

Internal Controls and Credit Risk Among Commercial Banks Listed in Nairobi Securities Exchange, Kenya

Jared Ochieng Agang², Dr. Charity Njoka²

¹School of Business, Kenyatta University, Kenya

²Lecturer, Department of Accounting and Finance, Kenyatta University, Kenya

ABSTRACT

Inappropriate credit policies, as well as inadequate, limited institutional capacity by Kenya's financial sector, led to several of the banking institutions collapsing over what was termed as poor management of credit risks which resulted to increased amounts of loans that were not being serviced. The main aim of the research project was to establish the effects of internal controls on credit risk among the banks listed in NSE. The distinctive goals included to find out the influence of internal control, assessing risk activities in control and monitoring among banking organizations listed in NSE. The study was guided by capital asset pricing model, agency theory and modern portfolio theory. The study adopted a casual descriptive research design. The target population encompassed the eleven listed banks in Nairobi Securities Exchange where census was done. Both primary and secondary data were collected. The questionnaires were applied to gather data. The diagnostic tests include multicollinearity and normality. Data was evaluated using both descriptive and inferential statistics using SPSS. The findings show that there is a positive and significant link between monitoring and credit risk. The study found that assessment of the risk has a significant way on credit risk and that internal controls that are not strong such as poor ethical values have stimulated the involvement to fraud that leads to income loss and misuse of the income received. The study concluded that risk assessment $P=.000 < 0.05$, control activities $P=.000 < 0.05$, monitoring and control environment $P=.001 < 0.05$ have a significant effect on credit risk among commercial banks listed in NSE. The study recommends that banks should implement proper risk assessment to guide their operations and also implement efficient control activities to guide their operations. Further, the study recommends that banks' monitoring approaches should be guided towards effective tasks and achieving the goals of the organization. In regard to propositions for more studies, this investigation could be further advanced by looking at the effect on credit risk management in other institutions such as investment banks and microfinances. It will help in the management of credit unions, Savings and Loans Associations, investment banks and microfinances in Kenya.

Key Words: Internal Controls, Credit Risk, Risk Assessment, Control Environment, Commercial Banks Listed at Nairobi Securities

DOI: DOI 10.35942/ijcfa.v2i2.141

Cite this Article:

Agang, J., & Njoka, C. (2020). Internal Controls and Credit Risk Among Commercial Banks Listed in Nairobi Securities Exchange, Kenya. *International Journal of Current Aspects in Finance, Banking and Accounting*, 2(2), 77-92. <https://doi.org/10.35942/ijcfa.v2i2.141>

1. Introduction

Banking system performs key roles in the progress of any economy (Adeyemo, 2012). Financial institutions are the main reservoirs of public savings, the center of how to make purchases, channel gifted the capability of creating money, distribution of financial assets and manner in which credit and monetary policies are implemented (Idolor, 2010; Akindele, 2011). A strong internal check is a significant bank supervision component and a basis for secure and sound control of a banking organization (Dubrin, 2008). The objectives of a banking sector can be met through strong internal controls which help the bank to achieve its profits in the long run and ensure that sound reliable financial and managerial reporting is maintained (Channar, Maha, & Irfan, 2015). Internal control are methods, rules, processes, and practices implemented by the governing body and other human resources to ensure safe custody of a bank resources, limit or control risks in achieving goals of the bank (Kumuthinidevi, 2016). A strong internal control ensures that all material risks that might influence achieving the goals of the banks are continually assessed and recognized (Rajkumar, 2009). While financial institutions such banks have encountered problems in recent years, the main reason is precisely related to inadequate credit standards, inadequate management of portfolio risk, failure to pay attention to changes in the economy (Gizaw, Kebede & Selvaraj, 2015).

Credit risk is when the borrower can not to meet her or his obligation with regards to a contractual agreement on loan repayment (Brown & Moles, 2014). The creditor will experience lose of interest and principal, interruption of cash flows, and a surge in the cost of collecting a debt. When handling credit risk, the goal of the bank is to guarantee that the rate of return is capitalized on (Kessey, 2015). The credit risk is intrinsic of the bank in the entire group risk alongside the risk in personal transactions needs to be managed, and Organizations should figure out the correlation among credit risk and other risks (Ibrabas, 2015). For most financial organizations such as banks globally, loans form the basis of credit risk; nevertheless, other causes of credit risks can be found from the undertakings of a bank such as the banking books of accounts and off-balance sheet items (Akwaa-Sekyil, 2016). Banks also encounter if debtors default in swaps transactions, transactions between the banks, credit funding, foreign exchange market, equities, bonds, options, futures, guarantees and commitments, and settling contracts (Basel Committee, 2000). The Kenyan financial sector has advanced considerably, consequently making it the largest in East Africa (Gathaiya, 2016). The banking industry in Kenya is unique regarding its size and diversification compared to other East African economies. Even though Kenya has a number of financial establishments and financial markets compared to other regions, its banking industry has been experiencing slow growth caused by aspects for example non performing loans and bad corporate governance (Gathaiya, 2016). As a result, several commercial banks in Kenya have declined (Brownbridge, 2010).

In Kenya, the banking sector has been faced with problems due to poor credit principles, inadequate handling of risk portfolio, failure to have a keen interest in variations in the economy or other events that can result in a decline in the credit rating (Wanjohi, 2014). CBK Report 2014 classified NonPerforming Loans are as follows: Substandard; loan above the due date, or current account debt surpasses the accepted limit, greater than 90 days and less than 180 days. Doubtful; Any loan which interest payment has not been paid for more than 180 days but collection or liquidation is in full of the outstanding balance. The third category is Loss: loans are considered uncollectible if the Principals or Interests are due and have not been paid for over 360 days. Collection or liquidation is in full of the outstanding balance. Non Performing Loans that do not

mount up interest is deferred and not recognized as income in the Interest deferred account for the calculation of provisions for Non Performing Loans. Collateral is gradually discounted at a rate of 20% per year and 5% per quarter before the provisions. (CBK Prudential Guidelines, 2014).

