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Macroeconomic Variables and Financial Performance of Commercial Banks in South Sudan

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Abstract:
The banking institutions in South Sudan have been experiencing challenges due to various factors affecting their performances. There has been little research on the causes of bank profitability in South Sudan, and since different studies elsewhere demonstrate disparities in the impact of macroeconomic variables on bank performance, this study has been taken.The primary purpose of this research was to determine the effect of Macroeconomic Variables on the financial performance of commercial banks in South Sudan: Specifically, the study aimed: toassess the effect of exchange rate on the financial performance ofcommercial banks in South Sudan; to examine the influence of interest rate on the financial performance of commercial banks in South Sudan; to examine the effect of inflation rate on the financial performance of the commercial bank in South Sudan. The study was anchored onthe International Fisher Effect (IFE) theory. The target population for this study were the 30 commercialbanks in South Sudan. A purposive sampling method was used to select 28 out of the 30 commercial banks for the study. The researcher considereda longitudinal cohort research design. A panel of data for the period of 2014 to 2020 collected from the Central Bank of South Sudan, the world bank data bank, and the commercial bank's websites were used in the study. Face validity was used for the measurement of the validity of the data. To show the reliability of the data, the researcher used data source triangulation to incorporate various sources of the data in an investigation. Data analysis included descriptive statistics and multiple regression analysis. The Pooled OLS with Panel Correlated Standard Error results suggested that of the macroeconomic factors analyzed, the exchange rates had no significant effect on the financial performance of commercial banks at a 5% level of confidence (β = -1.862119, p-value = 0.212 > 0.05). The interest rate had a significantly positive influence on commercial banks performance in South Sudan at a 5% confidence level(β = 41.31904, p-value = 0.000 < 0.05). The inflation rate had no significant effect on the financial performance of commercial banks in South Sudan at a 5% level of confidence (β = 2.256533, p-value = 0.116 > 0.05). The following recommendations were made in the context of the results and conclusions.Commercial banks should pay special attention to interest rate changes, which have a significant impact on the financial success of South Sudanese commercial banks.The government should implement regulations and an exchange rate regime that would allow banks to profit from the exchange rate sector. The inflation rate should be monitored to ensure that it is always within control.

Keywords: Macroeconomic Variables, financial performance, commercial banks

1. Introduction

The primary source of economic fluctuations to the bank's holdings is the macroeconomic environment, which impacts the degree of the credit quality of the debtors, capital adequacy, the rise and reduction in the worth of securities, and other associated issues. Macroeconomic factors such as exchange rate, inflation rate and short-term interest rate are major factors of a country's corporate profitability.Every business strives to be profitable and long-lasting. To reach this goal, the company's profitability must continue to rise. In this regard, a crucial question remains as to what are the variables that drive continuous profit levels (Kingdom *et al.,* 2015).

There has been little agreement among studies on the impact of Macroeconomic conditions on banks performance. For instance, (Ongore & Kusa, 2013) contends that macroeconomic variables and financial performance have still a questionable relationship, however (Kiganda, 2014;Williams, 2018) have discovered mixed results when it comes to Macro economic indicators.

The goal of this research was, therefore, to investigate the relationship between macroeconomic factors and the commercial financial performance of commercial banks in South Sudan. Commercial banks are key participants in every economy and it is critical to link their revenue and profits to the nation's development(Kiganda, 2014). As a result,

research to define the combined total effect of macroeconomic factors (Exchange rate, interest rate, inflation rate) on the financial performance of commercial banks in South Sudan was vital

Aside from the different empirical findings mentioned above, the outcomes of this study are expected to help guide strategic planning decisions within banking organizations as it gives macroeconomic views in South Sudan.

Globally, the aggregate chosen macroeconomic indicators (interest rate, GDP, inflation) was discovered to have a marginal effect on financial institutions in Pakistan (Kanwal & Nadeem, 2013). According to empirical research, macroeconomic uncertainty has an adverse impact on important performance metrics in the United States banking sector(Abaidoo & Anyigba, 2020).

