

EFFECTS OF CREDIT INFORMATION SHARING ON NONPERFORMING LOANS: THE CASE OF KENYA COMMERCIAL BANK KENYA

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Abstract

Commercial banks play a pivotal role in the economy in the intermediation process by mobilizing deposits from surplus units to deficit units. The surplus is channelled to deficit units through lending. Lending is the main activity of commercial banks in Kenya. However, banks in Kenya have had a high rate of loan default from the borrowers which have caused significant losses to the banks. This is because commercial banks have varied credit information and credit history about their borrowers and the credit seekers have taken this shortfall to get many loans from these banks which increases their rate of default because they might fail to service back all the loans. This study was therefore guided by objectives that sought to; find out the effects of credit information sharing on nonperforming loans in KCB Kenya and specifically to establish the trend of bad loans before and after the introduction of CRB, to identify the factors that account for bad loans and to determine the economic sector that records higher bad loans and the efforts taken to reduce the risk in this sector. Data was collected from primary sources and secondary data was collected from published financial statements of KCB between year 2007 to 2012. The researcher adopted a descriptive case research design and stratified proportionate random sampling technique was used to select the sample and data was analysed using both qualitative and quantitative methods and explanation given in prose.

Keywords: Nonperforming loans, Credit Information Sharing and Kenya Commercial Bank Limited (KCB)

Introduction

Background of the Study

Commercial banks play a pivotal role in the economy in the intermediation process by mobilizing deposits from surplus units to deficit units. The surplus is channelled to deficit units through lending. Lending is one of the main activities of commercial banks and any other financial institutions in Kenya. This is evident by the size of loans that form banks assets and the annual substantial increase in the amount of credit granted to borrowers in the country. Loan portfolio is naturally the largest asset and the largest source of income for banks. In view of the significant contribution of loans to the financial health of banks through interest income generated, these assets are considered the most important assets of banks.

Table Loan portfolios compared to total assets of the bank (KCB) (Source Audited Financials of KCB year 2007, 2008, 2009, 2010, 2011 and 2012)

Year	Total Assets (000)	Total loans (000)	Percentage %
2007	112,210,660	56,477,448	50.33
2008	174,711,564	79,343,099	45.41
2009	172,384,128	96,557,588	56.01
2010	223,024,556	137,344,568	61.58
2011	282,493,553	179,843,967	63.66
2012	304,112,307	187,022,664	61.50

As a result of commercial banks and financial institutions business, they expose themselves to the risks of default from loan borrowers. Quality credit risk assessment and risk management and creation of adequate provisions for bad and doubtful debts can reduce the banks credit risk. When the level of nonperforming assets is high, the assets provisions made are not adequate protection against default risk. Banks in Kenya have been lending funds to serial defaulters, this is as a result of banks having different credit information regarding the borrowers and these borrowers have exploited the information asymmetry to borrow several loans from the Kenyan banks and defaulting in the long run thus increasing the level of nonperforming assets (NPAs) in the banking sector in Kenya. Due to information asymmetry, the Central Bank of Kenya and Kenya Bankers Association came together to initial Credit Information Sharing in the Kenya to cap the loop hole exploited by the serial defaulters. Credit Information Sharing is a process where banks and other lenders submit information about their borrowers to a credit reference bureau so that it can be shared with other credit providers. According to bank supervision annual report CBK, 2009 it enables the banks to know how borrowers have been repaying their loans. Credit Information Sharing enables the banks get access a Credit Report. A Credit Report is a report generated by the Credit Reference Bureau (CRB), the Credit Report contains detailed information on a borrower's credit history, the borrower's identity, credit facilities, bankruptcy and late payments of

previous obligations and latest checks made by other prospective lenders. It can be obtained by any prospective lender, when they have a valid reason to access the report as stipulated in Kenyan banking law, to determine the borrower's creditworthiness.

The economic growth of a country and the development of banking are correlated. The banking sector is an indispensable financial service sector supporting development plans through channelizing funds for fruitful purpose, mobilizing and controlling flow of funds from surplus to deficit units and supporting financial and economic policies of government. The success of banking is assessed based on profit and quality of assets it possesses. Even though bank serves social objective through its priority sector lending, mass branch networks and employment of many people, maintaining quality asset book and continuous profit making is important for banks continuous growth. A major threat to banking business is nonperforming assets. NPA represent bad loans, the borrowers of which failed to satisfy their repayment obligations. Michael et al (2006) emphasized that NPA in loan portfolio affect operational efficiency which in turn affects the profits of the bank, liquidity position and solvency position of banks. Batra, S (2003) noted that NPA also affect the psychology of bankers in respect of their disposition of funds towards credit delivery and credit allocation.

The high level of non-performing loans in the banking industry has been a hindrance to economic stability. According to CBK bank supervision annual report (April 2009), the stock of NPLs expanded by 7.8% to Ksh 64.9 billion by March 31st, 2009 from Ksh 58.3 billion in 2008. In the year 2006, the NPLS were Kshs. 56.4 billion from Kshs. 68.6 billion in 2005. (Bank Supervision Annual Report 2006) In 2003 and 2004, the average non-performing loan to total loans for the industry was 25% and 24% respectively (Market Intelligence 2004). NPLs in Kenya stood at Kshs. 107.4 billion at the end of 2001. This represented 38% of total loan of Kshs. 281.7 billion in the banking sector. (Oloo, 2003). When loans become non-performing, banks liquidity and its earnings are adversely affected. This can be compared with levels of NPLs in other countries.

