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Role of Credit Reference Bureau in Influencing Customer Repayment Behaviour in Mitigating against Credit Default among Commercial Banks in Kenya

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Abstract: **The study examined the role of Credit Reference Bureau (CRB) in influencing customer repayment behaviour in militating against credit default in commercial banks in Kenya. The study was based on the Information asymmetry theory Theory. The study used a Causal-Comparative descriptive survey design in evaluating the role of CRB in influencing customer repayment behaviour in mitigating against credit default in commercial banks in Kenya. The target population of the study consisted of all the 43 licensed commercial banks in Kenya under the Banking Act. The researcher used a census of all the 43 commercial banks in Kenya. Primary data was collected using questionnaires. Secondary data was obtained from CBK loan books and CBK annual Bank supervisory reports. Data was analysed using SPSS and results presented using graphs and tables .The researcher used descriptive statistics and inferential statistics. Inferential statistics comprised correlation, regression and Chi-square. The conclusion was that CRB plays a significant role in customer repayment behaviour in Mitigating against credit default in commercial banks in Kenya.**

Keywords: **Credit Reference Bureau, Customer Repayment Behaviour, Credit Default Rate.**

I. INTRODUCTION

Historically, the concept of credit reporting agencies was born in the 1860s in the US, when merchants needed to keep track of their customers, especially those of poor credit risk. The first countries to establish public credit registries were in Western Europe in Germany in 1934 followed by France in 1946. By the mid-1960s, three other European countries that is Italy, Spain and Belgium had also established PCRs (Wydick, 2001). Early adopters included the former French colonies in Western Africa that formed the West African Monetary Union in 1962 and immediately established public credit reporting following the French example. In addition, several Middle Eastern and North African nations adopted PCRs in the 1950s and 1960s. In Africa, the concept of CRB has had its practice in few selected countries by multilateral companies through private credit bureaus such as Compuscan which operates in Botswana, Namibia and Rwanda while Kutz Univar, operate in Tanzania, Kenya and Uganda(Holden,1985). In Kenya, before the publication of the Banking Credit Reference Bureau regulations 2008 and the licensing of the first Kenya`s credit bureau, Credit Reference Bureaus Africa Ltd in February 2010, Kutz Univar Bureau was operating in the country (Kevin, 2001). In Kenya, CRBs concept was given a statutory basis and legal recognition by the Banking (CRB) Regulations, 2008. published in July 2008 and came into operation on 2nd February 2009. According to the regulations, which provide for the licensing and supervision of CRBs by the CBK, a closed user group for credit information sharing for institutions licensed under the Banking Act was created. A closed user group refers to clientele institutions licensed under the Banking Act, namely, commercial banks, mortgage finance companies and non-bank financial institutions (CBK, 2010).

1. Statement of the Problem:

According Ahmad (2007), despite the roll out of Credit Reference Bureau in Kenya and their facilitation of data sharing, there is still an increase in credit risk. Kenyan industry was saddled with a momentous NPLs portfolio which is a critical source of economic distortion and stagnation which must not only be monitored but also controlled. This invariably led to the collapse of some banks. CBK in the year 2015 placed Dubai Bank of Kenya owing to the deteriorating cash reserve ratio position and failure to honor financial obligations, including kshs 48 million due to Bank of Africa Kenya. Chase Bank in the same year had made a loss of kshs 742 million, despite making a profit of kshs 2.3 billion the previous year. The loss was attributed to bad and insider loans totaling to kshs 16.6 billion. National Bank of Kenya in the year 2015 reported kshs 1.2 billion loss compared with a profit of kshs 1.3 billion in the same period in 2014. The huge loss was blamed on the issued bad loans. Imperial Bank Ltd in 2016 under receivership for facing serious liquidity problems. One of the catalysts were "Serial defaulters" who borrowed from various banks with no intention of repaying the loans.(CBK 2016).In the Kenyan Milieu, few aspects relating to Credit Reference Bureau have been reviewed Al-Khouri (2011). Weru (2015) evaluated the effectiveness of CRB in Kenya, Ng'anga (2011) investigated stakeholder perception of credit reference bureau services in the Kenyan credit market, Gaitho (2010) studied the role of credit reference bureau on credit access, and Mumi (2010) appraised the impact of credit reference bureau in financial institutions in Kenya; Therefore, this study aims to determine the role of CRBs influencing customer repayment behaviour in mitigating against loan default in Commercial banks in Kenya.

