American Journal of **Finance** (AJF)



EFFECT OF INFORMATION SHARING FUNCTION ON FINANCIAL PERFORMANCE OF SAVINGS AND CREDIT CO-OPERATIVE SOCIETIES IN KENYA

Jackson Mnago Ndungo, Dr. Olweny Tobias and Dr. Memba Florence





EFFECT OF INFORMATION SHARING FUNCTION ON FINANCIAL PERFORMANCE OF SAVINGS AND CREDIT CO-OPERATIVE SOCIETIES IN KENYA

1*Jackson Mnago Ndungo, *E-mail of corresponding author: ndungojackson@yahoo.com

¹Post graduate student, Jomo Kenyatta University of Agriculture and Technology, Kenya

²Dr. Olweny Tobias ²Jomo Kenyatta University of Agriculture and Technology, Kenya

³Dr. Memba Florence ³Jomo Kenyatta University of Agriculture and Technology, Kenya

Abstract

Purpose: The objective of the study was to establish effect of credit information sharing on financial performance of SACCOs in Kenya. Studies have indicated that countries are establishing credit registries to reduce defaults, caused by information asymmetry, which have been a crisis for most financial institutions. Various financial institutions including SACCOs which have the business of lending are currently subjecting their customers in credit reference bureaus. Literature indicates that credit defaults have continued to pose financial crisis for financial institutions. Many studies done indicate that credit default is caused by lack or inadequate accurate credit information. In Kenya, through the Banking Act of 2009 saw the establishment of the first credit reference bureau in 2010 where individuals and business entities were to be subjected to CRBs. This study sought to establish the effect of information sharing on financial performance of SACCOs in Kenya. The study adopted a descriptive research design which was both quantitative and qualitative. The target population was 181 and a sample of 135 (74.5%) licensed deposit taking SACCOs as at 31st December 2014 was used. The choice of the licensed deposit taking SACCOs in Kenya was very objective since they offer employment opportunities for our youth. In most cases SACCOs deal with a larger group of clients from the informal sector as opposed to other financial institutions like banks and so it was possible to obtain information that is representative of Kenya. Secondary data was collected from published financial records and CRBs while primary data was collected through questionnaires which were administered to the top managers of the SACCOs. The study established that credit information sharing has a significant and positive relationship with financial performance of the sampled SACCOs. The study highlights effect of credit information sharing with possible recommendations for improvement on financial performance.

Findings: The study concluded that there was a significant and positive relationship between information sharing function and financial performance thus the existence of credit reference bureaus was suitable for improving financial performance of SACCOs. Thus Credit reference bureaus have led to share of negative credit reports; Credit reference bureaus have led to improved defaults rate of borrowers, improved lenders response rate on credit lending and have reduced existence of privacy on borrowers' credit history.



Recommendation: Credit information sharing should be addressed through networking of all credit information amongst lenders so that lenders can have readily available credit information, both positive and negative, on the borrowers which would be shared across all lenders.

Keywords: Credit information sharing, lenders response rate, Credit Reference Bureaus, credit history, financial performance, SACOCOs.

1.0 INTRODUCTION

1.1 Background and Research Gap

Credit information sharing is the process of availing detailed credit information (positive and negative) to lenders and creditors on individual's credit history, including information on their identity, credit accounts and loans, bankruptcies and repayment history (Banking Act, 2009). The credit history is utilized by lenders to judge the creditworthiness of borrowers (Chakazamba, Matanda, & Dube, 2013).

Credit information asymmetry has been a hindrance in the lending operations leading to adverse selection where the party that knows less about the same specific item to be transacted is therefore in a position of making uninformed decision concerning the transaction (Mabvure, Gwangwava, Faitira, Mutibvu, & Kamoyo, 2012). When credit information is shred between lenders and borrowers then defaults will be reduced since no individual or business entity would wish to be listed as credit defaulter.

Saba, Kouser, & Azeem (2012) observed that once a loan is non-performing, the odds that it will be paid in full are considered to be substantially lower. To check on credit defaults countries introduced credit registers where the early credit registries were introduced in 1960's in Europe and 1970's in USA. In USA the Fair Credit Reporting Act was enacted to regulate the credit information sharing mechanism. Credit Reference Bureaus have assisted to avail and document the personal and financial histories of all individuals and business entities that have applied for or received credit and compute credit scores to determine the desirability of the borrower (Lauer, 2010).

