

An Assessment of the Impact of Credit Risk Management and Performance on Loan Portfolio at International Bank Liberia

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Abstract: This research entitled “An Assessment of the impact of credit risk management and performance on loan portfolio at International Bank Liberia Limited from 2015-2017 contributed to the body of knowledge to the beneficiaries. It findings are also important for the Central Bank to use in monitoring credit scoring and history across all commercial bank with in the country. This study was quantitative in nature, and involves mathematical modelling in order to determine the effect of changes in interest rates on profit and net worth of the sampled banks. This study uses panel data and assumes that the effect of interest rate changes vary across the observations and over time, therefore the use of stochastic econometric (panel regression analysis) process is appropriate. The population of the study will consist of 150 credit staffs and other staffs of IBLL. The study adopt a census study and collect data for two years from 1st January, 2015 to 31st December, 2017 and the researcher used sample out 85 respondents representing 57% as the sample size from the population of 150 persons from the study area. The findings reveals that it was established from the study that 25% of the respondents who were picked from the institution agreed that credit score is one of the major system used by the bank in determining loan and 32% selected credit history. It was also observed that that bank operate within a defined credit granting criteria. The findings also show that IBLL established a system of independent, ongoing assessment of the bank’s credit risk management. It was proven that 48% of the respondents agree while 41% strongly agree. It was established that IBLL have a loan risk management policy in place. This policy is very crucial in providing guidelines on how to manage the various risks the bank encounter in their lending activities. Members of the bank and regulators are those responsible for the formulation of the credit policy with less input from employees.

Key words: Credit Risk Management, Performance, Loan Portfolio, International Bank Liberia

1. Introduction

1.1. Background of the Study

Credit risk refers to the probability of loss due to a borrower’s failure to make payments on any type of debt. Credit risk management is the practice of mitigating losses by understanding the adequacy of a bank’s capital and loan loss reserves at any given time; a process that has long been a challenge for financial institutions.

In order to mitigate the challenges pose by the bank, there are several strategies involved; namely; transferring the risk to another party, avoiding the risk, reducing the negative effects of the risk, and accepting some or all of the consequences of a particular risk (Greuning and Bratanovic, 2003). The overall aim of a credit analyst is to reach a judgment about extending credit to a customer using information that is relevant to the principles of good credit management (Coyle, 2000).

According to Basel (2000) there are circumstances that can lead to a deterioration in the credit standing of a bank’. Some of the circumstances include; lax credit standards for borrowers and counterparties, poor portfolio risk management, or a lack of attention to changes in economic. Most financial institutions as early as one month late repayment, a loaner was considered as a defaulter and thus collections efforts were intensified and this explains why micro finance institutions commend low default rates. Those who didn’t pay on time, their property was sold to recover the money, followed by write off of the balance and at time they would consider writing off the interest and penalties and allow defaulters to repay the principal only.

The world over, credit risk has proven to be the most critical of all risks face by a banking institution (Sabrani, 2002).

1.2. Statement of the Problem

Credit risk management in banks influence the efficiency of bank's risk management and are expected to significantly influence its loan portfolio (Chen and Pan, 2012). Credit risk gained importance because of huge financial losses faced by commercial banks (Nikolaidou and Vogiazas, 2014). There are several credit risk management practices adopted by commercial banks in Liberia which is informed by the ownership of the banks, credit policies of banks, credit scoring systems, banks regulatory environment and the caliber of management of the banks. However, Banks continue to experience increase in high default rate and high level of non-performing loans indicating credit management practices will not necessarily lead to record high bank performance.

Despite the significant role played by credit risk management practices on loan portfolio performance in commercial banks, most studies done have focused on Microfinance institutions. To the best of the researcher's knowledge, no known study has been done locally on An Assessment of the Impact of Credit Risk Management and Performance of Loan Portfolio at International Bank Liberia Limited (IBLL) 2015- 2017, this study therefore sought to fill the existing knowledge gap by discussion.