According to bank supervision report CBK (2001), comparing the ratio of non-performing loans in Kenya of 33% to similar African economies as at the end of 2000, the ratio is much lower in these countries. For example in Zimbabwe it was (24%), Nigeria it was (11%) and South Africa it was (3%) which was the lowest among these African economies. According to (Kalani and Waweru, 2009), Kenya has experienced banking problems since 1986 culminating in major bank failures (37 failed banks as at 1998) following the crises of; 1986 - 1989, 1993/1994 and 1998, the crises were mainly attributed to NPLs. According to Mullei (2003), Daima bank was placed under statutory management

for failing to meet the minimum core capitalization threshold as well as poor management of loan portfolios. As a result of the banking failures in Kenya and to find a way forward to prevent further failures, the Credit Information Sharing mechanism was launched in Kenya following the legislation and gazette of the Credit Bureau Regulations on 11th July 2007. The Credit Bureau Regulations were issued following the amendment to the Banking Act passed in 2006 that made it mandatory for the Deposit Protection Fund and institutions licensed under the Banking Act to share information on nonperforming loans through credit reference bureaus licensed by the Central Bank of Kenya. This was the result of many years of negotiations and agreement between Kenya Bankers Association, Central Bank of Kenya, the Ministry of Finance and the office of the Attorney General aimed at finding way forward to the challenges facing the lending environment in Kenya and especially the banking sector. (Bank supervision annual report CBK, 2007).

Problem Statement

Lending is the main business of financial institutions and loans is naturally the main asset and the major source of revenue for banks. Despite the huge income created from lending, available literature shows that huge shares of banks loans regularly go bad and therefore affect the financial performance of these institutions. The issue of bad loans can fuel banking crisis and result in the collapse of some of these institutions with their attendant repercussions on the economy as a whole. Kane and Rice (2001) stated that at the peak of the financial crisis in Benin, 80% of total bank loans portfolio which was about 17% of GDP was nonperforming in the late twentieth century. Certainly bad loans can lead to the collapse of banks which have huge balances of these nonperforming loans if measures are not taken to minimize the problem. Many borrowers that are potentially good credit risk fail to get funding because the lenders cannot objectively establish their credit history due to the underlying challenge of information asymmetry. Also, some bad loan borrowers, who know that banks operate in isolation, have exploited the information asymmetry to create multiple bad debts in the banking industry in Kenya. The operation nature of these loan serial defaulters have distorted the lending business in the credit market, adversely affecting bank performance, threatening banking sector stability and curtaining growth of the credit to the private sector due to the high interest charged on facilities to compensate on the credit risk. Therefore, this upsurge of nonperforming loans has caused a spiral effect on the interest charged to all borrowers across the market. In addition, the fear of lending to bad debtors has led to the tendency by banks to scramble for less risky lending in the form of government securities such as treasury bills and treasury bonds.

Research Objectives

The general objective of the research was to establish the effects of credit information sharing on nonperforming loans of Kenya Commercial Bank Limited. The research had the following specific research objectives;

1. To establish the trend of bad loans, before and after the introduction of CRB.
2. To identify the factors that account for bad loans.
3. To determine the economic sector that records higher bad loans and the efforts taken to reduce the risk in this sector in KCB.

Research Questions

The research was guided by the following research questions;

1. What was the trend of nonperforming loans before the introduction of CRB?
2. What factors account for nonperforming loans in Kenya Commercial Bank limited?
3. Which of the economic sectors are affected by higher nonperforming loans and what efforts are being taken to reduce the risk in this sector in KCB?

Literature review

Theoretical Framework

The theory of asymmetric information indicates that it may be complex to distinguish between good and bad borrowers (Auronen, 2003) in Richard (2011), which may result into adverse selection and moral hazards problems. The theory expounds that in the market, the person that possesses more information on a particular item to be transacted (in this case the borrower) is in a position to negotiate optimal terms for the transaction than the other party (in this case, the lender) (Auronen, 2003) in Richard (2011). 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 (Bester, 1994; Bofondi and Gobbi, 2003).

Adverse Selection Theory

Pagano and Jappelli (1993) show that information sharing reduces adverse selection by improving banks information on credit applicants. In their mode of doing business, each banking institution has private information about local credit applicants, but has no information about foreign applicants. If banks exchange information about their clients' credit worth, they can assess also the quality of foreign credit applicants and lend to them as carefully as they lend to local customers. By reducing information asymmetry between lenders and borrowers, credit registries allow loans to be extended to safe borrowers who had previously been priced out of the market, resulting in higher aggregate lending. The impact of

information sharing on aggregate lending in this model is vague. When banks exchange credit information about borrowers' kinds, the increase in lending to good credit borrowers may fail to compensate for an eventual reduction in lending to risky types. The Adverse selection problem signals that when lenders cannot distinguish good from wicked borrowers, all borrowers are charged an normal interest rate that reflects their pooled experience. If this rate is higher than worthy borrowers deserve, it will push some good borrowers out of the borrowing market, forcing in turn to banks charging even higher rates to the remaining borrowers. Through sharing of the credit information, the lender is able to distinguish bad borrowers from good borrowers in the market. Better access to information helps lenders measure borrower risk more accurately and to set loan terms and conditions accordingly. Good borrowers with low risk would be given more attractive prices, stimulating credit demand, and fewer higher-risk borrowers would be rationed out of the market because of lenders inability to offer these borrowers accommodating rates (Barron and Staten, 2008). Padilla and Pagano (2000), show that if banks exchange credit information on defaults, borrowers are encouraged to apply more energy in their projects. In both models non-payment is a sign of bad quality for outside banks and carries the penalty of higher interest rates, or no future access to credit facility.

Moral Hazard Theory

The moral hazard problem implies that a borrower has the incentive to default unless there are consequences for his future applications for credit. This result from the difficulty lenders have in assessing the level of wealth borrowers will have accumulated by the date on which the debt must be repaid, and not at the moment of application. If lenders cannot assess the borrowers wealth, the latter will be tempted to default on the borrowing. Forestalling this, lenders will increase rates, leading eventually to the breakdown of the market Alary and Goller (2001)

Conceptual Framework

A conceptual framework is a basic structure that consists of certain abstract blocks which represent the observational, the experiential and the analytical/ synthetically aspects of a process or system being conceived. The interconnection of these blocks completes the framework for certain expected outcomes.

