International Journal of Management and Commerce Innovations ISSN 2348-7585 (Online)
Vol. 12, Issue 2, pp: (242-260), Month: October 2024 - March 2025, Available at: www.researchpublish.com

FINANCIAL RISKS AND FINANCIAL PERFORMANCE OF COMMERCIAL BANKS IN SOUTH SUDAN

[1]NGENY Valentino Wol, [2]MUSEMBI, Michael Makau (PhD),
[3]OWINO Moses Otieno (PhD)

[1,2,3]AFRICA NAZARENE UNIVERSITY
Nairobi, Kenya

DOI: https://doi.org/10.5281/zenodo.15045144

Published Date: 18-March-2025

Abstract: **The banking sector in South Sudan has experienced more than a decade of significant financial risks since gaining independence from Sudan. Such risks that pose financial instability are characterized by internal and external factors like COVID-19 Pandemic and geopolitical tension both inside and outside the country. The industry comprises of both local, Joint Venture and foreign commercial banks characterized by poor financial performance. Consequently, the number of banks is reported undercapitalized and non-compliance with statutory requirement of 20% reserve with the Central Bank. This has led to the collapse of 14 domestic commercial banks as reported by both Bank of South Sudan and IMF. The financial sector is remaining vulnerable to risks that pose a threat to sustainability and financial viability, including liquidity, credit, exchange rate and interest rate risks. The study sought to establish the effect of financial risk on the financial performance of South Sudanese commercial banks. The objectives were to determine the effect of liquidity and credit risks on the financial performance of commercial banks in South Sudan. The study adopted the theories of Liquidity Preference Theory, Credit Risk theory and Agency theories. Financial performance of commercial banks is to be assessed through ROA using data from 33 banks. The study used a longitudinal research design that observed data series over a period of time in which the target population is 33 commercial banks from 2014 to 2022. The researcher relied on secondary data and that were collected from audited financial statements of commercial banks and data obtained from Central Bank website. The study employed descriptive and inferential statistics within the multiple regression model frameworks to analyze the data using EXCEL and EVIEWS 12 version. Diagnostic tests such as normality, multicollinearity, heteroscedasticity, and Stationarity tests were performed to eliminate unbiasedness. The study findings indicated that credit risk (Coef=3.2201,p=0.0323) had a statistically significant and positive effect on the financial performance while liquidity risk (Coef=0.0051, p=0.4135) had a statistically insignificant effect on the financial performance of commercial banks in South Sudan. The study recommended that banks should employ the use of swaps, spot, forward market, and bilateral agreement to reduce risk associated with exchange rates. Also study recommended banks to build trust and confidence with the public in order to reduce NPLs ratios, hence increase customers' apathy to take loans that bring funds to the banks. Central bank to impose strict regulation on commercial banks to keep liquidity problems at bay that causing banks collapsed.**

Keywords: **banking sector, financial risks, commercial banks.**

1. INTRODUCTION

1.1 Background of the study

The banking industry is crucial for economic prosperity, as it accumulates funds and channels them to investors as credit, generating surpluses but requiring more capital due to financial risks (World Bank, 2023). The banking system plays a vital role in finance and economic development, promoting stable and healthy financial growth (Alam *et al*., 2021). Alam *et al*.(2021) argued that also reduces systemic risk within banks, facilitating the implementation of accommodative monetary

policies It provides monetary intermediation, balancing money flow and enabling surplus savings for those without access to investments (Chol *et al.*, 2019). Bank stability fosters market discipline, enhancing foreign investor confidence and attracting investment (Raad, 2023; Hilscher and Raviv, 2014).

On a global scale, banks are always at risk of collapsing due to financial vulnerabilities, which can severely impact a country's economy (Oyetade & Muzindutsi, 2023; Montes *et al*., 2021). The primary concern is to mitigate the risks associated with both internal and external factors. Banks face challenges from increasing credit through domestic and international loans, liquidity management problems, and rising exchange rates as investors and traders compete for foreign currencies (FDIC, 2023; S & P Global, 2023). Finally, banks are raising interest rates to maintain the balance between their assets and liabilities (Financial Stability Report, 2023). Consequently, the year 2020 marked the most severe recession since the Great Depression, with a worldwide economic contraction of 3% (Owen, 2023). Specifically, China's growth fell from 6.1% in 2019 to 1.2% in 2020, while Europe contracted by 6.6% and the US by 6% (IMF Blog, 2020).

Quinn (2020) points out that the financial crisis of 2007–2008 was largely caused by subprime borrowers—individuals with poor credit histories who were unlikely to repay their loans. This crisis adversely affected the performance of commercial banks and threatened the future of Lehman Brothers, which went bankrupt in the United States. Meanwhile, Icelandic Bank and Northern Rock faced significant declines in the UK and were later rescued by the government (Kobrin, 2021). Consequently, the financial risks impacted all of Europe. Institutions like the World Bank, IMF, and Euro Bank provided bailouts to Portugal, Greece, Spain, and Ireland after their economies collapsed (Crafts & Mills, 2020). In 2023, it is predicted that thirty percent of European banks will be subjected to a forecast-based Key Risk Indicator (KRI)

Financial institutions in Kenya are experiencing risks that include loss of trust, insolvency, and customer withdrawals, which are driven by word of mouth (Njiru, 2020). Increasing interest rates, higher taxes, significant inflation, shortages in foreign currency, and delays from the government in settling outstanding bills are aggravating the issues related to rising loans and non-performing loans within the local banking sector (Moody Rating, 2023). In 2015, regulatory authorities identified risks associated with Dubai, Imperial, and Chase banks, which eventually led to their insolvency (CBK, 2020; Acharya *et al*., 2015).

Since gaining independence from Sudan, the banking sector in South Sudan has been affected by financial risks and shocks (Dr. Bak, 2023). These risks include both internal and external shocks such as the COVID-19 pandemic, floods, locust invasions, the Russia-Ukraine war, and the conflict in Sudan. According to the World Bank (2023), the country's economy saw a contraction of 0.4% in 2023, a drop from 2.3% in 2022. The BoSS (2022) highlighted that 14 domestic banks are significantly undercapitalized, with 2 having collapsed and another two under monitoring, while access to banking services remains limited in rural regions, where many banks are struggling to meet the Central Bank's minimum reserve requirement of 20%. The ratio of non-performing loans (NPLs) to total loans increased by 12% in 2020, with credit to the private sector reaching SSP26.3 million, representing 17.5% of GDP. The majority of credit was allocated to domestic trade, restaurants, and hotels, constituting 44% of total loans, followed by real estate at 15%, while agricultural credit constituted only 0.4%. Lending interest rates are still high, reflecting a lack of development and competition in the banking sector (AFDB, 2022-2024).

1.2 Financial Risks

Kioko *et al*. (2019) defined financial risk in their study as a risk that causes a firm's financial loss. These risks are caused by instabilities and losses in the financial market arising from stock price movements, variations in currencies, and interest rates. The financial risk for the banking sector is composed of credit risk, liquidity risk, interest rate risk and foreign exchange rate risk. Furthermore, Onsongo *et al.* (2020) state that financial risk is the probability of a firm collapsing when the company uses debt to satisfy financial commitments when the cash balance is inadequate. Financial risk is composed of liquidity risk, credit risk, market risk, and other forms of non-financial risk (Kassi *et al*., 2019). They specified that there is a probability of a firm collapsing when the company uses debt to satisfy financial commitments when the cash balance is inadequate (Onsongo *et al*., 2020). He Furthermore states that financial risk is composed of market risk, liquidity risk, exchange rate and interest rate risk, which have a significant impact and are negative on the financial performance of banks.

1.2.1 Liquidity Risk

Omondi (2019) defined liquidity risk as the possibility that a bank may be unable to meet its short-term financial demands as and when required. For instance, financial institutions such as the IMF must have adequate usable resources available to meet country members' demand for financing. RBI (2020) says that to ensure adequate liquidity in the market, the central banks have to intervene during the pandemic by reducing the primary reserve requirement from 10% to 8%. The Bank of

Ghana (2020) states that, banks may need to resort to contingency funding plans due to increased market volatility and potential limit/threshold breaches. Some banks may already be experiencing increased liquidity tightening. Therefore, this may result from the increased withdrawals and higher counterparty default correlation within affected sectors, potentially leading to reduced net inflows in banks (Larbi-Odam *et al.,* 2020).

Liquidity risk affects an institution's capital or earnings from its inability to hit its obligations when they fall due and do not incur significant losses (Larbi-Odam *et al.,* 2020). Liquidity risk can lead to the firm's insolvency, as with Dubai and Imperial banks (Njiru, 2020).

