International Journal of Business and Management Review
Vol.9, No.3, pp.1-15, 2021
Print ISSN: 2052-6393(Print),
Online ISSN: 2052-6407(Online)

SALE OF LOANS AND CREDIT RISK MANAGEMENT PRACTICES OF SAVINGS AND LOANS COMPANIES: EVIDENCE FROM AN EMERGING ECONOMY

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ABSTRACT: *The current study assessed the credit risk management practices of saving and loans companies in the Sunyani Municipality of the Bono region of Ghana. With a positivist paradigm, the study adopted a descriptive research design. Using purposive sampling method, a sample size of fifty seven (57) respondents was utilized. The study revealed a strong and positive correlation between credit risk management and financial performance of the savings and loans companies. Erratic policy rates were found to have negative impact on the operations and profitability of the companies. The study recommends robust supervision and strict adherence to sound credit management practices for sustainability and profitability of the savings and loans companies.*

KEY WORDS: savings and loans companies, credit risk management, sunyani municipality, Ghana

INTRODUCTION

The central Bank of Ghana (Bank of Ghana) revoked the licenses of some sixteen (16) savings and loans companies in Ghana. In their statement, the central bank indicated that, the revocation of the licenses of these institutions was necessary because they were insolvent even after a reasonable grace period extended to them to recapitalize and return to solvency (Bank of Ghana, 2019). Among other reasons stated by the central bank for the revocation of the licenses was the excessive risk-taking without the required risk management practices to manage risk exposures by these savings and loans institutions (Bank of Ghana, 2019).

Credit risk management is recognized in today's business world as an integral part of good management practices. It entails the systematic application of management policies, procedures, and practices to the task of identifying, analysing, assessing, treating and monitoring risk (Haneef et al., 2012). According to Kliestik and Cug (2015), credit risk constitutes the loss probability that a financial institution encounters when a borrower fails to meet his contractual obligation. Largely, Savings and Loans institutions are the most susceptible when it comes to credit risk (Spuchľaková & Cúg, 2014) since it constitutes a significant proportion of their operational losses (Kliештik & Cúg, 2015). In Ghana, Savings and Loans institutions' mode of operations make them more vulnerable to credit risk issues. For instance, for five consecutive years (i.e. 2012-2016), loans and advances had remained as the main source of their operating assets (PwC, 2017).

Extant studies on the subject of credit risk management have often focused on credit risk and diverse measures including corporate financial management decisions, corporate treasury yield spread (Huang and Huang, 2012), data quality (Moges, et al., 2013), monetary policy (Jimennez, et al., 2014), and liquidity risk (Imbierowicz & Rauch, 2014). Other studies focused on incorporating sustainability criteria into credit risk management (Weber, Scholz and Michalik, 2010), and aggregate risk (Acharya, Almeida, and Campello 2013). However, as argued by Apanga, Appiah and Arthur (2016) there seems to be a dearth of studies on credit risk management among savings and loans institutions especially within an emerging market context. Studies on credit risk management in the aforementioned context have often concentrated on commercial banks to the neglect of savings and loans institutions. (Afriyie Akotey, 2012; Boahene, Dasah and Agyei, 2012; Apanga et al., 2016; Amamuo-Tawiah and Asante, 2018) This study seeks to address this gap. The aim of this study is therefore to assess the credit risk management practices of savings and loans companies in the Sunyani Municipality a district hardest hit by the collapse of micro-finance, and savings and loans institutions by the central Bank.

The study makes some modest but important contributions to both literature and practice. First, the study contributes to literature on credit risk management and savings and loans companies by addressing the gap that exist. Second, it provides empirical evidence on how credit risk management impact the operation and the sustainability of savings and Loans Company from an emerging economy context. Lastly, it gives practitioners and policymakers insight into the extent to which credit risk management impact the operations of savings and loans companies within the municipality.

The study attempts to provide answers to the following research questions; RQ1: What strategies do savings and loans companies in the Sunyani municipality use to mitigate credit risk exposures? RQ2: What is the relationship between credit risk management and financial performance of savings and loans companies in the Sunyani municipality? RQ3: What challenges do savings and loans companies in the Sunyani municipality face in employing sound credit risk management practices? Having justified the significance of the study, the remaining sections are organized as follows; literature review, methodology, presentation of findings, discussion of result, theoretical and managerial implications and limitations and direction for future research.