In emerging economies such as Kenya, the primary and secondary markets have not become fully functional, therefore lending is the pillar of banking business (Mwisho, 2011). The loaning activities have been a contentious issue to most of the transition economies because on one hand customers are criticizing the inadequate existence of credit, and the extremely strict requirements put in place, whereas Banks, on the contrary, have incurred losses unpaid interests on credit facilities (Richard, 2012). According to Basel (2010), for loan losses to be minimized, financial organization must have a strong credit risk system and effective internal control system in place. Since unequal information occurs between banks and borrowers, lenders should have a method of evaluating default risk to avoid adverse selection and moral hazards (Richard, 2012). According to Afande (2014), banks are faced with the complications of adverse selection and moral hazard when dealing with small firm lending propositions.

The regulatory framework such as Basel committees affect intermediaries in different ways such as making strategic decision, defining operating and business lines, and determine the risk–return mixtures of several parts of the business, and hence the level of risk accepted overall. Changes in the regulations in different national backgrounds lead to competition of regulatory, with intermediaries tend to choose the country that has more lenient regulations than their home country. Basel I which evaluates banks capital adequacy requirements. Basel I, therefore, highlights a minimum capital conditions to handle credit risk. In 2004, the Basel II was issued. It had additional proposals on banking laws and regulations. Basel II helped in establishing capital and severe credit risk formed to ensure bank holds capital reserves suitable to mitigate credit risks. It has three pillars: The first Pillar is concerned with the lowest possible asset requirements; The second Pillar relates to the process of reviewing supervision; and the third Pillar following it is on market contingency (Corporate Governance, 2014). Basel III entail the consolidation of capital requirements for liquidity and countercyclical macroprudential procedures.

The banking business in the nation is run by several acts including, The Companies Act, (1978), The Banking Act, (1991), the Central Bank of Kenya Act, (1984) as well as the different credible rules set by the Central Bank of Kenya (CBK). Liberalization of the banking industry begun in 1995 and it is the time at which control on exchange was done away with. Central Bank of Kenya is categorized in the Finance Minister’s section and is tasked with creating and executing financial policies and promoting the liquidity, solvency and proper performance of the monetary structure. As one of its roles, Central Bank of Kenya provides information on the commercial banks as well as non-banking sectors that operate in Kenya and also information on the rates of interest rates in addition to other financial publications and rules. The Kenya Bankers Association (KBA) provides an umbrella for Kenyan banks under which they can act on their interests and work out challenges that the members experience, (CBK, 2012).

CBK controls all the Kenyan financial institutions in addition to other micro-financial organisations as provided for by Kenya rules and regulations under the bank act. Commercial banks seem to be the leading titans in the nation’s finance system and they are thoroughly scrutinised by regulators to warrant that they are in consistent with following the laws and

directions. The Kenyan finance industry comprises of 43 banks registered total net assets of Ksh. 2.7 trillion as at 31st December 2013, (CBK 2013). The classification of banks in Kenya is in three different tiers depending on a weighted composite index of their assets, productivity, funds and capitals as well as other fiscal aspects, (CBK, 2015). According to the NSE, there are 11 listed commercial banks in Kenya, (NSE, 2014). For the sole purpose of hiking their profits, Kenyan Commercial Banks have ventured into real estate and lending finances to consumers, (Ng'ang'a, 2012). This tendency has taken roots in the Kenyan commercial banks as they look into expanding loan assortment as well as reducing the risks associated with the unsecure loans that are common to people in the country. For instance, just close to 5% of the loan from the banking system was channelled into real estate (RE) from 1997-2008 with a decreasing tendency, close to 6% was channelled into private households (PH) with a hiking tendency and about 2% into consumer durables (CD) which also had an increasing tendency. Additionally, Building and construction (B&C) receive a standard 5 %, (Kilonzo, 2008).

2. Statement of the Problem

Internal control structures perform an integral part in the governance of banks in any country. They are created to protect bank assets, avoid assets mismanagement or misappropriation and to identify, prevent errors and risks (Ahmad, Abdullah, Jamel & Omar, 2015). Mawanda (2008) reiterated that creating and operating resilient internal controls will continuously lead to better performance while Weak internal control systems increase the chances of fraud and scandals occurring. Such financial scandals were witnessed at Enron and WorldCom. These financial scandals led to rise of Sarbanes-Oxley Act which states that the administration should be fully responsible for robust internal control system. Mawanda (2016) suggested that the Board should supervise the administration of the organization, but on contrary the Board does what has been directed by the administration due to the uneven information that occurs between the administrators and the Board.

Inappropriate credit policies, as well as inadequate, limited institutional capacity by Kenya's financial sector, led to several of the banking institutions collapsing over what was termed as poor management of credit risks which resulted to increased amounts of loans that were not being serviced (CBK, 2014). The poor management of threats associated with credit extension exposed most Kenyan banks to nonperforming loans which were eventually written off thus decreasing the profitability of the bank (Kithinji, 2010). The World Bank report 2017 shows an upsurge in the level of nonperforming loans in banks in Kenya to total gross loans from 4.59 % in 2012 to 5.05%, 5.46, 5.99% and 7.82% in 2013, 2014, 2015 and 2016, respectively. Banks are still grappling with the upsurge in the fraction of non-performing assets in their books of accounts in spite of employing tactics tackling risks related to loaning, (World Bank, 2017).

Though internal controls have been instituted in the banking sector; The CBK, 2016, indicated that the non-performing loans has been on a steady growth in Kenya. In the current market environment where financial institutions have been on the receiving end due to unethical issues and increase in banking fraud it's vital to review the work of internal controls in mitigating losses and fraud in the banking industry. There is scanty evidence linking internal control systems and credit risk and this has motivated the current research.

