CREDIT INFORMATION SHARING AND FINANCIAL PERFORMANCE OF COMMERCIAL BANKS IN KENYA

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ABSTRACT

Empirical studies done on the area of credit information sharing and its effect on financial performance of commercial banks in Kenya have not been conclusive. Information sharing in the credit market is a relatively new concept in most Kenya and other emerging economies. Credit information systems are still in their infancy, and information sharing among banks remains weak. Credit reference bureaus were introduced in the Kenyan banking sector to facilitate the concept of credit information sharing and to mitigate information asymmetry and credit risk. In the process of providing financial services, they assume various kinds of financial risks which affect their financial performance. Various studies have been done on determinants and measurement of bank financial performance. However, little research studies have been done on effect of credit information sharing on financial performance of commercial banks in Kenya. This study sought to determine the effect of credit information sharing on financial performance of Commercial Banks in Kenya. The specific objectives were; to find the effect of competitive information sharing, volume of lending, operating cost and level of interest rates on financial performance of Commercial banks in Kenya. This study employed a descriptive research design. The study was anchored on moral hazard theory, adverse selection theory and theory of asymmetric information. A descriptive research design was employed. The population of this study entailed all the 43 commercial banks licensed under the banking Act as at 31 December 2015 in Kenya. This study used primary data. Primary data was collected using closed ended questionnaires administered using a drop and pick method. Data was analysed using both descriptive and inferential statistics. The multiple regression model was used to determine the effect of credit information sharing on financial performance of commercial banks in Kenya. The study established that all the variables namely competitive information sharing, volume of lending, operating costs and the level of interest have positive and significant effect on financial performance of commercial banks in Kenya. T he study concludes that competitive information sharing, volume of lending, operating costs and the level of interest rate all had positive and significant influence on financial performance of commercial banks. The study recommends that competitive information sharing among commercial banks should be strengthened to enhance their financial performance. All commercial banks in Kenya need to put in place sound policies that increase the lending base and therefore financial performance. The top management of all commercial banks should emphasize on operational efficiencies to eliminate unnecessary operating costs and therefore improved financial performance. The Central Bank of Kenya and the National Treasury should work closely to ensure stability of levels of interest rates in the economy for better financial performance of commercial banks.

Key Words: *credit information sharing, financial performance, commercial banks, Kenya*

INTRODUCTION

According to Cavelaars and Passenier (2012), until the 1960s obtaining a loan required a face-to-face application procedure with a bank employee in whom one had to explain the purpose of the loan and demonstrate one's creditworthiness. Over time, the development of credit bureaus and credit scoring models enabled banks to obtain information about individual consumer's credit records even though they had no prior relationship with them. Therefore, credit referencing not only helps lower transaction costs but also facilitate distant transactions such as, for instance, e-finance or internet transactions and banking.

There has been dramatic increase in competition in traditional and non-traditional institutions in the financial services industry with a decline in consumer loyalty (Paswan, Spears, Hasty and Ganesh, 2004). Lending based on hard-information may outperform lending based on relationship-based soft-information, especially in long-distance situations Cavelaars and Passenier, (2012). However, information sharing occasioned by credit reference bureaus has led to increased competition among banks resulting in a decline in monopoly rents for banks, to the benefit of the bank's customers and society as a whole. Lenders use credit reference databases in order to evaluate a consumer's credit application and his/her creditworthiness.

According to Idun and Aboagye (2014) in a Ghanaian study recommends encouraging a more competitive banking system with more innovative products tailored toward mobilization of savings and investment to growth induced sectors of the economy. Thus, as the credit reference practices get firm foothold in the financial industry, credit data can be used for various ends. Importantly, such data have been considered to promote transparency and reduce the information advantage that a lender has over its existing clients, which in turn could lead both to lower prices offered to consumers and greater access to credit. Since information is very vital for the efficient functioning of the credit markets Ferretti, (2006), existence of asymmetric information between borrowers and lenders poses problems of bad debts, moral hazard and adverse selection.

