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Credit Reference Bureau Policy Effect on Loan Performance of Commercial Banks in Kenya

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Abstract:

One of the major challenges facing banks all over the world is the increasing rate of non-performing loans. Government and the banks themselves have devised various mechanisms to reduce non-performing loans while increasing credit uptake in the credit market. However, the scenario happens to be opposite; as demand for credit increases, so are the non-performing loans. In Kenya, the government introduced Credit Reference Bureaus in 2009 in order to address this problem. However, the problems continue haunting the banks raising questions on whether credit information sharing is working or not. The purpose of this research project was to establish the effect of credit information sharing policy on loan performance of commercial banks in Kenya. The study employed mixed method research design involving secondary methods. The target population was the 42 commercial banks in Kenya and used 210 credit officers. Collection of data was through the questionnaires which were administered to the bank credit officers using drop and pick approach. Document analysis was used to obtain credit records of the banks. The findings shown that non-performing loans increased significantly even after implementation of the credit information sharing (CRB) policy, an implication that the main expected outcome was not achieved. Though there was a significant increase in profits after implementation of the CRBs, a close analysis of the trend shows that there was no major shift that could be attributed to the policy. Responses from the accounting officers also proved that through the CRB policy was well intended, the goals have not been met largely due to lack clarity on the criteria for listing and delisting defaulters. The study therefore recommends the commercial banks and the CRBs should make their policies on listing and delisting defaulters clear and easy to implement.

Keywords: Credit Reference Bureau, policy, loan, loan performance, commercial banks

1. Background of the Study

One of the major challenges facing the banks all over the world is the ever-increasing rate of non-performing loans. Government and the banks themselves have devised various mechanisms to reduce non-performing loans while increasing credit uptake in the credit market. However, the scenario happens to be opposite; as demand for credit increases, so are the non-performing loans. The effects could even be more devastating when non-performing loans surpass the gains accrued from increased credit uptake. Credit market performance is basically determined by profit gained from loans and advances. This basically means that profit will increase when non-performing loans reduce while credit demand increase. When this rule failed to materialize in United States, financial crisis ensued that spread to the whole world spontaneously. In fact, \$ 685 billion losses were recorded in the world between year 2007 and 2008 (Barth, 2009). Karapetyan and Stacescu (2009) assert that failure to effectively monitor the creditworthiness of the borrowers was a major contributor to the misfortunes that befell financial institutions in the US. However, Gaitho (2013) explains that getting all financial information regarding borrowers is a difficult and expensive undertaking hence the 2007 housing bubble was not well understood by financial institutions in the US.

However, (OECD, 2014) report shows that the use of information sharing policies has greatly reduced the rate of non-performing loans among commercial banks in the US. Most of the commercial banks operating in Europe are also struggling to survive in a harsh business environment. While financial institutions from the US are slowly recovering from financial crisis, European commercial banks are faced with high rates of non-performing loans and insignificant growth in customer base. Credit information sharing has been reported to have mixed results among the European countries. While in England and Germany significant improvement in loan performance was recorded, the same has not been reported in Scotland and Croatia.

In Africa, CRB policies were first adopted in West African Countries especially French colonies, (Alloyo, 2013). However, despite introduction of the policies, access to credit was only focused to the corporate sector, while small enterprises and individuals were excluded. Therefore, to enable small enterprises and individuals access credit facilities, countries such as Libya, Nigeria, and Egypt introduced credit bureaus. In East Africa, the first CRB was introduced in

Uganda in 2008 and collected financial information from sources such as courts, telecoms, non-bank lenders, financial institutions, and many others, (Merton and Polly, 2008).

CRB policy was implemented by Kenyan Commercial banks after its introduction in 2013 and the main responsibility was collection and collation of credit information from different sources and provide the same information to consumers such as commercial banks and SACCOs. Therefore, it provides an individual's borrowing and repayment patterns and related information such as fraudulent loan collaterals, misrepresentations, unpaid credit cards, overdrawn accounts, forgeries, unpaid cheques, and identification of bankruptcy, (Ngaragari, 2016).

Even after its introduction in Kenya, CBK continued to report increasing Non-performing loans (NPLs) among the commercial banks in the subsequent years. Considering that loans and advances make up to 50% of the bank's balance sheet, loan performance, the announcement by CBK report in 2015 that NPLs was growing fast since 2010 to 2015 suggests an increase in non-performing loans which is risky for the financial industry. According to the report, NPL to total loans ratio grew by 5% from 2011 to 2015 (CBK, 2015). IN 2010, the NPL was at 6%, but in 2011, it reduced to 5% before recording a gradual increment in 2013 up to 2015. Only four banks performed better in the ratings in terms of loans performance. Kago (2014) found that a loan performance in Kenya is poor with four economic variables identified as the key element costing commercial banks. The study identified un-employment, inflation, growth in GDP and interest rates as the factors leading to non-performance in the country. According to a report by Standard Investment Bank (2018), Kenyan commercial banks recorded a 10-year high of NPLs in 2017, with some banks such as National Bank recording up to 6.5%. According to Dierkes, (2013), countries that have a perfectly established information sharing have experienced good results characterized by reduced interest rates, reduced rates of NPLs and increased lending to private sector. This equation seems not be holding in Kenyan case even after the credit information sharing policy started being implemented way back in 2010. While Central Bank of Kenya (2017) has predicted a continued increase in NPLs, it remains a theory on whether the commercial banks have utilized CRBs adequately and whether such information has helped them to detect non-compliant customers, hence the central business of this study was to examine the CEB policy based on self-reported study and establish whether it had a relationship with loan performance among the commercial banks.

