Disagree; 2=Disagree; 3=Indifferent/Neutral; 4=Agree; and 5=Strongly Agree)

<table>
<thead>
<tr>
<th>Credit Information Sharing Effects on Cost of Debt and Profitability:</th>
<th>strongly agree</th>
<th>agree</th>
<th>uncertain/ not applicable</th>
<th>disagree</th>
<th>strongly disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. CRB initiatives have led to increased profit levels for commercial banks</td>
<td></td>
<td></td>
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<tr>
<td>2. CRB has led to decrease the effects of serial defaulters</td>
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<tr>
<td>3. CRB has compelled customers to pay their debts</td>
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<tr>
<td>4. Good Customers/ Clients like CRB initiatives for the good credit scores</td>
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<tr>
<td>5. Credit Information Sharing has stiffened competition and customers’ hunting in the banking sector</td>
<td></td>
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<tr>
<td>6. CRB process would lead to decline of moral hazards in the financial and related sectors</td>
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<tr>
<td>7. The CRB has accurate customer’s information</td>
<td></td>
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<tr>
<td>8. CRB initiative results to both Financial and Non-Financial benefits to the parties</td>
<td></td>
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<tr>
<td>9. Commercial Banks like the CRB initiative</td>
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<tr>
<td>10. CRB initiatives has increased lending activities</td>
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<tr>
<td>11. Is the Banking Sector is facing threat of instability</td>
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</tbody>
</table>

60
18 What is the average fraction of default risk premium; constitute the fraction of Total Cost of Debt/Interest Rate? (In percentages- %)

[ ] Below 25%
[ ] Above 25% but below 50%
[ ] Between 50% to 75%
[ ] Above 75%

19 In your view, what is the single most important factor that determines the interest rate?

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

20 Does the bank offer negotiated interest rates to its customers?

[ ] Yes                               [ ] No

Please explain the main reason(s)/aim(s) for the decision above.

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

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

Section D: Role of Credit Information Sharing on Collateral Requirements:

21 Majority of your credit application clients consist mainly of?

[ ] Individuals   [ ] SME   [ ] Large Corporations   [ ] Assortments of clients

22 Do you recognise customers who have maintained good borrowing relationship and never defaulted on credits?

[ ] Yes                               [ ] No

23 Does your Bank offer unsecured lending’s to customers?

[ ] Yes                               [ ] No

For your response above, specify which customer classes this apply to

[ ] Individuals   [ ] SME   [ ] Large Corporations   [ ] All Clients
24 To what extent, does the bank apply credit score given by the Credit Reference Bureaus to determine the level of interest rates?

[ ] Larger Extent  [ ] Low extent

25 Kindly rate the below statements with relation to security/collateral on borrowings (Where 1=Strongly Disagree; 2=Disagree; 3=Indifferent/Neutral; 4=Agree; and 5=Strongly Agree)

<table>
<thead>
<tr>
<th>Role of Credit Information Sharing on Collateral Requirements:</th>
<th>strongly agree</th>
<th>agree</th>
<th>uncertain/not applicable</th>
<th>disagree</th>
<th>strongly disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. All borrowings should be secured</td>
<td></td>
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</tr>
<tr>
<td>2. Lending to individual clients is riskier than corporates</td>
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<tr>
<td>3. The credit score and rating should guide lending institutions on the quality of collateral request on clients</td>
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<tr>
<td>4. Secured loans should attract averagely lower borrowing costs/charged low interest rates</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>5. Loan contracts replaces need for tangible security</td>
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<tr>
<td>6. Banks should set amounts thresholds/ranges to determine the scaling of collateral requirements</td>
<td></td>
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<tr>
<td>7. The Corporate clients with good fundamentals need not to provide tangible collaterals</td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>8. Borrower's guarantors are formidable security</td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. Collateral valuation is key in security determination</td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>10. Government's policy on debt service ratio is sufficient security for clients with non-tangible assets</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11. Economic conditions determines repayments of debts by clients</td>
<td></td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

26 What forms of collateral do they require from clients?

[ ] Salary/Payslip
[ ] bank Guarantees
[ ] Cash-Flows/bank Statements
[ ] Good Credit History
[ ] Other(s) Please specify.................................................................................................
27 Do you consider new clients to be highly risky to extend credit to?