Authors have presented that, the persistent worsening of the Sudanese Pound value and constrained foreign direct investment flows into the country make the economic environment unaffordable and unable to bring in foreign money, although the relationship between the exchange rate and the performance of Sudanese banks had been seen to be negative and minimal (Abbas *et al.,* 2019).

In East Africa, Kenya gained monetary independence after the exchange rate policy was liberalized, allowing it to regulate inflationary pressures. Kenya's regularly occurring policy goal is to keep an exchange rate that ensures competitive positions while also keeping domestic inflation low, maintaining a strictly monetary standpoint, and maintaining a positive real interest rate. Notwithstanding the modernizing of its foreign exchange rate, Kenya ended up losing the national framework that held domestic prices down, and thus internationalization effects are being transferred directly through into the country. This is described by the change in the exchange rate as well as the spread in between buying and selling prices of the foreign exchange (Carolyn & Nyandema, 2016).

In South Sudan, a disrupted macroeconomic environment has resulted from the legacy of economic mismanagement and rigidity to the transformation that has impacted the financial performance of banks. At the same time, repeating bouts of internal conflict and violence have weakened the economic foundation, with output dropping for three years in a row from 2015 to 2018 (World Bank, 2019). Due to seasonal influences on foreign exchange demand, the disparity between official and parallel rates of exchange expanded in the fourth quarter of 2018 and later hit 58.6 percent in November. The continuous depreciation of the local currency and the low local production pose risk to any immediate reduction of the inflation rate. Commercial banks had considerably reduced private lending, focusing mostly on short-term credit (South Sudan Economic Brief, 2019).

The purpose of this research was to bridge the unconvincing gap on the consequences of macroeconomic determinants on banks performance in South Sudan. The outcomes of this study are expected to help guide strategic planning decisions within banking organizations as it gives macroeconomic views in South Sudan.

2. Objectives of the Study
The specific objectives are:
- To determine the effect of the exchange rate on the financial performance of commercial banks in South Sudan.
- To determine the influence of interest rates on the financial performance of commercial banks in South Sudan.
- To assess the effect of the inflation rate on the financial performance of commercial banks in South Sudan.

3.Research Hypothesizes
Below are the research hypotheses:
- H_{o1}: There is no significant effect of the exchange rate onthe financial performance of commercial banks in South Sudan.
- $H_{o2:}$ There is no significant influence of interest rate on the financial performance of commercial banks in South Sudan
- $H_{o3:}$ There is no significant effect of the inflation rate on the financial performance of commercial banks in South Sudan.

4. Justification of the Study
The outcome of this study will help financial institutions and other business organizations make various business judgments because the information which analyzes several macroeconomic components (exchange rate, interest rate, and inflation rate), has increased the existing understanding in this area.

The findings will be useful to the government of South Sudan since it provides information useful for planning and policy development regarding the banking sector.

It is believed that the findings would be valuable to educators as well as inspire more research by researchers in this field.

5. Review of Literature

5.1. Theoretical Review
Several theories have been examined in finance to explain macroeconomic variables including the international fisher effect theory, the interest rate parity theory and the purchasing power parity theory. However, this study has been based on the International Fisher Effect Theory (IFE).

5.1.1. International Fisher Effect Theory (IFE)

The IFE is a central economic and financial theory, which ties interest rates, inflation and exchange rates together (Shalishali, 2012). The International Fisher effect came to light in 1930 by Irving Fisher, who developed this approach. The IFE theory suggests that a relatively higher rate will depreciate the currency because high nominal rates would mean inflation (Jeff, 2010). The idea is that the real return rate is the same in each country and the inflationary variations are responsible for changes in interest rates in each country. The projected appreciation of or depreciation in the currencies of two countries is thus proportional to their national interest rate gap (Aaron *et al.,* 2006). The interest rates in currencies that depreciate tend to be very high where international fisher impact is present(Carolyn & Nyandema, 2016).