The role of banks is to safeguard and help grow clients' resources while extending credit for their economic benefit. Therefore, banks in the year 2007 supported the change in regulation which formalised Credit Information Sharing (CIS) and introduced the country's first Credit Reference Bureaus (CRBs). Not to be mistaken as 'blacklisting', CIS allows credit providers (including banks, utility and telecommunications companies) to share data that is collected by licensed CRBs. This sharing of vital information helps creditors draw a distinction between high and low risk borrowers. Previously, credit providers penalised good borrowers by spreading the risk (and costs of credit) across their portfolio. With this new system, good borrowers are better positioned to negotiate interest rates. Ultimately, CIS enhances efficiency in the credit system and lowers costs making it easier for banks to lend on basis of their clients' individual credit track record (Kenya Credit Information Sharing Initiative, 2011).

Kenya's banks work together with the regulatory and interest groups to increase access to credit through formal banking services. The idea underlying information sharing is, "The best

future predictor behaviour is past behaviour" (Miller, 2003). In practice, it is an arrangement by which lenders contribute information about their customers to a common pool which is accessible to all lenders that contribute. This is the work of credit bureaus (Miller, 2003). Consumer credit bureaus emerged in the United States in the late 19th century. Other early adopters include; Austria, Sweden, Finland, Canada, Germany and Australia (Jappelli and Pagano, 2006).

Credit Information Sharing

Credit Information Sharing (CIS) is a process where banks and other credit providers submit information about their borrowers to a CRB so that it can be shared with other credit providers. It enables the banks to know how borrowers repay their loans. This is also known as "Credit Reporting". A Credit Report is a report generated by the Credit Reference Bureau (CRB), containing detailed information on a person's credit history, including information on their identity, credit accounts, loans, bankruptcies, late payments and recent inquiries. It can be obtained by prospective lenders only when they have a permissible reason as defined in law, to determine their credit-worthiness. CIS is the exchange of information on client financial histories (Brown, Jappelli, and Pagano, 2009). Sharing of credit information can make an important contribution to the development of the financial system which is a crucial determinant of economic growth (Doblas-Madrid and Minetti, 2009). Credit scores have immense benefits to both lenders and borrowers. Borrowers are able to negotiate with lenders on better terms. Highly rated borrowers with good credit history can convincingly negotiate for lower interest rates or even waiver of collateral (Bennardo, Pagano, and Piccolo, 2009).

Houston, Lin and Ma, (2010) show that information sharing mechanisms reduce adverse selection by improving the pool of borrowers and the knowledge of applicants' characteristics therefore improving bank efficiency in the allocation of credit. Based on some case studies, Olweny and Shipho (2011) point out that CIS plays a key role in improving the efficiency of financial institutions by reducing loan processing costs as well as time required to process loan applications. Lin, Ma and Song, (2012) show that information sharing institutions; through their incentive effects on curtailing imprudent behavior of borrowers are also valuable in addressing moral hazard problems. Besides, they show that information sharing helps to reduce average interest rates and information rent that banks can otherwise extract from their clients, reduce or even eliminate the information advantage of larger size banks and therefore should enhance credit market completion (Kusa and Okoth, 2013).

Due to the increasing spate of Non-Performing Loans (NPLs), the Basel II Accord emphasized on credit risk management practices. Compliance with the Accord means a sound approach to tackling credit risk has been taken and this ultimately improves bank financial performance. Through the effective management of credit risk exposure, banks not only support the viability and profitability of their own business, they also contribute to systemic stability and to an efficient allocation of capital in the economy (Psillaki, Tsolas, & Margaritis, 2010). CIS is one way to screen loan applicants in order to mitigate defaults on loan advances. CIS also known as Credit Reporting is a process where banks and other credit

providers submit information about their borrowers to a credit reference bureau so that it can be shared with other credit providers (KCISI, 2008). It also enables banks to know how borrowers repay their loans. Globally, the biggest problem facing commercial banks is the non-repayment of loans. Thus, the idea of establishing a CRB was conceived in order to enable banks in: sharing information on default among banks (Pagano, 2000), eliminating corrupt borrowers – those with the aim of borrowing from different financial institutions with the aim of defaulting, providing commercial professional credit reference to prospective foreign investors and also identifying honest/credible borrowers based on known history and character in order to enhance profitability. Services of CRBs were first introduced in London and have now spread to other countries worldwide (Sacerdoti, 2005). CRBs thrive in a good legal environment where there is data protection law, a fair credit reporting law, a data retention law, consumer protection admissibility of electronic evidence and certification of electronic signatures; without which credit reporting becomes a shenanigan (Sacerdoti, 2005).