1.3. Research Questions

The research questions that the researcher seeks to find answers to are:

1. What Credit Risk Management System are being used by IBLL to ensure Loan Portfolio quality?
2. What is the impact of Credit Risk Management system at IBLL on Loan Portfolio quality?
3. What are the challenges faced at the IBLL to ensure the recovery of loans?

1.4. Significance of the Study

The study will be significant to the management of commercial banks in Liberia especially International Bank Liberia Limited as they will be able to gain insight on an assessment to determine the relationship of credit risk management and performance of loan portfolio. The study will provide an insight on the best credit risk management approaches commercial banks should adopt in order to effectively manage and enhance profitability as well as reduce occurrence of non-performing loans and improvement of loan portfolio performance.

The study will be useful to the government in policy making regarding the loan requirements and also for the supervision of commercial banks. The policy makers will obtain knowledge on the best mechanisms that should be adopted to control the poor loan performance and the responses that are appropriate should they occur. This study will therefore act as a guide in adopting an effective assessment to determine the relationship of credit risk management and performance of loan portfolio.

2. Chapter Two: Review of Related Literature

2.1. Credit Risk Management Systems adopted by Banking Institutions

Credit risk is defined as identification, measurement, monitoring and control of risk arising from the likelihood of the clients unwillingness to repay the loan (Coyle, 2000).

Various credit risk management lapses resulted from the credit risk management orientations in Liberia since the era when Liberia commercial banks were owned by foreigners or were branches of foreign owned commercial banks.

Credit risk management system can be captured in four distinguishable phases.

2.1.1. The Conservative Credit Risk Management System

During this era banks were governed by the credit laws governing their parent banks but the Central Bank of Liberia required the banks to be incorporated in Liberia. The appointment of directors, capital levels and asset composition were dictated by the country of origin of the banks. The licensing of banks was guided by the Central Bank laws but was restricted to the number of directors to 6. In the conservative era or the era before the 1980's, commercial banks identified risk through requiring extension of credit to blue chip companies. Risk was minimal because these companies ended up paying their loans since their default rate was low. The risk standards were determined by those of parent banks which guided credit risk

policies of the banks. Financial institutions were either owned by foreigners or by government all of which were well managed and exposed to little or no credit risk.

2.1.2. Compassionate Credit Risk Management System

Licensing of banks was by the Minister for Finance. Locally privately owned banks were registered in this era which practiced directed lending but some of them engaged in unsecured lending. Management of the majority of these banks was poor, that is, not in line with 'fit and proper' criteria for banks (Central Bank Annual Report, 1983/84). Poor corporate governance relating to directors was practiced where the chairman was also the Chief Executive Officer (CEO) of the banks and the non-executive directors did not exist. Family members were owners of quite a number of these banks, the chairman and CEO was linked to the family lineage who also owned a huge proportion of the equity of the bank. Poor loan underwriting was the order of the day, thus CAMPARI was not observed. Asian banks emerged which had political inclination; they had directors which had political linkages whose objective was to peddle political influence.

2.1.3. Stringent Credit Risk Management System

In this era there was the policy review including the amendment of banking act in view of failures in the previous era. Stringent credit risk management system which was practiced in the 1990's was a period that triggered the review of the banking act, identification of strategic and non-strategic parastatals and identification of loss making government enterprises including financial institutions which were subsequently privatized (Central Bank Annual Report, 1990). This was an era of excess money supply and high interest rates. The banking act was reviewed resulting to merger of various banking institutions and placement of others under statutory management.

2.2. Impact of Credit Risk Management on Loan Recovery

Loan recovery refers to collection of amount due by convincing the loamiest to make attempts to repay their outstanding loans. Normally recovery depends on the purpose, time and condition, business running process etc. Normally loan amount will be recovered on installment basis.

There is a department or unit within banking industry which is in charge of following loans before they become delinquent and make attempts to recover the loans.