Empirical Review

According to Addae-Korankye (2014) credit default factors include high-interest rates, insufficient loan sizes, poor appraisal, lack of oversight, and inappropriate client selection. He posits that, Control default steps were found to include pre- and post-disbursement preparation, fair interest rate, client tracking, and proper loan assessment. In view of that, he recommends a robust periodic review of micro finance institutions and a transparent and efficient credit policies and procedures. In a study to examine the effect of risk management practices on Pakistan's bank sector's non-performing loans and profitability. Haneef et al. (2012) concluded that lack of proper risk management system impacted negatively on sustainability and profitability of Banks. Mwithi (2012) in a similar study, also suggests a positive relationship between lack of sound credit management practices and the level of non-performing loans. Sound credit risk management practices is perceived as key in the management, sustainability and profitability of financial institutions. However, according to Muasya (2013) the approach and the robustness of the practice may very within sectors and institutions.

Ahmed and Malik (2015), posit that, there exist a positive and significant relationship between credit terms and consumer assessment on loan performance, however, the effect of credit collection policy and credit risk management on loan performance though positive, is marginal. A study investigating (Owusu, 2008) credit practices of rural banks in Ghana revealed that the assessment of credit applications did not necesaarily determine the credit risk inherent in them to inform direct sound decision. Credit distribution mechanism, credit portfolio mix, management of problem loans, anmong others well also found to be lacking among rural banks in Ghana.

According to Githingi (2010), microfinance institutions in Ghana employed operating efficiency metric as a credit risk management method to a greater extent. He noted that, to assess their overall success, microfinance institutions need to employ a variety of performance measures such as productivity, operating efficiency, and portfolio quality measures. In a study by Kisaka and Simiyu (2014) on credit risk management techniques employed by microfinance institutions, it was found that microfinance institutions largely use 6C credit risk management techniques. Arko (2012) recommends that, to mitigate non-performing loans (NPLs), which are usually occasioned by non-repayment of loans, a standard loan request procedure and requirements are necessary as a guide to loan officers and customers alike.

METHODOLOGY

The study employed a quantitative research strategy and therefore utilized a descriptive research design. The study population consisted of employees of the various savings and loans companies in the Sunyani municipality. A sample of fifty seven (57) respondents were selected for this study using purposive sampling method. The Sample size of fifty seven was purposively chosen directly from the staff of the risk department of these savings and loans companies as they were deemed to be knowledgeable on the subject matter. A five-point likert scale Questionnaire was used to collect data and it was self-administered as respondents were literate enough to read and understand the questionnaire. The data was analysed using SPSS version 24 and Amos version 20. The data collection instrument was first pretested. A Cronbach Alpha value of 0.70 was recorded indicating that the instrument for data collection measured well all the constructs.

RESULTS AND FINDINGS

Demographic characteristics of Respondents and Profile of institutions

General information on savings and loans companies used, and the number of respondents employed in this study are presented. The qualification, gender, position, and duration of employment and the position of the respondents are presented in Tables 3.1 to 4.3 below.

Table 0.1 Sample of the Respondents from each Savings and Loans

Company	Number selected
Utrack Savings and Loans	8
SIC Life Savings and Loans	8
Advans Savings and Loans	8
Multi Credit Savings and Loans	7
Opportunity Savings and Loans	9
Sinapi Aba Savings and Loans	9
ASA Savings and Loans	8
Total	**57**

Source: Authors' computation

Table 4.1 shows the breakdown of the respondents and the positions they occupied at the time of the study, out of the total of 57 respondents used in the study, 7 respondents representing 12.3% were Branch Managers, Operation Managers and Accountants also had 7 respondents respectively which represented 12.3% for both positions. Also, there were 18 Credit Officers representing 31.6%, Recovery Officers were 13 representing 22.8% and Field Officers/Evaluators were 5 representing 8.8% of the total respondents. It must be noted that not all the savings and loans companies in Sunyani Municipality have field officers/evaluators but a company may have more than one credit officers and/or recovery officers.