1.1. Statement of the Problem

The loan performance for commercial banks in Kenya has been characterized by ever increasing rate of non-performing loans, (CBK, 2016). According to a report by Standard Investment Bank (2018), Kenyan commercial banks recorded a 10-year high of NPLs in 2017, with some banks such as National Bank recording up to 6.5%. According to Dierkes, (2013), countries that have a perfectly established information sharing have experienced good results characterized by reduced interest rates, reduced rates of NPLs and increased lending to private sector. This equation seems not be holding in Kenyan case even after the credit information sharing policy started being implemented way back in 2010. While Central Bank of Kenya (2017) has predicted a continued increase in NPLs, it remains a theory on whether the commercial banks have utilized CRBs adequately and whether such information has helped them to detect non-compliant customers.

Previous studies conducted have mostly majored on the achievement of commercial banks in terms of the assets and equity. For instance, Munjuri and K'Obonyo (2015) employed the Return on both Assets and Equity to evaluate the performance of Kenyan commercial banks where they underscored that the banks were struggling to keep afloat, with some having suffered receivership. However, little has been done of credit information sharing and the performance of loans. This research project intended to determine whether banks have been adequately utilizing the credit information provided by CRBs and whether their credit performance have improved after implementation of 'credit information sharing' policy and come up with policies, gaps and measures to be taken for mitigation.

1.2. Objective of the Study

To examine the effect of the Credit Reference Bureau policy on loan performance of commercial banks in Kenya.

1.3. Hypothesis of the Study

There is no significant association between credit reference bureau (CRB) policy and the loan performance of Kenyan commercial banks.

2.Literature Review

In the study, literature review has been reviewed as follows.

2.1. Theoretical Review

2.1.1.Theory of Financial Intermediation

The study theory was developed in the 1960s by Gurley and Shaw (1960). The theory is built on the believe that intermediaries drastically reduce information asymmetries and transaction costs. The theory stipulates the role of the intermediaries in an economy and how they achieve financial growth. It also explores how financial intermediaries impact the regulations on financial intermediation and accentuates the roles of central banks in the process of regulation, supervision and control of intermediaries. This theory is based on the theory of information asymmetry and agency theory. It's based on the availability of financial intermediaries and is coined from the existence of a number of factors namely; lack of full information in useful time and high transaction costs and the mode of governance.

This theory was further explained by Diamond, (1984) when he established that the bank's existence helps to avoid duplication of audit costs for the creditors and that through reduced monitoring costs, information is unveiled on the functions performed by banks. It shows the role of the banks as a reduction of transaction cost front for its depositors as well creditors which help reduce costs on all fronts.

Andries and Cuza, (2009) applied the theories regarding financial intermediation and intermediaries in their survey. They argued that intermediaries can be defined by their ability to register liability towards savers, mobilize funds from them and issue assets to fund users. The financial intermediaries serve as a force of change in the financial assets which create new assets instead of buying them resulting in increased distribution of assets in the market.

2.2. Empirical Review

Sustainable economic growth in any country is dependent on a strong and resilient banking system. Banks play a primary role as credit intermediaries between the savers and investors as well as provide asymmetric information on credit information. Schoenmaker, (2015) argues that the idea underlying information sharing in Europe is based on the concept of past behaviour as a predictor of future behaviour. The study done across European countries found that information sharing has led to decline in non-performing loans as information asymmetry increases between commercial banks and financial intermediaries. The study argued that information sharing allows banks to identify defaulters and then increase lending to those with good credibility. Due to the increased information sharing, borrowers are becoming weary of defaulting and risking their names being blacklisted. Therefore, to avoid such a scenario where their credibility is questionable, many banks are witnessing an increasing in loan repayments by their clients which results in increased loan performances across Turkey and Greece, (Alexiou and Sofoklis, 2014). The findings were similar to those by Alshatti (2016) on factors that determine the profitability of commercial banks in Jordan. The study concluded that the performance of banks in Jordan is dependent on many factors, but since the implementation of credit sharing, performing loans have been on the rise. The study credits this increase in performing loans to information asymmetry where borrower's information is passed along between banks to identify defaulters. Credit information sharing allowed banks to increase lending while reducing default rates which saw an increasing in performing loans. However, the extent to which other factors described by the author contributed to credit performance was not adequately explored, hence leaving a gap that necessitated the current study.