Although long-term external fisher effect results appear stronger, on the other side, as a result of various short-term factors affecting currency, nominal and inflation estimates, the IFE has been proven volatile in the short term(Hatemi-J, 2009). Inevitably, exchange rates are equal to cost, but often mistakes are made with the intention of forecasting spot rates in the future. Fluctuations in exchange rates and inconsistent interest rate conditions are some of the problems for consumers and the global economy. Currency changes will, amongst others, lead to inadequacy and global pricing distortions. Financial institutions must, in the long term, pay careful attention to inflation in countries as well as the long-term exchange rate fluctuations which are influencing the export opportunities and competitiveness of prices. (Shalishali, 2012).

IFE is relevant in this research because it helps to explain the relationship between macroeconomic factors (Interest rate exchange rates, and inflation) laying the groundwork for the idea that the financial system should primarily focus on keeping rising inflation to keep interests rates stable, promoting saving, investment, and economic boom.

The theory provides the basis of this study because it indicates that it can explain the impact on countries in business transactions of interest and exchange rate adjustments. The theory also states that the disparity between the county interest rates is linked to inflation expectation.

5.2. Conceptual Frame Work

An interconnected series of thoughts (theories) about the working and links of a particular phenomenon is a conceptual framework (Marilla, 2010). The framework of this study forms the basis for understanding connections between independent variables (exchange rate, interest rate, inflation rate) and the dependent variable performance (ROA)
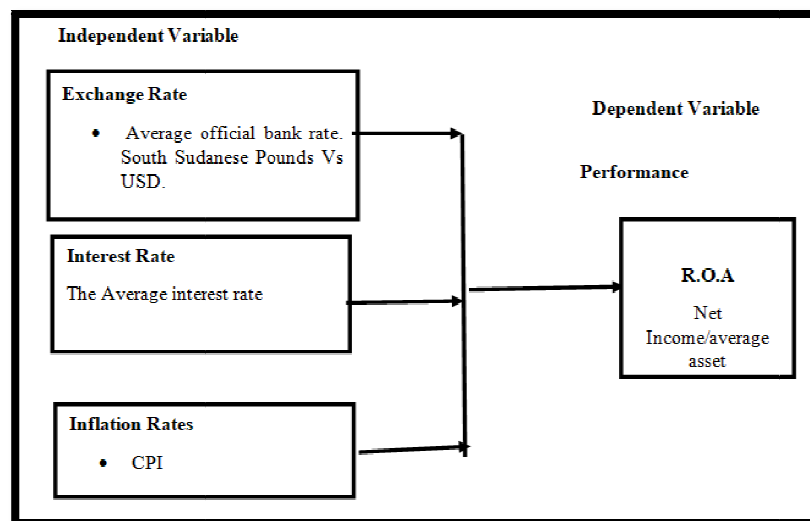

Figure 1: Conceptual Framework

Figure 1 presents the conceptual framework of this study. It describes the relationship between the independent macroeconomic indicators and the dependent variable performance

5.3. Empirical Studies

5.3.1. Exchange Rate and Performance

The impact of foreign currency rate variations on the bank's profitability at the Nairobi Securities Exchange was studied by (Carolyn & Nyandema, 2016). The study employed a time series correlation research methodology, with the target population consisting of all banks listed on the Nairobi Securities Exchange from 2006 and 2013. The study discovered a strong positive association between foreign exchange rates and financial performance indicators. That positive association between the exchange rate and financial results may illustrate how the changing and unpredictable exchange rate may have helped to the expansion of banks performance.

(John, 2017), sought to investigate the effects of exchange rate variations on the financial results of South Sudanese banking institutions. A descriptive study was used by the researcher. The research reveals a slight negative relationship between exchange rate changes and financial success. Furthermore, the South Sudan Pounds rate with the Us

Dollar was found to be extremely expensive. It was urged that the Central Bank put in place necessary safeguards to protect the stability of the domestic currency, ensuring that its value doesn't always fluctuate.