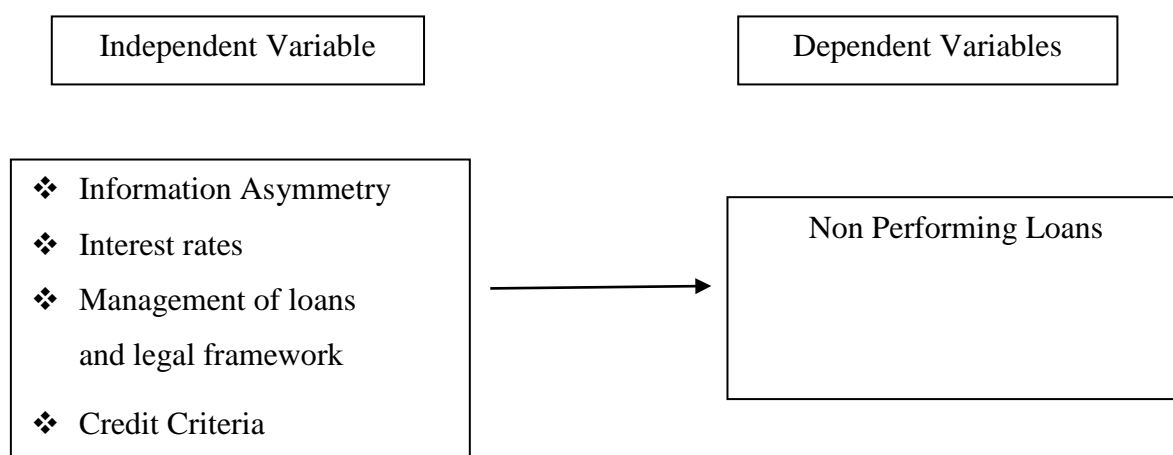


Figure: Conceptual Framework (Source: Author, 2013)

Information Asymmetry

The Kenyan banking sector was in the 80’s and 90’s weighed down with a momentous nonperforming assets portfolio. This habitually led to the end of certain banks. One of the promoters in this situation was serial defaulters, who borrowed from a range of banks with no purpose of repaying the loans. Certainly these defaulters thrived in the “information asymmetry” environment that prevailed due to lack of a credit information sharing mechanism. Information asymmetry refers to a situation where business owners or managers know more about the scenario, for and risk facing, their business than do lenders. Information asymmetry describes the condition in which relevant information is not known to all parties involved in an undertaking (Ekumah and Essel, 2003).It has been used extensively to explain a diversity of concept, including those in different market condition (Misukin, 1991).

According to Prof. Njuguna Ndung’u, governor Central Bank of Kenya during annual address in year 2008, noted that the realization of credit information sharing in the banking sector will not only bring good news to the banks and the banking sector but also to the borrowers and the economy as a whole. This national success stands to significantly benefit the economy and is bound to stir changes in the way credit is managed in the industry in the sense that lenders will be in a position to access comprehensive credit data and will be able to price risk accordingly for both good and bad borrowers hence reducing their bad debt portfolios.

Interest rates

Interest rate is the price a borrower pays for the use of money they borrow from a lender/financial institutions or fee paid on borrowed assets, Crowley (2007). Interest can be thought of as "rent of money". Interest rates are fundamental to a ‘capitalist society’ and are

normally expressed as a percentage rate over one year. Interest rate as a price of money indicates market information concerning probable change in the purchasing power of money or future inflation (Ngugi, 2001). Financial institutions facilitate mobilization of savings, diversification and pooling of risks and allocation of resources (Collins NJ, et al, 2011). However, since the receipts for deposits and loans are not harmonized, intermediaries like banks incur certain costs (Ngugi, 2001). They charge a price for the intermediation services offered under uncertainty and set the interest rate levels for deposits and loans. The disparity between the gross costs of borrowing and the net return on lending defines the intermediary costs which include information costs, transaction costs, administration, default costs and operational costs (Rhyne, 2002). Interest rate spread is well-defined by market microstructure characteristics of the banking sector and the policy environment (Ngugi, 2001).

Independent studies (Chand, 2002 and Asian Development Bank, 2001), have listed the several reasons for high interest rate spread. These are lack of sufficient competition, diseconomies of scale due to small size of markets, high operating and fixed costs, high transportation cost of funds due to expensive telecommunications, existence of regulatory controls and perceived market risks. They further state that the factors mentioned above lead to high intermediation costs, which cause high spread. These studies have recognized one of the most understandable costs, which is associated with the capacity to enforce debt contracts. Small borrowers with no fixed assets rights have no guarantee to offer. As such, they are perceived as borrowers with high risk. Because of high transaction costs involved such borrowers are charged punitive rates of interest. Further, Chand (2002) singles out issues of governance. The latter encompasses maintenance of law and order and provision of basic transport and communications, all imposing on security, a lack of which has been found to be a cause for high transaction costs resulting in large intermediation costs. When there is high intermediation cost, reflected in the high interest rate spread; the borrower may be unable to repay his/her loan owing to the cost of such borrowings. This leads to a high risk of loan default hence non-performance (Chand, 2002).

Management of loans and Legal framework

An important element of sound credit risk management is analyzing what could potentially go wrong with individual credits and the overall credit portfolio if conditions/environment in which borrowers operate change radically. The result of this analysis should then be factored into the assessment of the adequacy of provisioning and capital of the organization. Such stress analysis can disclose earlier undetected areas of potential credit risk exposure that could arise in times of crisis. Possible scenarios that

banking institutions should consider in carrying out stress testing include: significant economic or industry sector downturns; adverse market-risk events; and unfavourable liquidity conditions (Diana, 1997).

Ranjan and Dhal (2003) opined that horizon of development of credit, better credit culture, positive macroeconomic and business conditions lead to lowering of NPAs. In its annual report (2010) CBK noted that management of NPA by banks remains an area of concern, particularly, due to the likelihood of worsening of the quality of restructured loans. The nonperforming loans of banks are an important criterion to assess the financial health of banking sector. It reflects the asset worth, credit risk and competence in the allocation of resources to the productive sectors. Ahmed (2010) noted that since the reform regime there has been various initiatives to contain growth of NPA to improve the asset quality of the banking sector. Commercial banks have envisaged the greatest renovation in their operation with the introduction of new concepts like prudential accounting norms, income recognition and capital adequacy ratio which have placed them in new platform. The growing competition from internal and external constituents and sluggish growth in economy coupled with poor credit-deposit ratio, the large volume of NPAs in the balance sheet and lack of automation and professionalization in the operation have been affecting the banking situation in the country.

