

MARKET RISK AND PERFORMANCE OF COMMERCIAL BANKS IN BUSIA COUNTY

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DOI: <https://doi.org/10.5281/zenodo.8305670>

Published Date: 31-August-2023

Abstract: The world is rapidly developing economically that has led to an increased demand for financial risk management around the globe (Melaku, 2016). The purpose of the study is to determine the effect of market risk on performance of commercial banks in Busia county Kenya. The study was guided by the following theories in relation to the study area as extreme value theory, capital market theory, finance distress theory and information asymmetry theory. The study adopted a descriptive research design. Data collection instrument was structured questionnaire. The study targeted all the 49 respondents including branch manager, credit managers, tellers and in charge of ATMs commercial banks in Busia Kenya. Both primary and secondary data was collected. The researcher self-dropped and pick the duly filled questionnaires. Piloting was done to test the validity and reliability of data collection instrument. Data organised, coded, edited to bring a meaning. Data was analysed and presented using the statistical package for social science SPSS version 24. Both descriptive and inferential statistics was done. Multiple regression was done to test the significant levels of one variable over the other. Analysis of variance was also be done. Based on the findings, the study concluded that market risk on financial performance of commercial banks in Busia county Kenya $\beta_1=0.488$, p value= 0.001). The relationship was considered significant since the p value 0.000 was less than the significant level of 0.05. The study came up with the following recommendations; the financial management should ensure that that they work on Market risk to reduce severe losses within a short period of time among volatile market conditions hence contribute to lack collapse among institutions in harsh situations. To take into consideration the market risk which comprises of exchange rate, inflation and interest rate risks that affect the financial performance of banks. The finding will be of significant to the researchers, academicians, stakeholders and to the entire economy as a whole.

Keywords: Market Risk, Financial performance.

1. INTRODUCTION

Banks play an essential role in the development of any economy by facilitating businesses, trade, and ensuring judicious allocation of idle funds. Banks are also pivotal in the implementation of government monetary policies (Nguyen, et al., 2017). However, the inability of banks to meet its intermediation obligations introduces some vulnerability into the financial system. In fact, some studies have shown that inadequate management of these vulnerabilities may fuel a sovereign debt crisis (Jongh et al., 2013). Though risk taking is an integral part of banking, albeit, bank management should balance its risk and return to make adequate profit and remain a going concern, else, the bank, financial system and the economy at large may be adversely impacted; as was the case of the Asian Financial crisis of 1997 - 1998. Banks are susceptible to two categories of risks: financial and non-financial risks. Financial risks are a result of the business operations/transactions of the bank and can be further categorized into credit risk, and market and liquidity risk. Non-financial risk on the other hand

impact negatively on performance as a result of management failure, competitions, external factors etc. Non-financial risks mainly include operational risk, strategic risk and compliance risks (Patel, 2015).

Globally, banks face lots of challenges in a form of risks. Financial risk is whereby returns vary or fluctuate unexpectedly. There are many types of financial risks such as equity risk, liquidity risk, market risk, currency risk, asset-backed risk, foreign exchange risk, credit risk among others. These risks contribute negatively in terms of how an organization will perform financially (Gathiga 2016). Financial risk usually leads to the collapse and underperformance of financial institutions if they are not handled. Financial risks normally lead to financial crisis if they are not managed which leads to poor performance of firms and lowers the economy of a country and hence the living standards of people. These risks should be managed and regulated by firms and institutions so as to improve profitability and reduce losses. Risk management is the process whereby organisations use the necessary tools so as to hedge risk and prevent it from occurring. Risk plays an important role in organisations as it makes the managers be keen in monitoring the financial patterns. It is however important for institutions to manage risk so as to prevent uncertainties on the returns and profits to expect. All firms worldwide are exposed to financial risk hence they should take the necessary steps to prevent it. Banks for instance should take the necessary precautions to avoid experiencing financial crisis, which may lead to the loss of customers. These will enable the banks to operate on a longer period without running into debt.