Another study was done by(Williams, 2018) on the impact of fluctuations in exchange rates on Nigeria's selected firms. The primary purpose of the analyzes was to assess the effects on the investment return of currency rate fluctuations. The research employed a descriptive approach and normal least squares. The investigation was based on a data panel between 2012 and 2016. The impact on investments of currency rate shows a positive impact on return. The current paper was done in South Sudan and about the commercial banks.

Another study by (Abbas *et al.,* 2019) examined whether the fluctuations of currency affect the financial outcomes of Sudanese banks and detect the causal links between the exchange rate and bank output. The study covered the period 2002–2017 and sheltered a total of 37 working banks in Sudan. Several analytical techniques, including OLS, General Least squares (GLS) and several diagnostic tests were applied to determine the hypothesis, validity of the models and results. The result shows that, contrary to empirical evidence, currency rate changes have a poor negative impact on the results of Sudanese banks.

An empirical examination of the impact of exchange rate variations on the financial performance of Bangladesh's state-owned banking industry (Hossin & Mondol, 2020). Secondary data has been collected from the financial statements of the banks and also from the World Bank database web. Correlation analysis was also used in this investigation. The study discovered a slight negative relationship between exchange rate changes and profitability.

5.3.2. Interest Rate and Financial Performance

From the empirical studies, the purpose of the study was to look into the impact of macroeconomic factors on the financial performance of commercial banks Nairobi Securities Exchange (NSE) from 2001 to 2012. The data analysis was done using a panel data analysis with the Fixed Effects framework. According to the findings, real interest rates have a substantial effect on the profitability of Kenya's listed banks (Kingdom *et al.*, 2015).

Another study established that interest rates, particularly lending rates, had been rising over time in South Sudan, although the same observation was not evident in bank deposit rates. As a result, the researcher confirmed that the interest rate spread has been expanding over the years because lending has grown more expensive and hence profitable, whilst deposit rates have been quite low (John, 2017). The descriptive survey design was used to investigate the impact of interest on the financial performance of South Sudanese commercial banks. This study on the other hand used a longitudinal cohort design

(Ndlovu & Alagidede, 2018) investigated the effect of industry structure and macroeconomic factors on the performance of publicly-traded financial services organizations. In the study, the idea of the Arbitrage Pricing Scheme was applied. According to the research, interest rates have a positive influence on firm performance. The study emphasized the importance of employing proper business strategies and policies based on the corporation's structure.

An empirical examination of the effect of exchange rate variations on the financial results of Bangladesh's state-owned banking industry has been done by (Hossin & Mondol, 2020). Secondary data was gathered from the banks' audited financial statements as well as the World Bank database site. The study also used correlation and regression methods. The study found that interest rates, particularly lending rates, have been rising over time, although a similar trend was not seen in bank deposit prices. The authors' findings suggest that the interest rate spread has been growing over the years as borrowing has grown more expensive and hence profitable, whilst deposit rates have been quite low.

5.3.3. Inflation Rate and Financial Performance

The factors that influence commercial banks' financial performance were investigated in Kenya. The linear multiple regression framework and the Generalized Least Squares method were used in the study. The findings demonstrate that for the period under consideration, inflation had a negative effect on the profitability of Kenyan commercial banks (Ongore & Kusa, 2013).

In South Sudan, a study analysis proves that inflation rates used to increase year after year over the whole duration of the study (John, 2017). Descriptive research was used in the investigation. Nevertheless, the link between inflation and asset returns was adverse. This study although used the same population, the panel data used consisted of 2014 to 2020.

(Abaidoo & Anyigba, 2020) researched to determine the degree to which various aspects of inflationary changes affect performance measures in the US banking industry. This study used a regression model. According to scientific data, among the different adverse macroeconomic situations analyzed, inflation expectations have a stronger restricting impact on important performance metrics in the US banking industry than other circumstances studied. However, it was proposed that the results could serve as a foundation for more adaptable policies targeted at mitigating the effects of the observed on operational effectiveness in the banking industry.