Locally in Kenya, a number of studies on the concepts have similarly been undertaken. For instance Kamau (2013), carried out a research that focused on determining the influence of internal control on performance at Kenya Revenue Authority (KRA). The study found that

proper internal controls have a positive influence on performance. A study by Ndungu (2013) investigated internal controls impact on generation of revenue at the University of Nairobi Enterprises and Services Limited (UNES). The study established that there is a statistically significant association between control environment and the revenue generation. Njeri (2014) in her research sought to ascertain the influence of systems of internal control on the Kenyan manufacturing enterprises financial performance. The research established that fraud is prevented by putting in place fraud detection mechanisms and audits ensure that effective controlled reporting is done. From the local studies only related internal controls with performance and revenue generation. The current study aimed at establishing the effects of internal controls on credit risk among the banks listed in NSE which other studies did not address hence the research gap. Also, the function of risk assessment, control activities and monitoring on credit risk has not been fully established especially in the local setting. The present study thus aimed at bridging these gaps by steering a survey on the effects of internal control components on credit risk using banks trading on the NSE.

3. Objectives of the Study

The main objective aim of the research project was to establish the effects of internal controls on credit risk among the banks listed in NSE.

The specific objectives as follows:

- i. To examine the influence of risk assessment on credit risk of Commercial banks listed at Nairobi securities Exchange, Kenya
- ii. To investigate how monitoring affects credit risk of Commercial banks listed at Nairobi securities Exchange, Kenya
- iii. To evaluate how control environment affects credit risk of Commercial banks listed at Nairobi securities Exchange, Kenya
- iv. To find out whether control activities have an influence on credit risk of Commercial banks listed at Nairobi securities Exchange, Kenya

4. Theoretical Review

A theory is a set of interconnected ideas and suggestions that specifies relationships in variables used to forecast occurrences, Kothari (2008). Reviews of theories that underpin the study are presented in this subsection which include; liquidity preference theory, agency theory and modern portfolio theory.

4.1 Liquidity Preference Theory

Put forward by Keynes John Maynard (1989), the theory stipulates that the interest rate is the reward that someone gets for parting with their liquidity for a defined period of time. The theory contends that, the interest rate is a function of demand for and the supply of money. Further, Keynes proposed three possible motives for holding liquid cash: for transaction purposes, for safeguarding purposes and for postulate purposes in terms of investment. This theory proposes that investors are likely to demand a premium for those securities that come with longer maturity periods as they are associated with greater risk thereby preferring to hold cash associated with less element of risk. This is because the higher the liquidity of an investment, obviously the easier and faster it will get to sell at full value (Mbole, 2004). Keynes further examined that sensitivity to changes in interest rate is as a result of the speculative demand for money. According to Carpenter and Lange (2002), the three motives for holding cash provide an avenue

for controlling risk as well as gain a return on investment. The rationale for putting in place a proper credit risk management policy is to ensure that there is enough liquidity for transactional, precautionary and speculative demand for money. Financial institutions of which banks are a part of, lend out credit and they could possibly encounter problems associated with liquidity particularly if borrowers cannot meet their loan obligations within the stipulated period. In turn, this may hinder the lending institutions from making profitable investments that promise higher future returns. This theory, therefore, argues that a lending entity ought to retain more cash for purposes of investing hence, its relevance to the study for such institutions to deal with uncertainties which are inevitable.

4.2 Agency Theory

This significant body of work was mainly designed by Jensen & Meckling in 1976. The agency theory therefore determines the agent relationship between two parties, one is the principal party that delegates duties and responsibilities while the other is the agent. The agency relationship as provided by its originators tends to have varied disadvantages in relation to the self-interest and level of optimism that lies in an agent. For instance, the agent may choose to act in a manner that is not of principal's best interest, or rather, the agent may act partly in the interest of his principal. On the opposite side, the agency theory posits that a firm mainly embroils a connection of contracts that lies between its economic resources, owners who are considered as the principals, and managers, perceived as the agents given that they are charged with the control of organization's assets (Jensen & Meckling, 1976).

The concept holds that the agents in several occasions possess the capacity to access more information as opposed to the principals, thus establishing that the information asymmetry mainly impinges on the principals' capacity to assess whether the interest of their organization are served by their agents. Hence, it is evident that this theory views organizations as a necessary structure in the maintenance of the required contracts, and this way, it is easier to undertake control that lessens the unprincipled behaviors of the agents. According to Jensen & Meckling (1976), to harmonize the principal interests of the principals and the agents, there is a need to establish a comprehensive contract that addresses the interests of both the parties. In this regard, it is essential to note that the agent-principal connection is primarily held together by the inclusion of a professional as well as other auditing and control systems that help in monitoring the agent. The agency theory operates under the perception that the agents and their principals operate on a rational manner, thus using contracting as an approach aimed at maximizing their wealth (Kenyon & Tilton, 2014). This study is therefore applicable in this context given that internal control remains one of the main mechanisms utilized by businesses in addressing their agency challenges especially through the reduction of agency costs that may have adverse effects on the performance of the relationships between the two parties.

4.3 Modern Portfolio Theory

This theoretical model was established by Markowitz in (1952). It strives to explain how investors that are risk-averse tend to match their portfolios to the prevailing level of risk. This way, the investors can maximize on the returns that they expect their assets to generate as risk is associated with a particular degree of return. The theory thus establishes a mechanism through which an investor can maximize the returns based on the prevailing level of risk. This theory provides is better than the traditional approach that was based on credit scoring and the expert method under this regime. The credit decision was the sole responsibility of the lending officer at

the bank's office. These officers used intuition as well as other rating mechanisms to determine the credit worthiness of a given customer. Loans were granted on the basis of weighted analysis. Rosli (2010) states that the decision making mechanism was not arbitrary as it was based on the level of experience that the officer had, which could be used to determine the suitability of a given individual to get a loan.

When evaluating an individual's suitability to get a loan, banks use the 5Cs model. The first C represents character, whereby the bank evaluates the customer's willingness to borrow and make timely repayments. The second C represents capacity, and the bank looks at the ability of the customer to repay the borrowed funds based on aspects such as account history. The third C represents conditions, which relates to the prevailing economic conditions that can affect the ability to make repayments. These include inflation and economic performance among others. The fourth C represents collateral, which is the property put up as security for the loan. The bank must evaluate the value and condition of the property to determine if it meets the stated market value and whether it can easily be converted into cash. The last C represents capital and is usually assessed when the borrower is a business person or institutions. The bank must first assess the net worth of the business before giving out any loan. The MPT is relevant to this study as it has previously been applied by many commercial banks, registering significant success (Margrabe, 2011).