Salas & Saurina (2007) reveal that real growth in Gross Domestic Product (GDP) is among the factors that explain variation in non-performing loans (NPLs). They stated that there was a significant negative contemporaneous effect of GDP growth on the NPL ratio and infers a quick transmission of macroeconomic developments to the ability of economic agents to service their loans. Furthermore, Jimenez & Saurina (2007) who examined the Spanish banking sector from 1997 to 2007; provided evidence that NPLs are determined by GDP growth, high real interest rates among others.

The Fair Credit Reporting Act was enacted in USA to regulate the credit information sharing mechanism. Due to the existence of information asymmetry, lenders neither know the past behaviour and the characteristics nor the intention of credit applicant (Kerage & Jagongo, 2014). The extent and efficiency of information sharing mechanisms vary greatly between countries and continents. Africa remains the region of the world with the least developed credit information



systems, yet the exploding financial sectors in many African countries have sparked interest in the feasibility of the creation of credit bureaus to help manage borrower risk under heightened competition.

In developing and underdeveloped countries, the reasons for default have a multidimensional aspect where political factor is a hindrance to loan repayment since those in political power tend to default and resist the disclosure of their creditworthiness especially when they have political influence to the government of the day. In the recent years credit registers have been established in other countries even in the African continent and in 2010 the first credit reference bureau was established in Kenya.

In Kenya the operations, establishment, licensing, governance and management of CRBs, is provided through the banking Act, 2009. There are three credit reference bureaus namely: Transunion Credit Reference Bureau Ltd, Metropol Credit Reference Bureau Ltd and Credit Info Credit Reference Bureau Ltd which are registered by the Central Bank of Kenya (CBK, 2013) to access credit data. At the moment, aspirants seeking political office or any public post in Kenya are expected to obtain certificates from CRBs that confirm their creditworthiness under the requirements of the Leadership and Integrity Act, 2012 on financial obligations.

1.2 Problem Statement

The existence of information asymmetry has shown that financial institutions find themselves in financial crisis due to defaults resulted by inadequate and inaccurate credit information available. Many governments have resolved for the introduction of credit registries in an attempt to reduce defaults. The total assets of SACCOs grew from 257 billion to 301.5 billion while total deposits increasing from 182.7 billion to 205.9 billion from December 2013 to December 2014 financial years (SASRA, 2014). SACCOs have improved lives of many by grating loans and offering direct and indirect employment opportunities. However, defaults on loan repayments pose the greatest risk to stability of the multi-billion-shilling savings and credit co-operative (SACCO) movement (CBK, 2012). Due to information asymmetry, lenders in most cases make wrong decisions on provision of credits. SACCOs control 39 % of the total loan granted by lending institutions in Kenya. While lending is the main source of income for most SACCOs, accurate credit information has in many occasions been a hindrance to financial performance since repayment of principal amount and the interest charged is uncertain. Segita, Limo, Kibati, & Muhanji (2014) reviewed the asymmetry information on CRBs for banks in Kenya; Gitahi (2013) studied on effect of CRBs on NPLs in commercial banks in Kenya and Gaitho (2013) reviewed the role of credit reference bureau on credit access, a survey of commercial banks in Kenya. Although financial performance has been examined in different context but the reasons for non-performance have a multidimensional aspect. Seemingly, there is constant lack of definite answers on how to improve financial performance. The World Bank report (2011) identified information sharing as one of the critical functions of CRBs for improving financial performance. In 2010, the first CRBs were introduced in Kenya as a measure for credit information sharing for better performance. This study sought to examine whether the newly introduced CRBs have a hand in improving financial performance.