(Turgut, 2020) investigated the effect of inflation and currency rates on the financial performance of South African financial institutions. Panel data from 2003 to 2019 were used. The ARDL, FMOLS, and DOLS designs have been used. The data demonstrated that there is a considerable adverse relationship between inflation and financial performance.

5.4. Critique of Existing Literature

A significant amount of study has been carried on the macroeconomic factors and economic outcomes for commercial banks in developed and other nations other than South Sudan.

Similarly, much of that research has shown inconclusive outcomes. As little more than results, there are gaps in context and knowledge.

This study sought to fill these gaps in the existing literature by looking into the impact of macroeconomic factors on the financial performance of commercial banks in South Sudan

6. Research Methodology

6.1. Research Design

The conceptual framework in which the analysis would be carried out is called a research design. Longitudinal cohort design had been used for this research paper.A cohort panel is a method in which some or all members of a specific population with comparable exposures or results are followed over time (Bowling A., 2014)

6.2. Target Population

The population of the study comprised commercial banks licensed by the Central Bank of South Sudan. There are 30 commercial banks in South Sudan. The population of the study is the group of people entities who will be studied or treated as part of the research (Majid, 2018).

6.3. SamplingProcedure

The researcher used a purposive method in this research. It occurs when a researcher includes cases or individuals in the sample because they believe they are worth consideration (Taherdoost, 2017). Even though the study was aimed at all 30 commercial banks, two of them were left out of the analysis. This was due to a lack of data at the time that was sufficient for a bank to be used. As a result, an eligibility requirement for inclusion and exclusion was implemented and 28 out of the 30 commercial banks were selected. It is a method for determining who is and is not permitted to be included in the statistical sample. The inclusion criteria describe the study participants in a reliable, consistent, uniform, and objective manner(Garg, 2016). It has been widely used in scientific and social context by people including (Dobusch, 2014; Sinclair, 2013; Gedžu et al., 2015).

6.4. Data Collection

6.4.1 Data Types and Sources

For the findings of this study, quantitative secondary data were used. Secondary data is information gathered from a source that has already been published in some form or another (Dash, 2017).Data used in the study was acquired from officially published documents of the World Bank (World DevelopmentIndicators), Central Bank of South Sudan;and on-site for investor briefings of the commercial banks.

6.5. Validity andReliabilityoftheStudy

6.5.1 ValidityoftheStudy

The data for this research were collected secondarily by reviewing the entire content of the population under the study's financial statements. Face validity was thus used by the researcher for validity. Face validity refers to the researcher's understandings of the appearance and importance of the quantification tool in determining whether the items in the instrument are meaningful, appropriate and precise (Oluwatayo, 2012). To achieve this goal, the researcher applied the inclusion and exclusion procedures to show that the banks were licensed, had enough data available, as well as the quality and number of observations in the years considered in the study.

6.5.2. Reliability of the Study

In quantitative research, reliability is synonymous with repeatability, uniformity, dependability, or comparability across time, tools, and sets of respondents (Bowling A., 2014). Data triangulation was used to assess the study's reliability. Data triangulation relates to the use and variety of methodologies for the analysis of the same occurrence (Honorene, 2018). Thus, the data for this study were acquired from the World Bank Development Indicators, the Central Bank of South Sudan, and the Commercial bank's websites to compare the sources of reliability.

7. Data analysis and presentation

7.1. Data Analysis

The data were analyzed using descriptive and regression analysis were employed. According to (Oso&Onen, 2009) regression analysis is used when a study is about predicting variables from other predictor factors. Pooled OLS with Panel Correlated Standard Error Model was used to predict the relationship between the independent variables and the dependent variable using the Econometric estimating program STATA tool.