The effect of the liquidity of one bank may result in a loss of confidence in other banking institutions, resulting in a bank run. This is because if citizens' trust in the bank is affected, he/she will tell others, and everybody will withdraw all their money from the banks (CBK, 2020). A bank experiences liquidity risk when there is an inability to accommodate deposit redemption and other liabilities effectively. Liquidity risk is currently faced by most banks, including Kenya Commercial banks, due to the very high number of people applying for loans that are not available from banks. Listed commercial Banks, in turn, increase the interest rates to limit the number of loan applicants; this shows that financial risks replicate different forms of risks, lowering the banks' profitability (Omondi, 2019). Liquidity is the tendency of the assets to be easily converted into cash. The bank's liquidity means it can easily convert its assets to cash when needed. The primary tool for any bank is the availability of cash when demanded, either in demand deposits notes or coins. The C.B. regulates this by ensuring that every bank always has sufficient liquid to safeguard the soundness and stability of financial systems (Kioko *et al*., 2019).

1.2.2 Credit Risk

Njiru (2020) defines credit risk in his study as a degree of asset quality among the dynamics which affect the health status of a bank. Larbi-Odam *et al.* (2020) define credit risk as the risk associated with a loan given by a bank, which will not be repaid—either partially or fully—on time. In other words, credit risk is the bank's loss when the borrower fails to honour the debt obligation by the given due date or on loan maturity and may cause bankruptcy if not appropriately managed. Sometimes, borrowers may fail to make required payments, leading to a debt; this becomes a risk by default and is referred to as credit risk (Omondi, 2019).

Larbi-Odam *et al.* (2020) state that the spread of COVID-19 has negatively impacted many firms due to downsizing risks to their earnings prospects. This has impacted the firms' capacity to meet contractual loan obligations with banks, increasing NPLs. Despite the flexibility the Central Bank offers in loan provisioning, the lockdown in parts of the country and the closure of some businesses may exacerbate the risk of defaults. Onsongo *et al.* (2020) argue that signalling a potential increase in credit risk on the interbank market even though interest rates remain low.

Credit risk affects ROA by deducting the net income generated when loans default or borrowers fail to make repayments. Credit risk also reduces bank income when the borrower fails to repay, and the bank incurs losses. Therefore, the bank management should conduct screening before and after a client applies for loans to ascertain that the applicant has no risk or there is a risk of default on debts that may arise from his/her failure to redeem payments (Omondi, 2019).

This risk entails non-performing loans, which every bank usually experiences because they are a significant source of income. Every bank has policies put in place to hedge against it affecting the bank's profits. However, since it is a significant income channel, banks usually ignore some credit techniques to make as many sales as possible. In the end, they make losses due to a lack of adherence to policies of risk management guides by (CBK, 2022); hence, the ignorance can culminate in poor financial performance. The existence of the Credit reference bureau CRB (2022) has also promoted this vice because the bankers tend to believe that customers will not default for fear of being blacklisted. However, the recent move by the new administration in Kenya was not to release the negative credit information but instead to suspend the listing for 12 months for borrowers who had NPLs below Kesh 5 million

1.3. Financial Performance

Essentially, performance gauges how well a business uses its assets to maximize returns on investments by its stakeholders (Onsongo *et al.,* 2020). Financial performance refers to a firm's ability to manage strategies and important decisions to achieve its objectives and goals and obtain high returns. Financial performance summarises the management's progress in using company resources to achieve optimum profitability (Samsudin *et al*., 2022). For instance, the company uses performance metrics to measure a firm's performance. These metrics include return on assets (ROA), return on equity (ROE), Non-performing loans (NPL) and net interest Margin (NIM). However, this research shall focus on return on assets.

According to Ali *et al.* (2020), in their study on Financial Performance defines it as a general measure of how well a bank generates its capital revenue. In addition, he further states that financial performance metrics are used to determine the financial performance of the banks. The research chose two primary metrics: return on equity and return on assets. The ROA is the net income divided by total assets. It tests the capacity of bank management to produce revenue by using the business assets at their disposal. It also establishes how effectively the bank's resources are used to produce earnings (Ali *et al.,* 2020). The return on assets is screening the firms' management efficiency in producing net income from all the resources of the organizations or banks (Ali *et al.*, 2020; Khrawish, 2011). Moreover, the return on equity (ROE) signifies how efficiently the bank management uses the shareholders' funds. Therefore, it can be reduced from those mentioned earlier that the more influential the management of ROE is in using shareholder capital.

1.4 Overview of Commercial banks and Financial Risks

In South Sudan there are a total of 33 banks with the majority being banks originating from countries, like Kenya, Ethiopia, Uganda and Qatar. Local banks in the country have ties to individuals connected to the South Sudanese government. A report from an anticorruption civil society group raises concerns about political influence on these banks. These alleged questionable connections could lead to the banking sector facing isolation from the global financial network. This situation may result in South Sudan's banks having to provide financing at costs due to international de risking measures.

Access to banking services remains limited in South Sudan with nine percent of individuals aged 15 and, above holding bank accounts as of 2017. This marks progress compared to one percent having bank accounts in 2012. A survey conducted by the bank in August 2019 revealed that a significant portion of deposits came from non-residents. The exclusivity of services is evident as only citizens participate in the banking sector. Despite their customer base commercial banks have strengthened their positions over time. Deposits have surged by 64 times since South Sudan gained independence while loans increased 35 times between 2011 and 2018. The rate of performing loans stood at 5.1 percent in 2018 marking a record low since independence. Despite an increase, in bank deposits and lending activities there has been growth in construction and real estate credit. These specific loan categories made up 18 percent of banks loan portfolios. Saw a slight uptick to 19 percent by the end of 2018 (Africa Housing Finance, 2019).

South Sudan faces challenges with foreign exchange reserves as its currency; the Sudanese pound continues to devalue significantly against the US dollar dropping an additional 21 percent in official value in 2018. Moreover there exists a market for the Sudanese pound where the exchange rate has depreciated by as much as 65 percent compared to the official rate, with the US dollar. These ongoing political and economic challenges have hindered South Sudan's progress, particularly impacting its housing sectors (Christopher *et al.*, 2019).

1.5 History of Commercial banks in Southern Sudan

The history of banking in South Sudan is a short one. Throughout Khartoum's rule till the end of the civil war 2005, very few commercial banks were concentrated in the Southern towns of Juba, Wau and Malakal. Southern Sudanese were deliberately excluded from the economic system. As a result, 90% of the population in Southern Sudan was not exposed to banking services. Access to finance was limited to Northern traders operating in Southern Sudan (Geoffrey *et al.*, 2018).

SSIA (2013), in February 2008, Islamic banks left the South since the Bank of Southern Sudan (BoSS) opened as a branch of the Bank of Sudan (BoS) introduced conventional banking. However, after the CPA, the Bank of Southern Sudan took a bold step by licensing local and expatriate banks to invest in the country. By November 2013, there were 28 banks operating with over 70 pending applications along 10 Micro Finance Institutions, 86 Forex Bureaus and few Insurance Companies. Since its inception in July 2011, BoSS has officially become the central bank in collaboration with donor partners and international financial institutions such as IMF, World Bank, IFC, etc. The BoSS has been regulating and monitoring the banking sector in the country since 2011. In addition, the BoSS controls and supervises 33 operating commercial banks, of which there are 13 domestic banks, 11 joint ventures, and eight foreign banks, plus one investment bank. Also, (BoSS) regulates 10 microfinance institutions and 86 forex bureaus.

1.6 Statement of the problem

The Bank of South Sudan (2022) makes it clear that the banking industry has been experiencing a downturn. It is evident by a joint report of the BoSS and IMF in 2023 noted 14 local banks at risk of insolvency, while Mwai (2022) reported that 11 domestic banks faced insolvency risks in 2019. Additionally, according to AFDB (2022–24), the percentage of total loans that are non-performing loans (NPLs) climbed from 12.8% in 2013 to 16.8% in 2020, with hotels and restaurants accounting for 44% of the increase, real estate for 15%, and agriculture credit for 0.4%. Moreover, SSP lost 90% of its

worth from 2015- 2023 as a result of devaluation and depreciation (BoSS, 2024). Mwangi (2022) lists losses of USD 28.5 million at KCB, Equity, and Co-operative Bank from 2013-2018.

As a result, the Bank of South Sudan (2022) revoked the licenses of two domestic banks that collapsed and reviewed the two others ceased operations. The banking industry faces risks such as liquidity, credit, exchange rate fluctuations and interest rate risks, which pose challenges to sustainability and financial stability. This warrants the researcher aims to investigate how financial risks impact the performance of banks in South Sudan. Its objectives include assessing the effects of liquidity risk and credit risk which influence the financial performance of commercial banks in South Sudan.

Previous research on how financial risks impact the financial performance of banks has been conducted outside South Sudan by scholars such as Juma (2018) Omondi (2019), Njiru (2019), Ali & Oudat (2020), Ugah (2020), Onsongo (2020), Jalal *et al.* (2020) Afriyie *et al.* (2022) Ahmed (2020) and Antony & Shence (2018). These studies have yielded conflicting results on the correlation between financial risks and financial performance. Although there are studies that touch upon South Sudan, like those by Arkangelo *et al*. (2021), Chol *et al* . (2019), Tong & Yelyak (2021), and Manyok (2016), they do not specifically examine the effect of financial risks on the financial performance of commercial banks in South Sudan. Additionally, the findings vary widely and thus need investigation to address existing empirical gaps.