5. Conceptual Framework

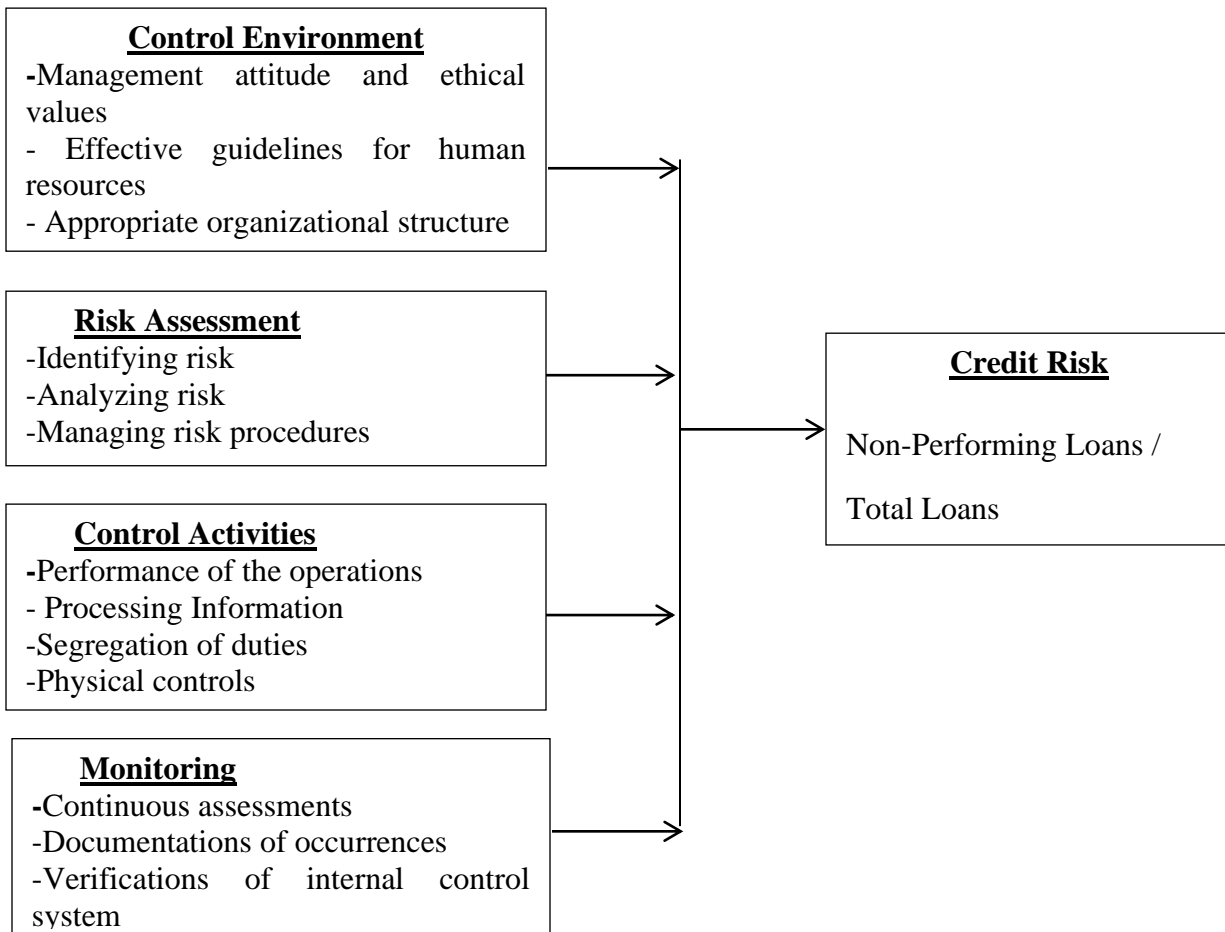


Figure 1: Conceptual Framework

Source: Researcher (2020)

This is a blend of wide-ranging notions explaining the correlation linking dependent variables and independent variables. Figure 1 shows the relationship between the credit risk (Dependent variable) as influenced by banks internal control system components (Independent variables). The independent variables are control environment, risk assessment, control activities and monitoring. Control environment dimension were measured with aspects relating to management attitude and ethical values, effective guidelines and practices for human resources as well as suitable organizational structure. Risk assessment component were gauged using aspects relating to risk detection, analysing risk, and procedures of managing risk. Control activities dimension were gauged based on operational performance of the bank, information processing, segregation of duties as well physical controls in these institutions. Monitoring component were operationalized with aspects relating to continuous assessments, documentation, and verifications of documents relating to credit offering in the targeted banks.

6. Research Methodology

A research design is used to make sure that collected data is appropriate and adequate in answering questions derived from a given study (Kothari, 2008). A good research has to produce maximum findings and provide openings for other aspects related to the problem. Context and nature of the research study determines the type of research design the researcher used. The study adopted a casual descriptive research design in analyzing the effects of internal controls and credit risks among the banks listed in NSE. The design enabled the researcher to designate the characteristics of the variables of interest. The descriptive design is thus well suited to this study. The method is useful for this study as it described the characteristics of a large population.

The target population encompassed the eleven listed banks in Nairobi Securities Exchange. Since the target population was small, census was done, hence all 11 operational commercial banks listed in NSE in Kenya as at December 2019 were studied. The study used a purposive sampling technique since the researchers picked respondents who were capable of answering the the required questionnaires. The technique applied where the respondents have knowledge in the research area (Kowalewski, 2014). Four managers from each bank were selected and were able to offer appropriate and correct information necessary for the study. These included the Compliance and Monitoring Manager, Underwriter, Internal Auditor and Strategy and Risk Manager. Hence the total respondents was 44. Primary and was collected using questionnaires. Inferential statistics, regression analysis were applied to determine the link between the credit risk and internal controls.