Financial Performance

Financial performance is the state of yielding a financial gain. It is the capacity to make a profit whether accounting or economic. Financial performance is measured using bank profitability. Profitability is a primary goal of any business venture without which the business cannot survive in the long run. It measured using income and expenses, income being money generated from the activities of the business for example interest income for banks and expenses being costs incurred or resources consumed by the activities of the business for example interest paid on deposits by banks (Mwangi, 2015). Profitability is measured using an income statement and it is the most important measure of business success. Increasing profitability therefore is one of the most important tasks of business managers. It is for this reason therefore that they are constantly looking for ways to change their businesses and consequently increase profitability and hence the adoption of policies such as the use of CRBs or the credit information sharing initiative which have the ultimate goal of increasing banks profitability by reducing losses through loan defaults (Hassan, 2014).

Research on the determinants of banks' profitability has been attentive to both the returns on bank assets and equity and net interest rate margins. It has conventionally explored the impact on banks' financial performance of bank-specific factors, such as risk, and regulatory costs market power, Credit risks and operating inefficiencies explain most of the disparities in net interest margins and thus profitability (Al-Haschimi, 2007). Enhancement of bank profitability requires new standards in risk management and operating efficiency which crucially affects profits Athanasoglou, et al . (2006). In the presence of asymmetric information, a well-capitalized bank is less risky but profits are lower since they are perceived as safer. However, Athanasoglou, et al . (2005b) finds a positive and significant effect of capital on bank profitability where capital is regulated and therefore acts as a binding restriction.

Bank financial performance and bank interest margins can be seen as indicators of the efficiency or inefficiency of the banking system, as they drive a wedge between the interest rate received by savers on their deposits and the interest paid by borrowers on their loans Kunt et al ., (2001). Profitability measure seems to be most significant for stockholders of a bank since it reveals what the bank is earning on their investments Rasiah, (2010). Two types of interest influence the profitability of a bank, interest expenses and interest income. Interest expenses and interest income affect net interest income and therefore bank profitability. Rasiah, (2010), Loans are the bank's assets whereas the deposits are the bank's liabilities. Though there are numerous other sources of income for banks such as account maintenance fees, cheque clearance fees, over the counter and ATM withdrawal charges etc, interests charged on bank loans are expected to be the main source of income and are expected to have a positive and greatest impact on a commercial banks' financial performance, (Bennaceur et al , 2008).

Commercial Banks in Kenya

Kenya's banking industry is divided into three tiers with a total of 43 banking houses. These include both commercial and public banks although strictly speaking, there is no such thing as a public bank since all of them aim to make profits openly with common burdens of unpaid loans as well as risky ventures in their day to day operations. The Central Bank of Kenya (CBK) reports that there are 43 banks currently operating in Kenya with 6 banks found in the top tier controlling almost 50 percent of the market followed by 16 Tier 2 banks that control another 42 percent of the market leaving out a paltry 8 percent of the market controlled by Tier 3 banks which are mainly 21 small private banks. In effect, the Tier 1 banks are the old stable large banks composed of Cooperative, Commercial, Equity, Barclays, Standard Chartered and CBA. Some of the major Tier 2 banks include Diamond Trust, NIC, Family bank, Eco bank, HFCK, NIC, I&M and CFC Stanbic. The final Tier 3 banks include such banks as Baroda, Jamii Bora, Fidelity, ABC and Guardian. Although the CRB Act requires linkage of the banks to the CRBs, it is up to the individual banks to decide when to use the CRB information on their clients thus making it difficult to fully enforce the powerful tool of CRBs.

Even though the CRB policy is aimed at reducing the changes of risky loans, reports indicate that there was an increase in the defaulting loans by almost 35 percent in the recent past including 2012 and 2013. This is in spite of there being stringent measures taken by most banks to ensure compliance with CRB guidance. The reports further indicated that the main cause of defaulting was now high interest rates in which even after a client has taken a loan, it became difficult to service the same due to high charges on the rates. Other observations have come up to prove that the defaulting loans have actually come down yet in Kenya, commercial banks of high repute have gone under in the recent past due to bad debts (CBK, 2015).