Loan recovery is a very important component of banking as it plays a key role in ensuring that the main objective of the bank (to issue loans) results into the desired outcome of making a margin out of the loans advanced.

The presence of debt recovery puts pressure to the loanees to pay up lest they get the dreaded calls from the banking staff through the debt recovery unit.

The functions of this department or unit (Debt recovery unit) is involved in the day today role of ensuring that the loans issued to the bank's customers are repaid as per the schedule of contract signed by the customer, guarantor and bank. The function of debt recovery also entails compiling a list of overdue loans and proactively managing the loans by calling up customers who are defaulting. This unit is equally charged with the role of liaising with lawyers to draft demand letters to the loan defaulters and sending the same to the customers who are defaulting.

2.3. Challenges faced in ensuring the recovery of loans

Non-performing loan are mostly caused by a number of decisions by customers and plain bad luck that is changes in prices for commodities, weather condition [Gorter and Bloem \(2002\)](#). Under such circumstances, the holders of loans can make an allowance for a normal share of nonperformance in the form of bad loan provisions, or they take insurance in order to share the risk.

The major causes of non-performing loans are common. According to [Nishimura et al. \(2001\)](#) the underlying causes of Japan's protracted economic stagnation is the non-performing or bad loan problem. They also stated that some of the loans made to companies and industries by financial institutions during the bubble era became nonperforming when the effervesce burst. This overdue structural reforms and prevented the financial intermediary system from functioning properly.

2.4. Internal causes or challenges of non-performing loans

There are many factors in the process of gathering of non-performing loans which is commonly attributable to economic downturns and macroeconomic volatility, terms of trade deterioration, high interest rates, excessive reliance on overly high-priced interbank borrowings, insider lending and moral

hazard (Goldstein and Turner, 1996). Trade deterioration and interbank loans play a major role in gathering non-performing loan especially in the Sub-Saharan. Most banks failed because of the non-performing loans. Arrears affecting more than half the loan portfolios were typical of the failed banks.

2.5. Credit Risk Management Practices

Credit risk is the likelihood that the actual return on an investment or loan extended will deviate from that, which was expected (Conford, 2000). According to Coyle (2000) credit risk is a losses from the refusal or inability of borrowers to pay what they are due on a timely basis. Some of the practices that are involve in credit risk management practices include:

2.5.1. Loan Portfolio

Loan portfolio are loans that have been made or bought and are being held for repayment. Loan constitutes the major assets of banks of banks and other lending institution. He interest rates is not the only value of loan portfolio but also on the possibility that interest and principal will be paid (Jansson, 2002). One of the principal business activity for most commercial banks is lending, the loan portfolio is typically the largest asset and the predominate source of revenue. As such, it is one of the greatest sources of risk to a financial institution's safety and soundness. Whether due to lax credit standards, poor portfolio risk management, or weakness in the economy, loan portfolio problems have historically been the major cause of losses and failures. Effective management of the loan portfolio and the credit function is fundamental to a Sacco's safety and soundness. Loan portfolio management (LPM) is the process by which risks that are inherent in the credit process are managed and controlled. Because review of the LPM process is so important, it is a primary supervisory activity (Koch and MacDonald, 2000).

2.5.2. Risk Identification

Identification of risk is an important aspect for effective risk management, for banks to manage risks facing them effectively they need to know how to identify the credit risks. The first step in risk identification is identifying and prioritizing key risks which are reviewed and approved by the management committee. There is also need to determine the degree of risk the bank should tolerate and to conduct assessments for each risk of the potential negative impact if it is not controlled. Finally analyze the risk faced by the bank in the areas of interest rates risk, liquidity, credit, operations and strategic risks (Fatemi and Glaum, 2000).