7. Data Analysis

In this section the researcher covers information on regression analysis, ANOVA and regression. Model summary is used when forecasting the significance of a variable depending on another variable and the variable being forecasted.

Table 1: Summary of the Model

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.906 ^a	.820	.812	.24141

a. Predictors: (Constant), Risk Assessment , Control Activities, Monitoring and Control environment

From the Table, the degree to which Risk Assessment , Control Activities, Monitoring and Control environment is related to credit risk and was stated in the positive correlation coefficient (R) = 0.906 and coefficient of determination, (R²) =0.820,hence 82 % of the total change in four variables together has been explained by changeability in credit risk practices. The model had an average adjusted coefficient of determination (R²) of 0.812 which implied that 81.2% of the variations on credit risk among the banks listed in NSE are explained by the independent variables focused on this study that is; control environment, risk assessment, control activities and monitoring.

The study further tested the significance of the model by use of ANOVA technique. The findings are presented in table 4.14 below.

Table 2: ANOVA

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	1.303	4	.434	2.758	.000 ^b
	Residual	7.403	35	.158		
	Total	8.706	39			

a. Dependent Variable: Credit Risk

b. Predictors: (Constant), Risk Assessment , Control Activities, Monitoring and Control environment

The findings (P- value of 0.000) in the Table above show a strong significant link among the independent variables (Risk Assessment ,Control environment, Control Activities, and Monitoring) and dependent variable (Credit Risk). where P is 0.000 which is less than 0.05 means that the model used is considerably worthy forecasting the outcome variable.

Table 3 shows the coefficients distribution.

Table 3: Coefficients Distribution

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.841	.803		2.287	.002
	Control environment	.353	.124	.061	.425	.001
	Risk Assessment	.230	.190	.174	1.212	.000
	Control Activities	.128	.220	.107	.634	.003
	Monitoring	.164	.119	.273	1.916	.000

a. Dependent Variable: Credit Risk

The generated output as per the SPSS is as presented in Table 3 above, thus the equation is $Y_t = 1.841 + 0.353X_1 + 0.230X_2 + 0.128X_3 + 0.164X_4 + \epsilon$. All the experimental variable displayed a positive coefficient demonstrating a positive outcome on the credit risk. The regression constants show a significant relationship as showed by the p-values where all the significant values are not more than 0.05, showing a significant link between the credit risk and internal controls. According to the results as presented in the model, a positive change in control environment

would lead to unit rise in credit risk as shown by a coefficient of 0.353. Thus, there is a moderate positive relationship between control environment and managing credit risk ($\beta_1 = 0.353$, $t = 0.425$). This is in line with Akwaa-Sekyi, and Gené, (2016) who established that the control environment encompasses exercising oversight responsibilities, a show of assurance to integrity and ethical values, instituting structures, show of assertion to competence, authority and responsibility and implementing accountability. The verdicts showed that monitoring has a positive significant association with credit risk, hence a unit increase in monitoring would lead to rise in credit risk by 0.164 ($\beta_1 = 0.164$, $t = 1.916$). In Nigeria, Adekunle, and Alalade (2015) reveal that credit risk management has significant effect on financial performance of commercial banks. This finding concur to our results that a change in risk assessment leads to upsurge in credit risk as shown by a coefficient of 0.230. This affirms a positive significant association between risk assessment and credit risk with the coefficient ($\beta_1 = 0.230$, $t = 1.212$). Further, the study findings revealed that a unit change in control activities leads to rise in credit risk as shown by a coefficient of 0.128, hence a positive significant association between control activities and credit risk.

Table 4: Summary of the Results

Hypothesis	Test (Regression p-value)	Conclusion
Risk assessment has no significant influence on credit risk among the banking companies trading in Kenya	$P=.001 < 0.05$	Rejected
Monitoring is not significantly influencing credit risk among the banking companies trading in Kenya	$P=.000 < 0.05$	Rejected
Control environment has no significant influence on credit risk among the banking companies trading in Kenya	$P=.003 < 0.05$	Rejected
Control activities are not significantly influencing credit risk among listed full service banks	$P=.000 < 0.05$	Rejected

8. Conclusion

The study concluded that risk assessment, control activities, monitoring and control environment have a significant effect on credit risk among commercial banks listed in NSE. A positive connection between control environment and credit risk exist which means that a unit increase in control environment would lead to unit rise in credit risk. Control environment has significant influence on credit risk among the banking companies trading in Kenya. Further, the study concluded that monitoring has a positive significant association with credit risk, hence a unit increase in monitoring lead to rise in credit risk. It was further concluded that risk assessment has a significant influence on credit risk among the banking companies trading in Kenya. A unit increase in risk assessment leads to an increase in credit risk among the banking companies

trading in Kenya. A strong significant accession between control activities and credit risk. This implied that an increase in control activities would lead to an increase in credit risk.

9. Recommendations

The commercial banks should implement proper risk assessment to direct their operations. Internal controls are key to the operations of the banks. To ensure effective controls, the banks' management such as senior audit manager should enable conduction of regular checks of internal control approaches and efficiency of risk assessment. The commercial banks should establish efficient control activities to direct their operations. The banks' management such as the senior human resource manager should review the degree of employee integrity when assigning tasks particularly areas where the employees handle confidential information involving the banks' vital documents. The banks' monitoring tactics should be aimed towards effective operations and achievement of the firm goals. There is need therefore for the commercial banks' management specifically the senior risk manager to ensure that there are policies in place guiding the banks' dealing with threats to the banks' operations. To policy makers in central bank of Kenya should ensure the articulation of policies and guidelines of internal controls for commercial banks. This enables all the bank undertakings to be executed by management hierarchies in agreement with present strategies, methods, guidelines, and controls.