STATEMENT OF THE PROBLEM

According to Chen (2010) the performance of commercial banks and other financial sector players globally has faced a drastic decline over the last 10 years due to global financial crisis, unfavourable government policies and high volume of non-performing loans. Mwangi (2015) on the hand indicates that in Kenya the situation is worse with most banks closing up their branch network, reducing their services and product range and some being declared insolvent due to interest capping policy, fraud, money laundering and above all limited credit information leading to high default rate among borrowers. Otieno (2017) in his study indicated that most banks have performed poorly due to limited credit information especially on their clients who happens to be mostly borrowers. This has resulted in extension of credit to clients whose credit history is wanting. The volume of non-performing loans has eaten into the profits of the financial institutions. Wambui (2016) equally in her study on CRBs and their role in firm performance indicated that banks have been poor loan book performance due to credit information symmetry. Kerage & Jagongo (2014) in their study on the effect of credit information sharing and performance of commercial banks in Kenya established that CIS improves financial performance of banks by improving their lending policy and procedures. The purpose of credit information sharing is to mitigate the risk of default. The study conducted a census of all the commercial banks in Kenya and adopted a descriptive research design. According to the CBK the introduction of CRBs was an effort to primarily address information asymmetry, to build information capital, to reduce information search costs and to base the extension of credit on financial identity (Central Bank of Kenya, 2011). At first in 2010 it was made mandatory for commercial banks in Kenya to share only negative credit information in terms of NPLs (CBK, 2010). By 2011, there were two licensed CRBs and in 2012 non – bank lenders such as Saccos and Microfinance institutions were also required to participate in credit information sharing. In addition, at this point in time, information shared was to include both positive and negative information (Central Bank of Kenya, 2012). Since then the uptake of credit reports by banks has been increasing tremendously. Kabiru (2002) did a study on the relationship between credit risk assessment practice and the level of nonperforming loans of Kenyan banks. The study conducted a census of all the banks in Kenya via a cross-sectional research design. Kabiru found that credit risk assessment affected the level of nonperforming loans of Kenyan banks. Adam (2003) did an analysis of the usefulness of annual financial statements to credit risk analysts in Kenyan commercial banks. He established that annual financial statements are important in determining the riskiness of organizations applying for loans and ultimately affects the level of loan financial performance. Mutwiri (2003) studied the use of 6 c's credit risk appraisal model and its relationship with the level of nonperforming loans of commercial banks in Kenya. Limited information exists on how information sharing has affected the overall financial performance of commercial banks in Kenya. From the above studies it is evident that limited research has been done to assess the impact of CIS on the overall financial performance of commercial banks in Kenya, yet it is through information sharing that lenders are able to analyze borrowers to minimize default rates, thereby increasing bank loans portfolio which will enhance commercial banks to meet their ultimate goal of stimulating

growth and financial performance in the economy. This study therefore sought to investigate the impact of CIS on the overall financial performance of Kenyan banks.

GENERAL OBJECTIVE

The main objective of the study was to investigate the effect of credit information sharing on the financial performance of commercial banks in Kenya.

SPECIFIC OBJECTIVES

1. To establish the effect of competitive information sharing on financial performance of commercial banks in Kenya.
2. To determine the effect of volume of lending on financial performance of commercial banks in Kenya.
3. To determine the effect of operating cost on financial performance of commercial banks in Kenya.
4. To establish the effect of level of interest rates on financial performance of commercial banks in Kenya.

THEORETICAL LITERATURE

Adverse Selection Theory

Pagano and Jappelli (1993) show that information sharing reduces adverse selection by improving banks information on credit applicants. The theory of asymmetric information tells us that it may be difficult to distinguish good from bad borrowers (Auronen, 2003) in 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 (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 non-performing loans in banks (Bester, 1994; Bofondi and Gobbi, 2003).

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).

Theory of Asymmetric Information

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).

EMPIRICAL LITERATURE REVIEW

Competitive Information Sharing and Financial Performance

According to a study by Tumusiime-Mutebile (2011) on the role of CRBs on the financial performance of commercial banks in Uganda, for banks to remain competitive, commercial banks worldwide must not stand on their laurels; they must introduce innovative services to meet the evolving needs of their clients. The study indicated that for example, Compuscan Credit Reference Bureau in Uganda is currently introducing a Credit Scoring System which is intended to facilitate quicker and better decision making by the participating financial institutions. The impact of credit rating or scoring agencies on financial markets has become one of the most important policy concerns facing the international financial architecture. Ratings indicate a relative credit risk and serve as an important metric by which many investors and regulations measure credit risk.