On study methodology, many research studies have used Descriptive Statistics, inferential Statistics within regression models and Diagnostic Tests considering Homoscedasticity, Heteroskedasticity, Hausman test and Multicollinearity to eliminate unbiassed in the survey (Juma, 2018; Omonid, 2019; Njiru, 2019; Ali & Oudat, 2020; Ugah, 2020; Onsongo, 2020; Antony & Science, 2018 and Afriyie *et al.* 2022)). However, these studies overlooked and ignored longitudinal research. In addition, these studies were done in different countries, which have economic, cultural traits that differ from South Sudan's. To address this methodological gap, this study will adopt longitudinal research that observes the trend over the period of time.

Many research studies have delved into the impact of risks on the performance of commercial banks. For example, Juma (2018), Omonid (2019), Njiru (2019), Ali & Oudat (2020), Ugah (2020), Onsongo (2020), and Antony & Shence (2018) have contributed to this field. Omondi (2019), Juma (2018) and Njiru 2019 specifically focused on liquidity risk and credit risk effects on banks' financial performance, though these studies are done in Kenya, which is irrelevant to South Sudan contexts. Arkangelo *et al.* (2020) examined how variables like exchange rate, interest rate and inflation rate influence the performance of South Sudan's commercial banks but did not cover the effect of financial risks on South Sudanese commercial banks' financial performance.

To bridge this gap, this current study explored the effects of financial risk on the financial performance of commercial banks in South Sudan. Therefore, the study sought to examine the effects of liquidity risk and credit risk that impact the financial performance of commercial banks in South Sudan.

1.7 Objectives of the Study

The main objective of this study is to examine the effect of financial risks on the financial performance of commercial banks in South Sudan.

1.7.1 General Objective

The study's overall objective is to determine the effect of financial risks on the financial performance of commercial banks in South Sudan.

1.7.2 Specific objectives

i. To determine the effect of liquidity risk on the financial performance of commercial banks in South Sudan

ii. To assess the effect of credit risk on the financial performance of commercial banks in South Sudan

1.8 Research hypotheses

The research hypotheses of the study were:

H_{01}: Liquidity risk has no statistically significant effect on the financial performance of commercial banks in South Sudan

H_{02}: Credit risk has no statistically significant effect on the financial performance of commercial banks in South Sudan

1.9 Theoretical Framework

This chapter explains the related theories that support the effect of financial risks on the financial performance of commercial banks in South Sudan. For this paper, we shall choose the liquidity Preference theory, the Credit Risk Theory and the Agency theory. These theories shall be used to provide more understanding of the relationship to the study variables.

1.9.1 Liquidity Preference Theory

Liquidity preference theory, proposed by John Maynard Keynes (1936), suggests that individuals and businesses prefer holding liquid assets, such as cash, rather than illiquid assets. This theory can be linked to liquidity risks in banking as it relates to the potential for a bank to be unable to meet its short-term obligations due to a lack of liquid assets (Nikolaou, 2009). In banking, liquidity risk refers to the potential for a bank to be unable to meet its short-term obligations due to a mismatch between its assets and liabilities. If a bank's assets are not sufficiently liquid to cover its drawbacks, it may face liquidity problems and be forced to sell investments at a loss or seek emergency funding (Amihud *et al*., 2005). The liquidity preference theory suggests that individuals and businesses prefer to hold liquid assets, and this liquidity preference can also apply to banks. Banks may choose to have liquid assets to meet potential liquidity demands from depositors or to fulfill regulatory requirements.

The link between liquidity preference theory and liquidity risks in banking highlights the importance of managing liquidity effectively to ensure that banks can meet their short-term obligations. This may involve holding sufficient liquid assets, implementing liquidity risk management practices, and monitoring liquidity metrics. This theory argument is supported by Bitrus (2011), who states that an individual or firm will hold money for various reasons at a given time. The theory is based on firms having cash to meet their transaction motives, such as precaution, speculative and compensation motives.

1.9.2 Credit Risk Theory

Credit risk refers to the risk of a financial loss due to the decline in the counterparty's creditworthiness in a financial transaction (Liu *et al.*, 2014). Credit risk is also known as default risk. Default risk is when a bank or lender fails to fulfil the contractual obligations. The risk results from loss of principal and interest, which culminates in the insolvency of a bank unable to return funds to a depositor (Taiwo *et al.*, 2017)

The Credit risk theory was introduced by Robert Merton (1974) in his theory of default model, which is the basic theory of credit risk. Robert's theory is for assessing a firm's or investor's credit risk by characterizing the company's equity as a call option on its assets. Default risk theory plays a role in comprehending credit risk within the banking industry. It delves into the probability of a borrower being unable to fulfil their debt obligations, ultimately resulting in default. This theory holds significance for banks since they face credit risk while extending loans to individuals and businesses (Liu *et al.*, 2014).

Taiwo *et al*. (2017) state that the connection between default risk theory and credit risk in the banking sector is that banks need to evaluate the default risk associated with their borrowers to make lending decisions. By understanding factors contributing to default risk, such as the borrower's credit history, financial stability, and prevailing market conditions, banks can accurately gauge the likelihood of a borrower failing to repay their loan.

Moreover, default risk theory aids banks in managing and mitigating credit risk by implementing strategies for risk management. These strategies may include setting interest rates, establishing credit limits, and requiring collateral for specific loans. Leveraging the Merton model, Clifford V. Rossi derived three essential approaches to measuring credit risk. To mitigate the lender's risk, the lender may perform a credit due diligence check on the prospective borrower, and this requires the borrower to take appropriate action by taking insurance coverage such as mortgage insurance or seeking security or guarantees from third parties. Overall, the higher the risk, the higher the interest rate the debtors will be asked to pay on the debt (Owojori *et al*., 2011).

Jorion (2014) argued that credit analysts must appraise financial institutions while checking the firm's liquidity throughout analysis and debt expiry. Another reason for the debt default in banks and other financial institutions is attributed to credit risk as risks experienced by financial firms.

1.9.3 Agency Theory

This theory was coined by Jensen Meckling (1976), which was first used in economic theory and subsequently commonly used in corporate governance. Dalton Canella (2003) argued that agency theory is affected by two factors. The first concept explains the relationship between the principal and the agent. The principal and agent are called shareholders or owners and

manag ers or employees. Secondly, it is based on the opinion that human beings are self-centred. The agency theory explains that conflict of interest occurs when the principal delegates or assigns the agents to carry out some tasks on his behalf but instead acts contrary to the principal's interest. This difference between the principals and the agents results in a misalignment of interests, which leads to agency costs, which are the costs associated with monitoring and controlling the agent's behaviour to ensure it aligns with the principal's goals.

From the bank's perspective, Meckling (1976) argued that an agency theory relationship explores how providers of corporate funds and those appointed to manage the bank's affairs relate. Aka et al. (2011) argue that agency theory focuses on the relationship between a company's shareholders (principals) and its managers (agents). According to this theory, managers may prioritize their interests over acting in the shareholders' best interest. Consequently, this creates an agency problem where the agents' interests conflict with the principals.

Corporate governance refers to the rules, practices and processes governing how a company is directed and controlled. Its main objective is to ensure that the company is managed in a manner that serves the interests of its shareholders. The close connection between agency theory and corporate governance lies in their shared emphasis on aligning managers' interests with those of shareholders (Dalton & Canella, 2003). By implementing corporate governance mechanisms such as board oversight, executive compensation structures and shareholder activism, it becomes possible to mitigate agency problems and encourage managers to act in ways that benefit the company's owners. In summary, agency theory provides a framework for understanding conflicts between managers and shareholders due to interests. In contrast, corporate governance offers tools and mechanisms for addressing these conflicts while ensuring that decisions are made in the owner's best interests (Percy, 2013).

2. EMPIRICAL LITERATURE REVIEW

2.1 Liquidity risk and financial performance

Jalal *et al.* (2020) investigated the effects of financial risks on the financial performance of Russian commercial banks from 2008 to 2017. The research concentrated on the risks impacting commercial banks, involving 85 banks that accounted for 87% of the country's banking sector assets. The study analyzed six variables, including credit risk, liquidity risk, exchange rate risk, interest rate risk, and operational risk. Through multiple regression analysis, the findings indicated that both credit and liquidity risks positively influenced bank performance, while exchange rate risk did not affect metrics such as ROA and ROE. Furthermore, the study found that interest rate risk had an impact. However, it is important to note that this research was conducted in Russia, Europe, which experiences social, economic, and political dynamics that differ from those in South Sudan.

Ali and Oudat (2020) assessed the effects of financial risks on the performance of listed banks in Bahrain from 2014 to 2018. The study employed two regression models involving 11 banks and found no significant impact of exchange rate risk on return on assets. Nonetheless, liquidity, exchange rate, operational, and capital risks had minimal effects on bank performance. The study's focus on Asia and the Middle East and the absence of credit and interest rate risks may have influenced its outcomes. Thus, the research may require additional relevant information regarding the context of South Sudan.