2.5.3. Risk analysis and Assessment

A typical risk analysis process consists of two components; financial analysis (quantitative analysis) and qualitative analysis. Financial analysis consists of analysis of financial; data available for the credit applicant, the analysis of annual financial statements has a central position in this context. The purpose of carrying out financial analysis is to ensure that there should be a general guideline stipulating that the analysis is confirm by the person in charge of the organizational unit supplying the module for credit analysis when this module is handed over to the credit officer managing the exposure.

2.5.4. Credit Approval

Clear established processes of approving new creditors and extending the existing credits has been observed to be very important while managing credit risks in banks. Banks must have in place written guidelines on credit approval processes and approval authorities. The loans should always be monitored by the board of directors, the authorities to approve will cover new credit approvals, renewal of existing credit changes in terms and conditions of previously approved credits particularly credit restructuring which should be fully documented and recorded. Prudent credit practice requires that persons empowered with the credit approval authority should have customer relationship responsibility.

2.6. Performance of Loan Portfolio

Loan Performance portfolio is the rate of effectiveness or rate of return of an investment in various loan products. It also looks at the number of clients that apply for such loans, the amount they are borrowing, number of installments for repayment, collateral pledged against the borrowed funds, rate of arrears recovery and the number of loan products on the chain. It refers to the total amount of money given out as loans to the different types of borrowers (Derban *et al.*, 2005).

Loan portfolio is the most important asset of banks and therefore the portfolio quality much reflects on the risk of loan delinquency and determines future revenues as well as an institutions ability to increase

outreach and serve existing customers. Portfolio quality is measure as portfolio at risk over 30 days (Kisala, 2014). The performance of a loan portfolio is look at in terms of profitability and or rate of return on the different loan products; this is a function of the number of the loans and the cost of administering these loans (Nikolaidou and Vogiazas, 2014).

The banks need to know and identify these credit risks by establishing crucial observation areas inside and outside the corporation. (Christen and Douglas, 2005). Upon identification of the credit risk, measures should be taken to mitigate these risks. Tools used to control credit risk include the use of covenants, use of adequate collateral, use of guarantors, use of savings/deposit accounts and also insurance against default.

2.7. Credit Risk Management Practices and Loan Portfolio Performance

Of recent, credit risk has gained much importance because of the huge financial losses faced by international financial organizations (Nikolaidou and Vogiazas, 2014). Since the financial crisis, financial organizations particularly commercial banking sector have taken special measures to mitigate any forthcoming financial losses caused by mismanagement in loan allocations and credit recoveries. There is a need for banks to have a strong and effective credit risk management policies in order to ensure consistent recoveries from clients (Frank *et al.*, 2014).

Today, credit risk management practices constitute a critical component of risk management so as reduce loan default rates (Arora and Kumar, 2014). Loan portfolio Performance of commercial banks depends on the effective credit risk planning, analysis and monitoring. Chipembere (2009) assert that loan portfolio performance of banks is determined by effective credit risk management practices. According to Al-Khoury (2011), credit risk management practices used by banks include credit limits, taking collateral, diversification, loan selling, consortium loans, credit insurance and securitization. Pykhtin (2005) states credit risk management practice is an important function of financial institutions in the reduction of banks' exposure to credit risks. Efficient credit risk management practices have been vital in preventing occurrence of bad debt and non-performing loans. Credit risk management practices, namely credit terms, credit appraisal, credit risk control and collection policy were found to be of great significance to loan performance in banking sector. Credit terms constitute the conditions under which banks give credit (Greuning and Bratanovic, 2003).

3. Research Methodology

3.1. Research Design

Mugenda and Mugenda (2003), refers to research design as the overall strategy that you choose to integrate the different components of the study in a logical way by ensuring you will effectively address the research problem. There are various types of research design that are mostly used by researcher. Those research design are Descriptive, Correlational, Semi-experimental, Experimental, and Meta-analytic Saunders (2003).

3.2. Population

A research population is a group of items from which samples are taken for measurement, it is the collection the investigator wishes to make inference Saunders (2003).