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Print ISSN: 2052-6393(Print),
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Table 0.2: Position of Respondents

Position of Respondents	Frequency	Percentage (%)
Branch Managers	7	12.3
Operations Managers	7	12.3
Credit Officers	18	31.6
Recovery Officers	13	22.8
Accountants	7	12.3
Field Officers/Evaluators	5	8.8
Total	**57**	**100.0**

Source: Authors' computation

Educational Background of respondents

Table 4.2 below represents the educational background of respondents, from the table, 31 respondents representing 54.4% of the respondents had bachelor's degree, 15 respondents representing 26.3% of the respondents had Diploma/HND and 11 respondents representing 19.3% had Master's degree at the time of the study. This suggests that all respondent had had formal education and were therefore literate enough to read and understand the questionnaires.

Table 0.3: Educational Background of Respondents

Academic Qualification	Frequency	Percentage
Bachelor's degree	31	54.4
Diploma/HND	15	26.3
Master's degree	11	19.3
Total	**57**	**100.0**

Source: Authors' computation

Work Experience of Respondents

From the Table 4.3 below, it can be seen that 6 respondents representing 10.5% have had a long service in their respective positions at is more that 15years at the credit risk department of the savings and loans under study. This is followed by 10 respondents representing 17.5% of the total respondents have for 11 to 15 years in the credit risk departments. The Table 4.3 further shows that 24 respondents representing 42.1% have worked at their respective position for 6 to 10 years. Another 12 respondents representing 21.1% stated that they have worked at their respective position for 1 to 5 years and as low as 5 respondents representing 8.8% indicated that they are less than a year old at their positions at the credit risk departments. This means that some 70.1% of the respondents have worked at the risk department for more than 6 years. This shows how experienced the respondents are at the credit risk departments of the saving and loans companies.

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Table 0.4 Work Experience of respondents

Number of years	Frequency	Percent
Less than one year	5	8.8
1 – 5 years	12	21.1
6 – 10 years	24	42.1
11 – 15 years	10	17.5
More than 15 years	6	10.5
Total	**57**	**100.0**

Source: Authors' computation

To assess the strategies the saving and loans companies in Sunyani Municipalities use to mitigate the credit risk exposures which cause their sustainability in the environment where credit access is high. We first identify the various strategies employed by these companies. The study assessed the credit analysis traits of Savings and Loans Companies, the means of raising awareness on risks, the importance of risk identification to various institutions and the period within which a customer is termed as a loan defaulter. The various credit risk management practices identified in literature were used as a basis for assessing credit risk management practices of the institutions surveyed. The respondents were therefore asked whether they practiced the identified activities based on a simple yes or no response.

Table 4.4 shows an analysis of credit risk management practices by the various savings and loans companies. Respondents indicated the mostly considered credit risk management practices, the results indicated that, 94.7% considered loan policy procedures of their respective savings and loans companies, this is followed by 91.2% indicated that risk monitoring is their key practice in credit risk management. Also, Risk identification reflected in the responses gathered where 50 respondents out of 57 representing 87.7% agreed they pay attention to that factor/practice to manage credit risks. Similarly, risk analysis and assessment is important to manage credit risk as it offers a deeper understanding of the causes and how to deal with various risks. The level of importance was also reflected in the responses as 48 out of 57 respondents representing 84.2% said they practice it in their institutions. Furthermore, Credit scoring mechanism, which was admitted by 86.0% of respondents only 39 respondents representing 68.4% have the view that quality asset portfolio, is important in credit risk management. This analysis indicated that the savings and loans companies in the Sunyani Municipality pay attention to the standardized credit risk management practices. This means the Savings and loans companies in the Sunyani Municipality have adopted Basel II Credit Risk Management Principles (1999). Also the analysis is in line with McKinley and Brickman (1994) Cited in Omega, (2015), they stated that credit culture is how things are done within an outfit or set-up, which is the incarnation of the bank's approach to underwriting, administration, and monitoring credit risk. However, the savings and loans companies in Sunyani municipality did not place much priority to quality asset portfolio as indicated by (Strischek, 2002) who indicated that, Productivity, Asset quality, and Growth and market share are the major key practices in the credit risk management.

Also, in assessing how the savings and loans mitigate the credit risk exposures, the perception on major issues concerning credit risk management of savings and loans were found out. The results are presented in Table 4.5 below.