Ugah (2020) investigated financial risk management and bank profitability in Nigeria, finding that credit, liquidity, interest rate, and inflation risks positively impact the return on assets of Access Bank of Nigeria PLC. The study utilized the Statistical Package for the Social Sciences software version 20 to test its hypotheses using simple linear regression. The research advises banks to adopt proactive measures to mitigate financial risks and enhance their profitability. However, this study focused on a single bank in Nigeria and may not fully reflect the characteristics of the broader banking sector due to varying political contexts in South Sudan.

In a study of Ghana's banking industry, Afriyie *et al*. (2022) identified market, credit, and liquidity risks as having significant effects on bank performance on the Ghana Stock Exchange. However, the study primarily focused on these risks, without including interest and exchange rate risks, which should not be overlooked in South Sudan. It is important to point out that the research was done in Ghana, a country with a more established system than South Sudan.

Omondi (2019) examined how financial risks affect Kenyan commercial banks and found that interest rate risk has a significant impact on their financial performance. The study utilized both descriptive and inferential statistics through a panel regression model, with STATA (version 14) employed for the analysis. The research, which included 42 banks from 2013 to 2017, revealed that both credit and exchange rate risks negatively influence the financial performance of banks,

whereas interest rate risk has a positive effect. However, liquidity risk was found to have no significant impact on the return on equity (ROE). The study recommends that banks should monitor non-performing loans (NPLs) to enhance their financial performance. Nonetheless, this research shares variables with another study but is conducted within a different political and economic environment, making it less applicable to South Sudan.

Njiru (2020) explored the impact of financial risks on the financial performance of commercial banks in Kenya. This study applied descriptive, cross-sectional, and regression models to analyze the variables, with capital adequacy and bank size serving as control variables. It was found that credit and interest rate risks adversely affected performance, while capital adequacy had a positive influence. In contrast, liquidity, operational risk, and bank size were found to have insignificant effects. Conducted in Kenya, the findings of this study may not be readily applicable to South Sudan.

Ahmed (2020) investigated how liquidity risk affects the performance of banks in Sudan. The study indicated that liquidity risk negatively impacts financial performance. It examined the effects of liquidity risk, credit risk, and financial leverage on bank performance in Sudan from 2008 to 2018, revealing significant effects on Sudanese banks. Additionally, liquidity risk and credit risk had varying degrees of negative impact on these banks' performance. It is crucial to consider that this study was conducted in Sudan, where an Islamic banking system predominates, which may not directly translate to the context of South Sudan.

2.2 Credit risk and financial performance

Jalal *et al.* (2020) studied the effects of financial risks on the financial performance of Russian commercial banks from 2008 to 2017. The research focused on 85 banks representing 87% of the assets in the country's banking sector. Six key variables were examined: credit risk, liquidity risk, exchange rate risk, interest rate risk, and operational risk. The analysis was carried out using multiple regression techniques. The results indicated that both credit and liquidity risks had a positive effect on bank performance, while exchange rate risk did not significantly affect measures such as ROA and ROE. Furthermore, the study found that interest rate risk did have an impact. However, this study was conducted in Russia, which has different social, economic, and political dynamics compared to South Sudan.

Ugah (2020) conducted research on financial risk management and bank profitability in Nigeria, revealing that credit, liquidity, interest rate, and inflation risks positively influence the return on assets of Access Bank of Nigeria PLC. The study employed statistical software version 20 to test hypotheses through simple linear regression. The findings suggest that banks should take proactive steps to mitigate financial risks and enhance their profits. However, it is crucial to realize that this study focused primarily on one bank in Nigeria, which may not fully represent the broader banking sector due to differing political contexts.

Afriyie *et al.* (2022) examined Ghana's banking sector and found that market, credit, and liquidity risks significantly impact bank performance on the Ghana Stock Exchange. However, the study primarily focused on these specific risks and neglected interest and exchange rate risks, which are also important in the context of South Sudan. It is significant to note that the research was carried out in Ghana, a nation with a more established banking system compared to South Sudan.

Omondi (2019) examined the impact of financial risks on Kenyan commercial banks and discovered that interest rate risk considerably affects their financial performance. The analysis was performed using descriptive and inferential statistics within a panel regression model, utilizing STATA (vers. 14). The research studied 42 banks from 2013-2017, revealing that both credit and exchange rate risks negatively impacted financial performance, while interest rate risk positively influenced it. Nonetheless, liquidity risk did not have a significant effect on return on equity (ROE). The study suggests that banks should closely monitor non-performing loans (NPLs) to enhance their financial performance. However, this research shares similar variables with the aforementioned studies but operates within a different political and economic context, making the findings less applicable to South Sudan.

Njiru (2020) analyzed the effects of financial risks on the financial performance of commercial banks in Kenya. The study applied descriptive, cross-sectional, and regression models to evaluate the variables. Capital adequacy and bank size were considered as control variables. The study concluded that credit and interest rate risks negatively influenced financial performance, while capital adequacy had a positive impact. However, liquidity, operational risks, and bank size were found to have no significant effects. This research was conducted in Kenya, and therefore, its findings may not be directly applicable to South Sudan's context.

2.3 Summary of Empirical Literature Review and Research Gap

The summary of literature review, research gaps, which varied from contextual to conceptual and knowledge related. Numerous investigations on risks and performance have been carried out for banks in developed nations as well, as others besides South Sudan.

Table 1: Summary of Empirical Literature Review and Research Gaps

Author	Focus	Methodology	Key Findings	Research Gaps	Addressing the Research Gaps
Omondi (2019)	Effect of financial risk and financial performance of Commercial Banks in Kenya	A causal research design, Descriptive and Inferential Statistics Panel regression Model	Interest rate risk affects ROE and ROA positively exchange rate risk and credit risk affect both ROA and ROE negatively while Liquidity risk affects positive but insignificant	This study was conducted in Kenya, which has different economic environment and political systems than South Sudan. It will use longitudinal research which was ignored by this study	The current study will focus on financial risks in South Sudan and shall address the financial risks that affect commercial banks in South Sudan. Also the current study shall use longitudinal research to explain data over long period of time
Ali & Oudat (2020)	Effect of financial risk on performance in the listed Commercial and Investment Banks in Bahrain BSE	The Regression Analysis was applied	Liquidity risk and exchange rate affects positively the returns (ROA, ROE) but insignificant	The study ignored two variables (Interest rate risk and Credit risk which are vital and Bahrain has both economic and political differences than South Sudan	The study focused on all commercial banks only but this study shall include other two variables (interest rate risk and Credit risk) exclude stock exchange market
Arkangelo *et al*. (2021)	Impact of Macroeconomic Variables (Exchange rate, Interest rate & inflation) on the financial performance of South Sudan's Commercial Banks	Pooled OLS Regression Model with Panel panel-corrected Standard Errors (PCSE)	The exchange rate risk and inflation do not affect the returns (ROA & ROE) while the Interest rate has a positive effect on the returns	The study is limited to macroeconomic variables while this study focused on financial risks and banks' performance	The study focused on the impact of macroeconomic variables only. This study shall cover all financial risks on banks' performance not the impact of macroeconomic variables
Ugah, 2020).	Financial Risk Management and Bank Profitability in Nigeria	The Regression Model	Interest rate risk and liquidity risk affect the returns of assets positive on banks' performance	Nigeria has developed a different economic and political environment than South Sudan	This study focused on financial risks and bank performance, including exchange rate risk and credit risk
Afriyie *et al.* (2022)	Effect of financial risks and financial performance of banks in Ghana	Descriptive and Inferential Statistics of Regression Model	The Liquidity, Credit, and Interest rate risks affect the ROE and ROA negative but significant	Ghana has economic and political systems different than South Sudan also ignored exchange rate risk	This study shall focused on financial risk and financial performance of Commercial banks in South Sudan including exchange rate risk variable
Njiru (2020)	Effect of financial risk on the financial performance of Commercial Banks in Kenya	Descriptive cross-sectional, Correlation and Multiple Regression Model	Credit risk and Interest rate risk affect the returns negatively while Liquidity and Operational risk have minimal effect on returns	The study ignored the exchange rate risk which has a serious effect on currency devaluation	Njiru's study included operational risk but excluded the exchange rate risk which this study shall address
Onsongo (2020)	Financial Risk and Financial Performance of Commercial and Services Listed	Panel regression model, Hausman	Credit risk affects the ROE negatively while Operation Risk and liquidity risk affect the ROE	South Sudan lacks a stock exchange market hence has economic differences and the	This study focuses on financial risk and financial performance of Commercial banks only but including Interest

	Companies in NSE, Kenya	specification test.	positively but with minimal	study ignored interest rate risk and exchange rate risk	rate risk and Exchange rate risk
Antony & Shence (2018)	Impact of risk factors on the financial performance of Commercial Banks in Barbados	The research used the Multiple Regression Model	The risk factors include interest rate and liquidity risks affect banks' performance	The study ignored other vital variables (Exchange rate & credit risk) Barbados has economic and political conditions than South Sudan	The current study shall address financial risks not risk factors on the financial performance of commercial banks including Exchange rate risk and Credit risk
Jalal *et al.* (2020)	Impacts of financial risks on the financial performance of Russian Commercial banks	Multiple Regression Model	Credit risk, Operational risk and Liquidity risk affect (ROE and ROA positively while leverage and Interest rates are negative and limited. The exchange rate does not affect returns.	Russia has developed an economy with more advanced political and economic systems than South Sudan	The study was based on six financial risks but this study shall limited to four variables including credit risk, interest rate, exchange rate and liquidity risk and also uses Inferences, descriptive statistics & diagnostics tests to analyze variables