Brown and Zehnder (2007) in their study on the effect of credit information sharing on the financial performance of commercial banks in South Africa using an exploratory approach, find empirical evidence that the lending market would collapse due to credit risk in the absence of information sharing institution and reputational banking. However, their study also showed that establishing credit reference bureaus encouraged borrowers to repay their loans by allowing lenders to identify borrowers with a good payment history. The study showed that an information sharing institution positively impacted the credit market in the following ways: Without credit reference bureaus, borrowers had a tendency to repay loans only when they planned to maintain their current lending relationship. However, in economies with a credit information institution, borrowers had a higher chance of repaying their loans regardless of whether they were planning to continue their current lending relationship or not. Thus, it can be implied that credit sharing institutions, by documenting borrower behavior, can positively impact borrower repayment and reduce NPLs.

Collins et al (2011) did a study on risk management and financial performance of financial institutions in the UK. The study employed a correlational study design. A total of 16

financial institutions were sampled. It was established that financial institutions facilitate mobilization of savings, diversification and pooling of risks and allocation of resources.

Ngugi (2001) did a study on loan management and performance of commercial banks in Kenya. The study conducted a census of all the commercial banks in Kenya under the Banking Act. Secondary data was used to effect the study. It was established that limited credit information has led to poor loan management which has directly and indirectly affected negatively the performance of commercial banks in Kenya. It was realized that since the receipts for deposits and loans are not harmonized, intermediaries like banks incur certain costs. 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. Interest rate spread is well defined by market micro-structure characteristics of the banking sector and the policy environment Ngugi (2001).

Volume of Lending and Financial Performance

Jappelli and Pagano (2002) carried out a study on defaulter rate and volume of lending among commercial banks in Malaysia. The study sampled 5 commercial banks in the vibrant Malaysian financial sector. A descriptive research design was used. The study established that if banks exchange information about their client's credit worthiness, they can assess also the quality of non-local credit seekers and lend to them as safely as they do with local clients. When banks exchange information about borrowers' types, the increase in lending to safe borrowers increases the volume of lending (Jappelli and Pagano, 2002).

Houston et al ., (2010) conducted a study on the effect of credit information sharing on lending volume in the Australian Banking Sector. The study sampled 6 commercial banks. An exploratory research design was used. The study found that credit information sharing is associated with higher lending, measured by private credit to GNP ratio, and lower defaults.

Miller (2003) on the other hand, carried out a study on the effect of credit sharing institutions and size of the credit market in Britain. The study employed a descriptive research design. The study established that credit sharing institutions have a positive effect on lending to the private sector. The institutions helped in widening the scope of the credit market by informing the lenders on the credit history of the borrowers especially in the private sector.

Waweru and Kalani (2009) equally did a study on the lending habits of commercial banks in Kenya and role of Credit Information Sharing. The study sampled 6 commercial banks that fall in Tier 1 category. A correlational research design was used. The study indicated that credit is more abundant when borrowers and lenders benefit from credit-sharing institutions.

Djankov, McLiesh, and Shleifer, (2007) conducted a study on the role of credit information sharing institutions on the economic growth and development in the USA. The study shows that such institutions are associated with higher ratios of private credit to gross domestic

product. The study demonstrates how such institutions increase the quantity of small business loans in the United States, and, more importantly, served to expand credit to riskier, - marginal borrowers.

Operating Cost and Financial Performance

A study by Ronald Coase (2010) on the role of credit reference bureaus in reducing cost of operation among banks in Yugoslavia indicated that credit bureaus are institutional responses to the problem of information asymmetries lending. The study suggested that when there are costs to transacting, markets have suboptimal outcomes. These "transactions costs" include the cost of searching, contracting, monitoring, and enforcing a market exchange, often stemming from the lack of information and resulting from the price of gathering it.