The population of the study will consist of 150 credit staffs and other staffs of IBLL. The study adopts a census study and collect data for two years from 1st January, 2015 to 31st December, 2017.

3.3. Sample Size and Sampling Techniques

According to Mugenda and Mugenda (2003), sample is part of the target or accessible population that has been procedurally selected to represent it. The sample size will be determined through a non-probability- purposive sampling method. This method allows the researcher to choose respondents subjectively because of their unique characteristics or their experiences.

The researcher will sample out 85 respondents representing 57% as the sample size from the population of 150 persons from the study area.

3.4. Data Collection Instruments

Data collection instruments are the tools for data collection, Mugenda and Mugenda (2003). The study use both primary and secondary data. Primary data will be collected using semi structured questionnaires. The questionnaires will be administered using drop and pick method.

3.5. Data Collection Procedures

Data collection procedures are the methods put in place in order to gather relevant information (Saunders, 2003). The collected data was examined and checked for completeness and comprehensibility. The questionnaire was edited, classified and coded using Statistical Package for Social Science (SPSS version 21). Tables were used for presenting data for easy understanding, interpretation and analysis. The collected data was analyzed through descriptive analysis and means to determine the extent to which credit risk management practices influence the loan portfolio performance of commercial banks.

3.6. Data Analysis Procedure

Data analysis procedure is the processes that deals with the organization, interpretation and presentation of collected data and the postulate of how the data will be analyzed, Mugenda and Mugenda (2003).

The data were collected and edited, as this will involve sorting of the collected information in order to get information that is relevant to the study variables. The data will then be entered into the computer and analyzed by the use of Statistical Package for Social Sciences (SPSS) and Micro Soft Excel programs that will be used to develop frequency tables, graphs and pie-charts.

4. Data presentation and Interpretation

4.1. Data Presentation and Analysis

All of the 85 questionnaires that were distributed among participants of the study were all returned answered. Below is the analysis of the data obtained using tables and figures.

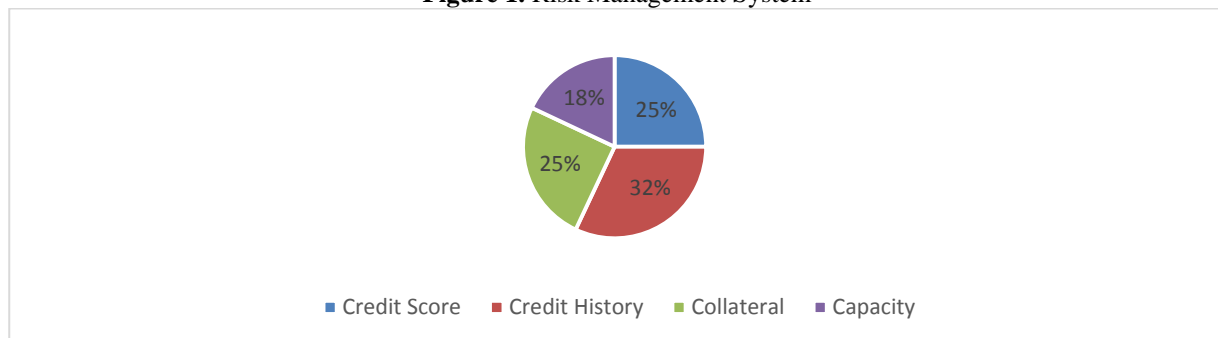
Table 1. Credit Risk Management System that is being used by IBLL to ensure Loan Portfolio quality:

Credit Risk Management	Frequency			Percentage
	Male	Female	Total	
Credit Score	18	3	21	25
Credit History	15	12	27	32
Collateral	12	9	21	25
Capacity	9	7	16	18
TOTAL	54	31	85	100

Source: Researcher’s Field Data, 2018

It was established from the study that 25% of the respondents who were picked from the institution and comprising of 12 males and 9 females agreed that credit score is one of the major system used by the bank in determining loan and 32% and comprising of 15 males and 12 females selected credit history. This implied that previous credit history was very important in the institution credit system, which is the major system that is being used by the bank.