REFERENCES

- Abbas, Q., & Iqbal, J. (2012). Internal Control System : Analyzing Theoretical Perspective and Practices. *Middle-East Journal of Scientific Research*, 12(4), 530-538
- Adeyemo, D. A. (2012). Organizational climate, leadership style and emotional intelligence as predictors of quality of work life among bank workers in Ibadan, Nigeria. *European Scientific Journal*, 11(4).
- Abdelkarim, N. & Burbar, M. (2012). *How Banks in Palestine Manage Financial Risk*. Jordan Al-Zaytoonah University.
- Abiola, I. & Oyewole, A.T. (2013). The internal control system on Fraud: A Nigerian Experience. *Journal of accounting and finance*, 13 (5), 141-153.
- Adekunle, O., & Alalade, S. Y., (2015). Credit risk management and financial performance of selected commercial banks in Nigeria. *Journal of Economic & Financial Studies*, 3(01), 01-09.
- Afande, F.O (2014). Credit Risk Management Practices of Commercial Banks in Kenya. *European Journal of Business and Management*
- Aguiar, P. & Broner, A. (2016). Determining Underlying Macroeconomic Fundamentals during Emerging Market Crises: Are Conditions as Bad as They Seem? *Journal of Monetary Economics*, 53.4 (2006), 699-724.
- Akwaa-Sekyi, E. K., & Gené, J. M. (2016). Effect of internal controls on credit risk among listed Spanish banks. *Intangible Capital*, 12(1), 357-389.
- Akwaa-Sekyi, E. K., & Gené, J. M. (2016). Effect of internal controls on credit risk among listed Spanish banks. *Intangible Capital*, 12(1), 357-389.
- Akwaa-Sekyi, E.K., & Moreno Gené, J. (2016). Effect of internal controls on credit risk among Listed Spanish banks. *Intangible Capital*, 12(1), 357-389
- Al-Tamimi, H.H.A., & Al-Mazrooei, M.F. (2007). Banks' risk management: a comparison study of UAE national and foreign banks. *The Journal of Risk Finance*, 8(4), 394-409

- Angella, M, & Eno, U. (2009). Evaluation of Internal Control Systems: A Case study from Uganda. *International Research Journal of Finance and Economics*, 27, 124-144.
- Arif, A. & Ahmad, N. A. (2012). Liquidity risk and performance of banking system. *Journal of Financial Regulation and Compliance*, 20(2), 182-195.
- Basel Committee on Banking Supervision. (2000). Principles for the Management of Credit Risk. *Banks for International Settlements*.
- Basel Committee on Banking Supervision. (2000). Principles for the management of credit risk. *Consultative paper issued by the Basel Committee on Banking Supervision, Basel*.
- Basel Committee on Banking Supervision. (2006). International convergence of capital measurement and capital standards. *Paper presented at Basel Committee on Banking Supervision, Bank for International Settlements, Basel*.
- Bassey, B. B. (2019) Internal Control And Risk Management In Nigeria Banking Sector: A Focus Review Of Zenith Bank In Akwa Ibom State, Nigeria.
- Brown, K., Moles, P. (2014). *Credit Risk Management*, Edinburgh Business School, Edinburgh: United Kingdom.
- Brownbridge, M. (2010). *The Causes of Financial Distress in Local Banks in Africa and Implications for Prudential Policy*, UNCTAD OSG/ DP/ 132, 2010.
- Bryman A, Bell E (2003). *Business Research Methods*. Oxford, UK: Oxford University Press
- Burns .N, S. Grove S (1997) .*The Practice of nursing research : conduct, critique, and utilization*
- Caselli, S., Gatti, S., & Querci, F. (2016). Deleveraging and Derisking strategies of European Banks : Business as usual ? *Centre for Applied Research in Finance Working Paper*
- Central Bank of Kenya. (2013). Annual Reports. Retrieved from: <http://www.centralbank.go.ke>
- Central Bank of Kenya. (2014). Bank Supervision Annual Report. *Central Bank of Kenya*.
- Central Bank of Kenya. (2016). *Prudential guidelines for institutions licensed under the Banking Act*. Central Bank of Kenya. pp. 27-48.
- Centre for Corporate Governance. (2014). *A study of corporate governance practices in the Commercial banking sector in Kenya*. Centre for Corporate Governance,
- Channar, Z. A., Maha, K., & Irfan, S. H. (2015). Internal Control Effectiveness & Its Relationship With Financial Performance. *IBT Journal of Business Studies (Formerly Journal of Management & Social Sciences)*, 92-107.
- Chen, C.H., & Al-Najjar, B. (2012). The determinants of board size and independence: Evidence from China. *International Business Review*, 21(5), 831-846.
- Chen, K., & Pan, C. (2012). An empirical study of credit risk efficiency of banking industry in Taiwan. *Web Journal of Chinese Management Review*, 15(1), 1-16.
- Cho, M., & Chung, K. H. (2016). The effect of commercial banks' internal control weaknesses on loan loss reserves and provisions. *Journal of Contemporary Accounting & Economics*, 12(1), 61-72
- Coca-Cola Amatil. (2011). *Risk management policy*. Available online at www.Ccamatil.Com, (December), 1-4
- Conford A. (2000). The Basel Committee's Proposals for Revised Capital Standards: *Rationale, Design and Possible Incidence, G-24 Discussion Paper Series*", United Nations, No.3, Ma
- Cooper, D. R., & Schindler, P. S. (2011). *Business Research Methods (4th ed.)*. New York, NY: McGraw-Hill.