Credit criteria

Credit criteria are factors used to determine a credit seeker's creditworthiness or ability to repay debt. The factors include income, amount of existing personal debt, number of accounts from other credit sources and credit history. Swaren (1990) suggested that the most pervasive area of risk is an overly aggressive lending exercise. It is a hazardous practice to extend lending term beyond the useful life of the corresponding collateral. Besides that, giving out loans to borrowers who are already overloaded with debt or possess unfavourable credit history can expose banks to unnecessary default and credit risk. In order to decrease these risks, banks need to take into consideration several common applicants' particulars such as debt to income ratio, business and credit history and performance record and for individual loan applicants their time on the job or length of time.

Credit risk management is a process, a comprehensive system. The process that begins with identifying the lending markets, often referred to as "target markets" and proceeds through a series of stages to loan repayment. Banking institutions face intense challenges in managing credit risk. Government controls, internal and external political interferences and pressures, production difficulties, financial limitations, market disruptions,

delays in production schedules and frequent instability in the business environment undermine the financial condition of borrowers. Furthermore, financial information is frequently unreliable and legal framework does not always support debt recovery; (Mueller, 1988). Some writers also hold the view that bad loans can be caused by problem accounts. Rouse (1989) indicated in his work that problem loans can emanate from overdrawn account where there is no overdraft limit overdraft taken on an account which has not been actively operated for some time and overdraft taken in excess of reasonable functioning limits. Also he identified lack of technical good skills and judgement on the part of the lender is a possible cause of bad loans.

Empirical literature review

According to Akerlof (1970), adverse selection implies that there are qualitatively different types of credit seekers. In contrast with high quality borrowers, low quality borrowers are not capable to use the borrowed money for valuable investment and they will have a relatively large chance to fail on payment of the loan. Banks consequently prefer to select high quality credit seekers and the major way of examining a potential borrower is by analyzing all available information, Leland and Pule (1977). The selection challenge results from the behaviour of low quality applicant that presumes to submit high quality project but do not forward all relevant negative information.

In the adverse selection model developed by Pagano and Jappelli (1993), information sharing improves the pool of borrowers, reduces defaults and decreases interest rates. It can also lead to growth of lending. When banks are local monopolists, however, in some cases lending reduces, because the exchange of credit information increases the banks' possibility of price discrimination between safe and risky borrowers and the increase in lending to safe borrowers does not fully compensate for the reduction in that too risky types. When credit markets are competitive, lending activity is more likely to increase: competition limits the banks' ability to charge more interest from their customers and information sharing increases banking competition.

As per Pauly (1968), if the concept of moral hazard is applied to a lending and borrowing circumstance, it means that the customer to whom a loan has been extended controls the money of the lending institution. In such instances, the customer may use the money for his own interest and not consider the percentage stake of the bank. Banks thus try to monitor their customers as all principals do with their agents. Monitoring however requires some guarantees that proper information will be provided. Moral hazard models also imply that information sharing should reduce default rates and interest rates and increase lending of

money, either because credit reference bureaus nurture competition by reducing informational rents, Padilla and Pagano (1996) or because they punish borrowers (Padilla and Pagano, 1997). In severe cases, information exchange may make lending feasible in markets where no credit would be extended otherwise. In these models, whenever banks choose to communicate they bring about a Pareto improvement by raising customers' welfare along with their own profits. Padilla and Pagano (1997) point out that the disciplinary effect of credit bureaus arises only from the exchange of negative information. Credit information about past defaults generates fear of social stigma. Sharing white information, i.e. statistics on borrowers' characteristics, while attenuating adverse selection effects, may actually decrease the disciplinary effect of credit information sharing. Consequently, the reasonable benefit of sharing black and white information depends on the relative importance of moral hazard and adverse selection problems in the market.

According to Jared Getenga (2007), one of the features that banks deliberate when deciding on a loan credit application is the estimated chances of recovery. To arrive at this, credit information is required on how well the applicant has honoured past loan obligations. This credit information is important because there is usually a definite relationship between past and future performance in loan repayment. Very often, this history is not within the bank's reach because the potential borrower's repayment records are scattered in the various archives of the other financial institutions where the customer has previously borrowed. Whenever a borrower has credit information that the lender cannot access, this is officially referred to as information asymmetry. Kalberg and Udell (2003) also point out that information exchange from multiple sources improves the precision of the signal about the quality of the credit seeker. As a result, the default rate reduces. In contrast, the effect on lending is vague, because when banks exchange credit information about borrowers' categories, the implied increase in lending to good borrowers may fail to compensate for the reduction in lending to risky borrowers. Banking competition for borrowers strengthens the positive effect of information sharing on lending: when credit markets are competitive, information sharing reduces informational interest charged and increases banking competition, which in turn leads to increased lending. Information sharing can also create incentives for borrowers to perform in line with banks' interests. Klein (1992) shows that information sharing can motivate borrowers to pay their loans, when the legal atmosphere makes it difficult for banks to implement credit agreements. In this model borrowers repay their loans because they know that defaulters will be blacklisted, reducing external finance in the near future.

Kenya government recognizes the chronic burden of NPLs in the banking industry. For instance, in the budget speech of June 2003, the Minister of Finance indicated that, the government was exploring possibilities of setting up a non-performing loan agency with judicial powers to deal with the issue of bad debts (Oloo 2003). In the year 2007, government introduced the in-duplum rule providing that interest on NPLs be stopped from accruing further interest, as soon as the interest already levied equals the principal borrowed (Oloo 2007). This bill was meant to check further escalation of NPLs. Further, enactment of the Finance Act 2006 by parliament, made sharing information on non-performing loans compulsory, in an effort to reduce the incidence of non-performance of loans (Banking supervision Annual Report 2007). Oloo (2001) traced the genesis of NPLS in Kenya to the external environment in which the Kenyan banks operate. He argues that when the government was faced by the clamour for, multiparty, it held an election in 1992 for which it was ill prepared. Out of desperation, the CBK was compelled to imprudently print money ostensibly to fund the elections. The result was a sharp increase in interest rates as the government thereafter, sought to clear up excess liquidity. The domestic debt rose from Kshs. 45 billion in 1992 to Kshs. 166 billion, in 1993. Oloo further comments that the interest rate on treasury bills rose from 23% in early 1992 to 76% in 1993. This argument points that external environment had an influence on the level at NPLs in the banking industry in Kenya.