Source: Researcher (2024)

3. RESEARCH METHODOLOGY AND DESIGN

This study adopted longitudinal research design to investigate a research question and hypotheses when the researcher repeatedly examines the same variables to detect any changes that might occur over a period of time.The study used secondary data from BoSS websites and IMF's websites to examine changes in financial risks and financial performance of commercial banks in South Sudan. The longitudinal research design, spanning from 2014 to 2022, thus the study's choice of data collection method was based on ease of obtaining required data which it used 28 out of 33 banks. In order to understand better we will analyze how financial risks impact the performance of banks by observing the fluctuations, in these factors over a period of time (Hunziker & Blankenagel 2021

3.1 Regression Model

The time series regression model is used and estimated the effect of financial risks and financial performance of commercial banks in South Sudan using time series data. Therefore, the financial performance of commercial banks is expressed as a function of liquidity risk and credit risk.

$Yit = \beta 0 + \beta 1X1it + \beta 2X2it + \epsilon it$

Where: Y it–Financial Performance (ROA), β0 -Constant

X1it – Liquidity Risk (Ratio of total loans to total deposits).

X2it – Credit Risk (Non-Performing Loans ratio).

B1–β4 –Coefficients of the regression which measure Y sensitivity due to changes in X.

Єit - Error term, that accounts for the variables omitted in the function.

i – Individual firm.

t – Time period (year).

Source: Researcher (2024)

4. DATA ANALYSIS AND FINDINGS

4.1 Descriptive statistics Analysis

The descriptive statistics compose of mean, standard deviation, minimum, maximum and the trends of the dependent and independent variables.

Table 4.1 showed the descriptive analysis outcomes

		Descriptive Summary		
Variable	*Obs*	*ROA*	*Liquidity Risk*	*Credit Risk*
Mean	252	0.0217	1.2717	0.1816
Std Dev.	252	0.0149	0.4996	0.1519
Min	252	0.0010	1.0800	0.0200
Max	252	0.0530	2.6030	0.3570

Source: Researcher (2024)

From the descriptive analysis, the ROA indicated in the table above the total mean of ROA for the period 2014 to 2022 was 0.0217. This means that on average, the banks gained 2.17% returns on each of their assets during that period, with a standard deviation of 0.0149 indicating small variability in ROA over time hence banks struggle to acquire returns on assets affecting profit.

Liquidity risk had a mean of 1.2717 with 0.4996 as standard deviation, an indication that there was high variability in levels of liquidity risk. On other hand, liquidity risk was observed to be very low (Std Dev 0.4996). This means that banks had a high ability to meet their short-term financial obligations. Hence, the mean indicated that on average all the commercial banks were struggled to maintain a liquidity ratio above the statutory ratio by the BoSS of 20 percent.

Credit risk had a mean of 0.1816 and std deviation of 0.1519 which shown that there was great variation in the values of credit risk. On average, credit risk was 18.16% which indicated very high NPLs in banks' asset composition. Also, variability in credit risk was observed to be high in Std Dev of 15. 19%. Banks gives out loans to earn interest on them as they are being repaid back and in the event that the bank is facing difficulties in acquiring these assets back then the assets become NPLs. This means that borrowers' ability to service their loans was highly variable hence many borrowers defaulted on their loans thus affected financial performance of banks

4.2 Trend Analysis

The trend analysis section elaborated the various research variables as the discussion on each variable as showed below:

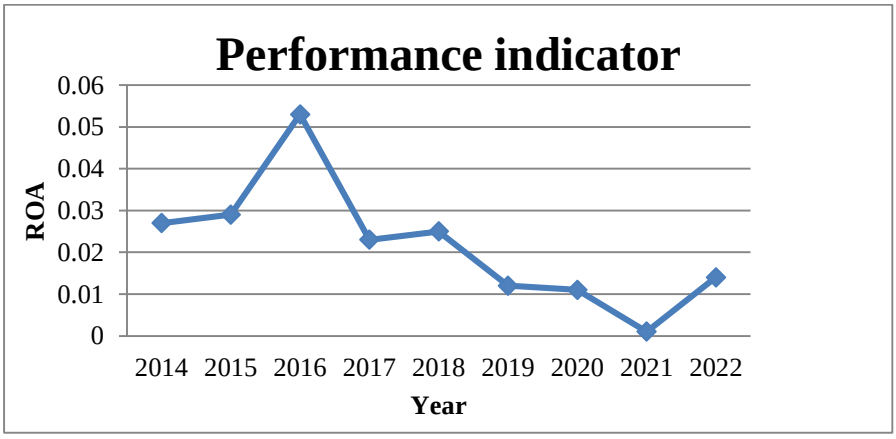


Figure 4.1: Trend Analyses on Return on Asset (ROA)

Source: Researcher (2024)

Figure 4.1 above indicated that the ROA measures the performance of commercial banks in South Sudan for a longitudinal series across a period of 2014 to 2022. The trend implied that the return on assets of commercial banks in South Sudan had a generally significant increase from 2014 to 2016 by 5.3 per cent. However, the years 2017 to 2022 showed a sharp decline in ROA while 2021, was a worse decline by 0.1%. Furthermore, the decrease in return on assets of commercial banks means that some banks are not making a profit on the use of assets. Therefore, implies decreased profits and more so ineffectiveness of management in making returns on the revenues of banks.

4.2.1 Trend Analysis of Liquidity Risk 2014-2022

This is sub section of trend analysis of liquidity risk as measures using current ratio, quick ratio or acid-test ration as showed in the figure 4.2 below.

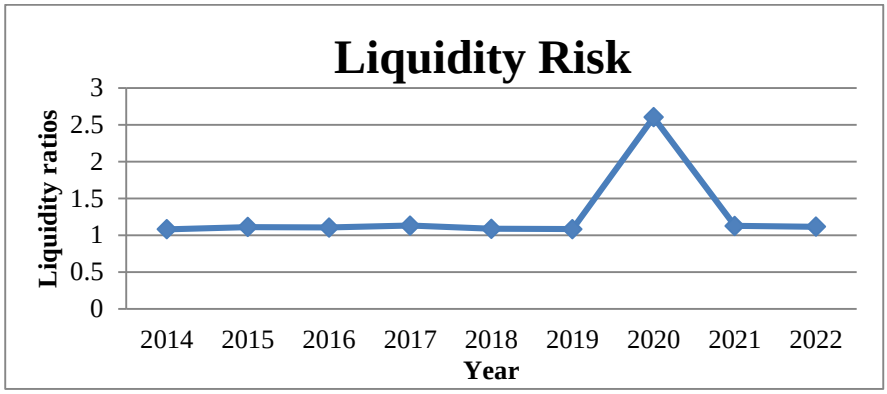


Figure 4.2: Trend Analysis of Liquidity risk

Source: Researcher (2024)

Figure 4.2 showed the liquidity ratio trend for the 33 banks from the year 2014 to 2022. The trend indicated that the liquidity ratio has been stable generally over the years until 2019 when there was a significant increase to the year 2020. Then 2021 to 2022 showed a decrease to the previous position of stable. This indicated that variability in liquidity ratio over the period

4.2.2 Trend Analysis of Credit Risk from 2014-2022

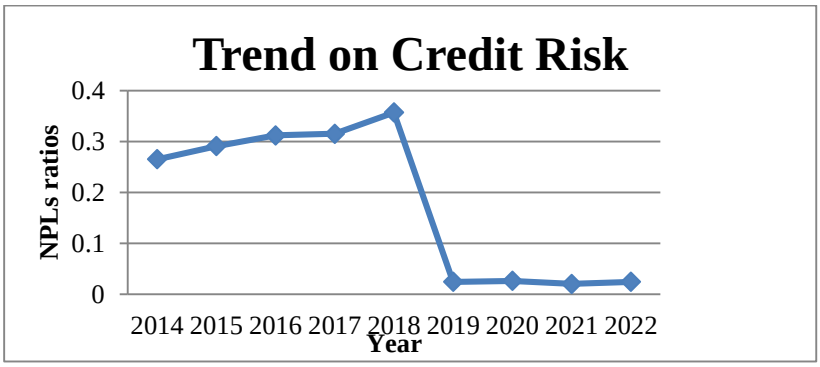


Figure 4.3: Trend Analysis of Credit risk

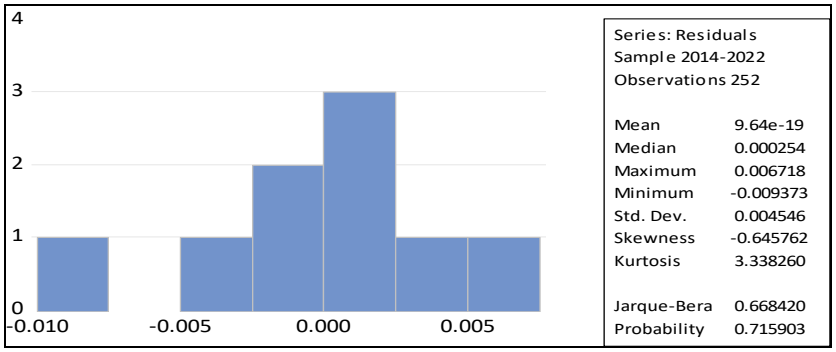
Source: Researcher (2024)

Figure 4.3 showed the credit risk trend for the 33 banks from the year 2014 to 2022. The trend line indicated that the credit risk ratio has been increasing over time from 2014 to 2018 though there was a huge drop in 2019. However, the trend lines showed that there was a poor performance of loans from 2019 to 2022, implied small variability and the lowest non-performing loans over time. This means that commercial banks were experiencing poor performance since the most of borrowers defaulted

4.2.3 Normality Test

To establish whether the observed values follow a normal distribution, Sk/Jarque-bera test was performed.