Kumbirai and Webb (2010), argue that non-performing loan rates are a key measure to consider when it comes to analysing the performance of banks in South Africa. The two conducted a study on the financial ratio of commercial banks performance in South Africa. The study found that loans performance in South African Commercial Banks have been increasing since the implementation of information sharing. This also paved way for unsecured lending which has seen an increase in lending rates and blacklisting of defaulters. In the current study, a more comprehensive approach was used to establish the exact relationships and other affecting variables leading to the observed differences in studies.

Mutesi (2013), studied the performance of commercial banks in Uganda based on information sharing and risk management. The researcher sampled 104 commercial banks and their branches in Kampala purposively. The research posits that a string information sharing platforms allows credit bureaus to enrich their risk management portfolio helping banks mitigate risks. Through information sharing, commercial banks in the country were found to have recorded a decline in non-performing loans while the number of defaulters decline due to an increase in follow-up mechanism and blacklisting which bar them from getting loans in other lending institutions. Through credit risk management and information sharing, commercial banks were found to have increased loans performance to 58.6%. The study in Kampala was quite exhaustive in relation to target population and in association between risk of information sharing and bank performance. However, there was a gap in determining whether the observed details would apply to banks in rural areas, given that factors affecting credit performance for banks significantly depending on the location of banks. This is because borrowers significantly vary in relation to their information consumption and understanding, which affects the manner in which they borrow and use loans, which is in turn reflected in their investment of loans. Therefore, use of a more median population of study would reflect a widely applicable result as was observed in the study.

Kerenge and Jagongo (2014), carried a study based on a census survey on banks in Kenya established that information sharing has led to better and improved financial performance among commercial banks. Omukoko (2015), also found that credit information sharing mechanisms by commercial banks has resulted to significant changes in non-performing loans in commercial banks when comparisons were made for before and after the implementation of the information sharing policy.

Kibor, Ngahu and Kwasira (2015), further explored the influence of credit risk management on loan performance of commercial banks in Nakuru County. They found that lending policies have a strong positive relationship with loan performance. They argue that the increase in data access of defaulters to commercial banks in Nakuru has led to an increase in loan performance among commercial banks in Nakuru as information sharing gives personnel sufficient information to appraise potential borrowers. However, the study having been conducted in a single county, there was a gap in relation to applicability in other banks and financial institutions across the country, given the differing characteristics among borrowers in relation to social, cultural, and economic characteristics of individuals. Therefore, a more generalizable result would be observed if a wider study population would be targeted to ensure limitation of the socio-cultural and economic bias across populations.

Scholars have consensus that exchange of credit information has influenced the development of financial systems hence leading to economic growth. The presentation of Credit scores cards has tremendous advantages to both banks and borrowers. Borrowers can consult with loan specialists on better terms. Houston, Lin, Lin, and Ma, (2010) states that data sharing instruments decrease antagonistic choice by enhancing the pool of borrowers and the knowledge of borrowers'

attributes in this manner enhancing bank productivity in the allocation of loans. In light of some contextual investigations, Olweny and Shiphos (2011), brings up that credit data sharing assumes a vital part in enhancing the productivity of money related establishments by diminishing credit preparing costs and also the resources needed to process advanced applications. Fayyaz, asouli and Amiri, (2020), demonstrate that data sharing establishments facilitate in diminishing unwise conduct of borrowers and are additionally significant intending to moral danger issues. The exchange of credit data diminishes loan costs and even dispenses with the data preferred standpoint of bigger estimate banks accordingly upgrading credit showcase rivalry. However, Olweny and Shiphos (2011), and Fayyaz et al., (2020) had gaps in explaining why there exist differences in borrowing and lending across commercial banks, yet the information availed through CRB affects borrowing and lending universally. Therefore, the current study also focused on identifying other factors that affected performance of commercial banks performance in relation to loans.

Most foundations in the Kenyan banking industry were confronted with huge NPLs portfolios before the introduction of CRB instruments. This constantly prompted the fall of a few banks, (Shisia, Sang, Mutung'u, and Okibo, 2014). There were a few serial defaulters, who borrowed from different commercial banks with no intention of repaying back their credits. The greater part of these defaulters exploited the data asymmetry condition that won because of the absence of a CRB mechanism of information sharing.

As per statistics the frequency of loan defaulting was worrying and put to scrutinize the credit models and quality of data utilized by credit analysts. Net credits were at the level of SHS. 315 billion as at December 31, 2009, and represented 51% of aggregate net resources of Kenya's managing an account division. At the same time, the extent of non-performing credits to aggregate advances in Kenya was a high of 30%. As at 31st December 2009, NPLs added up to Shs.94 billion (Githua, Douglas, Juma, and Alala, 2015) Contrasting, the proportion of non-performing credits to aggregate advances in Kenya of 33% to comparable African economies at the end of 2008, central banks of those nations (at that time) revealed that, this proportion was much lower in Zimbabwe (24%), Nigeria (11%), and South Africa (3%) (Central Bank of Kenya Supervision Yearly Reports, 2008).It is on this foundation that the Banking Credit Reference Bureau Controls (2008) that represent permitting, operation and supervision of CRBs by the CBK were gazetted and operationalized in 2009,(Ombaba, 2014). However, the inherent factors leading to differences in credit performance and the observed borrowing patterns was not explicitly explained, calling for further studies to point out such reasons. This formed the basis for the current study.