- COSO. (1992). *Internal Control-integrated Framework, Committee of Sponsoring Organisations of the Treadway Commission*. Coopers and Lybrand, New York, NY.
- COSO. (2013). *Internal Control – Integrated Framework*. Durham.
- Davidson H. (1996). Motorcycle Reliability and Owner Satisfaction - Consumer Reports
- Dedu, V., & Chitan, G. (2013). The Influence of Internal Corporate Governance on Bank Performance. *An Empirical Analysis for Romania. Procedia, Social and Behavioral Sciences*, 99, 1114-1123
- Dube D. P. (2005). *Information System Audit and Assurance*. New Delhi: Tata McGraw-Hill Education,.
- Dubrin, A.J (2008). *Essentials of Management*. Internal control
- EPURE, M., & LAFUENTE, I. (2012). *Monitoring performance in the presence of risk* (No. 613). Working Paper.
- Fama, E.F., & Jensen, M.C. (1983). Agency Problems and Residual Claims. *The Journal of Law and Economics*, 26(2), 327
- Fawzi., & Atala. (2012). Internal Control and Audit program effectiveness: Empirical Evidence from Jordan. *International Business Research*, 5, 12, 8-137.
- Fehle, F. and Tsyplakov, S. (2003) Dynamic Risk Management: Theory and Evidence. *Journal of Financial Economics*, 78, 3-47
- Gamage, T., Lock, L.K., & Fernando, A.A. (2014). A proposed research framework: Effectiveness of internal control system in state commercial banks in Sri Lanka. *International Journal of scientific research and innovative technology*, 1 (5), 25-44.
- Garen,I.O. (2017).Development of a Dynamic Risk Management Model Allowing for Holistic Assessment of Identified Risks and Adoption of Preferred Mitigation Strategies Based on a Multi Criteria Decision-Scheme
- Gathaiya, R.N. (2016). Analysis of issues affecting the collapsed banks in Kenya from the year 2015 to 2016. *International Journal of Management and Business Studies*, 7 (3). 9-14
- Gesare, M. R., Nyagol, M., & Ajowi , J. O. (2016). Influence of Internal Control Systems on Fraud Risk Management among Commercial Banks in Kisii Town, Kenya. *IOSR Journal of Business and Management (IOSR-JBM)*, 28-34.
- Ghauri, P.N., & Grønhaug, K., (2005), *Research Methods in Business Studies* (3rd Edition), Prentice Hall: London
- Gizaw, Kebede & Selvaraj, (2015). The impact of credit risk on profitability performance of commercial banks in Ethiopia. *African Journal of Business Management*
- Hair, Tatham, Anderson & Black. (2006). *Multivariate Data Analysis* (6th Edition)
- Ibrabas, S. (2015). *Palestinian Banks and Application of Basel 2 Related to the Internal Control*. Israel: Booksie.
- institution of higher learning in Uganda: A case of Uganda Martyrs University,
- Jensen, M. C., & Meckling, W. H. (1976). Theory of the firm: Managerial behavior, agency costs and ownership structure. *Journal of Financial Economics*, 3(4), 305-360.
- Jensen, M. C., & Meckling, W. H. (1976). Theory of the firm: Managerial behavior, agency costs and ownership structure. *Journal of Financial Economics*, 3(4), 305-360.
- Ji, X., Lu, W., & Qu, W. (2015). Determinants and economic consequences of voluntary disclosure of internal control weaknesses in China. *Journal of Contemporary Accounting & Economics*, 11(1), 1-17

- Jin, J.Y., Kanagaretnam, K., Lobo, G.J., & Mathieu, R. (2013). Impact of FDICIA internal controls on bank risk-taking. *Journal of Banking and Finance*, 37(2), 614-624
- Karagiorgos, T., Drogalas, G., Eleftheriadis, I. and Christodoulou, P. (2009) 'Efficient Risk Management and Internal Audit', *International Journal of Management Research and Technology*, Vol. 3, No. 2, Serials Publications, pp.429-436
- Karim, S. (2019). *The Influence of Credit Risk Management Strategies on the Performance of Commercial Banks: A Comparative Case Study of UAE and UK Commercial Banks* (Doctoral dissertation, University of Liverpool).
- Kessey, K.D. (2015). Assessing Credit Risk Management Practices in the Banking Industry of Ghana: Processes and Challenges. *Global Journal of Management and Business Research*
- Kipyego, D. K., & Wandera, M. (2013). Effects of Credit Information Sharing on Non-performing Loans: The Case of Kenya Commercial Bank Kenya. *European Scientific Journal*, 168-193.
- Kithinji, A. M. (2010). Credit risk management and profitability of commercial banks in Kenya. *School of Business, University of Nairobi, Nairobi*.
- Kithinji, A. M. (2010). Credit Risk Management and Profitability of Commercial Banks in Kenya. *Unpublished MBA Research Project, University of Nairobi*.
- Kothari, C. R. (2008). *Research methodology: Methods and techniques*. New Delhi: New International Publishing.
- Kowalewski, L.K. (2014). *Accuracy or Precision: Implications of Sample Design and Methodology on Abundance Estimation*. University of Nebraska - Lincoln. Retrieved from digitalcommons.unl.edu
- KPMG. (2012). The global challenge of liquidity. *KPMG International*
- Kumuthinidevi, S. (2016). A Study on Effectiveness of the Internal Control System in the Private Banks of Trincomalee. *International Journal of Scientific and Research Publications*, 60612.
- Kumuthinidevi, S. (2016). Effectiveness of Internal Control Systems in the Private Banks of Trincomalee. *International Journal of Scientific Research Publications*, 6(6), 600-612.
- Lakis, V., & Giriunas, L. (2012). The concept of internal control system: Theoretical Aspect. *Ekonomika*, 91(2), 11-53.
- Lintner, J. (1965). "The valuation of risk assets and the selection of risky investments in stock portfolios and capital budgets". *Review of Economics and Statistics*. 47 (1): 13-37.
- Maltritz, D., & Molchanov, A. (2014). Country credit risk determinants with model uncertainty. *International Review of Economics and Finance*, 29, 224-234.
- Margrabe, K. (2011). The incidence of secured debt: evidence from the small business community. *Journal of Financial and Quantitative Analysis*, 24, 379-94.
- Markowitz, H.M. (1952). "Portfolio Selection". *The Journal of Finance*. 7 (1): 77-91
- Marshal, I., & Onyekachi, O. (2014). Credit Risk and Performance of Selected Deposit Money Banks in Nigeria: An Empirical Investigation. *European Journal of Humanities and Social Sciences*, 1684-1694.
- Mayaka, B. O (2017). *an assessment of the effects of credit risk management procedures on financial performance of micro finance institutions in kisii county* (doctoral dissertation, kisii university).