Table 4.2: Normality Test using Sk test/Jarque-bera test



Source: Researcher (2024)

The results in table 4.2 indicated that Jacque-Bera test results reveal that all variables except exchange rate risk were normally distributed. However, it also concludes that the Jarque-bera test shows that the residuals were generally normally distributed. Thus, the results of JB test found that all variables have greater than 0.05 significance p-value which implies that the study failed to reject null hypothesis. This indicated that the null hypothesis was normal distributed.

4.2.4 Regression Analysis

The following data were analyzed using regression model to give detailed explanations

Table 4.3 Regression Model on Dependent variable (ROA)

Variable	*Coefficients*	*t Stat*	*P-value*
Intercept	0.0651	3.3954	0.0274
Liquidity Risk	0.0051	0.9117	0.4135
Credit Risk	0.0760	3.2201	0.0323

Based on the intercept which has the coefficient of 0.0651 and P value =0.0274<0.05 which means that the intercept has a significant effect in the findings. Liquidity risk has the coefficient of 0.0051 and P value =0.4135>0.05 which implies that liquidity risk is insignificant and has no a statistically effect on financial performance measured by ROA.

It further indicates that credit risk has the coefficient of 0.0760 and P value =0.0323<0.05 which signifies that credit risk is significant and has a positive significant effect on financial performance of commercial banks measured by ROA. This can be explained that one percent increase in credit risk leads to increase in ROA by 7.6

$Y_{it} = \beta 0 + \beta 1X1it + \beta 2X+2it + \epsilon it$

$ROA=0.0651+ 0.0760x_2+ \epsilon it$

Where:

Y it–Financial Performance (ROA)

β0 -Constant

X1it – Liquidity Risk (Ratio of total loans to total deposits).

X2it – Credit Risk (Non-Performing Loans ratio).

5. DISCUSSIONS, CONCLUSIONS AND RECOMMENDATIONS

5.1 Summary of Main Findings

The summary of the findings are done per objective.

5.1.1 Liquidity risk

This is the first objective of the study to determine the effect of liquidity risk on the financial performance of commercial banks in South Sudan. The study adopts longitudinal research design analyses variables using multiple regression analysis to analyze the both independent and dependent variables. The findings conclude that liquidity risk is evident by (coef=0.0051 and p= 0.4135>0.05), and based on the findings, liquidity risk has positively insignificant and has no effect on the financial performance of commercial banks as measured by ROA in South Sudan.

5.1.2 Credit risk

The second objective of the study also sought to establish the effect of credit risk on the financial performance of commercial banks in South Sudan. The study adopts longitudinal design and analyzes variables using multiple regressions to explain the statistical relation between independent and dependent variables. The results showed (coef= 0.0760 and p=0.0323<0.05) that credit risk has significant positive effect on the financial performance of commercial banks as measured by ROA in South Sudan.

5.2 Discussion of the Study Findings

5.2.1 Liquidity risk and financial performance

The results showed that liquidity risk has (coefficients =0.0051, p=0.4135>0.05). Based on the findings, the p-value is greater than the significant level of 0.05, hence the research failed to reject the null hypothesis (H0). These findings suggest

liquidity risk has no effect of liquidity risk on the financial performance of commercial banks as measured by the return of assets (ROA) in South Sudan. This suggests that maintaining a liquidity ratio may not necessarily lead to performance. Effective management is crucial for meeting obligations, hence, ensuring that banks can generate returns on assets.

The results align, with Omondi (2019) and Ali & Oudat (2020). However, they are at odds with the findings of Afriyie et al.(2022), Ahmed (2020) Njiru (2019) and Jalal et al.(2020) who discovered that liquidity risk negatively impacts the performance of banks.

5.2.2 Credit risk and financial performance

The coefficients and p-value related to credit risk indicated (coef=0.0760), (p=0.0323<0.05) were based on ROA as a measure of banks' financial performance. The results showed that credit risk has a statistically significant and positive effect on the financial performance of commercial banks in South Sudan. Therefore based on this evidence the study rejected the null hypothesis (H0) because it has less at a 0.05 significance level. This means that an increase in the coefficient of 0.0760 indicates that an increase in credit risk leads to an increase in ROA by 7.6 %. Bank management must conduct diligence when customers apply for loans. This practice ensures that comprehensive background checks are carried out which is essential for enhancing performing loan (NPL) management and reducing NPL ratios ultimately leading to improved financial performance of the banks.

The findings align with the research conducted by Jalal et al. (2020), Njiru (2020) however, current study findings are in contrast to the study by Omondi (2019).

5.3 Conclusions

The study determined financial risk on the financial performance of commercial banks and concluded that credit risk was found to have a statistically significant and positive effect on financial performance while, liquidity risk had a statistically insignificant effect on the financial performance of commercial banks in South Sudan. This study outlines the conclusions as follows:

Hypothesis one, the study concluded that liquidity risk has no statistically significant effect on the financial performance of commercial banks as measured by ROA in South Sudan. This is in line with other previous studies. This suggests that maintaining a liquidity ratio may not necessarily lead to performance. Effective management is crucial for meeting obligations, hence, ensuring that banks can generate returns on assets.

Hypothesis two, credit risk found to have a statistically significant and positive effect on the financial performance of commercial banks in South Sudan. The findings align with empirical studies which indicated that credit risk affects the financial performance of commercial banks. Bank management must conduct diligence when customers apply for loans. This practice ensures that comprehensive background checks are carried out which is essential for enhancing performing loan (NPL) management and reducing NPL ratios ultimately leading to improved financial performance of the banks.

5.4 Recommendations

The research findings hold importance for stakeholders such, as bank management, policymakers, government officials, regulatory bodies, investors and academics. The main objectives of the study were to examine how liquidity risk and credit risk impact the performance of banks. According to the study results credit risk has a positive influence on the financial performance of commercial banks. The recommendations based on these findings suggest that bank management should conduct background checks on loan applicants senior management should review loan agreements before approval there should be state regulations for loans compliance, with agreed terms and conditions.

Additionally it is proposed that the government implement legislation to establish a Credit bureau to maintain records of defaults in order to prevent defaulters from accessing loans without settling the first ones. This measure aims to reduce performing loans that can adversely affect banks financial performance. Furthermore banks are advised to monitor borrowers' repayment history and verify their income before granting loans. Banks need to establish an atmosphere and build connections, with customers and the public to foster a harmonious working relationship.

As mentioned earlier the study revealed that liquidity risk had a yet insignificant but positive influence on the financial performance of commercial banks in South Sudan. Therefore it is suggested that commercial banks focus on assessing, monitoring and controlling liquidity risk effectively. Bank management should closely monitor assets and liabilities on their balance sheets over a period to maintain awareness of their liquidity position. This proactive approach can benefit the banks investment portfolio. Provide an advantage in the market. The central bank should remain vigilant about liquidity challenges in banks. Be prepared to implement prompt solutions to prevent bank failures or liquidation.

Additionally the study recommends that government agencies diversify the economy by investing oil revenues into agriculture to enhance food security. This strategy aims to reduce reliance, on foreign currency for importing food items and stimulate growth. The study also suggests that the central bank (BoSS) should coordinate the market by merging the parallel markets with that of official rate to enhance the foreign exchange rate making it easier for traders to access hard currencies. Furthermore BoSS ought to implement measures to combat illegal trading and oversee the banking industry to stimulate economic growth.

5.5 Limitation of the Study

The research findings are focused solely on the economy of South Sudan highlighting the necessity, for investigation into aspects such as the presence of banks. It is noted that South Sudan's economy is relatively small and underdeveloped compared to neighboring regions. The country's institutions are described as nascent. May requires time for research, training and innovation to foster manpower development.