1.3 Objectives of the Study

To establish the effect of credit information sharing function on financial performance of SACCOs in Kenya

3.0 Research Methodology

The research was done for a specific category of financial institutions of SACCOs after the introduction of CRBs in the year 2010 to determine their functions on financial performance. Descriptive research design which was both quantitative and qualitative was used. Descriptive statistics was chosen since it utilizes data collection and analysis techniques that yield reports concerning the measures of central tendency, variation, and correlation. The combination of its characteristic summary and correlation statistics, along with its focus on specific types of research questions, methods, and outcomes necessitated the choice of this design. The target population was 181 deposit taking SACCOs with a sample of 135 (74.5%) which had been registered by December 2014 (SASRA, 2014). The choice of the licensed deposit taking SACCOs in Kenya was very objective since it was possible to obtain information that is representative of Kenya. In addition, SACCOs form the smaller arm in the financial sector and in most cases deals with a larger group of clients from the informal sector as opposed to other financial institutions like banks. Stratified random sampling technique was used for each category of government based, teachers based, farmers based, private institutions based and community based. Secondary data from publications, CRBs, journals and financial records was used while primary data was collected using structured questionnaires.

Table 1: Sample Size

| Categories | Population | Sample |
|---------------------------------|------------|--------|
| Government based DTSs | 42 | 31 |
| Teachers based DTSs | 42 | 31 |
| Farmers based DTSs | 58 | 43 |
| Private institutions based DTSs | 16 | 12 |
| Community based DTSs | 23 | 17 |
| Total | 181 | 135 |

Source: SASRA 2014

Both secondary and primary data collection was used. Secondary sources were available from the CRBs, published journals, annual reports and financial reports while Primary data was



obtained from the original sources using questionnaires. Two top managers of each sampled SACCO were selected and participants were interviewed through questionnaires on effect of credit information sharing on financial performance of SACCOs. The participants were allowed to give their opinions voluntarily and confidentiality of their reports was guaranteed. The data was subjected to overall reliability and validity tests. Some of the questionnaires were self-administered with the help of two research assistants while others were administered via mail.

The questionnaires were administered through two methods a drop and pick method and mail survey due to the busy schedules of the respondents. To enhance the response rate, the study did put into consideration the research ethical issues. The primary was collected using questionnaires and the secondary data were subjected to quantitative analysis using SPSS.

Correlation analysis was used to establish either positive or negative relationships between the variables. Regression analysis was used to establish the significance of the variables and the degree of causal effect of the independent variables on the dependent variable. The hypothesis testing was conducted using simple regression model and thus was tested o the objective.

Objective: Effect of information sharing function on financial Performance; $Y = \beta_0 + \beta X + \varepsilon$

Where X=Information Sharing Function

Y= Financial Performance

 β_0 = Constant

4.0 RESEARCH FINDINGS AND DISCUSIONS

4.1Response Rate

Out of total of 135 questionnaires administered 110 questionnaires were properly filled and returned representing a response rate of 81.5 percent. The response rate result is shown in table 2.

Table 2: Response Rate

| Response | Frequency | Percent |
|------------|-----------|---------|
| Returned | 110 | 81.5% |
| Unreturned | 25 | 18.5% |
| Total | 135 | 100% |

4. 2 Categories of Sacco

The respondents were asked to indicate their type or category of Sacco. Results are presented in table 3



Table 3: Categories of Sacco

| Type of Sacco | Frequency | Percent |
|----------------------------|-----------|---------|
| Government based | 19 | 17.3 |
| Teachers based | 10 | 9.1 |
| Farmers based | 27 | 24.5 |
| Private institutions based | 30 | 27.3 |
| Community based | 24 | 21.8 |
| Total | 110 | 100 |

Table 3 show five categories of deposit-taking SACCOs namely government based deposit-taking SACCOs, teachers based, farmers based deposit-taking SACCOs, private institutions based deposit-taking SACCOs and community based deposit-taking SACCOs. Private institutions based deposit-taking SACCOs had the largest share of 27.3 percent, farmers based SACCOs had 24.5 percent followed by community based with 21.8 percent, government based had 17.3 percent while teachers based had the smallest share of 9.1 percent. This could mean that private institutions have the largest number of employees in the country compared to the other sectors.

4.3 Years of Existence

The respondents were asked to indicate the years of existence of their deposit taking SACCOs. Results are presented in table 4.