Financial risks are a result of the business operations/transactions of the bank and can be further categorized into credit risk, and market and liquidity risk. Non-financial risk on the other hand impact negatively on performance as a result of management failure, competitions, external factors etc. Non-financial risks mainly include operational risk, strategic risk and compliance risks (Patel, 2015). Prior to the recent decade, attention of banks had been on the financial risks (credit risk and market risk). However, following the collapse of some giant organizations like Enron and WorldCom and the financial crisis of 2008, there has been an increase into the studies of the root causes of these loss events. Surprisingly, many of the studies alluded these failures to inadequate management of operational risks. Lisa M. (2022) states that among the financial risks in banks is operational risk which is the risk of losses caused by flawed or failed processes, policies, systems or events that disrupt business operations. Employee errors, criminal activity such as fraud, and physical events are among the factors that can trigger operational risk. Most organizations accept that their people and processes will inherently incur errors and contribute to ineffective operations. In evaluating operational risk, practical remedial steps should be emphasized to eliminate exposures and ensure successful responses. If left unaddressed, the incurrence of operational risk can cause monetary loss, competitive disadvantage, employee- or customer-related problems, and business failure (Lisa M. 2022).

Financial risk may be due to several macroeconomic forces, fluctuating market interest rates, and the possibility of default by large organizations or sectors. When individuals run businesses, they face financial risk in making decisions that jeopardize their ability to pay debts or income. Building a business from the ground up is expensive. Often companies need to seek capital from outside sources for their steady growth. This funding requirement creates a financial risk for the company/ business seeking an amount and the investor/ stakeholder investing in the company's business (Lisa M. 2022). The danger associated with borrowing money is called credit risk or default risk. If the borrower cannot repay the loan (it becomes default), the investors suffer from reduced income from loan repayments, interests, and principal. Creditors often experience an increment in costs for debt collection (Lisa M. 2022). Another term—specific risk, is used when only one or some companies struggle with financial situations. This type of danger that relates to a company or group of companies concerns capital structure, exposure to default, and financial transactions. Thus, specific risk reflects investors' uncertainty about collecting returns and potential monetary loss. William (2012) studied to investigate the effect managing financial risk had on the manner commercial banks in Kenya performed financially. The researcher of this study used descriptive survey research design in conducting the study. 42 commercial banks formed the targeted population of the study. The researcher used primary data in conducting his research by use of questionnaires by asking the questions on 107 employees of the specific banks as it was the sample population of the study. Data for the research was collected for the period 2008-2012. The collected data were analysed by use of the regression model. The research obtained results which indicated that there was a positive relationship between the independent and the dependent variables.

Regionally, financial firms are constantly facing the financial performance problems and are in search of solutions on how to deal with financial risks. Chernobai, Jorion and Yu (2011) asserted that several high-profile losses were linked to operational risk; an example is the \$7.2 billion loss at Société Générale of 2008 which was largely due to absence of internal controls and unmanaged operational risks. Jongh et al. (2013) asserted that the 2008 financial crisis resulted from failure to

manage operational risk in banks and mortgage brokers. These myriads of issues have made regulators beam more light on the banking industry and increase the demand for better management of operational risks. More than ever, regulators are now stricter with financial institutions who flout their regulations on operational risk management as can be seen in the Aviva and Wells Fargo cases of 2016 where they both paid £8.2 million and \$187.5 million respectively in penalties for failure to maintain adequate internal controls and manage their operational risks (Risk Net, 2019). These sanctions ultimately impacted their financial performance for those periods. Despite regulatory involvement through issuance of various policy frameworks and supervision, public world data still suggests improper operational risk management practices as evidenced by the huge operational losses recorded by some organisations presumed to have a robust risk management system (Pakhchanyan, 2016; Bain & Company, 2018). For instance, major operational losses of \$175.5m and \$22m were recorded by Bank of America and Citigroup respectively in 2012 as well as \$1b and €252m by Rabobank and Fondiaria-SIA in 2013 (Pakhchanyan, 2016). The Nigerian Banking industry is also not exempted as it still battles with weak risk management practices resulting from lack of elemental control which is ordinarily within their internal sphere of influence (CBN, 2014). The importance of operational risk management cannot be overemphasized as it will help to promptly identify prohibited activities, reduce future risk exposure and ultimately lead to a decrease in operational losses (Habib, Masood, Hassan, Mubin & Baig, 2014).