To examine the data, the researcher had to run many econometric diagnostic tests, including that of the Hausman test for fixed effect and random. The fixed effect and random effect hypothesis tests are used to analyze the panel data. A fixed-effect model is used to track factors that differ between individuals but stay stable over time.

Using the Hausman test, the null hypothesis indicated that the model's errors (ui) have not been correlated, meaning that the random effect model is preferred over the fixed effect model. The Hausman tests revealed that the test was non - significant: Chi-square (4) = 1.73, p-value = 0.4211 > 0.05. These non-significant results imply that, when matched to the Fixed effects model, the random-effects model would be the most appropriate statistical technique. Across-

sectional dependence test was performed before using random effect as the acceptable model. The findings reveal that there were cross-sectional dependencies among the commercial banks operating in South Sudan, and so panel statistical tests utilizing fixed-effects or random-effects methods would have been considered biased and thus untrustworthy. As a result, the study suggests that fixed effects and random effects modelling techniques have spherical error characteristics such as heteroscedasticity, autocorrelation, and cross-sectional interdependence. Parks (1967) and Kmenta (1986) proposed that when matching linear models to time-series cross-sectional data, it is best to utilize a non-spherical error framework to improve inferences and estimate accuracy by a Feasible Generalized Least Squares (FGLS) estimator. FGLS, but on the other hand, presupposes that the number of times (years) is higher than the number of individuals (banks); otherwise, pooled OLS regression with Panel Corrected Standard Error (PCSE) would be the best option (Beck and Katz, 1995). In this analysis, the number of intervals (seven years) from 2014 to 2020 was smaller than the number of organizations (banks), 28. As a consequence, the researcher involved the pooled OLS regression with Panel Corrected Standard Errors (PCSE) method.

7.2. Data Presentation

Tables and figures, according to (Oso&Onen, 2009), are excellent for giving outcomes because they may consolidate a lot of information in a relatively short place. The data in this research was presented using tables and figures. The regression model before moderator is as follows:

$Y_{it} = \beta_0 + \beta X_{it} + \varepsilon_{it}$

Where; y is the dependent variable, $X = (x_1, \ldots, x_k)$; k is the number of independent variables; $\beta = (\beta_0, \beta_1, \ldots, \beta_k)$ are the regression coefficients; $i = 1, \ldots, m$ is the number of units (panels); $t = 1, \ldots, T_i$; T_i is the number of periods in panel i; and ε_{it} is a disturbance that may be autocorrelated along t or contemporaneously correlated across i.

8. Research Findings and Data Analysis

8.1. Descriptive Analysis

The study described factors employed by South Sudan commercial banks in the Macroeconomic Variables area, as well as their financial performance. In this analysis, descriptive statistics such as mean, number of observations, standard deviation, maximum and minimum values have been used.

Reported values are averages of Return on Assets (ROA), Exchange Rate, Interest Rates, and Inflation Rates

Statistic	ROA	Exchange Rate	Interest Rate	Inflation Rate (CPI)
Mean	-2.597479	209.3114	7.250887	119.281
Standard Deviation	27.43135	172.7906	1.022283	120.7599
N	187	187	187	187
Median	.0611981	213.4137	7.836426	83.50153
Minimum value	-365.3613	6.140861	5.470148	1.674299
Maximum value	40.86513	487.8125	8.127688	379.9996
Coefficient of Variation (CV)		.8255193	.1409872	1.012399

Table 1: Descriptive Analysis of the Study Variables

The average Return on Assets (ROA) was found to be-2.597479(standard deviation = 27.43135) as shown in Table 1. The finding is indicating that most of the selected commercial banks in South Sudan were unable to acquire or utilize their assets sufficiently enough to generate high profitable returns.

The mean exchange rate was 209.3114(standard deviation = 172.7906, see table 9.1.1). This shows that the exchange rate has been fluctuating on a moderate variation

The mean interest rate was 7.250887(standard deviation = 1.022283, see table 9.1). This shows that the interest rate has been fluctuating highly in the years covered by the study. The maximum and minimum values were 8.127688 and 5.470148.