South Sudan has faced challenges since gaining independence from Sudan in 2011. These challenges include events such as the war from 2013 to 2018, disputes over pipeline fees with Sudan resulting in oil production shutdown in 2012, locust invasions impacting food security, the economic paralysis caused by the COVID 19 pandemic and most recently disruptions due to the war in Sudan leading to a major oil giant like PETRONAS withdrawing from the oil and gas sector within South Sudan. Consequently these adversities have had a lasting impact on the performance of banks operating in South Sudan.

Additionally it should be noted that this study primarily relied on data sources which encompass time series information. A key limitation identified was a lack of data availability from institutions like CPI (Consumer Price Index), NBS (National Bureau of Statistics), SSNBS (South Sudan National Bureau of Statistics) and commercial banks due, to their immaturity and institutional capacities. The researcher successfully gathered time series information, from the IMF and BoSS websites. However the study had to rely on data of time series data for accuracy reasons. Additionally there were challenges in obtaining data from bank of South Sudan (BoSS) due to its inception, its website was not regularly updated during the study period spanning from 2011 to 2022. As result to data unavailability, between 2011 and 2013 the study had to limit its scope to the years 2014-2022.

5.6 Areas of Further Research

The study focus was to examine the effect of financial risk and financial performance of commercial banks in South Sudan. After running multiple regression models, it found that credit risk had a statistically significant effect on ROA on the financial performance of commercial banks, while liquidity risk had a statistically insignificant but positive effect on the financial performance of South Sudanese banks. This study recommends carrying out another research covering the effect of the parallel exchange rate (black market exchange rate) on the financial performance of commercial banks in South Sudan. Similar study need to be done to assess the effect of financial risk and financial performance of domestic banks in South Sudan

REFERENCES

[1] Abebe,T. (2014). Determinants of Financial Performance: An Empirical Study on Ethiopian Commercial Banks. *A Research thesis Submitted to The Department of Accounting and Finance in Partial fulfillment of the Requirements for the Degree of Master of Science in (Accounting and Finance)*: Jimma University College of Business and Economics Department of Accounting and Finance

[2] AFDB (2021). South Sudan Interim Country Strategy Paper 2022-2024: *African Development Bank Group*

[3] Afriyie, N., Kofi, Bunyaminu, & DR. Alhassan et. al. (2022). Effect of Financial Risk on Banks' Performance in Ghana.

[4] Ahmed, N.A.M. (2020).The Impact of Liquidity, Credit, and Financial Leverage Risks on Financial Performance of Islamic Banks: *A Case of the Sudanese Banking Sector. Risk and Financial Management; Vol. 2, No. 2; 2020*

[5] Alam, S.M.S., Chowdhury, M.A.M. & Razak, D.B.A. (2021). Research evolution in banking performance: a bibliometric analysis. Futur Bus J 7, 66. https://doi.org/10.1186/s43093-021-00111-7

[6] Althouse, A. D. (2016). Adjust for multiple comparisons? It's not that simple. *˜the œAnnals of Thoracic Surgery*, *101*(5), 1644–1645. https://doi.org/10.1016/j.athoracsur.2015.11.024

[7] Anthony, W., & Shanise, C. (2018). The impact of time factors on the financial performance of the commercial banking sector in Barbados. *Journal of Governance and Regulation 7(1), 20–25.*

[8] Anyanzwa, J. (2022, April 4). East African Newspaper, p. 1

[9] Arkangelo, A.B., Dr. Muganda, M. M. & Malenya, A. A. (2021).Macroeconomic Variables and Financial Performance of Commercial Banks in South Sudan: *The International Journal Of Business & Management ISSN 2321–8916 www.theijbm.com*

[10] Ashiqi, S. & Sahiti, A.(2021). RISK management and profitability of commercial banks of Western Balkans Countries of Kosovo, Albania, North Macedonia, And Serbia. *Journal of Eastern European and Central Asian research vol.8 no.1 (2021) www.ieeca.org/journal*

[11] Asiamah, N., Mensah, H., & Oteng-Abayie, E. F. (2019). General, target, and accessible population: Demystifying the concepts for effective sampling. *The Qualitative Report*, *9*(5), 69-109. https://doi.org/10.46743/2160-3715/2019. 2674

[12] Assaf, A. G., Tsionas, M., & Tasiopoulos, A. (2019). Diagnosing and correcting the effects of multicollinearity: Bayesian implications of ridge regression. *Tourism Management*, *71*(3), 1-8. https://doi.org/10.1016/j.tourman. 2018.09.008

[13] Athanasoglou, P., Brissimis, S. N., & Delis, M. D. (2008). Bank-Specific, Industry-Specific and Macroeconomic Determinants of Bank Profitability. Journal of International Financial Markets, Institutions and Money, 18, 121-136.

[14] Basel, J.A.Ali, & Mohammad, S.O. (2020). Financial Risk and the Financial Performance in Listed Commercial and Investment Banks in Bahrain Bourse*: International Journal of Innovation, Creativity and Change. www.ijicc.net Volume 13, Issue 12, 2020*

[15] Bhole, L. M. & Dash, P. (2002), "Industrial Recession in India: Is Interest Rate the Cause?", Productivity, Vol. 43, No.2, July-Sept, 2002, pp.268-277.

[16] Borio, C., Gambacorta, L & Hofmann, B. (2015). The influence of monetary policy on bank profitability. *BIS Working Papers No 514 Monetary and Economic Department October 2015.*

[17] Bottomley, C., Ooko, M., Gasparrini, A., & Keogh, R. (2023). An evaluation of methods used to account for autocorrelation in interrupted time series. *Statistics in Medicine*, *117*(12), 123-145. https://doi.org/10.1002/sim.9669

[18] Buigut, S. (2010). Is there a Bank Lending Channel of Monetary Policy in Kenya: *International Research Journal of Finance and Economics*

[19] Cai, Y., & Omay, T. (2021). Using double frequency in fourier Dickey–Fuller unit root test. *Computational Economics*, *59*(2), 445-470. https://doi.org/10.1007/s10614-020-10075-5

[20] Central Bank of Kenya (2022). Bank Supervision Annual report: Nairobi, Kenya

[21] Chetan, S. and S. Yadav, S. (2019). Impact of Financial Risks on the Profi tability of Commercial Banks in India. *Shanlax International Journal of Management, vol. 7, no. 1, 2019, pp. 25-35.*

[22] Chol, B. B., Nthambi, E. K., & Kamau, J. N. (2019). Influence of bank stability on the financial performance of commercial banks in South Sudan.

[23] Cooper, R & Schinder, S. (2011). Research Methods. New York: Mc Grawhill.

[24] Daily, C.M., Dalton, D.R. & Cannella, A.A. (2003) Corporate Governance: Decades of Dialogue and Data. *Academy of Management Review*, 28, 371-382.

[25] Drehmann.M & Nikolaou.K (2013). Funding liquidity risk: *Definition and measurement. Journal of Banking and finance, 37(7), 2173-2182.*

[26] Fali, I., Nyor,T., & Mustapha,O.L. (2020). Financial Risk and Financial Performance of Listed Insurance Companies in Nigeria. *European Journal of Business and Management 12: 143–53*

[27] George, T. (2023, November 20). *Exploratory Research | Definition, Guide, & Examples.* Scribbr. Retrieved May 14, 2024, from https://www.scribbr.com/methodology/exploratory-research/

[28] Giddy, H.I. & Duffey, G. (2012), The Management of Foreign Exchange Risk. *New York University and the University of Michigan*

[29] Gujarati, D. N., Porter, D. C., & Gunasekar, S. (2012). *Basic econometrics*. Cambridge Press.

[30] Gupta, A., Mishra, P., Pandey, C., Singh, U., Sahu, C., & Keshri, A. (2019). Descriptive statistics and normality tests for statistical data. *Annals of Cardiac Anaesthesia*, *22*(1), 67. https://doi.org/10.4103/aca.aca_157_18

[31] Hassan, M. (2024). Exploratory Research: Types, Methods and Examples.

[32] Helgesson, G., & Eriksson, S. (2015). Plagiarism in research. Medicine, Health Care and Philosophy, 18(1), 91-101.

[33] Herwartz, H., Maxand, S., & Walle, Y. M. (2019). Heteroskedasticity-robust unit root testing for trending panels. *Journal of Time Series Analysis*, *40*(5), 649-664. https://doi.org/10.1111/jtsa.12446

[34] IMF (2022). IMF Executive Board Conclude Article IV Consultation and IMF Management Completes Second Review under Staff-Monitored Program with the Republic of South Sudan.

[35] Jensen, Michael,C.,& Meckling, W.H. (1976). Theory of the Firm: Managerial Behavior, Agency Costs and Ownership Structure: *Journal of Financial Economics 3: 305–60.*

[36] Jorion, P. (2001). Financial risk manager handbook 2001-2002 (Vol. 96).Wiley.

[37] Juma, A.M.(2018). Financial risks and performance of commercial banks in Kenya. *Journal of Finance and Accounting,2(2) 76-95.*

[38] Kassi, D. F., Rathnayake, D. N., Louembe, P. A.,&Ding, N.(2019).Market risk and financial performance of non-financial companies listed on the Moroccan stock exchange. *Risks,7*(1),129.