Table 0.5: Credit Risk Management Practices

Risk Management Practice	Responses				Total (%)
	Yes (%)		No (%)		
	Frequency	Percentage (%)	Frequency	Percentage (%)	
Risk identification	50	87.7	7	12.3	100.0
Risk analysis and assessment	48	84.2	9	15.8	100.0
Credit scoring mechanism	49	86.0	8	14.0	100.0
Risk monitoring	52	91.2	5	8.8	100.0
Loan policy procedure	54	94.7	3	5.3	100.0
Quality of asset portfolio	39	68.4	18	31.6	100.0

Source: Authors' computation, 2020

From Table 4.5 the use of collateral before the administration of loan had a mean response of 4.27 which indicated that respondents averagely agree with the factors being helpful to credit risk management. The relevance of a good portfolio to a sound credit risk management system had a mean response of 3.83 most people neither agree nor disagree with the point however some agreed with it. Credit risk management is essential for performance and this had a mean of 4.87 indicating that averagely respondents strongly agree with the point. Many respondents agreed that credit documentation helps credit risk management as it had a mean response of 3.83. This indicated that majority of the respondents strongly believe or believe that keeping accurate records of credit can manage the risks associated with giving credit out to customers.

The expertise of credit officers has a way of contributing to a well-managed credit risk system. However, in this study, most respondents could neither agree nor disagree with this point as indicated by a mean response of 2.73. Offering good consultancy services received the weakest response. The majority of the respondents either strongly disagrees or disagrees with good consultancy service being key to credit risk management. This was indicated by a mean response of 2.25.

Again to minimize credit risk exposures, there are some traits the credit managers should put in place or consider before administering the loan. The results of the respondents on their understanding and use of the credit traits are indicated in Table 4.6 below.

Table 0.6 Perception on Major Issues Concerning Credit Risk Management of Savings and Loans

Responses	Mean	Std. Deviation	RII	Ranking
Credit risk management is key to performance	4.87	0.343	97.3	1
The use of collateral	4.27	0.862	85.4	2
Credit documentation helps to manage credit risks	3.83	0.978	76.7	3
Sound credit risk management is built on good portfolio management	3.49	1.185	69.8	4
Possession of adequate appraisal by Credit officers	2.73	1.196	54.6	5
Offering good consultancy services to customers	2.25	1.319	44.9	6

Source: Authors' computation

The Table 4.6 shows that most of the savings and loans companies first consider collateral before loans processing is initiated. This is shown by ranking first among all other traits with a mean mark of 3.87. Also the capital of the customers is next to be considered. The capacity of the customer is not overemphasized by the savings and loans companies in the Sunyani Municipality. This scored a mean mark of 3.47. Although, Edward (1997) as cited in Amandi (2012) revealed that in most financial institutions, credit managers consider character as the most vital factor in determining whether a credit repayment will be made on time and ultimately. However, in this, it was seen as an important factor but not the most vital. This was shown by a mean response of 3.35 which indicated that most Savings and Loans consider the character of borrower either moderately or to a high extent to award credit to customers. The asset used as collateral is taken over by the financial institution should the borrower fail to honour the terms of the agreement. It was found out that majority of the institutions considered the use of collateral to a high extent as indicated by a mean response of 3.8. Lastly it was found out that the condition of the economy and or the customers is not a major trait to the saving and loans companies, this was indicated by the mean score of 3.35. In general, the credit risk traits are dully followed by the savings and loans companies in the Sunyani Municipality.

Table 0.7: Credit Analysis Traits before Giving Credit to Customers

Responses	Mean	Std. Deviation	RII	Ranking
Collateral	3.87	0.366	96.6	1
Capital	3.48	0.892	86.9	2
Capacity	3.47	0.901	86.7	3
Character of borrower	3.35	0.906	83.7	4
Condition	3.25	0.756	81.2	5

Source: Authors' computation

International Journal of Business and Management Review
Vol.9, No.3, pp.1-15, 2021
Print ISSN: 2052-6393(Print),
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RQ2: What is the relationship between credit risk management and financial performance of savings and loans campanies in the Sunyani Municipality?

To answer the research question above, an analysis was conducted to measure the relationship between credit risk management and financial performance of savings and loans companies. The ANOVA table for the regression analysis is presented in Table 4.7 below.

Table 0.8 ANOVA on CRM and FP of Savings and Loans

Model		Sum of Squares	Df	Mean squares	F	Sig.
1	Regression	5.186	1	5.186	16.430	0.000[b]
	Residual	9.784	29	0.316		
	Total	14.970	30			

a. Dependent Variable: CRM (Credit Risk Management); b. Predictors: (Constant), FP (Financial Performance)

Source: Authors' computation

The p-value or level of significance is 0.000 indicated in Table 4 illustrates that the available data was a good fit for the model. This implies that there is strong evidence that the regression model gives accurate predictions on the relationship between CRM and FP.