According to a recent research conducted by Shisia (2014) on the different approaches followed by commercial banks in Kenya to deal with defaulters, the research found out that the CBK has authorized two CRBs in particular; CRB Africa Limited and Metropolis CRB Limited. Their primary goals are to assemble data on the instalment history and records of borrowers and circulate two noteworthy sorts of information that is information about defaults on instalments, delays, misconducts, insolvencies and among others (Shisia, Sang, Mutung'u, and Okibo, 2014). According to the research, the Credit Reference Bureaus contain a database with the list of the average loan defaulters. According to the study, 90% of the financial lending institutions have subscribed to the CRB and are using it to impose sanctions on the loan defaulters. As new default cases are reported on a daily basis, the list of the people termed as not creditworthy has been on the rise.

The introduction of the CRB has however reduced the number of default cases significantly. The sanctions presented by the CRB have made the people develop fear of defaulting the payments. Therefore, the standard of support for data sharing among commercial banks and the level of enthusiasm among SACCOs and MFI's in taking an interest in data sharing is an eminent accomplishment. However, Shisia (2014) left a gap on the relationship between the increasing number of blacklisted and the rate at which loans are borrowed. As the study indicated, there is an increasing daily number of defaulters as recorded through CRB, and according to the trend, it might lead to reduced number of borrowers in future. Therefore, such a possibility needed to be investigated to establish that blacklisting of borrowers do not affect borrowing patterns and credit performance. Further, use of a relatively larger sample would guarantee better and more accurate results.

2.3. Summary of Literature Review and Gaps

Utilization of the CRB and CIS among the financial institutions was attractive however the policy implementation became a challenge to different organizations. The inclusion of credit defaulters in the CRB was not enough to prevent them from accessing loans as it was evident that they can still get the loan from other institutions which were not registered with the CRB. Research ought to be carried out on variables influencing the viability of credit enlisted bureaus on mitigating nonperforming loans, challenges encountered by commercial banks in implementing the CRB policy, procedures employed by national banks lenders association to ensure compliance with laws by commercial banks, and factors affecting credit data sharing among commercial banks in Kenya. There was need to conduct research on the options available for the integration of all the lending stakeholders in the credit exchange of information to make the CRB more efficient and prevent institutions from lending money to the defaulters. Further, the methodology used by some of the past reserchers was not adequate for this study in aspects such as study population and the sample size, gaps that have been adequately adressed in the current study.

2.4. Conceptual Frame Work

This is an analytical tool with several variations and contexts which gives an overall picture of the study. The study used this conceptual framework to explain the interrelationship between several variables. Independent variable is defined as a variable that stands alone and does not change by the other variables you are trying to measure. In my study, the independent variables included; CRB policy, ICT usage, staff training and CRB customer awareness initiatives on loan performance among commercial banks in Kenya. Dependent variable is a variable whose value depends on that of another

factor. In my study, the dependent variable was the performance of loans of commercial banks. The intervening variable was government policies on bank loans.

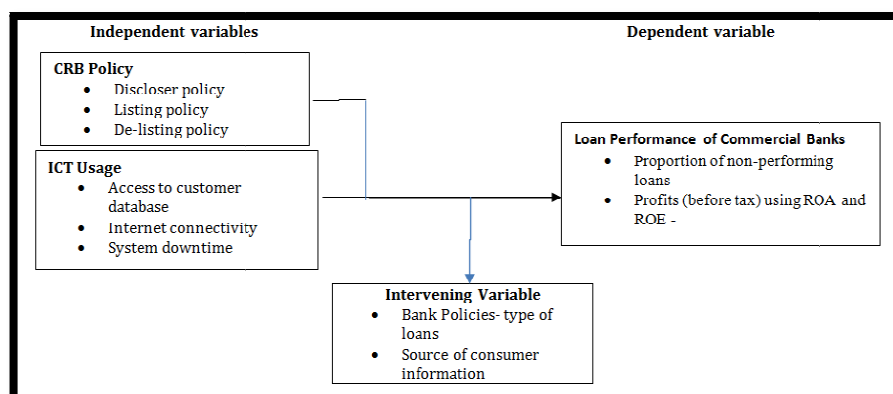


Figure 1: Conceptual Framework

3. Methodology

The section includes the methods used to conduct and analyse the data collected in the study. The section entails the research design, target population, sample design, data collection instrument and procedures and data analysis.

3.1. Study Design

A research design refers to the overall strategy that a researcher opts to integrate the varying components in a coherent and logical way to ensure that the research problem is adequately addressed (Creswell, 2014). This study employed a mixed-method research design involving secondary and primary methods. According to Sifuna (2009), mixed method research design enabled data collection by the researcher from a large population using different types of instruments. Since commercial banks in Kenya were widespread, the researcher used mixed-method research design to get the necessary information faster. Moreover, mixed methods research designs is scientifically sound and enabled a researcher to arrive at sound conclusions.