2. Objective of the Study:

To determine the role of CRB in influencing customer repayment behavior in mitigating against credit default in commercial banks in Kenya.

3. Research Hypotheses:

In conducting the study the following hypothesis were tested

Ho: CRB does not have a significant role in influencing customer repayment behavior in mitigating against credit default in commercial banks in Kenya.

Ha: CRB has a significant role in influencing customer repayment behavior in mitigating against credit default in commercial banks in Kenya.

II. LITERATURE REVIEW

1. Theoretical Review:

Information Asymmetry Theory: This strand of theory proposed by Anderson (2007**)** and Stiglitz (2015) is based on the notion that the borrower is likely to have more information than the lender about the risks of the project for which they receive funds. This leads to the problems of moral hazard and adverse selection (Berger and Frame, 2007). These problems reduce the efficiency of the transfer of funds from surplus to deficit units. The banks overcome these problems in three respects: First by providing commitment to long-term relationships with customers, Secondly through information sharing and thirdly through delegated monitoring of borrowers. Under direct financing, it is necessary for a lender to collect information to try to redress the information asymmetry. The theory of asymmetric information tells us that it may be difficult to distinguish good borrowers from bad borrowers (Auronen, 2003 & Richard, 2011), which may result into adverse selection and moral hazards problems. The theory explains that in the market, the party that possesses more information on a specific item to be transacted is in a position to negotiate optimal term for the transaction than the other party (Auronen, 2003).The party that knows less about the same specific item to be transacted is therefore in a position of making either right or wrong decision concerning the transaction. Adverse selection and moral hazards have led to significant accumulation of nonperforming loans in banks (Waweru and Kalani, 2009).

Information asymmetry theory is considered relevant in this study on the role of CRBs in influencing customer repayment behaviour in mitigating credit default of commercial banks in Kenya. The problem of moral hazard associated with the theory leads to borrowers concealing material information concerning their ability to pay and risks associated with the investment and the bank lending out credit without having complete information about borrower. The banks end up giving low quality loans that result to increase in loan losses. At the same time due to the problem of adverse selection associated with information asymmetry, the banks ends up charging high interest rates to covers for increased risk of default due to

opaqueness of customer credit history thereby leading even more default as borrowers cannot afford rising interest rates therefore increased non-performing loans. Increasing non-performing loans leads to rising loan losses and doubtful loans of the commercial banks in Kenya.

2. Empirical Review:

According to Hoque (2009), managing financial resources by way of lending and borrowing is a key operational function of any financial system. Therefore, loan repayment is very important. A loan is considered as performing if the principal and interest is being paid in accordance with the agreed contractual terms of repayment. Failure to pay loans promptly may limit credit access. According to Mumi (2010) inadequate access to credit limits people from a fair share of resources in society, depriving them of basic needs and opportunities in life. Universally, financial institutions are facing problems of non-repayment of loans. This problem can be overcome through monitoring the behavior of borrowers. Thus, the idea of establishing CRB is appropriate in managing potential loan default. Studies show that CRBs allows for credit information sharing among the financial institutions.

According to Leonard (2005) previously, many borrowers who made a lot of effort to repay their loans were not rewarded for it because their good repayment history was not available to the banks they approached for new loans. On the other hand, whenever borrowers failed to repay their loans banks were forced to pass on the cost of defaults to other customers through increased interest rates and other fees. Credit reporting allows banks to better distinguish between good and bad borrowers. Someone who has failed to pay their loan in 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 and make prompt repayments.

According to Derban and Mullineux (2005) credit reports provide a credit score that is unique to a customer's character. This credit score is a measure of credit risk calculated from a credit report using a standardized formula. A positive score is characterized by frequently paid bills, lack of defaults on outstanding balances and maintaining steady employment. On the other hand, a negative credit score is characterized by late payments, bankruptcy, fraud charges, foreclosures and loss of employment (Greuning, 2003). Kargi (2011) acknowledges that CRB ensures that only those with repayment capacity get access to loans. Derban (2005) points out that financial institutions that have embraced CRB are can lend at a reasonable interest rate because there are fewer provisions of bad debts. According to Djankov and Scleifer (2003) credit default occurs when one has made no payments on student loan for at least 270 days.