Research Gap

A number of studies have been carried out about many aspects of nonperforming assets in Kenya. None of them addresses the effect of credit information sharing on nonperforming assets of KCB head-on and comprehensively. This study has the following objectives: to establish the effects of Credit Reference Bureaus on nonperforming loans, to establish the trend of bad loans before and after the introduction of CRB, to identify the factors that account for bad loans and to determine the sector that records higher bad loans. This study therefore seeks to confront the effect of credit information sharing on nonperforming assets of KCB. So far, there has been slim empirical evidence on the effect of credit information sharing on nonperforming assets in Kenya. This paper attempted to fill this gap and foster research in this important area for credit information sharing.

Research Methodology

Introduction

This chapter involves an outline for the collection, measurement and analysis of data. It identifies the research design, the target population, procedures and techniques that were used in the collection, processing and analysis of data. It includes the following subsections;

target population, sampling design, project research design data collection procedures, data collection instruments and finally data analysis.

Research Design

The study adopted the use of a descriptive case research design. The case study approach was preferred by the researcher due to time constrain and also on the availability and reliability of data from the Kenya commercial bank which has been in existent since year 1896. Also the researcher works within the banking sector thus it was easier to collect data from the respondents. This descriptive case research was aimed at getting detailed information regarding the effects of credit information sharing on nonperforming loans of Kenya Commercial Bank Limited. A descriptive study is concerned with finding out the what, where and how of a phenomenon (Ngechu, 2004). Descriptive research design was chosen because it enabled the researcher to infer the findings to a larger population with high level of accuracy. The focus of the study was both quantitative and qualitative in order to gain a better understanding and more insightful interpretation of the results. According to Coopers and Schindler (2004) descriptive studies are more formalized and typically structured with clearly stated hypotheses or investigative questions.

Target Population

The target population comprised of 284 staff in different managerial levels employed at Kenya Commercial bank Limited head office where decisions regarding lending are made and measured. The population was selected since the people in the head office are the ones involved in the day to day lending business for the company and thus are well conversant with the subject matter of the study. The target population was categorized as follows:

Table: Target Population

Level	Total Number of staff
Top level managers	22
Middle level managers	46
Low level managers	216
Total	284

Sampling Technique

From the population frame the required number of respondents were selected in order to make a sample. Stratified proportionate random sampling technique was used to select the sample. According to Ngechu (2004), stratified proportionate random sampling technique produces estimates of overall population parameters with greater precision and ensures a more representative sample will be derived from a relatively homogeneous population. Stratification aims to reduce standard error by providing some control over variance. The study grouped the population into three strata i.e. top, middle and low level managers. From

each stratum the study used simple random sampling to select one hundred and sixty six respondents who formed the sample size.

Yamane (1967) provides a simplified formula to calculate sample sizes. A 95% confidence level and $P = .5$ are assumed

$$n = \frac{N}{1+N(e)^2}$$

$$n = \frac{284}{((1+284(0.5)^2))}$$

$$n = 166$$

Where n is the sample size of the respondents, N is the population size of the respondents and e is the level of precision.

Table: Sampling Frame

Level	Total Number of staff	Number to be sampled
Top level managers	22	13
Middle level managers	46	27
Low level managers	216	126
Total	284	166

Data Collection

A questionnaire was the primary tool for collecting data. Kothari (2004) terms the questionnaire as the most appropriate instrument due to its ability to collect a large amount of information in a reasonably quick span of time and economical manner. It guarantees confidentiality of the source of information through anonymity while ensuring standardization. In addition all the respondents were educated staff to tertiary/university level. It is for the above reasons that the questionnaire was chosen as an appropriate instrument for this study. The questionnaire used to collect primary data consisted of open and closed ended questions. The open-ended questions were to enable the researcher to collect qualitative data. This was used in order to have a better understanding and possibly enable a better and more insightful interpretation of the results from the study. To establish the validity of the research instrument the researcher sought opinions of experts in the field of study especially the researcher's supervisor. The questionnaire was administered using a drop and pick later method. In addition, the researcher engaged the respondents in telephone interviews. Secondary data was collected from the company's financial publications from the company website.

Data Analysis

Content analysis was performed based on information from the published financial information of KCB. The researcher works within the banking industry and thus the data was collected from the reliable staffs who are involved in the day to day lending business of the bank. Before processing the responses, the filled questionnaires were edited for consistency and completeness. The collected data was then coded to enable the responses to be grouped into various categories. Data for this study was both quantitative and qualitative hence both descriptive and content analysis techniques were used. Content analysis was employed to analyze the qualitative data collected while a descriptive method was used to analyze quantitative data. The data was processed in Excel and the processed data was then presented in tables, graphs and explanation given in prose.

Limitations and delimitation of the Study

The study was limited to a sample of Kenya commercial bank head office located in Nairobi only. The researcher encountered problems of time as the research was taken in a short period. However the researcher countered this limitation by carrying out the research across all the departments and management levels in the organization to enable inference of the study findings. The researcher works within the banking sector in credit risk management department and thus understands the operations in the banking industry in Kenya. The respondents were staff working in various departments involved directly in lending business within KCB. This was useful since they understand credit information sharing and nonperforming loans within the bank.

Presentation of research findings

Introduction

This chapter presents analysis and findings of the study as set out in the research methodology. The results are presented on the effects of credit information sharing on the level of nonperforming loans of Kenya Commercial Bank Limited.

Questionnaire response rate and interview success rate

Out of the one hundred and fifty three (153) questionnaires sent to the target population, one hundred and thirty nine (139) usable responses were collected. This represented a response rate of 90.8 percent and implies that 9.2 percent of the questionnaires were not returned at all. Of the thirteen projected interviews, only ten were successfully contacted, giving a success rate 76.9 percent. Three interviews failed primarily because the targeted interviewees were time constrained. Despite this, the target population was fairly represented considering that key personnel who are relevant to the study were interviewed. The results are shown in table below.