[ ] Yes                  [ ] No

28 To what extent does your bank rate competition in the lending business?

[ ] Very Fierce [ ] Fierce [ ] Moderate [ ] Low extent [ ] Non-consequential

29 Which department/Unit/Function is charged with collections of defaulted loans?

---------------------------------------------------------------------------------------------------------------

30 Is it important for Banks to foster robust relationship with its borrowing clients in the light of competition?

[ ] Yes                  [ ] No

31 In your own opinion, do you think that Credit Reference Bureau services is vital for the lending institutions

[ ] Yes                  [ ] No

32 How would you rank the overall CRB services

[ ] Very Poor [ ] Poor [ ] Average [ ] Good [ ] Very Good

33 Please give any other comments you deem would be helpful in relation to this research exercise

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

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

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

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


.........................Thanks for your kind indulgence.........................

63
## Appendix 2: Research Budget

<table>
<thead>
<tr>
<th>RESERCH BUDGET</th>
<th>Cost (Ksh)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>BUDGET ITEMS</strong></td>
<td></td>
</tr>
<tr>
<td>1. Proposal Development</td>
<td></td>
</tr>
<tr>
<td>Writing Materials</td>
<td>4,000.00</td>
</tr>
<tr>
<td>Printing &amp; Binding</td>
<td>4,800.00</td>
</tr>
<tr>
<td>Photocopying</td>
<td>1,000.00</td>
</tr>
<tr>
<td>2. Field Work (Data Collections)</td>
<td></td>
</tr>
<tr>
<td>Travelling</td>
<td>10,000.00</td>
</tr>
<tr>
<td>Printing &amp; Photocopying</td>
<td>5,000.00</td>
</tr>
<tr>
<td>Research Distribution Assistants</td>
<td>15,000.00</td>
</tr>
<tr>
<td>3. Data Analysis</td>
<td></td>
</tr>
<tr>
<td>Analysis Cost</td>
<td>5,000.00</td>
</tr>
<tr>
<td>Presentations Cost</td>
<td>2,000.00</td>
</tr>
<tr>
<td>4. Report Writing &amp; Cascade</td>
<td></td>
</tr>
<tr>
<td>Report Writing</td>
<td>4,000.00</td>
</tr>
<tr>
<td>Binding and Dissemination</td>
<td>2,500.00</td>
</tr>
<tr>
<td>5. Miscellaneous</td>
<td>10,000.00</td>
</tr>
<tr>
<td><strong>TOTAL COST</strong></td>
<td><strong>63,300.00</strong></td>
</tr>
</tbody>
</table>
Appendix 3: Implementation Schedule

<table>
<thead>
<tr>
<th>RESEARCH ACTIVITIES</th>
<th>TIME BUDGET</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Commencement</td>
</tr>
<tr>
<td>1. Proposal Development.</td>
<td>Jan-16</td>
</tr>
<tr>
<td>3. Data Analysis &amp; Interpretations.</td>
<td>Jul-16</td>
</tr>
<tr>
<td>4. Report Writing.</td>
<td>Aug-16</td>
</tr>
<tr>
<td>5. Reports Cascade &amp; Dissemination.</td>
<td>Sept-16</td>
</tr>
</tbody>
</table>
Appendix 4: List of Commercial Banks in Kenya

1. ABC Bank (Kenya)
2. Bank of Africa
3. Bank of Baroda
4. Bank of India
5. Barclays Bank of Kenya
6. Stanbic Bank
7. Chase Bank Kenya (In Receivership)
8. Citibank
9. Commercial Bank of Africa
10. Consolidated Bank of Kenya
11. Cooperative Bank of Kenya
12. Credit Bank
14. Diamond Trust Bank
15. Ecobank Kenya
16. Equity Bank
17. Family Bank
18. Fidelity Commercial Bank Limited
19. First Community Bank
20. Giro Commercial Bank
21. Guaranty Trust Bank Kenya
22. Guardian Bank
23. Gulf African Bank
24. Habib Bank
25. Habib Bank AG Zurich
26. Housing Finance Company of Kenya
27. I&M Bank
28. Imperial Bank Kenya (In receivership)
29. Jamii Bora Bank
30. Kenya Commercial Bank
31. Middle East Bank Kenya
32. National Bank of Kenya
33. NIC Bank
34. Oriental Commercial Bank
35. Paramount Universal Bank
36. Prime Bank (Kenya)
37. Sidian Bank
38. Spire Bank
39. Standard Chartered Kenya
40. Trans National Bank Kenya
41. United Bank for Africa
42. Victoria Commercial Bank (Spire Bank)