[39] Kearns, J. (2023). Managing Editor for International Monetary Fund: *IMF Blog.*

[40] Keyness, J.M (1936). General theory of employment, Interest and Money. London McMillian

[41] Khrawish, H.A. (2011) Determinants of Commercial Banks Performance: Evidence from Jordan. International Research Journal of Finance and Economics. Zarqa University, 5(5): 19-45.

[42] Kioko, Olweny, & Ochieng. (2019). Effect of Financial Risk on the Financial Performance of Commercial Banks in Kenya Listed On the Nairobi Stock Exchange: *The Strategic Journal of Business & Change Management, 6(2), 1936 –1952.*

[43] L.ardi-Odam, C., Kofi, A. & Frimpong-Kwakey, J. (2020). Financial risk implications of COVID-19 on banks*: Deloitte report on banking sector in Ghana*. www2.deloitte.com/gh

[44] Liu, G., Mirzaei, A., & Vandoros, S. (2014). The impact of bank competition and concentration on industrial growth. Economics Letters, 124(1), 60-63.

[45] Mamaro, L. P., & Mabandla, N. Z. (2022). The Influence of the Covid-19 Pandemic on the financial performance of listed retail firms in South Africa. Https://Doi.Org/10.7251/Ace2237211p

[46] Manyok, A.J. & Okiro K.(2016). Effects of exchange rate fluctuations on financial performance of commercial banks in South Sudan: *Master's thesis of MBA, UoN.*

[47] Massoudie, J. (2020). An empirical investigation of financial risk management on financial performance of commercial banks in Afghanistan. *International Journal of Technical Research & Science* DOI Number: https://doi. org/10.30780/IJTRS.V05.I08.002 pg. 10

[48] Middleton, F. (2023, June 22). *Reliability vs. Validity in Research | Difference, Types and Examples.* Scribbr. Retrieved May 17, 2024, from https://www.scribbr.com/methodology/reliability-vs-validity/

[49] Molla, M. T. (2019). The Effect of Corporate Governance Mechanisms on Firms' Financial Performance: Evidence from Selected Commercial Banks in Ethiopia. https://core.ac.uk/download/270185194.pdf

[50] Mrindoko, A. E. (2021). Effect of Credit Risk and Operational Risk on the Financial Performance of Commercial Banks in Tanzania.

[51] Mugenda, O. & Mugenda, A. G. (2019). Research methods: Quantitative and Qualitative Approaches. Nairobi: African Centre for Technology Studies.

[52] Mwai, A. (2022). Africa Housing Finance Yearbook: *South Sudan Housing Finance Report*

[53] Omondi, N.O. & Makori, D. (2019). Effect of financial risks on the financial performance of commercial banks in Kenya*: Department of Business and Economics, Kenyatta University*.

[54] Onsongo, S. K., Stephen, M.A. & Mwangi, L.W. (2020). Financial Risk and Financial Performance: Evidence and Insights from Commercial and Services Listed Companies in Nairobi Securities Exchange, Kenya. *International Journal of Financial Studies*

[55] Owen,N(2023). Senior Editor for International Monetary Fund: *Financial and Development Magazine.*

[56] Owojori, A. A., Akintoye, I. R., & Adidu, F. A. (2011). The challenge of risk management in Nigerian banks in the post consolidation era. Journal of Accounting and Taxation. 3(2), 21-23.

[57] Oyetade, D. & Muzindutsi, P. (2023). Country Risk and Financial Stability: *A Focus on Commercial Banks in Africa. Risks* https:// doi.org/10.3390/risks11110198

[58] Raad, F. & Khan, T. (2023). The World Bank Projects Modest Economic Growth Recovery in South Sudan. The World Bank's latest South Sudan Economic Monitor (SSEM).

[59] Raknes, G., Strøm, M. S., Sulo, G., Øverland, S. N., Roelants, M., & Juliusson, P. B. (2021). Lockdown and non-COVID-19 deaths: Cause--specific mortality during the first wave of the 2020 pandemic in Norway: *A population--based register study.* https://doi.org/10.1136/bmjopen-2021-050525

[60] RBI (2020) says negative GDP growth rate could continue into July-September quarter due to fresh lockdowns. *In its annual report, the RBI said Indian banks have to abandon their policy of high risk aversion, which impedes credit growth to productive sectors*.

[61] Reyes-Gonzalez, J. & Penny, C. (2000). Corporate Governace in Banking: *A Conceptual Framework. SSRN Electronic Journal*

[62] Rho, S., & Vogelsang, T. J. (2018). Heteroskedasticity autocorrelation robust inference in time series regressions with missing data. *Econometric Theory*, *35*(03), 601-629. https://doi.org/10.1017/s0266466618000117

[63] Safiullah, Md & Shamsuddin, Abul, (2022). Technical efficiency of Islamic and conventional banks with undesirable output: Evidence from a stochastic meta-frontier directional distance function," Global Finance Journal, Elsevier, vol. 51

[64] Sahyouni, A., & Wang, M. (2019). Liquidity creation and bank performance: Evidence from MENA. ISRA International Journal of Islamic Finance, 11(1), 27-45.

[65] Schnusenberg, O., & Madura, J. (2000). Global and relative over-and underreactions in international stock market indexes. Available at SSRN 228628.

[66] Shanko, T., Timbula, M. A., & Mengesha, T. (2019). Factors Affecting Profitability: *An Emprical Study on Ethiopian Banking Industry.* https://core.ac.uk/download/567825245.pdf

[67] Shikumo, D. H., Oluoch, O., & Wepukhulu, J. M. (2020). Effect of Short-Term Debt on Financial Growth of Non-Financial Firms Listed at Nairobi Securities Exchange. https://core.ac.uk/download/352503639.pdf

[68] Shirima, F. (2020). The effectiveness of budgetary controls on financial performance of manufacturing companies in Arusha Tanzania.

[69] Shojaie, A., & Fox, E. B. (2022). Granger Causality: A Review and Recent Advances. *Annual Review of Statistics and its Application*, *9*(1), 289. https://doi.org/10.1146/annurev-statistics-040120-010930

[70] Sosnowski, D. (2015). Rewards programmes: *An exploratory study of a South African book store's rewards programme.* https://core.ac.uk/download/188772080.pdf

[71] Taherdoost, H. (2016). Sampling methods in research methodology; How to choose a sampling technique for research. *Journal of Research Methods*, *65*(3), 97-104.

[72] Taiwo, J. N., Ucheaga, E. G., Achugamonu, B. U., Adetiloye, K. A., Okoye, L. U. & Agwu,M. E. (2017).Credit Risk Management: Implications on Bank Performance and Lending Growth. Saudi Journal of Business and Management Studies, 2(5B), 584- 590.

[73] Thomas, L. (2023, June 22). *Longitudinal Study | Definition, Approaches & Examples.* Scribbr. Retrieved May 17, 2024, from https://www.scribbr.com/methodology/longitudinal-study/

[74] Tong, W.M. & Yeljak, J.Z. (2021). Impact of Financial Distress on South Sudan Commercial Banks Performance and Customer Loyalty*: A Case Study of Agricultural Bank of South Sudan*

[75] Ugah, J. (2020).Financial Risks Management and Bank Profitability in Nigeria: Case of Access Bank of Nigeria PLC. *International Journal of Research and Innovation in Social Science (IJRISS) |Vol. 6, Issue IX, p.184 Sept 2020. www.rsisinternational.org*

[76] Wei, W. (2019). *Multivariate time series analysis and applications*. John Wiley & Sons.

[77] Weiß, C. H., Aleksandrov, B., Faymonville, M., & Jentsch, C. (2023). Partial Autocorrelation diagnostics for count time series. *Entropy*, *25*(1), 105-123.

[78] Williams, M. N., Grajales, C. A. G., &Kurkiewicz, D. (2013). Assumptions of multiple regression: correcting two misconceptions. Practical Assessment, Research & Evaluation, 18(11), 2

[79] www.nbs.org.ss &www.bss.org.ss

APPENDICES

APENDIX I: The List of Commercial Banks

African National Bank	Afriland First Bank
Agricultural Bank of South Sudan	Buffalo Commercial Bank
Charter One Bank	Commercial Bank of Ethiopia
Cooperative Bank of South Sudan	Eco bank of South Sudan
Eden Commercial Bank	Equity Bank SS Ltd
International Commercial Bank	Ivory Bank
KCB Bank SS Ltd	Kush Bank PLC
Liberty Commercial Bank	National Bank of Egypt
Nile Commercial Bank	Mountain Trade and Development Bank
National Credit Bank	Opportunity Bank SS Ltd
Southern Rock Bank	People's Bank PLC
Phoenix Commercial Bank	Qatar National Bank
Regent African Bank	. Royal Express Bank
Stanbic Bank SS Ltd	Alpha Commercial Bank
South Sudan Commercial Bank	Ebony National Bank
St. Theresa Rural Development Bank	Horizon Bank
National Investment & Development Bank Plc (NID Bank)	

APPENDIX II: Research Site/ Map of South Sudan