In the study, the independent variable was CRB policy while the independent variable was loan performance. Loan performance was measured quantitatively using secondary data. While the independent variable was measured both qualitatively and quantitatively.

3.2. Target Population

This is the population group that share similar traits and is identified by the researcher as the intended audience for the study. The study had a target population of 210 credit officers derived from the 42 commercial banks in Kenya, (CBK, 2017). Credit officers had been selected as the target population as they were entrusted with making loan proposals, processing loans, checking the eligibility of prospective clients and ensuring proper documentation of the required facility. In this study, all the 42 commercial banks had head offices in Nairobi and therefore, the research was undertaken in Nairobi County. Respondents were the credit officers derived from these banks. Each bank had approximately 5 credit officers who were included in the study.

3.3. Sampling Design

Sampling is defined as a process of choosing a representative group from a population of interest to the researcher. All the 42 commercial banks were used in the research to gather data. This was so because the target population was relatively small and therefore, manageable by the researcher. It therefore, implied that all the 210 credit officers operated in Nairobi bank headquarters were involved in the study.

3.4. Data Collection Instruments and Procedure

Data collection instruments are tools used to gather data from participants of the study. They helped the researcher to gather reliable data. In the study, both the primary and secondary data were collected. Primary data was collected through questionnaires for credit officers. Questionnaires were used to collect data on staff training, ICT usage and credit policy as understood by the credit officers. Secondary data was collected from commercial banks websites to determine the performance of loans.

The procedure tools were used to obtain data on performance of banks five years before the implementation of credit information sharing and five years after the implementation. Data collection was from the financial records from the banks which if not published online, information was sought from the respective banks. The specific data to be obtained included: non-performing loans, credit profitability as well as customer base. Financial ratios such as Return on Equity (ROE) and Return on Assets (ROA) and were obtained so as to determine the trend in profitability of the banks.

The multiple regression equation employed was as follows:

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

Where;

Y = Loan performance

β_0 = Constant
 β_1, β_2 and β_3 = Regression coefficients
 X_1 = ICT usage
 X_2 = Staff training
 X_3 = CRB policy
 X_4 = Customer awareness initiatives
 ε = Error term

3.5. Data Analysis

This study employed a mixed-method research design involving secondary and primary methods. According to Sifuna (2009), mixed method research design enabled data collection by the researcher from a large population using different types of instruments. The target population for this study was 210 credit officers derived from the 42 commercial banks in Kenya, (CBK, 2017). Credit officers had been selected as the target population as they were entrusted with making loan proposals, processing loans, checking the eligibility of prospective clients and ensuring proper documentation of the required facility. Questionnaires were used to collect data on staff training, ICT usage and credit policy as understood by the credit officers. Secondary data was collected from commercial banks websites to determine the performance of loans. The study involved the use of both inferential and descriptive data analysis techniques. After the data was collected, quantitative data was screened and entered into SPSS (V.22) for analysis. Using the software, necessary statistics such as measures of central tendency and dispersion was obtained on relevance basis.

4. Findings

Overall, the number of credit officers targeted were 210, but only 198 were able to participate in the study. Ten of them could not be reached because Imperial Bank and Chase bank were in receivership by the time of data collection. This means data was collected from 40 banks. The other two credit officers were on leave and could not be reached to fill in the questionnaires. Therefore, the response rate of the study was 94.28%. Table 1 displays the demographic characteristics of the participants

Demographic Characteristics		F	%
Gender	Male	109	55.05
	Female	89	44.95
Age	18-35	85	42.93
	36-60	113	57.07
Experience	<1 year	24	12.12
	1-5 years	92	46.46
	6-10 years	70	35.35
	>10 years	12	6.06
Management Level	Functional level	104	52.52
	Middle level	52	26.26
	Senior Level	42	21.21

Table 1: Demographic Characteristics

The perceptions of the study respondent were sought by presenting them with a range of statements on a Likert scale and were asked to rate the extent to which they agreed or disagreed with the statements as shown in table 2. In the scale; 1-strongly agree, 2-agree, 3-disagree, 4-strongly disagree.

Statement	N=198	1	2	3	4	Mean	SD
CRB policy on discloser, listing and delisting of defaulting creditors is clear	F	9	39	115	35	2.89	0.739
	%	4.5	19.7	58.1	17.7		
CRB policy on discloser, listing and delisting of defaulting creditors is implementable without complications	F	0	41	109	48	3.04	0.671
	%	0	20.7	55.1	24.2		
The CRB officers used by this bank are available to clarify the policy whenever need be	F	6	39	118	35	2.92	0.701
	%	3	19.7	59.6	17.7		
CRB policy has helped commercial banks to reduce non-performing loans	F	14	64	105	15	2.40	0.732
	%	7.1	32.3	53	7.6		
CRB policy has led to improved loan performance	F	9	60	111	18	2.70	0.697
	%	4.5	30.3	56.1	9.1		