Table 4: Years of Existence

| Duration | Frequency | Percent | |
|----------------|-----------|---------|--|
| 5-10 years | 17 | 15.5 | |
| Above 10 years | 93 | 84.5 | |
| Total | 110 | 100 | |

Table 4 shows that 84.5% of the respondents who were the majority indicated that their deposit taking SACCOs has been in existence for over 10 years while only 15.5% indicated that they have been existence for between 5 to 10 years. This could mean that SACCOs have provided lending services for many years which is in agreement with SASRA (2012) that SACCOs control 39 percent of the total loan accounts in Kenya.



4.4 Number of Years the SACCO were licensed in Deposit-taking Business

The respondents were requested to indicate Number of Years their SACCOs were licensed in Deposit-taking Business. Results are presented in table 5.

Table 5: Number of Years the SACCO were licensed in Deposit-taking Business

| | Frequency | Percent |
|-------------------|-----------|---------|
| Less than 1 year | 12 | 10.9 |
| 2 to 5 years | 75 | 68.2 |
| More than 5 years | 23 | 20.9 |
| Total | 110 | 100.0 |

Results in Table 5 shows that 10.9 percent of the sampled SACCOs were licensed for less than one year, 68.9 percent licensed within two to five years while 20.9 percent were licensed for more than five years as shown in table 6. This could indicate that many SACCOs registered after 2010 when the credit reference bureaus started and the SACCOs were aware of the need to be registered in the credit bureaus to control defaults rate thus improving their financial performance.

4.5 Information Sharing Function

The study sought to assess the effect of Information Sharing Function on the financial performance of SACCOs. Results were presented in Table 6.

Table 6: Information Sharing Function

| | | Strongly | | | Strong | | |
|---|-------|----------|----------|-------|--------|-----|------|
| | No | disagree | | | ly | Me | Std. |
| Statement | idea | d | Disagree | Agree | Agree | an | Dev. |
| Credit reference bureaus have | | | | | | | |
| led to share of negative credit reports on in our SACCO | 2.7% | 0.7% | 0.5% | 44% | 52.0% | 4.5 | 0.8 |
| Credit reference bureaus have | 2.770 | 0.770 | 0.570 | 1170 | 32.070 | 1.5 | 0.0 |
| led to share of positive credit reports on in our SACCO | 3.6% | 2.7% | 3.6% | 41.8% | 48.2% | 4.3 | 0.9 |
| The listing of negative credit information for five years has | | | | | | | |
| reduced defaults in our | 5.5% | 4.5% | 5.5% | 38.2% | 46.4% | 4.2 | 1.1 |