The regression model summary showing the correlation coefficient R and the coefficient of determination (R-square) are presented in Table 4.8.

Table 0.9: Regression Model Summary

Model	R	R Square	Adjusted R Square	Std. Error
1	0.710	0.509	0.245	0.562

Source: Authors' computation

The correlation coefficient of the model summary was 0.710, as indicated in the Table 4.8. This illustrates that there is a positive correlation between credit risk management and financial performance. The coefficient of determination (R squared) is 0.509, indicating that the independent variable (financial performance) accounted for a reduction of 50.9% of the cause of variation in the dependent variable (credit risk management).

To determine the predictive effect of the independent variable (financial performance) on the dependent variable (credit risk management), the regression coefficients were used, as indicated in Table 4.9.

Print ISSN: 2052-6393(Print),
Online ISSN: 2052-6407(Online)

Table 0.10: Regression Coefficients of Credit Risk Management and Financial Performance

Return on assets	Unstandardized coefficients		Standardized coefficients		
	B	**Std. Error**	**Beta**	**T**	**Sig.**
(Constant)	1.000	0.276		3.645	0.001
Risk identification	0.325	1.650	0.759	2.801	0.020
Credit scoring	0.612	0.185	0.911	0.887	0.006
Risk analysis	3.911	0.234	0.002	0.032	0.021
Quality of portfolio asset	3.846	0.442	0.000	0.000	1.000
Loan policy procedure	0.513	0.311	0.602	2.006	0.046
Risk monitoring	1.300	0.130	0.828	4.000	0.000

Source: Authors' computation

There was significant positive relationship between risk identification and returns on assets holding credit scoring, risk analysis, quality of portfolio asset, loan policy procedure and risk monitoring constant. The partial regression coefficient was 0.325 and significant value was 0.020 < 0.05 showing significant relationship.

Risk analysis and assessment had a significant relationship with return on assets holding the other independent variables constant, significant value 0.021 < 0.05. The partial regression coefficient of risk analysis was 3.911 showing significant relationship between return on assets and financial performance holding other independent variables constant. The quality of portfolio asset had no significant relationship with financial performance as shown by the significant value of 1.000 > 0.05. This value was found to be higher than the conventional 0.05 the model is operating with. This implied that quality of portfolio asset cannot be relied on to determine financial performance of savings and loans companies.

Loan policy procedure was significant and positively related with financial performance holding as value of 0.046 holding other independent variables constant. The partial regression coefficient of loan policy procedure was 0.513, showing positive relationship with financial performance of savings and loans companies.

Lastly, risk monitoring had a significant relationship with the dependent variable, as indicated by its p value of 0.000 holding the other independent variables constant. The partial regression coefficient was 1.30 showing that, a unit increase in risk monitoring increase financial performance by 1.30 holding the other independent variables constant.

This analysis is in line with Muasya, (2009) who did a research on non-performing loans and their impact on Kenya's banking sector performance during the global financial crises. Their results show that performance of commercial banks in Kenya was affected by the non-performing loans in the sector. Also, in 2010, Wanjiri also studied the correlation between commercial banks performance in Kenya and NPL management practices. His study confirms that it there is positive correlation between NPL management practices and commercial banks financial performance in

Print ISSN: 2052-6393(Print),
Online ISSN: 2052-6407(Online)