According to Diffu (2011) the crisis experienced worldwide during the period 2007 to 2009 affected the financial steadiness and their economic performance, but it sharpened banks on the importance to hedge against risk by implementing the necessary methods. Financial performance refers to a firm's ability to manage strategies and important decisions so as to achieve its objectives, goals and obtain high returns (Funso et al. 2012). In the contribution of a country's development economic wise banks contribute a lot as its part of the financial system. Therefore the financial performance of banks is very important as it also boosts the living standards of people at large. There have been many studies done on performance on financial institutions such as banks. The findings of these studies indicate different outcomes on financial performance globally (Doliente, 2003). According to the CBK a commercial bank is an institution which conducts banking business in Kenya. According to BCBS (2015) banks should consider relationship between various risks and should detect, measure, monitor and control risk with the aim of maintaining adequate capital against risks and compensate for risks incurred. Thus minimum capital is required to absorb losses in continued operations; however in the recent crisis the losses experienced by banks exceeded a minimum capital requirement which was attributed to financial risk (BCBS, 2009, 2010). Related studies done in the past have focused on the various aspects of risk in Kenyan commercial banks.

In the current dynamic competitive world, program have been compelled to constantly adjust to changing business conditions. For instance the findings of (Gathiga 2016; Muteti, 2014; Mwangi 2014) showed a significant negative effect of financial risk on financial performance. Akonga 2014; Lukorito, Muturi, Nyang'au & Nyamasege 2014; Tarus, Chekol & Mutwol 2012) results of the study showed that there is a significant positive relationship between financial performance and financial risk management. Others such as Maniagi (2018) had mixed findings were the relationship between interest rate risk and market risk and performance was significantly negative and the relationship between financial performance and credit risk was significantly positive. Many researches have done on the effect of financial risk on financial performance, but there have been incomplete and confusing results on the studies. This is because some researchers obtain that the relationship between financial risk and financial performance to be positive, others obtain a negative, while other researchers obtain a mixed relationship (both positive and negative).

Muriithi, (2017) shows that operational risk affects performance but neither of these studies uses latent variables to represent operational and risk in a structural equation model (SEM) or combines risk and operations to assess the magnitude of their effect on financial institution performance. Therefore, this study seeks to determine the effect of operational risk and risk on bank performance by involving path analysis statistical techniques. Operational risk can be divided into several groups with the following categories: (1) Operational risk is the risk that makes the information system or internal control inefficient, resulting in losses. Poudel (2012) studies the impact of credit risk management on financial performance of commercial banks in Nepal for the period of 2001 to 2011. The result revealed that there is significant relationship between return on assets and all independent variables specifically, default rate, cost per loan assets and capital adequacy ratio. Funso et al. (2012) carried out an empirical investigation on the effect of credit risk on performance of five commercial banks in Nigeria of the years 2000 to 2010 and found that non-performing loans and loan loss provision have statistically significant negative impact on return on assets while loans and advances has statistically positive impact on performance. Habtamu

(2012) further reached on the determinants of profitability of Ethiopian private commercial banks for the years 2002 to 2011. Return on assets, return on equity and net interest margin was used as measurement of performance.