Table 2: Respondents' Perceptions on CRB-Policy

Results in Table 2 shows that majority of respondents 115(58.1%) disagreed that the CRB policy on disclosure, listing and delisting of defaulting creditors is clear and 35(17.7%) strongly disagreed supported by the mean value of 2.89 and a moderately high standard deviation value of 0.739. Contrary, only 39(19.7%) of the respondents agreed and 9(4.5%) strongly agreed that the listing, delisting and disclosure policies are clear, the findings suggest that the CRB information sharing policies on defaulters are not clear. Therefore, the lack of clear policies on disclosure, listing and delisting limits the banks' ability to predict the customer's behaviours as Schoenmaker, (2015) asserts that information sharing is critical in understanding the past behaviour of the creditors and predicting their future behaviour. He argued that information sharing allows banks of identify defaulters and then increase lending to those with good credibility

The table 2 also shows that the majority of the respondents 109(55.1%) and 48(24.2%) disagreed and strongly disagreed respectively that the CRB policies of disclosure listing, and delisting are implementable without complications whereas only a minority 41(20.7%) claimed that the policies can be implemented without issue. The findings reveal that the CRB policies are complicated and its implementation is difficult to achieve without complications seen in the mean value of 3.2 where the respondent's perceptions were moderately dispersed at (SD=0.671). The findings are contrary to those by Alshatti (2016) who found that the information sharing policies in Jordan are clear are easily implementable which has seen a rise in lending and high rates of repayment.

The majority of the respondents 118(59.6%) and 35(17.7%) opined that the CRB officers used by the banks to clarify the policies are not available whenever they are needed while only 39(19.7%) and 6(3%) agreed and strongly agreed respectively that the CRB officers are readily available. The findings suggest that the CRB officers are not available whenever required by the banks to clarify their policies limiting the implementation of their policies and in turn limiting the banks' ability to utilize the information sharing platforms seen in the mean value (m=2.92, SD=0.701). Moreover, according to Mitesi (2012) information sharing platforms allows the credit bureaus to enrich their risk management portfolio and mitigate risks, but in the case of Kenyan CRB, the effectiveness of the platforms is limited by the unavailability of the credit officers to help clarify the policies.

It can also be seen that majority of respondents 105(53%) and 15(7.6%) indicated that the CRB policies have not helped commercial banks reduced non-performing loans while only 64(32.3%) and 14(7.1%) respectively agreed and strongly agreed that they have helped reduce non-performing loans. This can be seen in the mean value 2.40. The responses were also moderately dispersed. Similarly, the majority 111(56.1%) and 18(9.1%) of the respondents disagreed and strongly disagreed that the policies have improved the loan performance of banks respectively whereas only 60(30.3%) agreed and 9(4.5%) strongly agreed that the performance of loans. Therefore, it can be concluded that the performance of loans, including non-performing loans have not benefited from the implementation of information sharing policies by CRB. The findings are contrary to those by Omukoko (2015) who found that the credit information sharing mechanisms by commercial banks has led to significant changes in no-performing loans. Similarly, Kibor, Ngahu and Kawira (2015) reported that the CRB policies have led to a positive association between loan performances due to the increase in data access of defaulters to commercial banks in Nakuru. Kerenge and Jagongo (2014) also found that the diffusion of credit information sharing improving information sharing. However, in this study, the clarity and implementation of the policies is challenging for the credit officers which has affected the performance of loans.

The respondents were also requested to indicate what needs to be changed in the CRB policy. They were given three options, including, to clarify exactly how defaulters should be listed, clarify how defaulters should be notified on listing and put minimum amount of limit upon which customers can be listed as defaulters. Their responses are presented in the table 3.

Statement	F	%
Clarify exactly how defaulters should be listed	115	58.08
Clarify exactly how defaulters should be notified on listing	111	56.06
Put minimum amount limit upon which a customer can be listed as a defaulter	125	63.13

Table 3: Changes to CRB Policies

Results in table 3 shows that 115(58%) of the respondents claimed that the CRB policies should clarify exactly how defaulters should be listed while 111(56.06%) claimed that the CRB policies should clarify how defaulters should be notified on listing. Lastly, 125(63.13%) asserted that the CRB policies should put a minimum amount limit upon which a customer can be listed as a defaulter. These changes were reported by the respondents to improve the clarity and implementation of the CRB policies which would positively impact the loans. This are in line with the findings by Alshatti (2016) who found that the information sharing policies in Jordan are clear are easily implementable which has seen a rise in lending and high rates of repayment due to the clear policies that make it easy to implement the policies.

The researcher further sought to obtain the opinions of the banks' staff regarding the performance of the commercial banks before and after implementation of the CRB policy. The respondent were issued with a Likert scale where 1=strongly agree, 2=agree, 3=disagree and 4=strongly disagree. Their responses were as presented in the table 4.