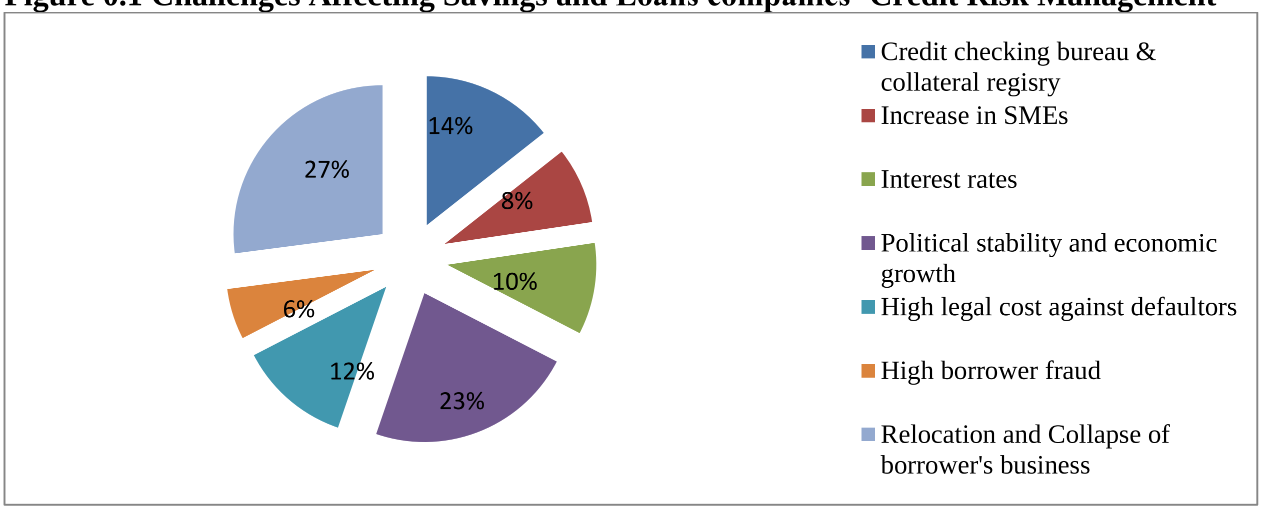
Kenya which suggests that financial performance in commercial bank will be enhance if those banks adopt NPL management practices that the adoption of non-performing loans management practices leads to the improved financial performance of commercial financial institutions in Kenya.

Savings and loans companies in Ghana were found to have a structured credit administration process. Risk identification, assessment and analysis were found to be directly correlated to financial performance. Most savings and loans companies were very particular about loan policy procedures. Credit scoring mechanisms have been put in place and risk is constantly monitored. This is in line with the findings of Githinji (2010), who studied the correlation between credit scoring by financial institutions and level of availability of credit for SMEs in Kenya. Githinji (2010) also agreed having a credit scoring mechanism in place helped to enable a higher accuracy in the credit decision making process. As such credit administration processes have to be reviewed on a regularly basis since it is vital to the survival of a savings and loans companies.

RQ3: What are the challenges faced by savings and loans companies in the Sunyani municipality in employing sound credit risk management practices?

The respondents identified both Internal and External Factors Affecting the Effectiveness of Credit Risk Management. As presented in Figure 4.1, respondents indicated that, relocation of borrowers or collapse of their businesses accounted for 27% of their loan recovery challenges, this is followed by local politics and economic growth which represents 23% of their challenges, and this is because inflation and high policy rates impact the savings and loans interest rate. Credit checking or referencing bureau and collateral registry introduced by Bank of Ghana was also seen as a challenge to most Savings and loans companies. This corroborates studies such as Abdifatah (2010), which also looked at credit risk management practices of Islamic banks.

Figure 0.1 Challenges Affecting Savings and Loans companies' Credit Risk Management



Source: Authors' computation, 2020

CONCLUSION

In examining the credit risk management practices of the various savings and loans companies, it emerged that majority of the companies adopted Basel II Credit Risk Management Principles in their operation. Also, it was revealed that, Credit risk management is seen as essential for the performance of the saving and loans companies in the Sunyani Municipality. However, credit risk traits (Collateral, Capital, Capacity, Character of borrower and Condition) were given less attention especially borrower character.

To investigate the relationship between the credit risk management practices used and financial performance, it was established that, there exist a positive and significant correlation between credit risk management and financial performance of the saving and loans companies in the Sunyani Municipality. The findings revealed a positive and significant relationship between risk identification, credit scoring, risk analysis, loan policy procedure, risk monitoring and financial performance of savings and loans companies.

inflation, high policy rate, bad debts, political interferences, proper financial education of customers on loan acquisition, ensuring utilization of loan for the intended purposes by customers, and adhering to repayment plans by customers were found to be the major challenges the savings and loans companies in the Sunyani Municipality faced.

Theoretical and managerial implications

The study makes some modest yet important contributions to theory and practice. It contributes to the literature on savings and loans companies and credit risk management. It also has the potential to offer managers of savings and loans companies insights into the benefit of sound credit risk management by providing empirical evidence on the subject matter. The study also exposes the major challenges faced by these savings and loans companies which may inform policies by the managers of these institutions, the government, and regulatory bodies alike.