Figure 1. Risk Management System



Source: Researcher’s Field Data, 2018

Table 2. The impact of Credit Risk Management system at IBLL on Loan Portfolio quality.

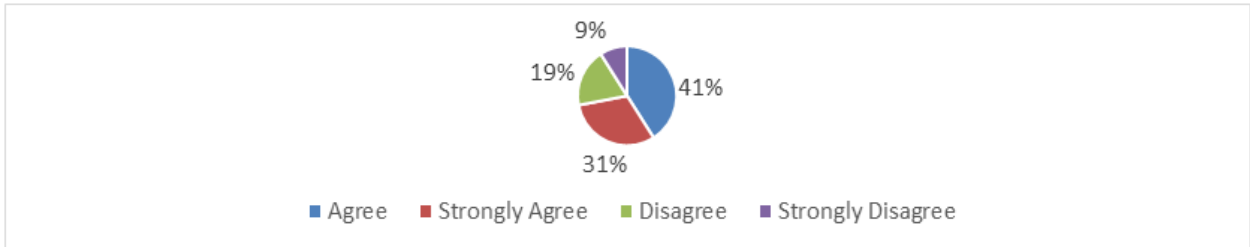
The impact of Credit Risk Management	Frequency			Percentage
	Male	Female	Total	
Agree	22	13	35	41
Strongly Agree	18	8	26	31
Disagree	9	7	16	19

Strongly Disagree	5	3	8	9
TOTAL	54	31	85	100

Source: Researcher’s Field Data, 2018

The study sought to establish the impact of Credit Risk Management system at IBLL on Loan Portfolio quality. It was established from the study that 41% of the respondents who were picked from the institution and comprising of 22 males and 13 females agreed that credit risk management has impact on loan portfolio while 31% and comprising of 18 males and 8 females strongly agree. The results confirm that credit risk management system has be greater impact on loan portfolio.

Figure 2. The Impact of Credit Risk Management



Source: Researcher’s Field Data, 2018

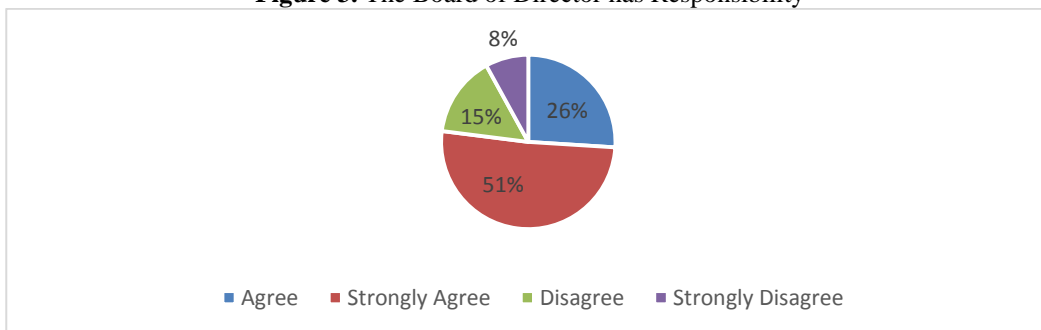
Table 3. The board of directors have responsibility for approving and reviewing the credit risk strategy and significant credit risk policies of the bank:

The Board of Director have Responsibility	Frequency			Percentage
	Male	Female	Total	
Agree	15	7	22	26
Strongly Agree	27	16	43	51
Disagree	8	5	13	15
Strongly Disagree	4	3	7	8
TOTAL	54	31	85	100

Source: Researcher’s Field Data, 2018

The study sought to establish whether the board of directors has responsibility for approving and periodically credit risks. It was established from the study that 51% of the respondents who were picked from the institution comprising of 27 males and 16 females strongly agreed that responsibility for approving and periodically (at least annually) reviewing the credit risk strategy while 26% comprising of 15 males and 7 females agree. The board of directors has responsibility for approving and periodically (at least annually) reviewing the credit risk strategy and significant credit risk policies of the bank and the strategy.