In Kenya there are 44 banks; whereby 31 are locally owned and 13 are foreign owned. The banks which are locally owned, comprises of three banks with substantial shareholding by the state corporations and also the government of Kenya, 27 of them are commercial banks whereas one is a mortgage finance institution, Housing finance. The commercial banks listed in the NSE are 11 namely; Barclays bank of Kenya, CFC stanbic holdings, Diamond trust bank group, Equity group holdings limited, Housing finance company of Kenya, I&M holdings limited, Kenya commercial bank group, National bank of Kenya, National Industrial credit bank, Standard chartered bank of Kenya, and Cooperative bank of Kenya. The Commercial banks in Kenya are usually governed by the Banking Act Chapter 488 (current edition handed over in September 2015), the Central Bank of Kenya Act (Cap, 491) and regular circulars and strategies issued often. Financial performance is defined as the ability of an enterprise to produce new resources, from activities that are carried out of a daily basis over a given period of time. The performance is usually evaluated by the net amount of income and cash obtained from operations. According to Toutou and Xiaodong (2011), financial performance refers to a bank's ability to utilise its capital so as to obtain revenue. The reason for research on how financial risk affects the way commercial banks in Kenya perform financially, was because a bank's functionality is shown by the way it performs financially over a given period of time which can assist in comparing the performance of one bank with the performance of other different banks. The term financial risk may be used like an umbrella term for multiple types of risk associated with financing, including financial transactions that include company loans in risk of default. Tilahun and Chawla (2016) Say that financial risk arises from possible losses in financial markets due to movements in financial variables. It is usually associated with leverage with the risk that obligations and liabilities cannot be met with current assets. Our focus in this study will use the term financial risks to broadly cover credit risk, market (price) risk, interest rate risk, liquidity risk and foreign exchange risk.

Financial risk may be caused by variation in interest rates, currency exchange rates, variation in market prices, default risk and liquidity gap that affect the cash flows and, therefore its financial performance and competitive position in product markets. Indeed most of the Kenyan Commercial banks outline credit risk, liquidity risk, market risk, interest rate risk and foreign exchange risk as the most important types of financial risks they face. Financial Risk management can therefore be defined as a set of financial activities that maximizes the performance of a bank by reducing costs associated with the cash flow volatility. Many banks and other financial institutions failed, companies folded, hundreds of thousands lost their jobs, multi-million dollar rescue packages were provided to banks and other companies, and some governments defaulted on payments to creditors (Wood and Kellman, 2013). The effects of this crisis are incentive enough for banks to pay more attention to risk management. Banks are special institutions in that risks are inherent in their operations. Commercial banks in their role as financial intermediaries utilise their own balance sheets to absorb the risks of their customers. The risk-return relationship is well known; the higher the risk incurred, the higher potential returns and indeed probable losses. Like most businesses in operation, profit maximisation is a major objective of banks, especially those which are privately-owned. As banks take on increased risk in pursuit of this profit-maximisation objective, excessive and poorly managed risks could lead to losses which endanger not only the safety of the funds of depositors and investors, but the economy's health as well (Soyemi et al., 2014; Yahaya et al., 2015). Thus, whilst we acknowledge that risks are a necessary part of banking business, it is clear that a balance has to be struck. Commercial banks have to manage their risks in such a way that they are assured financial success. Therefore the study sought to determine the effect of market risk and financial performance of commercial banks in Busia county Kenya.

2. EFFECT OF MARKET RISK ON PERFORMANCE OF COMMERCIAL BANKS IN BUSIA KENYA

Banking system happened to be the backbone among the Kenyan economy hence it's the critical vehicle which links Kenyan economy to the rest of the world. In the process of providing financial services, banks may be affected by various kinds of financial risks among them being market risk (Namasake 2016). Market risk can cause very severe losses within a short period of time among volatile market conditions hence contribute to collapse among institutions in harsh situations. It is a peril within the organization occurring out of activities within market prices; for instance variations originate from interest rates, foreign exchange rates and product prices. Form of market threat will also occur in situations where banks accept financial instruments bare among prices volatility within the market as collateral for most of the loans (Namasake 2016). Despite the growth in the Kenyan banking sector, market risk still remains a major challenge. Market risk which comprises

of exchange rate, inflation and interest rate risks affect the financial performance of banks. Usually, market risks are outside the control of the banks, as they are determined by factors that affect the overall economy (Aruwa, et al., 2014). Degree of financial leverage, foreign exchange rate exposure and interest rate risk were used as indicators of market risk. Degree of financial leverage (DFL) is best used to help a company determine financial leverage risk. It is practically a measure of the degree of financial risk, thus the higher the ratio is the more risky the business is considered to be as it relies too much on debts and any changes within the economic environment or in interest rates may have an extremely negative impact on how the business evolves.