| response rate on credit lending in our SACCO 6.4% 3.6% 3.6% 41.8% 44.5% 4.2 1.1 Credit reference bureaus information disclosed is sufficient in making credit decisions regarding good or bad credit ratings in our SACCO 2.7% 3.6% 17.3% 20.9% 55.5% 4.2 1.0 Credit reference bureaus have led to increase in total deposits in form of savings in our SACCO 2.7% 5.5% 8.2% 26.4% 57.3% 4.3 1.0 Credit reference bureaus access of credit information from other countries 20.0% 0.0% 3.6% 18.2% 58.2% 4.0 1.6 Credit reference bureaus have | .9% 50.9% 4.2 1.1 | 30.9% | 10.0% | 1.8% | 6.4% | SACCO Credit reference bureaus have led to improved default rate of borrowers in our SACCO Credit reference bureaus have led to improved lenders |
|---|-------------------|-------|-------|------|-------|--|
| SACCO 2.7% 3.6% 17.3% 20.9% 55.5% 4.2 1.0 Credit reference bureaus have led to increase in total deposits in form of savings in our SACCO 2.7% 5.5% 8.2% 26.4% 57.3% 4.3 1.0 Credit reference bureaus access of credit information from other countries 20.0% 0.0% 3.6% 18.2% 58.2% 4.0 1.6 | .8% 44.5% 4.2 1.1 | 41.8% | 3.6% | 3.6% | 6.4% | lending in our SACCO Credit reference bureaus information disclosed is sufficient in making credit decisions regarding good or |
| our SACCO 2.7% 5.5% 8.2% 26.4% 57.3% 4.3 1.0 Credit reference bureaus access of credit information from other countries 20.0% 0.0% 3.6% 18.2% 58.2% 4.0 1.6 | .9% 55.5% 4.2 1.0 | 20.9% | 17.3% | 3.6% | 2.7% | SACCO Credit reference bureaus have led to increase in total |
| from other countries 20.0% 0.0% 3.6% 18.2% 58.2% 4.0 1.6 | .4% 57.3% 4.3 1.0 | 26.4% | 8.2% | 5.5% | 2.7% | our SACCO Credit reference bureaus |
| reduced privacy of borrowers | .2% 58.2% 4.0 1.6 | 18.2% | 3.6% | 0.0% | 20.0% | from other countries Credit reference bureaus have |
| credit history in our SACCO 5.5% 0.0% 4.5% 29.1% 60.9% 4.4 1.0 Credit reference bureaus have led to reduction of multiloaning practices for | .1% 60.9% 4.4 1.0 | 29.1% | 4.5% | 0.0% | 5.5% | credit history in our SACCO Credit reference bureaus have led to reduction of multi- |
| borrowers in our SACCO 2.7% 0.0% 10.0% 33.6% 53.6% 4.4 0.9 Credit reference bureaus have led quality management of | .6% 53.6% 4.4 0.9 | 33.6% | 10.0% | 0.0% | 2.7% | borrowers in our SACCO Credit reference bureaus have |
| credit in our Sacco 0.9% 1.8% 3.6% 51.8% 41.8% 4.3 0.7 Credit reference bureaus have led to improved character of | .8% 41.8% 4.3 0.7 | 51.8% | 3.6% | 1.8% | 0.9% | credit in our Sacco Credit reference bureaus have |
| borrowers in our Sacco 1.8% 3.6% 10.0% 43.6% 40.9% 4.2 0.9 Average 4.2 1.0 | | 43.6% | 10.0% | 3.6% | 1.8% | borrowers in our Sacco |

Results revealed that 96 percent agree that Credit reference bureaus have led to share of negative credit reports; 90 percent agreed that Credit reference bureaus have led to share of positive credit reports. This is in agreement with Lin, Ma, & Song (2012) who stated that Credit is more abundant when borrowers and lenders benefit from credit information institutions. The findings reveal 84.6 percent agree that the listing of negative credit information for five years has reduced defaults. Nganga (2011) study on stakeholder perception of credit reference bureau service in



Kenya credit market reveals that many of the borrowers do not want to be listed in CRBs and would try as much as possible to service their credit facilities so as to protect their reputation.

Credit reference bureaus have led to improved default rate of borrowers as 81.8 percent agreed to the statement; 86.3 agreed that Credit reference bureaus have led to improved lenders response rate on credit lending thus rapid growth can be enhanced by active participation from lenders and borrowers (Yang, 2015). 76.4 percent indicate that Credit reference bureaus information disclosed is sufficient in making credit decisions regarding good or bad credit ratings. This is in support that to be effective, credit bureaus gather information on all borrowers from as many of all available creditor sources, including financial institutions of all types, credit card companies, utilities, department and specialty stores; and other commercial, distribution, industrial, and service firms under reciprocity agreements (Berger & Frame, 2005).

83.7 percent agreed that Credit reference bureaus have led to increase in total deposits in form of savings. This supports Houston, Lin, Lin, & Ma (2010) who found both credit rights and information sharing is associated with faster output growth. 76.4 percent agreed that Credit reference bureaus access of credit information from other countries as revealed by Shisia, Marangu, & Omwario (2014) who argue that CRB firms in Kenya should link with other regional CRB firms in other countries in order to monitor loan defaulters who move from one region to another. 90 percent agree that Credit reference bureaus have reduced privacy of borrowers' credit history.

87.2 percent agreed that Credit reference bureaus have led to reduction of multi-loaning practices for borrowers; 93.6 agreed that Credit reference bureaus have led to quality management of credit; 84.5 percent strongly agreed that Credit reference bureaus have led to improved character of borrowers supporting Mwiya (2010) that the moral character of the borrower is the most important single issue in credit evaluation thus none of the borrowers would wish to evaluated as unworthy credit applicant.