According to Daniels (2004) there are three major causes of loan default. First, unknown missed Payments where many people only realize they have a credit default when they are declined for some form of credit. There has been a credit default listed on their credit report and it has resulted in the decline. They may not even have any had any financial issues, but may have only mismanaged a bill or a service or phone contract. One may think the bill has been taken care of by closing the account; but if a contract is cancelled one may still have cancellation fees payable. According to Donaldson (1994) the second cause of loan default is known missed payments, where some people however, are completely aware they are facing credit defaults, but they are facing financial hardship and struggling to make their commitments. People do not simply decide to not pay their bills; it is a result of some other circumstance that puts them into this situation (Collins & Wanjau, 2011).

III. METHODOLOGY

1. Research Design ,Target Population And Sampling:

The study used a Causal-Comparative descriptive survey design in evaluating role of CRB in influencing customer repayment behaviour in mitigating risk among commercial banks in Kenya. The study was carried out at the commercial bank headquarters and credit reference bureau headquarters in Nairobi County. The population of the study consisted all the licensed commercial banks in Kenya and the CRBs under the Banking Act. According to the CBK, there were 43 licensed banks in Kenya as at 31st march 2015 CBK (2012). The researcher used judgment sampling technique that is a non-probability method. The selected sample was based on judgment. The researcher drew the entire sample from the population using census approach. The researcher was confident that the chosen sample was truly representative of the entire population. All credit commercial bank managers at the headquarters were used for the study.

2. *Research Instruments and data collection:*

Research used both primary and secondary data. In collecting primary data, the researcher used questionnaires. Secondary data was collected from CBK loan book, CBK annual Bank supervisory reports. The data required was collected for a period five years, before the introduction of CRB and five years after to show the trend of loan defaults before and after the introduction of CRBs. Other sources of secondary data included annual publications, newspapers, journals, monthly publication, and library books were used to form the backbone of literature review. Piloting testing was carried out to ensure validity and reliability of the instrument. A pilot study was carried out at Diamond Trust Bank and I & M banks headquarters in Nairobi. To ensure validity, the questionnaire was discussed with the supervisor, colleagues, experienced researchers and professional bankers. In assessing reliability of the data, internal consistency method using Cronbach's alpha was used. With the help of research assistants, the researcher visited the commercial banks delivered the questionnaires. Arrangements were made with the assistance of public relations officers to administer questionnaires to the credit managers and CRB management at the headquarters. The researcher acquired a research permit from National Commission for Science, Technology and Innovation (NACOSTI). The questionnaires were picked after two weeks from the date of issuance when a prearranged date was confirmed for collection.

3. Data Processing and Analysis:

The data collected were examined before analysis commences for completeness and consistency .The data was analysed using descriptive statistics, correlation analysis, and multiple regression analysis and chi Squre. Data analysis was aided by Excel 2013 and SPSS version 22. Descriptive statistics used included frequencies distribution, percentages, measures of central tendencies and dispersion. Inferential statistics included correlation, multiple regressions and chi square.

IV. RESULTS AND DISCUSSIONS

1. Pilot Study and Response Rate:

The researcher conducted a pilot study in two banks that are homogeneous in terms of composition and operations with the targeted banks to establish the reliability of the research tools. The results are presented in Table 1

Table 1. Reliability Analysis

Cronbach's Alpha	N of Items
.836	2

A coefficient of above 0.7 was obtained and this indicated that the data collection instruments were valid (Nachmias & Nachmias, 2006). Data validity played an important role towards generalization of the gathered data to reflect the true characteristics of the study problem. An alpha coefficient higher than 0.7 indicates that the gathered data has a relatively high internal consistency and could be generalized to reflect opinions of all respondents in the target population.

Table 2. Response Rate

Response Category	Frequency	Response(%)	frequency	Non- response (%)
Unit response	35	81.39	8	18.61
Item response	30	82.27	7	17.73
Overall Response		**81.83**		**18.17**

Table 2 reveals that out of all the 43 data collection tools issued to the respondents, the researcher recovered 35 yielding a unit response rate of 81.39%. For the recovered tools, 82.27% of the items' response was valid. This study was considered to be a success as data was found to be sufficient for analysis since the overall response rate was 81.83% according to who considers 70% response rate and above to be very good.