In the world a dominant source of income fluctuations to the financial institutions is market risk. Over time dimension of market threat becomes a key apprehension to enforcers and to risk control internal measures hence most monetary organizations with essential amount of trading movement prove to be exposed to excessive market movement sand. Due to the conditions above, this invites for parameters showing risk disclosure for firms and impact of threat reducing procedures. According to Zenwa et al., (2019), extreme value theory (EVT) is used as a typical implement along with financial institution to describe the downside risk of a market portfolio. It will measure the utmost loss of the portfolio worth that will take place over a given time at some explicit confidence level due to uncertain market factors. Currency-related gains and losses can have destructive impacts on reported earnings which are fundamental to the markets opinion of that company. The foreign exchange rate exposure of a firm is a measure of the sensitivity of its cash flows to changes in exchange rates. Since cash flows are difficult to measure, most researchers have examined exposure by studying how the firm's market value, the present value of its expected cash flows, responds to changes in exchange rates. Foreign exchange exposure is defined as the degree to which a company is affected by exchange rate changes. The magnitude of the gain or loss that results from a particular exchange rate change is transaction exposure which refers to foreign exchange loss or gain on transaction already entered into and denominated in a foreign currency. The study applied the unrealized foreign exchange gains and losses as proxy of foreign exchange exposure as used by reference (Diebold, et al. 2000). The study captured the effect of interest rate as a measure of market risk since a change in interest rate could lead to a mismatch between interest paid on deposit and the interest received on loans. The interest rate risk is proxied by Net Interest Margin (log of NIM), and it is adjusted for change in interest rate as used by reference (Aruwa, et al, 2014). Wachiaya (2011) researched to examine the management techniques of market risk used by commercial banks in Kenya and if they are suitable for reducing financial loss. The study carried out a census study. 43 commercial banks made up the targeted population. Primary data was used to collect data by use of questionnaires. The results obtained by the researcher explained that adopting limits reduced the exposure of risk. Pariyada (2013) conducted a research on stock returns sensitivity for Thai commercial banks. The study adopted GARCH approach. Secondary data was used during the research.

Market risk was measured using Value at Risk(VAR).The findings of the study was that the bank stock returns was highly influenced by market risk, the relationship was found to be positive. The research found that the higher the market power in banks the higher the profitability, and the lower the market power the lower the profitability. Liquidity risk Maaka (2013) conducted an investigation to know the relationship existing between liquidity risk and how the commercial banks in Kenya performed financially.The banking system plays an important role in economic development and financial stability of the country. Financial performance is the measuring of bank's policy and operations in monetary form. It also shows a bank's overall financial health over a period of time, and it helps to compare different banks across the banking industry at the same time. In his study Tourrey J. (2022) defined financial performance as a general measure of how well a bank generates revenues from its capital. Financial performance is a subjective measure of how well a firm can use assets from its primary mode of business and generate revenues (Will K. 2022). The term is also used as a general measure of a firm's overall financial health over a given period.

Succhie J. N. (2020) looked at financial performance as a subjective measure of how well a firm uses it assets from primary mode of business to generate revenue. In order to assess the financial performance of commercial banks there are variety of indicators which may be used. Some of the major financial performance indicators include Return on Asset (ROA), Return on Equity (ROE), profitability and Risk-Adjusted Return on Capital (RAROC). Return on Equity (ROE) is an internal performance measure of shareholder value, and it is by far the most popular measure of performance. ROE proposes a direct assessment of the financial return of a shareholder's investment. It is easily available for analysts, only relying upon public information; and it allows for comparison between different companies or different sectors of the economy. $ROE = \text{net income} / \text{average total equity}$ ROE is sometimes decomposed into separate drivers known as the DuPont analysis,