Table: Questionnaire and interview success rate

Instruments	Target respondents	Successful	Success rate (%)
Questionnaires	153	139	90.8
Interviews	13	10	76.9
Total	166	149	89.8

The statistics in Table above gives a fair representation of the target population and hence the validity of data.

Gender

From the analysis, it occurred that, many respondents were male (85) representing 57% of the respondents from KCB who participated in the study and female (64) representing 43% of the respondents from KCB who participated in the study as shown in Table 4.2 below. This implies that, Women are beginning to get a number of significant appointments in the corporate sector. Most of them have qualifications that rival men and this is in fulfillment of the new constitution. KCB, which has remained gender sensitive, seems to be giving women and men equal opportunities for appointment to its various positions.

Academic Qualification (Respondents)

Respondents from KCB who have a degree certificate were 97 representing 65.1% of the respondents from KCB who participated in the study while those with postgraduate degrees were 52 representing 34.9% of the respondents from KCB. This implies a highly learnt and qualified individual's for the job categories they hold. This further explains why there is plenty of human resource within our country. From the findings, the number of those with degrees and above corresponds to the increased knowledge among the staff of the bank. Indicating that other than, educational qualification, the other reasons for no payment of loans could be other beyond the normal staff level, meaning that, it could be only the Central bank and top management of the bank that could address the non-payment of loans.

Number of years worked with the bank

Most of the bank employees who participated in the study have been with the KCB for a long time. From the findings, majority of them, have been with the bank for over 8 years (36) representing 24.2% of the respondents from KCB who participated in the study, followed by those that have stayed 2-4 years (35) 23.5% of the respondents from KCB who participated in the study and those who have stayed for between 4-6 years (33) representing 22.1% of the respondents from KCB who participated in the study. This implies that, majority of the employees of the bank have not changed jobs so often hence they have been with the bank for quite some time. An indication that, they understand their work well and any recommendation they give is accurate and they can be relied on. The last groups were

those that have stayed for between 7-8 years old and less than 2 years old as shown in table below.

Table: Number of years worked with the KCB

Number of years	Respondents	Percentage (%) of the respondents
Less than 2 years	21	14.1
3-4 years	35	23.5
5-6 years	33	22.1
7-8 years	24	16.1
9 years and above	36	24.2
Total	149	100

Source: Primary data computed in Excel

Department Affiliation

Most of the respondents were from the SME department (40) representing 26.8% of the total respondents from KCB who participated in the study, followed by Asset Finance (37) representing 24.8% of the total respondents from KCB who participated in the study, then Credit Risk Management (32) representing 21.5% of the total respondents from KCB who participated in the study, then corporate (24) representing 16.1% of the total respondents and lastly Retail (16) representing 10.7% of the total respondents from KCB who participated in the study. This indicates that respondents were drawn from all departments of the bank as shown in table below.

Table: Department Affiliation

Department	No of respondents (Frequency)	Percentage (%) of the respondents
SME	40	26.8
Asset Finance	37	24.8
Credit Risk Management	32	21.5
Corporate	24	16.1
Retail	16	10.7
Total	149	100

Source: Primary data computed in Excel

Effect of Sharing Credit Information

74 of the respondents representing 50% of the respondents from KCB who participated in the study were in agreement that, the savings that will arise from sharing of credit information shall translate to low cost of credit, 66 respondents representing 44% of the respondents from KCB who participated in the study strongly agreed and then lastly, 9 respondents representing 6% of them were uncertain. This implies that, sharing of credit information will lead to open ways of doing business and this will in turn help reduce the cost of doing business and hence lead to increased savings which will then reduce the level of nonperforming loans in the bank.

Effect of CRB on Nonperforming Loans

From the findings, 41 respondents representing 29% of the respondents from KCB who participated in the study indicated that CRB increases transparency among financial institutions, 34 respondents representing 23% of the respondents from KCB who participated in the study indicated that, it helps the banks lend prudently, 24 respondents representing 21% of the respondents from KCB who participated in the study said it lowered the risk level to the banks, 20 respondents representing 16% of the respondents from KCB who participated in the study said that, it acts as a borrowers discipline against defaulting, 16 of them representing 11% of the respondents from KCB who participated in the study said that, it reduces the borrowing cost i.e. interest charge on loans. CRB has come of age and has helped many banks to lend with care. The effect of it therefore has led to reduced non-performing loans as opposed to otherwise. Figure 4.2 indicates the results as below;