Limitations and Future Research Directions

The study acknowledges some limitations and therefore provides an avenue for future research. These limitations, however, do not invalidate the findings. First; the current study did not consider customers of savings and loans companies on the subject matter. Future study may look at it from the customer perspective. Second, the sampling technique employed as stated above has the potential of producing sampling bias which may affect generalization of the findings, future studies may employ a different sampling technique.

REFERENCES

Aballey, F. B. (2009). *Bad Loans Portfolio: The Case of Agricultural Development Bank*.

Addae-Korankye, A. (2014). Causes and Control of Loan Default/Delinquency in Microfinance Institutions in Ghana. *American International Journal of Contemporary Research*, 4(12)

Ahmad, S. A. (1997). *Natural Hazards and Hazard Management in the Greater Caribbean and Latin America*. Publication No. 3

Ahmed, S. F. & Malik, Q. A. (2015). Credit Risk Management and Loan Performance: Empirical Investigation of Micro Finance Banks of Pakistan. *International Journal of Economics and Financial Issues*.

Amos, M. T., Kalundu, K., & Evans, M. (2014). *Factors Affecting Credit Risk Management On Loans Portfolio of Savings and Credit Cooperative Societies (Saccos) In Nairobi County*

Antwi, et. al. (2012). *Risk Factors of Loan Default Payment in Ghana‖ International Journal Of Academic Research in Accounting, Finance and Management Sciences.* Vol. 2. 4.

Arko, S. K. (2012). *Determining the Causes and Impact of Non-performing Loans on the Operations of Microfinance Institutions: A Case of Sinapi Aba Trust*. An executive MBA thesis. Kwame Nkruma Univesity and Technology, Accra, Ghana.

Balogun, E. D. &Alimi, A. (1988). *Loan Delinquency among Small Farmers in Developing Countries: A Case Study of Small-Farmers Credit Programme in Lagos State of Nigeria*, Cbn Economic and Financial Review.

Bart, B. & Tony V. G. (2009). *Credit Risk Management Basic Concepts, Financial Risk Component Rating Analysis*. Models Economic and Regulatory Capital Oxford University Press Inc., New York, Bart

Brown, A. (2004). The Origins and Evolution of Credit Risk Management. Retrieved from http://www.eraider.com/images/articles/RiskHistory1.pdf

Comptroller of the Currency, (2011). *Note on Categories of Risk taken from the Office of the Comptroller of the Currency's definitions*, US Government.

Coyle, B. (2000). *Framework for Credit Risk Management*; Chartered Institute of Bankers, United Kingdom.

Darkwah, et. al. (2013). *A Study of Finance Options for SME's In Ghana*: The Case of Savings And Loans Companies in the Ashanti Region of Ghana.

Ekka, P., Chaundry, S. & Sinha, R. (2011). *Risk Management: Integrating SPM into Microfinance Capacity Building.* Guidance Note.

Experian Group, (2015). *Manages Credit Risk, Prevent Fraud, Target Marketing Offers and Automate Decision Making*. Retrieved from: Http://Economics.Experian.Co.Uk/ www.Experian.Com/Credit-Education.

Gisemba, P. N. (2010). *The Relationship between Credit Risk Management Practices and Financial Performance of SACCOs in Kenya*. Unpublished MBA Dissertation, University of Nairobi.

Hallberg, K. (2001). A Market-Oriented Strategy for Small and Medium-Scale Enterprises.

Haneef, et. al. (2012). Impact of Risk Management on Non- Performing Loans and Profitability of Banking Sector of Pakistan. *International Journal of Business and Social Science* 3(7).

Haron, O. M., Justo, S. M., Nebat, G. M., &Sindani, M. N. (2012). Effectiveness of Credit Management System on Loan Performance: Empirical Evidence from Micro Finance Sector in Kenya. *International Journal of Business, Humanities & Technology*, 2.

Hou, Y., (2007). *The Non-performing Loans: Some Bank-level Experiences*. 4th AFE-QASS Conference, INEAG, Samos

Investopedia (2015), Llc. Dictionary. Http://Www.Investopedia.Com/

John, M., & John B. (1994, 2002). *Strategic Credit Risk Management‖ Robert Morris Associates: Philadelphia*. Pp. 20-21.