- McNally, S.J. (2013). *COSO McNallyTransition*. Article-Final COSO Version Proof_5-31-13.pdf.
- Mesnard, B, Margerit, A., Power, C., & Magnus, M. (2016). Briefing Non-performing loans in the Banking Union: Stocktaking and challenges. *European Parliament, Economic Governance and Support Unit, 11*.
- Meyer, J.W. (2006). *Reflections on Institutional Theories of Organizations*. The Sage Handbook of Organizational Institutionalism, 788-809.
- Millichamp, W.C. (2012). Embracing risk-based auditing in internal corporate governance. *Finance Review, 7*, 17-20.
- Moffett, P. F. (2015). Relationship between interest rate changes and stock returns in Spain: a wavelet-based approach. *Working Paper, Department of Economics and Finance, UCLM, Spain*. 1-24.
- Mogga, J. P., Mwambia, F., & Kithinji, M. M. (2018). Effect of credit risk management on the financial performance of commercial banks in Juba city, South Sudan. *International Academic Journal of Economics and Finance, 3*(2), 93-116.
- Muchoki, P. M. (2015). *The effectiveness of credit risk management practices for micro finance institutions in Kenya: The case of UNAITAS SACCO Limited* (Doctoral dissertation, United States International University-Africa).
- Mugenda, O.M., & Mugenda, A.G. (2003). *Research Methods: Quantitative and Qualitative Approaches*. Acts Press. Nairobi. Kenya.
- Mwachiro, B. (2013). effects of internal controls on revenue collection: a case of kenya revenue authority
- Mwisho, A. (2011). Basic lending conditions and procedures in commercial banks. *The Accountants, 13*, (3), 16-19.
- Naceur, S. B., & Omran, M. (2011). The effects of bank regulations, competition, and financial reforms on banks' performance. *Emerging markets review, 12*(1), 1-20.
- Nduku, N. R. (2016). The effect of credit risk management on financial performance of commercial banks in Kenya. *Unpublished MBA Research Project*.
- Ngechu. M. (2004), Understanding the research process and methods. *An introduction to research methods*. Acts Press, Nairobi.
- Ogboi, C., & Unuafe, O. K. (2013). Impact of Credit Risk Management and Capital Adequacy on the Financial Performance of Commercial Banks in Nigeria. *Journal of Emerging Issues in Economics, Finance, and Banking, 701-717*.
- Olatunji, O.C. (2009). Impact of internal control system on banking sector in Nigeria. *Pakistan Journal of Social Sciences, 6*(14), 181-189.
- Olumbe, C. O. (2012). *The relationship between internal controls and corporate Governance in Commercial banks in Kenya*. The university of Nairobi. Retrieved from repository.uonbi.ac.ke
- Ondieki, N.M (2013) *.Effects of internal audit on financial performance of commercial banks*
- Palfi, C. & Muresan, M. (2009).Survey on weaknesses of banks' internal control systems. *Journal of international Finance and Economics, 9*(1).
- Palfi, C. (2009). Control environment in banking: an empirical study of Romanian framework vs. COSO and COCO models: International Academy. *International Journal of Business Research, 3*, (1), 45-87

- Rezaee, Z. (2011). *Financial Services Firms: Governance, Regulations, Valuations, Mergers*
- Rittenberg, L.E., & Schwieger, B.J. (2001). *Auditing Concepts for a Changing environment* (3rd Edition). New York: The Dryden Press Harcourt Brace & Company.
- Rosli, A., (2010). Risk reporting: An exploratory study on risk management disclosure in Malaysian annual reports. *Managerial Auditing Journal*, 24(1), 39-57.
- Salhi, B., & Boujelbene, Y. (2012). Effect of internal banking mechanisms of governance on the risk-taking by the Tunisian banks. *International Journal of Economics, Finance and management*, 1, 12-69
- Sekyi, A., Kofi, E., & Moreno Gené, J. (2017). Internal controls and credit risk relationship among banks in Europe. *Intangible Capital*, 2017, vol. 13, num. 1, p. 25-50.
- Shanmugan, B & Bourke, P (2016) “*The Management of Financial institutions, Selected readings.*” Addison, Wesley Publishing Company
- Sharpe, W. F. (1964). "Capital asset prices: A theory of market equilibrium under conditions of risk". *Journal of Finance*. 19 (3): 425–442.
- Sobehart, J.R., & Keenan, S.C. (2001). A Practical Review and Test of Default Prediction Models. *RMA Journal*, 84(3), 54-59
- Spuchl'áková, E., Valášková, K., & Adamko, P. (2015). The credit risk and its measurement, hedging and monitoring. *Procedia Economics and finance*, 24, 675-681.
- Thiagarajan, S. Ramu & Petersen, A. Mitchell. (2000). Risk Measurement and Hedging: With and Without Derivatives
- Treynor, J. L. (1961). *Market Value, Time, and Risk*. 95-209.
- Tunji, S .T. (2013). Effective Internal Controls System as Antidote for Distress in the Banking Industry in Nigeria. *Journal of Economics and International Business Research*.
Unpublished thesis, Uganda Matyrs University
- Uwuigbe, O.R., & Fakile, A.S. (2012). The Effects of Board Size on Financial Performance of Banks: A Study of Listed Banks in Nigeria. *International Journal of Economics and Finance*, 4(2), 260-267.
- Wainaina, S. W. (2011). *An evaluation of the internal control function: The Case of Kenya Polytechnic University College*. The university of Nairobi. Retrieved from repository.uonbi.ac.ke
- Wanjohi, M. W. (2014). *Fraud in the banking industry in Kenya, A case of Commercial Bank of Africa, Kenya*. United States international university Africa Summer. Retrieved from eropo.usiu.ac.ke.

This is an open-access article published and distributed under the terms and conditions of



the [Creative Commons Attribution 4.0 International License](https://creativecommons.org/licenses/by-nc/4.0/) of United States unless otherwise stated. Access, citation and distribution of this article is allowed with full recognition of the authors and the source. Authors seeking to publish with an Internationally Peer Reviewed Journals should consider <https://www.ijcab.org/> by writing to the Editor at editor@ijcab.org or submitting online at <https://journals.ijcab.org/journals/index.php>. The articles must be quality and meet originality test.