Where: $ROE = (\text{result/turnover}) * (\text{turnover/total assets}) * (\text{total assets/equity})$. The first element is the net profit margin, the second element represents the efficiency of the assets and the last corresponds to the financial leverage multiplier. ROE reflects how effectively a bank management is using shareholders' funds. Thus, it can be deduced from the above statement that the better the ROE the more effective the management in utilizing the shareholders capital. The Return on Assets (ROA) is the net income for the year divided by total assets, usually the average value over the year. ROA measures the ability of the bank management to generate income by utilizing company assets at their disposal. In other words, it shows how efficiently the resources of the company are used to generate the income. Anguka W. (2012) says that ROA indicates the efficiency of the management of a company in generating net income from all the resources of the institution. Risk-Adjusted Return on Capital (RAROC) allows banks to allocate capital to individual business units according to their individual business risk. As a performance evaluation tool, it then assigns capital to business units based on their anticipated economic value added. RAROC is the key measures of bank profitability. The theoretical RAROC can be extracted from the one-factor CAPM as the excess return on the market per unit of market risk (the market price of risk). This measure takes into account the bank's cost of capital. RAROC adjusts the value-added in relation to the capital needed. However, literature is quite critical of this measure as a tool to analyze performance, essentially due to its thorough accounting basis, while it is then difficult to calculate RAROC without having access to internal data. Furthermore, it appears that RAROC may be appropriate for activities with robust techniques for measuring statistical risk, such as credit activity.

Since banks are businesses that face high risks like that of liquidity, credit, etc., risk management is vital to maintaining their positions in such intense competition in this industry. Investors when investing their money do not appreciate the highest capital ratio of the bank even though it has an impact on reducing the banking risk (Šustorova, Teply, 2014). According to the Central Bank's report, the liquidity of banks in Kosovo is stable, a higher systematic liquidity can hinder the transmission of monetary policy and the development of financial markets (Luboteni, 2013). Commercial banks are the main pillars in the maintenance of a stable economic and financial system, especially in developing countries, where bank loans have an important role in country's development (Luboteni, 2006). Therefore we can say that the performance of banks is principal influencer of economic and financial stability of any country. Nowadays banking institutions have become more complex, main drivers of their performance remain income and efficiency (European Central Bank, 2010).

Performance of banks includes profitability, liquidity, solvency, financial efficiency and repayment capacity (King'ang'ai, 2016). The report of European Central Bank states that bank performance represents the capacity of banks to generate sustainable revenues. This source sees profitability as first line of defense from unexpected losses, since, as each bank strengthens capital can also increase the benefits from investments and retained earnings. Profit is the ultimate goal of commercial banks. To measure the profitability of commercial banks there are variety of ratios used of which Return on Asset (ROA), Return on Equity (ROE) and Net Interest Margin (NIM) are the major ones, Murthy and Sree (2003). ROE is a financial ratio that refers to how much profit a company earned compared to the total amount of shareholder equity invested or found on the balance sheet. ROE is what the shareholders look in return for their investment. ROA is a ratio of Income to its total asset (Khravish, 2011). It measures the ability of the bank management to generate income by utilizing company assets at their disposal. NIM is a measure of the difference between the interest income generated by banks and the amount of interest paid out to their lenders (for example, deposits), relative to the amount of their (interest earning) assets. It is usually expressed as a percentage of what the financial institution earns on loans in a specific time period and other assets minus the interest paid on borrowed funds divided by the average amount of the assets on which it earned income in that time period (the average earning assets). The NIM variable is defined as the net interest income divided by total earnings assets (Gulet al, 2011). Equity investors are concerned with the firm's ability to generate, maintain, and increase income. Profitability can be measured in many differing but interrelated dimensions. First there is the relationship of a firm's profits to revenue, that is, the residual return on the firm per sales dollar. Another measure, return on investment (ROI), relates profits to the investment required to generate them. Analysis of income is of vital concern to stock holders because they derive revenue in the form of dividends. Further, increased profits can cause an increase in market price, leading to capital gains (Nimer et al, (2013).