2. Descriptive Analysis:

Table 3: Status of Non-Performing Loans since the Inception of CRB

NPL status	Frequency	Percent
Reduced	31	88.6
Not reduced	4	11.4
Total	**35**	**100**

From the study as indicated in Table 3 depicts that since the inception of CRB, Non Performing Loans have reduced significantly according to the majority (88.6%) of the respondents. According to Hoque (2009) this could be attributed to reduced borrowing costs and loan delinquencies to a significant extent, which enhances effective risk identification and monitoring, as well as credit extension, which ensures that credit flows to deserving borrowers and is reduced to those less deserving and maintaining financial stability in an economy.

Table 4: Perceived Appropriateness of CRB in Managing Potential Loan Defaults

Opinion	Frequency	Percent
Appropriate	32	91.4
Inappropriate	3	8.6
Total	**35**	**100**

From the study, it is clear that CRB plays an important role in managing potential loan default according to majority (91.4%) of the respondents with only 8.6% considering its role as inappropriate. This is in harmony with Sinare (2008) who considers CBRs to be information brokers, providing creditors with reliable, relevant and comprehensive data on the repayment habits and current debt of their credit applicants.

Table 5: Creditworthiness Determinants

Indicators	Percent	
	Determinant	Not a determinant
Character	100	0
Capacity	100	0
Condition	100	0
Source of income	100	0
Collateral	100	0

The researcher sought to establish ways used by financial institutions in determining creditworthiness of borrowers apart from the CRB reports. The Results are displayed in Tables 5.The researcher found out that all the respondents (100%) unanimously confirmed that they value the creditworthiness of a loan applicant by checking their character. This in agreement to the findings of werun (2015), who argued that the character of borrowers is the most important determinant of their credit-worthiness. The capacity of the borrowers to pay loans was considered to be an important indicator by all the respondents unilaterally (100%).The lenders through evaluation of the accessed reports concerning the borrowers are able to establish whether they have been repaying their previous loans. This is in harmony with the findings of Daniels (2004) who considers the efforts to establish the capacity of loan borrowers very important despite the difficult encountered in having an accurate information on the financial ability of prospective borrowers and even more difficult to have accurate information on their credit history. The financial condition of the borrower was also considered by all the respondents (100%) to be a critical determinant of their creditworthiness. According to all the respondents (100%), the source of income is clear indicator of the creditworthiness of the loan borrower. The value of the collateral asked for when a loan is applied for was considered by a 100% of the respondents to be a good indicator of the borrower's creditworthiness. This is agreement with Luoto (2007) who argued that most financial institutions and most creditors prefer hard collateral-based credit but would extend cash flow-based credits if they can use a reliable and inexpensive system to exchange information on the character and ability to pay off borrowers.

Table 6: Credit Reports as an Indicator of Repayment Behavior

Opinion	Frequency	Percent
Indicator	32	95.1
Not an indicator	2	4.9
Total	**34**	**100**

The researcher sought to investigate whether financial institutions use credit reports to determine customer repayment behaviours. The response is presented in Table 6 Shows that a big proportion of the respondents (95.1%) explained that credit reports are good indicator of loan repayment behaviour of the borrowers. This is harmony with the findings of Derban (2005), who argues that CRB reports provide a credit score that is unique to a customer's character

Table 7: Usage of CRB Reports in Establishing Loan Interests

Usage	Frequency	Percent
Used	27	79.4
Not used	7	20.6
Total	**34**	**100**

The researcher sought to establish whether the respondents considers CRB reports to play an effective role in establishing the interest rates of the loan facilities rendered in the financial institutions. The response is presented in Table 7. The study established that majority of the respondents (79.4%) were of the opinion that CRB reports are used to determine interests of the loan facility requested by the borrower. According to Anderson (2007), the availability of CRB reports that contains the data on the system is built up, the information available enables loan processing to become simpler and faster, collateral requirements to be streamlined, default rates to be reduced and, ultimately we believe loans shall become cheaper.

3. Correlation Analysis

The researcher used Karl Pearson Correlation analysis to test the relationships between Credit Default Rate (CDR) and the roles of CRB in influencing customer repayment behaviour (CR). The nature of the relationship was determined by the coefficient of correlation while the significance of the relationship at 5% levels of significance is explained by the p-value as presented in Table 8

Table 8: Karl Pearson Correlation of role of customer repayment behaviour on CDR

		RB	CDR
RB	Pearson Correlation	1	.724**
	Sig. (1-tailed)		.000
	N	35	35
CDR	Pearson Correlation	.724**	1
	Sig. (1-tailed)	.000	
	N	35	35
****. Correlation is significant at the 0.01 level (1-tailed).Customer Repayment Behaviour(RB)**			

The results as indicated in Table 8 above. As for Credit Repayment behavior and Credit Default Rate, the coefficient of correlation was $r(35)=0.724$, $p=0.000<0.05$. This implies that the variables have a strong positive relationship that is significant at 5% levels of significance.