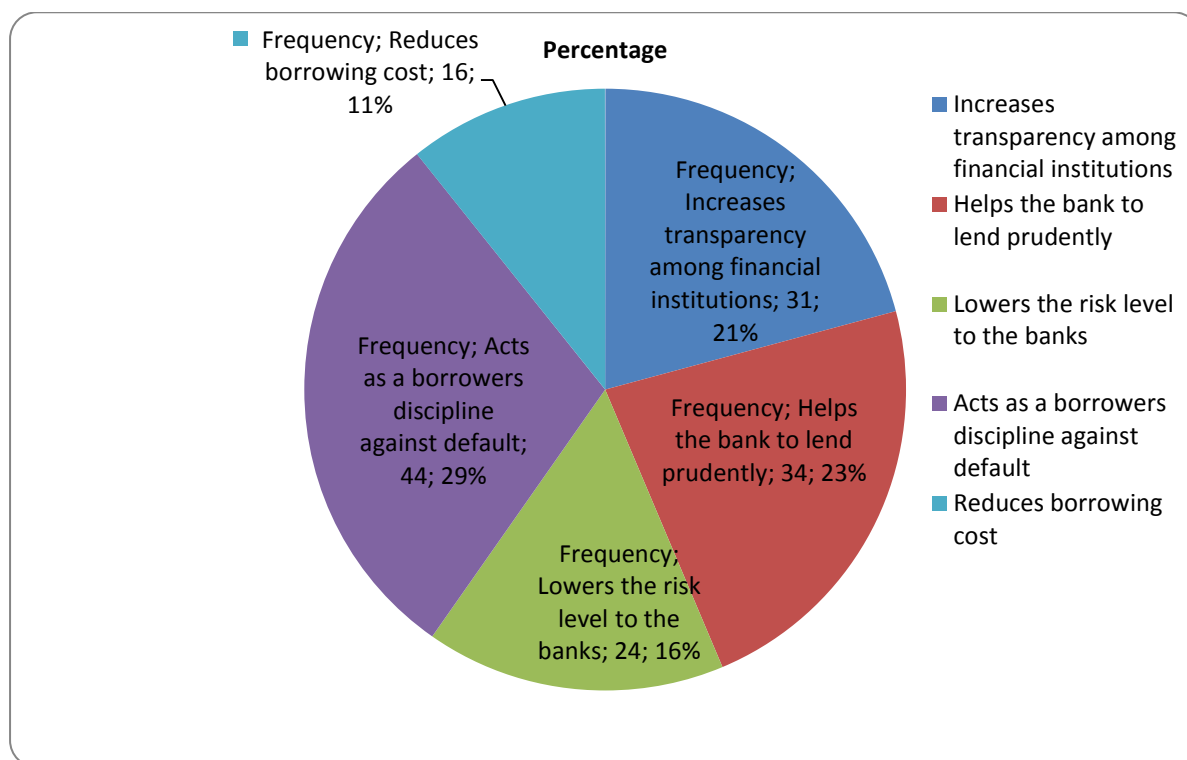


Figure: Effect of CRB on nonperforming loans (Source Excel Computation)

Trend of Bad Loans

From the audited financials of KCB from year 2007 to year 2012, the nonperforming loans represented 11% of the total loans in year 2007, it reduced by 2.09% to 9% of the total loans in year 2008 and it increased marginally in year 2009 by 1.22% to 10.22% of the total loans. In year 2010 the nonperforming loans decreased by 1.96% to 8.26% and in year 2011 it reduced further by 3.07% to 5.19% of the total loans in year 2011. In year 2012, it marginally increased by 0.41% to 5.6% of the total loans in year 2012. Therefore, there is an

indication of reducing from 2008 to 2012, since the percentage in 2008 was 9.00% slightly rising to 10.22% in 2009, then reducing further to 8.26% in 2010, to 5.19% in 2011 and lastly to 5.60% in 2012. The amplification of this is that, CRB seems to have impacted positively on non-performing loans, hence the reduction. Therefore we can conclude that, the trend in the nonperforming loans at KCB has been reducing compared to the total volume of the loans in the bank which has been increasing in the past six years.

Table Trend of nonperforming loans since year 2007

Year	2007	2008	2009	2010	2011	2012
Nonperforming loans '000	6,260,385	7,139,073	9,865,358	11,346,471	9,342,775	10,475,335
Total loans '000	56,477,448	79,343,099	96,557,588	137,344,568	179,843,967	187,022,664
Percentage of nonperforming loans	11.08	9.00	10.22	8.26	5.19	5.60
Percentage increase/decrease		(2.09)	1.22	(1.96)	(3.07)	0.41

Source: Audited Financial Statements for KCB (2008, 2009, 2010, 2011 and 2012)

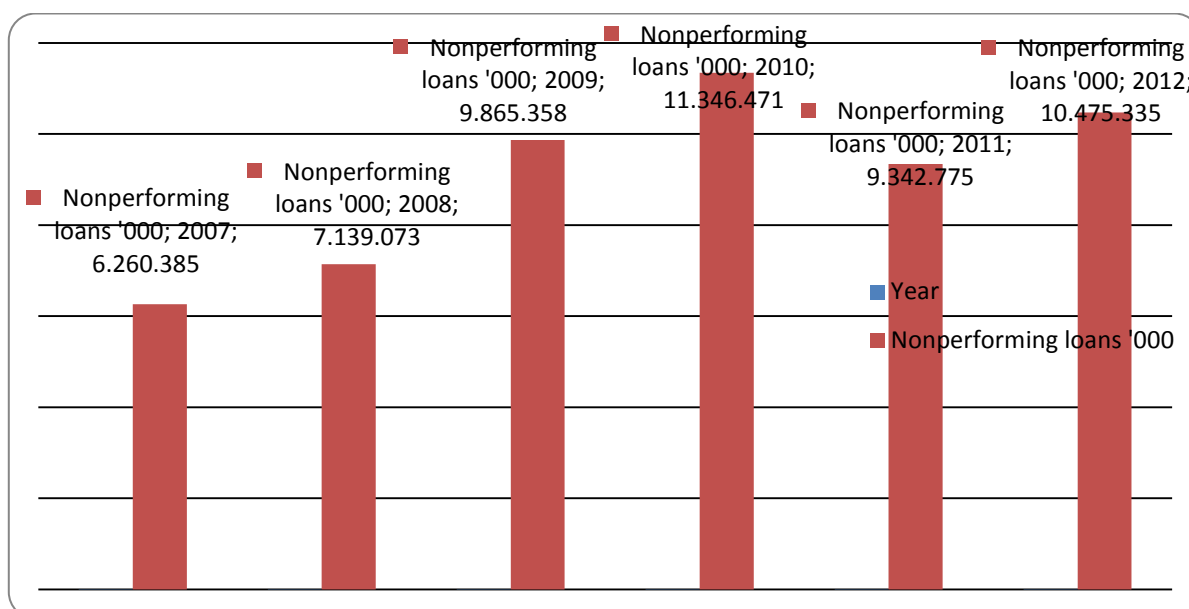


Figure Nonperforming loans from year 2007 to year 2012(**Source:** Audited Financial Statements for KCB (2008, 2009, 2010, 2011 and 2012))

In absolute terms, the total nonperforming loans have increased from the year 2007 which was Kes 6.26 Billion to Kes 10.5 Billion in year 2012. However, as a percentage to the total loan size the nonperforming loans have decreased.