Determinants of banks performance were investigated by author (Ongore et al., 2013) who confirmed that the capital adequacy, asset quality and efficient management significantly affect the performance of commercial banks, on the other hand stated that liquidity has no significant effect on the performance of commercial banks. Research on the performance of banks also conducted authors (Singh, et al., 2012) who compared the performance of public bank (SBI), which is the

leading bank in the public sector in India, with the second largest bank (ICICI) which is the leading bank in the private sector. The authors confirmed that the public bank (SBI) performs better and is healthier financially than private bank (ICICI), while in the context of the management of deposits and expenditures, private bank (ICICI) has managed more efficiently than public bank (SBI). Other researches on the determinants of bank performance were conducted by the authors (Heffernan, Fu, 2010), (Saliha, Abdessatar, 2011), (Tripathi, et al., 2014) and (Ayyappan, et al., 2014) etc. A very important element of the bank's performance is the capital structure. Author (Vätavua, 2015) researched the impact of capital structure on the performance of companies, by analysing 196 Romanians manufacturing companies listed on the Bucharest Stock Exchange. He analysed the relationship between performance of companies and capital structure. As representatives of the capital structure in the model he set long-term debt, short-term debt, total debt and total capital, while return on assets and return on equity as representative of performance. In the end he proved that the performance of Romanian companies is higher when they avoid debt and act based on capital.

Studies regarding the factors that influence the performance were conducted also by Muiruri, Ngari (2014). In their research about the impact of financial innovations in performance, they proved that financial innovations have had a major impact on the financial performance of banks. Based on the literature review we found that non-interest income also have a link with the performance of banks, however more affordable link have interest income. An opposite relation between credit risk management and performance of the bank confirmed the author (Poudel, 2012) in his research "The impact of credit risk management in the financial performance of commercial banks in Nepal", which recommended that banks should not only formulate strategies to minimize the exposure of banks to credit risk, but also to increase profitability. Whereas author (Mondal, 2012) in his study suggested that the bank could increase its profitability through appropriately managing intellectual abilities.

3. METHOD

The study adopted a descriptive survey design. The target population was 49 including branch manager, credit managers, and tellers and in charge of ATMs in commercial banks in Busia County. Since the study population was small, the study worked with entire population which is census. Data collection instrument was questionnaire and other information relevant to the study. The research instrument were pretested at Kericho County so as not to interfere with the study sample. A pilot group of ten (10) respondents was targeted. The study ensured validity by using the experts' opinion on the piloted questionnaires. To ensure reliability the study used Cronbach's Alpha. The data was reduced, organized, coded, edited, classified using a table and analyzed to bring out the meaning under each of the factors. It was then be coded, entered and analyzed descriptively using IBM Statistical Package for Social Sciences (SPSS 24). Pearson correlation analysis was used to test the relationship between variables in the study hypotheses. ANOVA multiple linear regression analysis was adopted computed to determine the statistical relationship between the independent variable and the dependent.

4. DISCUSSIONS

The objective of study was to identify the effect of market risk on financial performance of commercial banks in Busia county Kenya. The respondents were requested to indicate their level of agreement on the statements relating to identify the effect of market risk on financial performance of commercial banks in Busia county Kenya. The results were as shown in Table 4.1.

From the results, the respondents agreed that Market risk can cause very severe losses within a short period of time among volatile market conditions hence contribute to collapse among institutions in harsh situations. This is supported by a mean of 3.896 (std. dv = 0.865). In addition, as shown by a mean of 3.819 (std. dv = 0.945), the respondents agreed that It is a peril within the organization occurring out of activities within market prices; for instance variations originate from interest rates, foreign exchange rates and product prices. This is shown by a mean of 3.819 (std. dv = 0.945). The respondents also agreed that despite the growth in the Kenyan banking sector, market risk still remains a major challenge, market risk which comprises of exchange rate, inflation and interest rate risks affect the financial performance of banks. This is shown by a mean of 3.798 (std. dv = 0.611). With a mean of 3.731 (std. dv = 0.908), the respondents agreed that Over time dimension of market threat becomes a key apprehension to enforcers and to risk control internal measures hence most monetary organizations with essential amount of trading movement prove to be exposed to excessive market movements.