Figure 3. The Board of Director has Responsibility



Source: Researcher’s Field Data, 2018

Table 4. Senior management has responsibility for implementing the credit risk strategy:

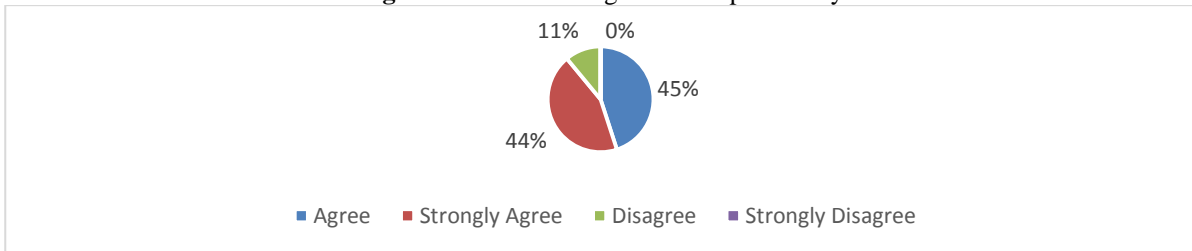
Senior Management Responsibility	Frequency			Percentage
	Male	Female	Total	
Agree	24	14	38	45
Strongly Agree	22	15	37	44
Disagree	8	2	10	11

Strongly Disagree	0	0	0	0
TOTAL	54	31	85	100

Source: Researcher’s Field Data, 2018

The study sought to establish whether Senior management have responsibility for implementing the credit risk strategy approved by the board of directors and for developing policies and procedures for identifying, measuring, monitoring and controlling credit risk. It was established from the study that 45% and comprising of 24 males and 14 females of the respondents agreed that senior management have responsibility for implementing the credit risk strategy while 44% comprising of 22 male and 15 females strongly agree.

Figure 4. Senior Management Responsibility



Source: Researcher’s Field Data, 2018

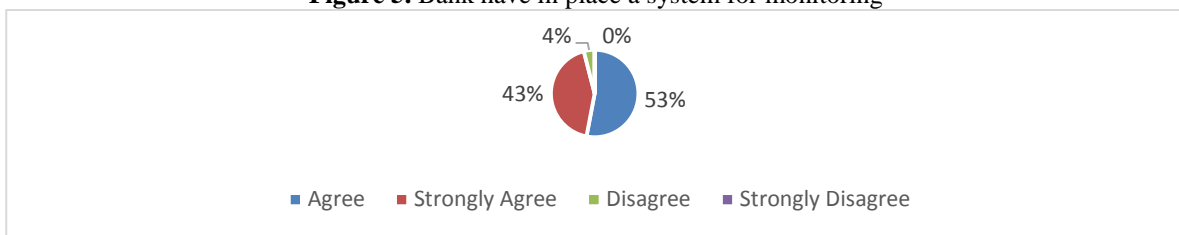
Table 5. Bank have in place a system for monitoring the condition of individual credits

Bank have in place a system for monitoring	Frequency			Percentage
	Male	Female	Total	
Agree	30	15	45	53
Strongly Agree	20	16	36	43
Disagree	4	0	4	4
Strongly Disagree	0	0	0	0
TOTAL	54	31	85	100

Source: Researcher’s Field Data, 2018

The study wanted to establish Bank have in place a system for monitoring the condition of individual credits, including determining the adequacy of provisions and reserves. It was proven from the study that 53% and comprising of 30 males and 15 females of the respondents Bank have in place a system for monitoring the condition of individual credits while 43% 20 males and 16 females and strongly agree.