Joppe, M. (2004). *The Research Process*. Retrieved: http://www.ryerson.ca./~mjoppe/rp.htm.

Kariuki, J. N. (2010). *Effective Collection Policy*. Kasneb Publishers, Nairobi.

Ken, B., & Peter, M. (2008, 2011). *Credit Risk Management*. Heriot-Watt University Business School.

Kisaka&Simiyu (2014). *Credit Risk Management Techniques used by Microfinance Institutions in Kenya.*

Kithinji, A. M. (2010). *Credit Risk Management and Profitability of Commercial Banks in Kenya*. Unpublished research project, University of Nairobi

Lee, S., & Liu, D. (2002). The Determinants of Defaults in Residential Mortgage Payments: A Statistical Analysis. *International Journal of Management*. Vol. 19(2). Pp.377-390.

Markowitz, H. M. (1952). Portfolio Selection. *Journal of Finance,* Vol. 7. 1.

Michael, S. (1998). *The Quantity Theory versus the Real Bills Doctrine in Colonial America*. In Economics Working Papers.

Morduch, J. (1999). The Microfinance Promise. *Journal of Economic Literature.* Price Ton University.

Muasya, A. M. (2013). *The Relationship between Credit Risk Management Practices and Loans Losses - A Study on Commercial Banks in Kenya*. Unpublished Research Project, University of Nairobi.

Mutua, R. K. (2016). *Impact of Credit Risk Management on Financial Performance of Savings and Credit Co- Operative Societies in Kitui County*. Unpublished Project, University of Nairobi.

Mwithi, S. (2012). *Practices and the Level of Non-performing Loans of Microfinance Institutions inNyeri County*. Unpublished Research Project, University of Nairobi.

Myjoyonline.Com, (2011). *Loan Default Rate Surges.* Retrieved from: Http://News.Myjoyonline.Com/Business/201102/61645.Asp. Accessed: 27th March, 2020

Oesterreichische, (2004). *Credit Approval Process and Credit Risk Management‖ Guidelines on Credit Risk Management*.

Omega Performance, (2015). *Equips Lending Organizations with the Credit Skills to Source and Structure High-Quality, Profitable Loans case on Helping Grow a Profitable, Low-Risk Loan Portfolio.* O., Glebe Rd, Suite 200 Arlington, VA, USA 22203

Oni, O. A., Oladele, O. I., & Oyewole, I. K. (2005). *Analysis of Factors Influencing Farmers in Ogum state Nigeria.*Dept of Agricultural Economics, University of Ibadan Nigeria

Pandy, U. K., & Muralidharan, M. A. (1979). An Application of Discriminant Function In Agricultural Finance. *Indian Journal of Agricultural Economics*.

Quercia, R. G., Macarthy, G. W., & Stegman, M. A. (1995). Mortgage Default among Rural, Low in come borrowers. *Journal of Housing Research.* 6 (2), 349-369

Rosenberg, R. (1999). *Measuring Microcredit Delinquency*: Ratios Can Be Harmful To Your Health. Occasional Paper No. 03, Cgap

Ross, A. Westerfield & Jordan (2008). *Essentials of Corporate Finance*. Hill International Edition.

Rouse, C. N. (2002). *Bankers' Lending Techniques, 2e, Chartered Institute Of Bankers*: Financial World Publishing. P.26.

Solow, R. M. (1956). A Contribution to the theory of Economic Growth. *Quarterly Journal of Economics*, 70, 65-94.

Spadaford, J. F. (1988). *Credit Quality: CEO'S set The Tone*, Magazine of Bank Administration, (June), Pp.20-22.

Stauffenberg, D., Jansson, T., Kenyon, N., & Barluenga-Badiola, M. (2002). *Performance Indicators for Microfinance Institutions*, Washington, D. C.

Sumon, D., & Shilpi D. (2007). *Credit Risk Management Practices*: An Evaluation of Commercial Banks in Bangladesh, Stamford University Bangladesh.

William, F. S., & David, O. A. (2003). *Rural and Micro Finance Regulation in Ghana Implications for Development and Performance of the Industry.* Africa Region Working Paper Series No. 49.

Woelfel, C. J. (1994). *Encyclopedia of Banking and Finance – 10th Edition*, New Delhi: S. Chand & Company Limited.