Table 4.1: Market Risk on Financial Performance

	Mean	Std. Deviation
Market risk can cause very severe losses within a short period of time among volatile market conditions hence contribute to collapse among institutions in harsh situations	3.896	0.865
It is a peril within the organization occurring out of activities within market prices; for instance variations originate from interest rates, foreign exchange rates and product prices.	3.819	0.945
Despite the growth in the Kenyan banking sector, market risk still remains a major challenge, market risk which comprises of exchange rate, inflation and interest rate risks affect the financial performance of banks.	3.798	0.611
Over time dimension of market threat becomes a key apprehension to enforcers and to risk control internal measures hence most monetary organizations with essential amount of trading movement prove to be exposed to excessive market movements	3.731	0.908
Aggregate	3.772	0.841

4.1 Inferential Statistics

Inferential statistics in the current study focused on correlation and regression analysis. Correlation analysis was used to determine the strength of the relationship while regression analysis was used to determine the relationship between dependent variable (financial performance of commercial banks in Kenya) and independent variables (market risk).

4.1.1 Correlation Analysis

From table 4.2 below, the present study used Pearson correlation analysis to determine the strength of association between independent variables (market risk) and the dependent variable (financial performance of commercial banks in Kenya) dependent variable. Pearson correlation coefficient range between zero and one, where by the strength of association increase with increase in the value of the correlation coefficients. The current study employed Taylor (2018) correlation coefficient ratings where by 0.80 to 1.00 depicts a very strong relationship, 0.60 to 0.79 depicts strong, 0.40 to 0.59 depicts moderate, 0.20 to 0.39 depicts weak.

Table 4.2: Correlation Coefficients

		Financial performance	Market risks
Financial performance	Pearson Correlation	1	
	Sig. (2-tailed)		
	N	45	
Market risks	Pearson Correlation	.856**	1
	Sig. (2-tailed)	.001	
	N	45	45

From the results, the results revealed that there is a very strong relationship between market risk on financial performance of commercial banks in Busia county Kenya ($r = 0.856$, p value = 0.001). The relationship was significant since the p value 0.001 was less than 0.05 (significant level).

4.1.2 Regression Analysis

Multivariate regression analysis was used to assess the relationship between independent variables (market risk) and the dependent variable (financial performance of commercial banks in Busia county Kenya) as shown in table 4.3 below.

Table 4.3: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.925	.517	.520	.11190

a. Predictors: (Constant), market risk,

The model summary was used to explain the variation in the dependent variable that could be explained by the independent variable. The r-squared for the relationship between the independent variables and the dependent variable was 0.517. This implied that 51.7% of the variation in the dependent variable (financial performance of commercial banks in Busia county Kenya) could be explained by independent variables (market risk).

Table 4.4: Analysis of Variance

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	14.027	1	3.024	53.35	.000 ^b
Residual	6.511	44	.032		
Total	19.538	45			

a. Dependent Variable: financial performance of commercial banks in Busia county Kenya

b. Predictors: (Constant), market risk

The ANOVA was used to determine whether the model was a good fit for the data. F calculated was 53.35 while the F critical was 2.312. The p value was 0.000. Since the F-calculated was greater than the F-critical and the p value 0.000 was less than 0.05, the model was considered as a good fit for the data. Therefore, the model can be used to predict the influence of market risk on the financial performance of commercial banks in Busia county Kenya.

Table 4.5: Regression Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	0.207	0.039		5.596	0.000
	Market risk	0.488	0.109	0.489	4.743	0.000

a Dependent Variable: Financial Performance

The regression model was as follows:

$$Y = 0.207 + 0.488X_1 + \varepsilon$$

According to the results, market risk on financial performance of commercial banks in Busia county Kenya ($\beta_1=0.488$, p value= 0.001). The relationship was considered significant since the p value 0.000 was less than the significant level of 0.05.

5. CONCLUSIONS AND RECOMMENDATIONS

Based on the findings, the study concluded that market risk on financial performance of commercial banks in Busia county Kenya ($\beta_1=0.488$, p value= 0.001). The relationship was considered significant since the p value 0.000 was less than the significant level of 0.05. The study came up with the following recommendations; the financial management should ensure that they work on Market risk to reduce severe losses within a short period of time among volatile market conditions hence contribute to lack collapse among institutions in harsh situations. To take into consideration the market risk which comprises of exchange rate, inflation and interest rate risks that affect the financial performance of banks

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