Figure 5. Bank have in place a system for monitoring



Source: Researcher’s Field Data, 2018

4.2. Discussion of the Findings

The findings indicate that members and the regulator are involved in formulation of credit policy to a great extent. The other stakeholders are involved in policy formulation to a moderate or less extent. This position is also held Gasbarro *et al.* (2002) by who indicates that involvement of stakeholders in the formulation of the credit policy is an important step in credit risk management. It was further revealed that three components of CAMEL that is: capital adequacy; Earnings and Liquidity are used to a very great extent in assessing the soundness of the bank. These findings agree with Gasbarro *et al.* (2002) who indicate that the procedures to identify financial institutions approaching financial distress vary from country to country; they are designed to generate financial soundness ratings and are commonly referred to as the credit rating system.

The study further established that the existing credit policy was very important in developing a credit policy for the bank. This is in line with the findings of Richardson (2002) who indicates that analysis of past credit problems, such as those associated with oil and gas lending, agricultural lending, and commercial real estate lending has made it clear that portfolio managers should do more. Traditional practices rely too much on trailing indicators of credit quality such as delinquency, nonaccrual, and risk rating trends. It is also evident that the board of directors of the bank is involved to a very large extent in the risk identification process. The executive management, credit committee, credit managers and employee are also involved to a large extent. These findings confirm the position held by Central Bank of Kenya (2006) that various stakeholders such as the directors and the management committee should be actively involved in the risk identification and management process in order to ensure that losses are addressed even before they occur.

5. Summary, Conclusions and Recommendations

5.1. Summary of Findings

The study revealed that IBLL have a loan risk management policy that is in operation. This implies that the bank have clear guidelines on how to approach and manage the loan risks that they may encounter from time to time. It is also evident from the findings that the bank involves various stakeholders in varying degrees in the formulation of a credit policy. The stakeholders who are involved in credit policy formulation to a great extent are the members of the bank and the regulator while the employees and the directors are involved in the credit formulation process only to a moderate extent. The study confirmed that the existing credit policy of the bank forms the basis for developing a new credit policy that is used by the bank. On the parties that are involved in the risk identification process, the boards of directors of the bank were found to play a very critical role. The board of directors is followed by the credit managers, employees, credit committee and executive management. The study further established that the main significance of risk identification in the bank is to ensure that risk management is practiced throughout the entire organization and it is one of the ways through which the bank can conduct effective risk management.

5.2. Conclusions

It was established that IBLL have a loan risk management policy in place. This policy is very crucial in providing guidelines on how to manage the various risks the bank encounter in their lending activities. Formulation of the credit policy is largely done by members of the bank and the regulation with moderate involvement of employees and the director. The existing credit policy of the bank is the primary document upon which formulation of a new credit policy is based. The people in charge of credit policy formulation also take into account the trends of creditors and overhead costs in the process of formulation. The CAMEL rating system plays a central role in the assessment of the soundness of the bank. The main reason why risk identification is important in the bank is to enable them practice risk management in the entire bank thus promoting effective risk management practices. Capital adequacy, management quality, earnings and liquidity were found to have positive coefficients in relation to loan allocations while asset quality was found to have a negative coefficient.

5.3. Recommendations

The study has revealed that three components that is capital adequacy, management quality, earnings and liquidity have a positive relationship with loan allocations. IBLL should ensure that the management of these three variables is enhanced in order to improve their loan portfolios.

It is also clear that the bank use the existing credit policy as the primary document for formulating a new credit policy. It will also be important if the bank can also consider using credit policy documents from other successful similar bank or financial institutions as a benchmark for best practices. Since the business environment is dynamic and presents new challenges and opportunities, it will be important to repeat this study after duration of five years and establish the position as at that time. This study should be compared with findings from other financial institutions in order to establish the similarities and differences that may be evident. This will assist the bank to benchmark with other entities.

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