Using a five-point scale likert mean, the overall mean of the responses was 4.2 which indicates that majority of the respondents agreed to the statement of the questionnaire. Additionally, the standard deviation of 1.0 indicates that the responses were varied.

4.6 Correlation Analysis

Correlation analysis was conducted to establish the relationship of the independent variable with the dependent variable to determine whether the relationship is positive or negative; weak or strong.

Table 7 information sharing function



| | | Financial performance | Information sharing Function | | |
|--|-----------------|-----------------------|------------------------------|--|--|
| | Pearson | | | | |
| Financial performance | Correlation | 1.000 | | | |
| | Sig. (2-tailed) | | | | |
| Information sharing | Pearson | | | | |
| Function | Correlation | .195* | 1.000 | | |
| | Sig. (2-tailed) | 0.042 | | | |
| * Correlation is significant at the 0.05 level (2-tailed). | | | | | |

The results indicated that there was a positive relationship of 0.195 between information sharing function and financial performance (r=0.195). There is a significant relationship between information sharing function and financial performance since the p-value is less than 0.05 (p=0.042). Kerage & Jagongo (2014) studied on Credit Information Sharing and Performance of Commerce and found a significan relationship between NPLs and credit information sharing (CIS). They found that the decline in gross NPLs was attributable monitoring standard that was brought about by enhanced ctredit information sharing. Kioko (2014) investigated the role of credit reference bureau on performance of licensed deposit taking SACCOs in Kenya found a significant relation but recommended for policy formulation. Houston, Lin, Lin, & Ma (2010) found both credit rights and information sharing is associated with faster output growth as supported in table 7.

4.7 Regression Analysis

The objective of the study was to establish effect of information sharing function on financial performance of SACCOs in Kenya. Ordinary least square regression analysis was conducted and the result was represented in table 8.

Table 8 Information Sharing Function

| | Unstandardized | | Standardized | | |
|------------|----------------|-------|--------------|--------|-------|
| Variable | Coefficients | | Coefficients | t | Sig. |
| (Constant) | 0.317 | 0.028 | | 11.258 | 0.000 |



| Information sharing | | | | | |
|---------------------|-------|-------|-------|-------|-------|
| function | 0.014 | 0.007 | 0.195 | 2.063 | 0.042 |

The Unstandardized Coefficients indicated that there is a positive relationship of 0.014 between Information sharing function and financial performance (r=0.014). Thus, a unitary percentage increase in information sharing function leads to an increase in financial performance by 1.4%. In the absence of information sharing function, financial performance will be at 0.317 implying that there are other could be drivers of financial performance. The relationship between information sharing function and financial performance is significant since the p-value is less than 0.05 (p=0.042). This finding is consistent with that of Kerage & Jagongo (2014) who studied on Credit Information Sharing and Performance of Commerce and found a significant relationship between NPLs and CIS.

Kiptoo, Wanyoike, & Gathogo (2015) sought to assess the influence of cross borrowing on financial performance of Savings and Credit Co-operatives (SACCOs) in Eldama Ravine Sub-County. From the analysis, adverse selection was found to strongly influence financial performance than credit policy. Since adverse selection was a significant factor, SACCOs should share credit information between themselves and with other lenders. They should also update their credit policies and develop enhanced strategies to mitigate risk associated with credit policy. The information sharing function model is $Y=\beta_{0+}\beta X+\varepsilon$ thus Y=0.317+0.014X.

Where Y=Financial Performance

X =Information sharing function

4.8 Hypothesis Testing

In testing for the hypothesis by using simple linear regression (table 8, above), the acceptance or rejection criteria were that, if the p value is greater than 0.05, the Ho is not rejected but if it's less than 0.05, the Ho fails to be accepted.

The null hypothesis was that information sharing function has no significant effect on financial performance of SACCOs in Kenya. Results in Table 8above show that the p-value was 0.042<0.05. This indicated that the null hypothesis was rejected hence information sharing function has a significant effect on financial performance of SACCOs in Kenya.