4. Regression Analysis

The researcher conducted further inferential statistical test using regression analysis so as explain the influence of Customer Repayment behaviour on Credit Default Rate (CDR).

Table 9: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.724[a]	.525	.510	.48444
a. Predictors: (Constant), Customer Repayment Behaviour(RB)				

According Table 9, the coefficient of determination (R-Square value) was 0.525 implying that 52.5% of variation in Credit Default Rate is explained by variation in customer Repayment behaviour (CR), with the remaining 47.5% of variation in Credit default rate being explained by other variables not in the model as well as the error term.

Table 10: ANOVA

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	8.543	1	8.543	36.405	.000[b]
	Residual	7.744	33	.235		
	Total	16.288	34			
a. Dependent Variable: Credit Default Rate, b. Predictors: (Constant), Customer Repayment Behaviour						

Since the p-value=0.000<0.05 as displayed in the Regression ANOVA, this implies that regression analysis at 5% levels of significance is applicable for the study. The variable customer repayment behaviour has a significant effect on credit default rate.

Table 11: Regression Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	.872	.453		1.925	.063		
	RB	.827	.137	.724	6.034	.000	1.000	1.000
a. Dependent Variable: Credit Default Rate								

The regression coefficients as displayed in Table 11 above were used to construct the regression model below. From the model below, the constant value was found to be 0.872.

CDR = 0.872+ **0**.827 **RB**……..……**(1)**

As for Customer Repayment behaviour and Credit Default Rate, the coefficient of regression was **0**.872, p=0.000<0.05. This implies that the variables have a positive relationship that is significant at 5% levels of significance. The null hypotheses that CRB does not have a significant role in influencing customer repayment behavior in mitigating against credit default in commercial banks in Kenya was rejected implying that CRB does have a significant role in influencing customer repayment behavior in mitigating against credit default in commercial banks in Kenya.

5. Chi- square analysis:

Further tests were conducted for confirmatory purposes using Chi-Square analysis. The results of the Pearson Chi-Square Values, degrees of freedom and p-value at 95% levels of confidence are presented in Table 12

Table 12: Chi-Square Results

	Value	**Df**	**Asymp. Sig. (2-sided)**
Pearson Chi-Square	38.386[a]	8	.000
Likelihood Ratio	29.286	8	.000
Linear-by-Linear Association	17.908	1	.000
N of Valid Cases	35		
a. 12 cells (80.0%) have expected count less than 5. The minimum expected count is .06.			

As indicated in Table 12 above, The influence of Customer Repayment on Credit Default Rates yielded a χ^2 (8, N = 35) = 38.386, p=0.000< 0.05. The null hypotheses that CRB does not have a significant role in influencing customer repayment behavior in mitigating against credit default in commercial banks in Kenya was rejected implying that CRB does have a significant role in influencing customer repayment behavior in mitigating against credit default in commercial banks in Kenya.

V. CONCLUSION

The purpose of the study was to examine the role of CRB in influencing customer repayment behaviour in mitigating against credit default rate in commercial banks in Kenya. The study involved tests of the relationship between rate of credit repayment and credit default rate mitigation that yielded a coefficient correlation of r(35)=0.724, p=0.000<0.05. The regression analysis yielded a coefficient of 0.872, p=0.000<0.05. While the Chi-Square yielded χ^2 (8, N = 35) = 38.386, p=0.000< 0.05. All the tests were done at 5% levels of significance. This informs the rejection of the null hypothesis; CRB does not have a significant role in influencing customer repayment behavior in mitigating against credit default in commercial banks in Kenya. Therefore, the researcher accepted the alternative hypothesis that states; CRB does have a significant role in influencing customer repayment behavior in mitigating against credit default in commercial banks in Kenya. This facilitated the conclusion that CRB plays a significant role in influencing customer repayment behavior in mitigating against credit default in commercial banks in Kenya. The study recommends that CRBs in Kenya should be strengthened more by the Central Bank of Kenya to make them more effective in credit information sharing so

as to improve the availability of relevant credit information about citizens to enable faster credit request processing and improved access to loans by borrowers and to minimise the default rate.

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