A study by Jappelli and Pagano (2006) on the role of CIS among commercial banks indicated that CIS among commercial banks will reduce operating costs. With good credit track records, the risk premiums and search costs imposed on customers will ideally shrink (Jappelli and Pagano, 2006). This will lead to overall reduction in the operating costs associated with debt approval and collection.

Cheng and Degryse (2010) carried out a study on the role of CIS on staff management among banks in South Korea. The study conducted a cross-sectional study design involving 4 major commercial banks in Seoul. It was established that with CIS mechanisms the number of staff employed in the credit department will reduce based on the fact that fewer staff will be required to approve loans (Cheng and Degryse, 2010).

Waweru and Kalani (2009) further did a study on the effect of credit information sharing on the performance of commercial banks in Kenya. They realized that use of CIS will also assist commercial banks to reduce the staff cost by reducing the number of staff involved in loan approval and collection (Waweru and Kalani, 2009). Mitigation in case a customer defaults will also decline as bad customers will not be granted because of CIS mechanisms.

Level of Interest Rates and Financial Performance

Japelli and Pagano (2006) in their study on interest rates and financial performance of commercial banks in Malaysia indicate that the current level of interest rates is a combination of costs like information search costs and risk premium. With good credit track records, the risk premiums and search costs imposed on customers will ideally shrink leading to a reduction in interest rates (Jappelli and Pagano, 2006). When information is shared by an information exchange institution, such as credit bureaus the higher competition drives down interest rates (Brown, Jappelli, and Pagano, 2006).

Miller, (2003) equally in his study indicated that interest rates have a significant influence on the financial performance of commercial banks. An exploratory research design was used. A sample of 12 commercial banks was used. The study showed that exchange of information on borrower type reduces average interest rates.

Powell, (2004) conducted a study on the effect of credit information sharing on interest rate among borrowers in Nigeria. The study show that information sharing among borrowers would lead to lower interest rates. Information-sharing can lower average interest rates in several ways. These dynamics have been borne out both theoretically and empirically. First, without information on borrowers' risk profiles, a lender will mistake good risks for bad, and vice versa. The portfolio, therefore, will consist of more risky loans and, over time, as interest rates adjust to reflect Non-performing loans, higher rates. Second, higher rates create incentives to engage in riskier projects, as lower-risk projects will not yield the return to compensate for the costs of the loan.

Lin et aI, (2012) conducted a study on the effect of credit risk management on bank performance in Beijing, China. The study shows that risky projects come to account for a larger share of the portfolio, thereby driving up the average rate. When information is shared, the ability to screen out riskier borrowers improves the portfolio's financial performance and allows lenders to offer lower rates to less-risky borrowers who would not have borrowed otherwise.

RESEARCH METHODOLOGY

Research Design

Research design refers to the method used to carry out a research. Orodho (2003) defines a research design as the scheme, outline or plan that is used to generate answers to research problems. A exploratory research design was adopted in this study. An exploratory design is conducted about a research problem when there are few or no earlier studies to refer to or rely upon to predict an outcome. The focus is on gaining insights and familiarity for later investigation or undertaken when research problems are in a preliminary stage of investigation (Labaree, 2009)

Target Population

Elmore et al , (2006), defines the target population as “the population from which we would want to collect data if we were conducting a complete census rather than a sample survey”. For this research all the 43 commercial banks licensed under the banking Act as at 31 December 2015 in Kenya form the target population. The study used a census and therefore the sample size was all 43 commercial banks. The sample size was the credit managers from each of the 43 commercial banks’ headquarters in Nairobi.

Data Collection Instrument and Procedure

The study used primary data. Primary data was collected using questionnaires which had both open and close-ended questions. According to Kothari (2004) questionnaires enable gather diverse information from a homogenous population in this case the commercial banks. The closed ended questions were used to test the rating of various attributes and this helped in reducing the number of related responses in order to obtain more varied responses. The open-

ended questions provided additional information that may not have been captured in the close-ended questions.