	N=198	1	2	3	4	Mean	SD
Default in repayment of loan has reduced since introduction of credit information sharing	F	0	66	89	43	2.88	0.735
	%	0	33.3	44.9	21.7		
The number of customers demanding loans have increased since introduction of credit information sharing	F	0	39	121	38	2.99	0.625
	%	0	19.7	61.1	19.2		
The profits of our banks have increased over time since introduction of credit information sharing	F	19	79	95	5	2.69	0.625
	%	5.1	39.9	48.0	2.5		
There is no difference in loan performance before and after introduction of credit information sharing	F	36	77	64	21	2.43	0.700
	%	18.2	38.9	32.3	10.6		
Credit information sharing has led to significant improvement in commercial banks' loan performance	F	6	24	126	42	3.02	0.899
	%	3	12.1	63.6	21.2		

Table 4: Respondent's Perceptions on Loan Performance

The results from table 4 shows that the respondents generally claimed that the credit information sharing has not led significant improvement in commercial banks' loan performance ($m=3.02$) with a high dispersion of 0.899 where the majority of respondents 126(63.6%) claimed credit information sharing has not led to significant improvement in commercial bank loan performance. this shows that despite the introduction of credit sharing information platforms, the banks' loan performance has not been significantly affected which may be attributed to the poor implementation of policies, poor customer awareness, ineffective ICT and poorly trained staff. According to Githua, Douglas, Juma, and Alala (2015) net credit performance of are poor resulting in poor performance of loans. Moreover, Shisia (2014) claims that there is a relationship between the increasing number of blacklisted and the rate at which loans are borrowed. As the study indicated, there is an increasing daily number of defaulters as recorded through CRB, and according to the trend, it might lead to reduced number of borrowers in future which negatively affects the performance of loans.

As shown in table 4, most of the respondents disagreed ($m=2.88$) that default in repayment of loans has reduced after introduction of credit information sharing seen from majority of respondents 89(44.9%) and 43(21.7%) disagreeing and strongly disagreeing and 66(33.3%) agreeing with the statement. These findings suggest that there has generally be no decline in the default of repayment of loans since the introduction of credit information sharing. These findings are contrary to Mama and Song, (2012), demonstrate that data sharing establishments facilitate in diminishing unwise conduct of borrowers and are additionally significant intending to moral danger issues. The exchange of credit data diminishes loan costs and even dispenses with the data preferred standpoint of bigger estimate banks accordingly upgrading credit showcase rivalry.

Results in table 4 further shows that the respondents generally disagreed ($m=2.99$) that the number of customers demanding loans have drastically increased since the introduction of credit information sharing. This is evident as 121(61.1%) disagreed and 38(19.2%) strongly disagreed that customers asking for loans have increased. Contrary, only 39(19.7%) of the respondents claimed there has been an increase in the number of customers asking for loans since the introduction of credit information sharing. The responses reveal that there has been no spike in the number of loan request by the customers sentiments supported by Olweny and Shiphos (2011), and Mama and Song, (2012) who claimed there exist differences in borrowing and lending across commercial banks, yet the information availed through CRB affects borrowing and lending universally seeing no difference in the borrowing trends of creditors.

Further, majority of respondents ($m=2.69$) declined that the profits in their banks have increased since the inception of credit information sharing. Similarly, it can be seen that the majority 95(48.0%) disagreed, 5(2.5%) strongly disagreed that their profits have not increased. Contrary, 79(39.9%) and 19(5.1%) agreed and strongly agreed that their profits have increased. The findings imply that the majority of the banks have not recorded increased profits from loans since the inception of credit information sharing which are contrary to In light of some contextual investigations, Houston, Lin, Lin, and Ma, (2010) who claim that credit data sharing assumes a vital part in enhancing the productivity of money related establishments by diminishing credit preparing costs and also the time required to process advanced applications. The respondents also generally disagreed ($m=2.43$) that there was no difference in the loan performance before and after the introduction of credit information sharing with their views slightly dispersed. This can be seen where 77(38.9%) of the respondents agreed and 64(32.3%) of the respondents generally disagreed that there has been no difference in their loan performance. The findings imply that bank still encounter challenges in the repayment of loans as Shisia, Sang, Mutung'u, and Okibo, 2014 climed that some creditors borrowed from different commercial banks with no aim of repaying back their credits. Consequently, the greater part of these defaulters exploited the data asymmetry condition that won because of the challenges in the CRB mechanism of information sharing.

The researcher further collected secondary data spanning between 2005 and 2014, which represented 5-year period before implementation of CRB policy and 5-year period after. Secondly, the researcher collected views from respondents regarding their feeling on loan performance before and after implementation of CRB policy. The results in table 4.7 displays the findings on loan performance as collected from Central Bank of Kenya (CBK) annual financial sector

reports published in their website. Since CBK does not publish data on profits obtained specifically from loans, the researcher adopted general profits before tax.

Year	Net Non-performing Loans (Ksh M)	Profits (before tax) (Ksh M)
2005	30,200	19,300
2006	23,700	27,100
2007	18,400	35,600
2008	21,590	29,697
2009	22,637	33,594
2010	57,637	74,272
2011	52,958	89,453
2012	22,937	107,899
2013	35,476	125,760
2014	48,544	141,145

Table 5: Commercial Banks' Loan Performance (2005-2014)

The results shows that there was a general gradual increase in NPLs as well as profits overtime during the period considered in this study. However, it can clearly be observed that profitability of the banks has been improving faster than the increase in NPLs, an indication of better business models employed by the banks to reduce loses and increase profitability. Fig 1 displays the trend.