4.9 Conclusion

The findings indicate that there is a significant and positive relationship between credit reference bureaus function and financial performance of SACCOs in Kenya. Information sharing function on credit reference bureaus was found to be suitable for improving financial performance. The correlation analysis conducted indicated that information sharing and financial performance of SACCOs were positively and significantly associated. Regression analysis indicated that



information sharing function have a positive and significant effect on financial performance of SACCOs (r= 0.014, P=0.042). Thus, a unitary percentage increase in information sharing function leads to an increase in financial performance by 1.4 %. The hypothesis results indicated that there is a significant relationship between information sharing function and financial performance of SACCOs in Kenya. The null hypothesis was therefore rejected hence information sharing function has a significant effect on financial performance of SACCOs in Kenya

4.10 Recommendation

It was recommended that networking of positive and negative credit information amongst lenders was necessary to ensure that lenders had readily available both positive and negative credit information on the borrowers which would be shared across all lenders. Benchmarking tours within and outside the country are essential since they can share or copy the best practices from others who are doing better in the industry.

References

Act, S. S. (2008). Sacco Societies. Nairobi: National Council for Law Reporting.

Bercoff, J., Giovanni, G., & Grimard, F. (2012). Argentinean Banks, Credit Growth and the Tequila Crisis: A Duration Analysis. Sau Paulo: Central Bank of Argentina

Berger & Frame, (2005). Role of credit reference bureaus on credit access in Kenya: A survey of commercial banks in Kenya. *European Scientific Journal*, *9*(13).839-845.

CBK. (2012, February 16). *Update on the Credit Information Sharing Project, Nairobi*. Retrieved September 26, 2015, from Central Bank of Kenya: http://www.centralbank.go.ke

CBK. (2013). Bank Supervision Annual Report 2013. Nairobi: Central Bank of Kenya.



CBK. (2014). Bank Supervision Annual Report. Nairobi: Central Bank of Kenya.

- CBK. (2014, June 30). Developments in the Kenyan Banking Sector for the Quarter Ended 30th June 2014. Nairobi, Nairobi, Kenya.
- Chakazamba, L., Matanda, E., & Dube, H. (2013). The Impackt of Credit Bureaus on the Performance of Zimbabwean Financial Institutions. *Journal of International Academic Research for Multi Disciplinary*, *I* (10), 3-15.
- Gaitho, N. W. (2013). Role of Credit Reference Bureaus on Credit Access in Kenya: A survey of Commercial Banks in Kenya. *European Scientific Journal*, *IX* (13), 1-14.
- Keitany, N. (2013). The Relationship Between Loan Default and the Financial Performance of Saccos in Kenya. Nairobi: University of Nairobi.
- Kerage, P. M., & Jagongo, A. (. (2014). Credit Information Sharing and Performance of Commerce. *Global Journal of Commerce & Management Perspective*, *III* (6), 18-23.
- Kioko, C. (2014). Credit Information Sharing Influence on Performance of Licensed Deposit Taking Sacco Businesses in Kenya. *The Strategic Journal Of Business & Change Management*, *II* (39), 1-18.
- Kiptoo, G., Wanyoike, D., & Gathogo, G. (2015). *Influence of Cross-Borrowing on Financial Performance of Savings and Credit Co-operative Societies in Eldama Ravine Sub-County*. Nairobi: University of Nairobi.



- Laeven, L., & Revine, R. (2011). Bank Governance, Regulation and Risk Taking. *Journal of Finance and Economics*, 93 (2), 259-275.
- Lin, C., Ma, Y., & Song, F. (2012). What Drives Bank Operating Efficiency? The Role of Bank Competition and Credit Information Sharing. *Research Handbook on International Governance*, 87.
- Mabvure, T., Gwangwava, E., Faitira, M., Mutibvu, C., & Kamoyo, M. (2012). Non-Performing Loans in Commercial Banks: A case of CBZ Bank Limited In Zimbambwe. Interdisciplinary Journal Of Contemporary Research in Business, 1-22.
- Mwiya, B. M. (2005). Credit Default in the Financial Sector: Need for Credit Reference and Rating Agencies. Lusaka: The Copperbelt University .