Data Analysis and Presentation

Data collected was analysed using descriptive and inferential statistics and the results were interpreted using percentages and frequency distribution. Descriptive statistics included frequencies, percentages, charts, graphs and tables while the inferential statistics included regression and correlational analysis statistics. Statistical Package for the Social Sciences (SPSS) was used to run a regression model that was used to establish effect of sharing of credit information on banks financial performance in financial perspective. The following analytical model was used.

$$\mathbf{P = \alpha_0 + \beta_1 CIS + \beta_2 VL + \beta_3 OC + \beta_4 IR + \varepsilon_i}$$

Where: P = Financial performance; α_0 - intercept coefficient; ε_i – error term (extraneous variables); CIS - Competitive information sharing; VL – Volume of lending; OC – Operating cost; IR – Level of interest rate; β_1,β_2,β_3 and β_4=regression coefficients

RESEARCH RESULTS

The study aimed at investigating the effect of the effect of credit information sharing on the financial performance of commercial banks in Kenya. The study was guided by the following specific objectives; to establish the effect of competitive information sharing on financial performance of commercial banks in Kenya, to assess how interest and volume of lending influences financial performance of commercial banks in Kenya, to find out the effect of operating cost on financial performance of commercial banks in Kenya, and to establish the influence of level of interest rates on financial performance of commercial banks in Kenya.

On competitive information sharing, the study established that complete information about the borrower's payment characteristic helped the banks to estimate their chance of recovering the loans. Quality of information improved the speed of risk assessment and reduced the related administrative costs. Accuracy of repayment probabilities would be predicted by sharing information on the borrowers by the banks. In view of p values of each individual specific variables, the study documents that competitive information sharing ($p=0.008<0.05$) had a positive and significant effect on financial performance of commercial banks.

With regard to volume of lending, the study found out that the institution strictly observed conditions of lending. The institutions overall profitability had been increased due to information sharing. The institution always relied on previous record in approving the loan. Credit reporting bureaus have changed the way lending in an organization. Volume of lending ($p=0.001<0.05$) had a positive and significant influence on financial performance of commercial banks.

In view of operating costs, CIS has not significantly reduced the level of NPLs. CIS has reduced the costs of acquiring information on loan applicants financial position. CIS had

reduced debt recovery costs for the bank. Operating cost (p=0.001<0.05) had significant influence on financial performance of commercial banks.

With regard to the level of interest rate, Credit information sharing enabled lenders or banks to assess risk and allocate credit more efficiently by lowering. Credit information helped the bank to evaluate potential borrowers better and offer loans commensurate with their risk of default. Availability of credit information about the borrower lowered the risk premium and bad debt portfolios. Availability of information about the borrower reduced the information search cost that bank could have otherwise extract from their clients. Level of interest rate (p=0.026<0.05) had a positive and significant effect on financial performance of commercial banks.

REGRESSION RESULTS

The researcher carried out multiple regression analysis to determine the effect of credit information sharing on financial performance of commercial banks. The findings are indicated in sections below.

Table 1: Regression Results

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.889[a]	.791	.758	1.17506

a. Predictors: (Constant), Operating Costs, Competitive Information Sharing, Volume of Lending, Level of Interest Rate

From Table 1, the value of coefficient of correlation R is 0.889 with coefficient of determination R square 0.791. This shows that 79.1% change in financial performance of commercial banks is explained by level of interest rate, competitive information sharing and volume of lending. There are therefore other factors that explain the remaining 20.9% change in financial performance that future studies should focus on.

Table 2: Analysis of Variance

	Sum of Squares	df	Mean Square	F	Sig.
Regression	45.068	4	11.267	24.600	.000[b]
Residual	11.908	26	.458		
Total	56.976	30			

a. Dependent Variable: Financial Performance

b. Predictors: (Constant), Operating Costs, Competitive Information Sharing, Volume of Lending, Level of Interest Rate

The value of F calculated from the ANOVA Table 2 above is 24.600 while F critical (at d.f 4, 26) is 2.742. Thus, the overall regression model was significant in predicting the effect of credit information sharing on financial performance of commercial banks.