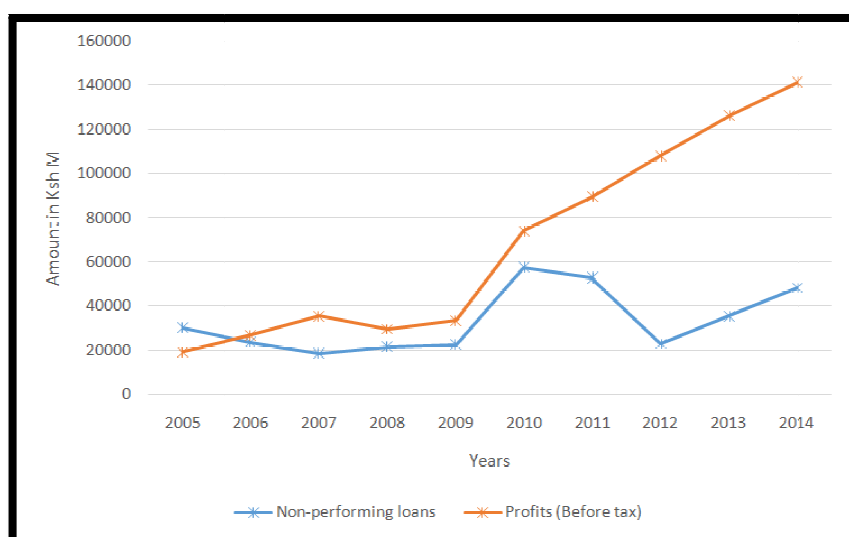


Figure 2: Trend in Loan Performance (2005-2014)

The graph shows that between 2005 and 2007, NPLs. Within one year after implementation of CRB policy (2009-2010), NPLs increased steadily. After 2010, there was a gradual decline in NPLs until 2012. Between 2012- 2014, NPLs increased again. Between 2005 and 2010, NPLs and profits had almost a similar trend, fluctuating at the same rate. However, after 2010, profits increased steadily while NPLs reduced drastically up to 2012. Considering the CRB policy was implemented in 2009, it can be explained that the policy enabled the banks to rake more profits while maintaining the NPLs almost at the same level over time. Therefore, the findings imply that the implementation of CRB policies increased the bank's profit levels while retaining the level of NPLS. So the CRB policy was effective in helping banks rake more profits even though it didn't lead to a decline in the NPLs.

The results in table 5 displays a comparative analysis of the two periods using a paired sample t-test

		Paired Differences				t	df	Sig. (2-tailed)
		Mean	Std. Deviation	95% Confidence Interval of the Difference				
				Lower	Upper			
Pair 1	Pre_CRB NPL - Post_CRB NPL	-20205.00000	10632.34948	-33406.80557	-7003.19443	-4.249	41	.013
Pair 2	Pre_CRB Profits - Post_CRB profits	-78647.60000	22388.92268	-106447.11925	-50848.08075	-7.855	41	.001

Table 6: Paired Sample T-Test on Loan Performance before and After CRB Policy

Statement	F	%
Banks should lower the interest rates charged on loans	123	62.62
Banks should request collateral for high-risk borrowers	134	67.67
All loans should have guarantors	105	53.03
Financial literacy should be availed to the borrower during loan application	145	73.23

Table 7: Strategies to Improve Loan Performance

Results in table 7 shows that majority of respondents 123(62.62%) claimed that banks should lower the interest rates charged on loans whereas 134(67.67%) asserted that banks should request collateral for high-risk borrowers. The other suggestion was that all loans should have guarantors 105(53.03%) and 145(73.23%) claimed that financial literacy should be availed to the borrower during loan application. These findings suggest that there are strategies that can help banks improve their loan performance.

4.1. Regression Results

The researcher then employed a multiple regression model to establish if there existed a significant link between the independent variables and loan performance of the commercial banks. The regression was performed at 95% confidence interval, where a p- value ($p < 0.05$) meant there existed a significant correlation between independent and dependent variables.

The table below shows the influence of independent variables in the study. The findings are represented in table 4.12

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.986 ^a	.843	.829	1.06278

Table 8: Model Summary

a. Predictors: (Constant), Creditawareness, Training, Crb-Policy, Ict Usage

5. Recommendations of the Study

The findings of the study indicates that majority of respondents were of the opinion that CRB policy on disclosure, listing and delisting of defaulting creditors is not clear. Respondents further felt that the CRB policies of disclosure listing, and delisting are not implementable without major complications. However, the findings show that respondents were positive on the importance of CRBs in improving loan performance but faulted the implementation of the same. Basically, the findings show that the CRB information sharing policies as implemented were inadequate and did not lead to expected outcomes in loan performance of the commercial banks. The study therefore recommends that commercial banks and the CRBs should make their policies on listing and delisting defaulters clear and easy to implement.

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