Situation before Credit Reference Bureau (CRB)

Most respondents 81, representing 54% of the respondents from KCB who participated in the study said that the situation before CRB came was better, followed by excellent 42 respondents representing 28% of the respondents from KCB who participated in the study and lastly worse 26 respondents representing 18% of the respondents from KCB

who participated in the study. This depicts a situation where, very few employees appreciate the work of CRB by the show of the respondents in the questionnaire given. Majority of them thought that, the situation was better implying that, the lack of CRB would not change the situation anyway. There are very few who think otherwise as it is indicated by the number of respondents saying and or agreeing to 'worse'.

Changes since CRB came into being

From the findings, 96 respondents representing 64.4% of the respondents from KCB who participated in the study said there were minimal changes since CRB came, 30 respondents representing 20.1% of the respondents from KCB who participated in the study of them said there were no changes, 22 respondents representing 14.8% of the respondents from KCB who participated in the study said there are changes and 1 respondent said is not aware. This implies that, CRB has done very little in terms of helping banks, especially KCB evaluate the loans given to customers. This is shown by the large number of respondents who said there were minimal changes. But nevertheless, there are a significant number of people who think CRB had benefited them, by giving them a good evaluation of the customers taking loans.

Factors that account for bad loans

From the analysis, the main factors that lead to bad loans in most cases were said to be; lending to borrowers with questionable characters, serial loan defaulters, high interest rates that make it hard for some to pay, diversion of funds by borrowers from what they had intended to work on not being disclosed before the bank, lack of commitment by the borrower to pay the loan, poor planning by the borrowers of what and how they will use the loan for which exercise and last but not least lack of collateral for the bank. These causes make many borrowers not to pay their loans hence leading to many bad loans. This trend keeps on increasing due to lack of commitment from the Central bank of Kenya and or financial institutions to erase and address some of the said problems that lead to the rise in these cases.

Economic Sector that has the highest loans

The economic sector that has the highest loans was found to be Asset Finance with 28 respondents representing 18.8% of the respondents from KCB who participated in the study, followed closely by Transport and Communication 27 respondents representing 18.1% of the respondents from KCB who participated in the study and then Motor Vehicle dealers 24 respondents representing 16.1% of the respondents from KCB who participated in the study While the lowest were Retail Trade & Wholesale 5 respondents representing 3.4% of the respondents from KCB who participated in the study and Manufacturing (0).This shows that,

there is rapid growth in the Asset Finance and Transport and Communication Sectors giving rise to ownership of assets and properties in the country as shown in figure 4.5 below. On the other hand, there is significant rise in non-performing loans from these sectors implying that, there is a higher likelihood of loan non-payment from customers taking loans from these sectors. On the positive side, these could be attributed to many Kenyans and foreigners owning properties which in any case a good indication given that, it is one step in the right direction.

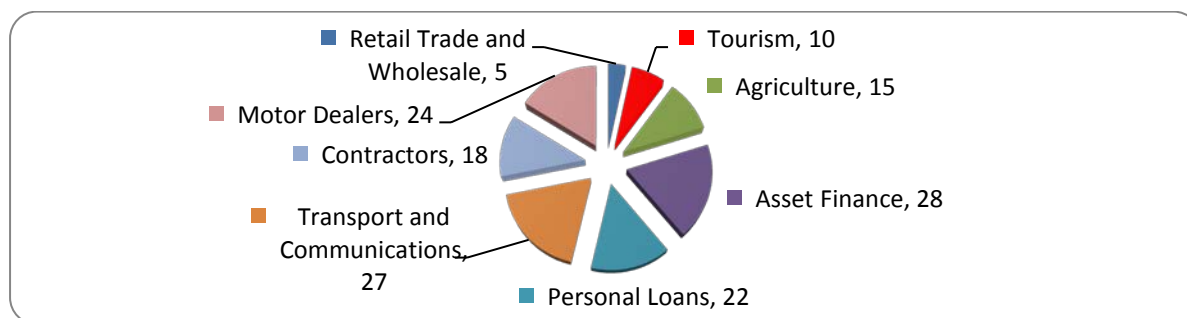


Figure: Economic Sectors (**Source:** Computation in Excel)

Efforts to reduce the high risk in the economic sectors

62 of the respondents, representing 42% of the respondents from KCB who participated in the study which was the highest, indicated that there was nothing being done, followed 35 respondents representing 23% of the respondents from KCB who participated in the study who indicated that ascertaining the credit worthiness using all available means like consulting other banks was the only way used to reducing the risk, then 33 of the respondents indicated that, they stopped advancing loans this sub-sector. The smallest numbers of respondents were 19 respondents who indicated that, they were getting information from CRB.

Conclusion

The study concludes that credit information sharing and level of nonperforming loans are indeed related. Credit Information Sharing, increases transparency among financial institutions, helps the banks lend prudently, lowers the risk level to the banks, acts as a borrowers discipline against defaulting and it also reduces the borrowing cost i.e. interest charge on loans. CRB has come of age and has helped the bank to lend with care. The effect of it therefore has led to reduced non-performing loans. Finally, the study concludes that the trend of the nonperforming loans as a percentage of the total loans within KCB has improved in the last six years. The improvement is as a result of introduction of credit information sharing mechanism through CRB.

The study concludes that as the economic sectors grows, the level of lending to these sectors will also increase and in return the level of nonperforming loans tends to increase as the sector grows. The increase in nonperforming loans in Asset Finance and transport and communication sector are in line with the current improved infrastructure in the country which attracts investors to asset financing, transport and communication sectors. The high bad loans could be as a result of many accidents in transport sector witnessed on our Kenyan roads and the slow refund by insurance companies for the asset financed vehicles involved in the accidents. The study also concludes that there is little being done to reduce lending to these high risk sectors. The management of the bank and central bank of Kenya seems not to be worried with the high bad loans in these subsectors.

The study further concludes that, the main factors that lead to bad loans in the bank are; lending to borrowers with questionable characters, serial loan defaulters, high interest rates that make it hard for some to pay, diversion of funds by borrowers. These causes make many borrowers not to honour their obligations hence leading to many nonperforming loans. Most of these factors are due to information asymmetry in the banking industry.

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