Table 3: Regression Coefficients

	Unstandardized Coefficients		Standardized Coefficients		
	B	**Std. Error**	**Beta**	**t**	**Sig.**
(Constant)	11.571	3.377		3.427	.005
Competitive Information Sharing	.410	.132	.653	3.101	.008
Volume of Lending	.397	.096	.637	4.127	.000
Operating Costs	.208	.071	.296	2.926	.001
Level of Interest Rate	.059	.027	.076	2.185	.026

a. Dependent Variable: Financial Performance

The above information in Table 3 is summarized in equation below;

$$P = 11.571 + 0.410CIS + 0.397VL + 0.208OC + 0.059IR$$

Where: P = Bank Profitability which is measured by Return on Assets (ROA); CIS - Competitive information sharing; VL – Volume of lending; OC – Operating cost; IR – Level of interest rate

Therefore, holding all other variables, financial performance of commercial banks would be at 11.571. A unit increase in competitive information sharing other factors kept constant would result into 0.410 increase in financial performance of commercial banks. A unit increase in volume of lending holding other factors constant would lead to 0.397 increase in financial performance of commercial banks. A unit increase in operating cost other factors constant would increase financial performance by 0.208. A unit increase in level of interest rate other factors kept constant would lead to 0.059 increase in financial performance of commercial banks.

In view of p values of each individual specific variables, the study documents that competitive information sharing ($p=0.008<0.05$) had a positive and significant effect on financial performance of commercial banks. The finding is in line with Brown and Zehnder (2007) who noted that an information sharing institution positively impacted the credit market in that without credit reference bureaus, borrowers had a tendency to repay loans only when they planned to maintain their current lending relationship. Volume of lending ($p=0.001<0.05$) had a positive and significant influence on financial performance of commercial banks. According to Jappelli and Pagano (2006), strong credit-sharing institutions are positively related to the size of the credit market.

Operating cost ($p=0.001<0.05$) had significant influence on financial performance of commercial banks. According to Jappelli and Pagano (2006), CIS among commercial banks will reduce operating costs. The level of interest rate ($p=0.026<0.05$) had a positive and significant effect on financial performance of commercial banks. The finding is in line with Miller (2003) who showed that exchange of information on borrower type reduces average

interest rates. In another related paper Powell (2004) showed that information sharing among borrowers would lead to lower interest rates.

CONCLUSIONS

Competitive information sharing had a positive and significant effect on financial performance of commercial banks. Complete information about the borrower's payment characteristic helped the banks to estimate their chance of recovering the loans. Quality of information improved the speed of risk assessment and reduced the related administrative costs. Accuracy of repayment probabilities would be predicted by sharing information on the borrowers by the banks.

Volume of lending had a positive and significant influence on financial performance of commercial banks. The institution strictly observed conditions of lending. Credit reporting bureaus have changed the way lending in an organization. The institution always relied on previous record in approving the loan. The institutions overall profitability had been increased due to information sharing.

Operating cost had significant influence on financial performance of commercial banks. CIS had reduced debt recovery costs for the bank. CIS has improved operational efficiency of the institution. CIS has reduced the costs of acquiring information on loan applicants financial position. CIS had reduced the costs associated with Research and Development in the Bank. CIS had reduced information search costs on customer information.

Level of interest rate had a positive and significant effect on financial performance of commercial banks. Availability of credit information about the borrower lowered the risk premium and bad debt portfolios. Availability of information about the borrower reduced the information search cost that bank could have otherwise extract from their clients. Credit information sharing enabled lenders or banks to assess risk and allocate credit more efficiently by lowering interest. Credit information helped the bank to evaluate potential borrowers better and offer loans commensurate with their risk of default.

RECOMMENDATIONS

Competitive information sharing among commercial banks should be strengthened to enhance their financial performance. Strengthening CIS requires ensuring quality and accurate information on borrower's is shared across all commercial banks. The Credit Reference Bureau in Kenya as a platform should critically evaluate their rules and regulations to improve on CIS and therefore financial performance of commercial banks.

The study recommends that all commercial banks in Kenya need to put in place sound policies that increase the lending base and therefore financial performance. The Central Bank of Kenya (CBK) as a regulator of banking sector should come up with adequate policies and regulations that encourage and increase volume of lending among commercial banks and therefore financial performance.

The top management of all commercial banks should emphasize on operational efficiencies to eliminate unnecessary operating costs and therefore improved financial performance. All other lending institutions in Kenya should leverage on CIS mechanisms to reduce on debt recovery and Research and Development costs and this is likely to positively influence financial performance.

The Central Bank of Kenya and the National Treasury should work closely to ensure stability of levels of interest rates in the economy for better financial performance of commercial banks. The study recommends that progressive monetary policies should be adopted by CBK to stabilize the level of interest rates and therefore financial performance of commercial banks.

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