The median inflation rate was 83.50153 (see table 4.1).This means that inflation has been increasing highly throughout the study

8.2. Test of the Study Hypotheses using Panel-Correlated Standard Error (PCSE) model

The study's goal was to examine the impact of Macroeconomic Variables (exchange rate, interest rate, and inflation rate) on the financial performance of South Sudan's commercial banks. The pooled OLS regression model with Panel Corrected Standard Errors (PCSE) was employed in the study to accomplish these objectives, and the results are reported in Table 2.

Group Variable: Bank			Number of Observations			=	187
Time variable: Year			Number of groups			=	28
Panels: correlated (balanced)			Observations per group: min			=	4
Autocorrelation: Panel specific AR(1)			Avg.			=	6.678571
Sigma computed by: case wise selection			Max.			=	7
Estimated Covariance = 406			R-squared			=	0.0372
Estimated autocorrelations = 28			Wald chi2 (3)			=	23.92
Estimated coefficients = 4			Prob> chi2			=	0.0000
Model	ROA	βCoefficient	Std. Err.	Z	P > Z	[95% Conf. Interval]	
	Log(ER)	-1.862119	1.491697	-1.25	0.212	-4.785791	1.061553
	Log(IR)	41.31904	9.203681	4.49	0.000	23.28016	59.35792
	Log(CPI)	2.256533	1.434213	1.57	0.116	-.5544734	5.06754
	Constant	-85.32265	20.14819	-4.23	0.000	-124.8124	-45.83293

Table 2: Panel-Correlated Standard Error (PCSE) model Results

The Walid Chi-square test results in Table 2were significant, with Wald chi2 (3) = 23.92 and p-value = 0.000, implying that the pooled OLS statistical test with Panel Corrected Standard Errors (PCSE) was indeed a good fit to modelling the influence of Macroeconomic Variables (exchange rate, interest rate, and inflation rate) on the financial performance of banks in South Sudan using the study panel data. According to the study results, the PCSE model explained 3.72 percent of the variance in the financial performance of banks in South Sudan, as evidenced by R-Square = 0.0372. While given the number of Macroeconomic Variables (exchange rate, interest rate, and inflation rate), the analysis proposed the following model that predicts the financial results of South Sudan's commercial banks:

ROA = - 85.32265 - 1.862119 log(ER) + 41.31904 log(IR) + 2.256533 log(CPI)

where:

ROA = Return on Asset,

ER= Exchange Rate,

IR= Interest Rate,

CPI = Consumer Price Index (Inflation Rate),

8.3. Discussion of Key Findings

8.3.1 Effect of Exchange Rate on the Financial Performance

Objective one of the papers was to examine the impact of the exchange rate on the financial performance of South Sudanese commercial banks. The null hypothesis (H_{01}) was as follows: H_{01}. There is no substantial relationship between the exchange rate and the financial performance of commercial banks in South Sudan.

Table 9.2.1 reveals that the unstandardized Beta coefficient of the log(ER) is negative but negligible (= -1.862119, p-value = 0.212 > 0.05). The null hypothesis (H_{01}) was not rejected in this case, and the study established that the exchange rate had no substantial effect on the financial performance of South Sudan commercial banks. Because the study used a level-log model,then the β= -1.862119 suggest that a 1% increase in the exchange rate would result in a 0.01862119 (β/100) unit decline in the financial results (ROA) of South Sudan's commercial banks. This result was compatible with (Hossin & Mondol, 2020). However, the study disagreed with (Carolyn & Nyandema, 2016)

8.3.2. Influence of Interest Rate on the Financial Performance

The study's second objective was to examine the influence of interest rates on the financial performance of South Sudan commercial banks. The null hypothesis (H_{02}) was as follows: H_{02}. There is no substantial relationship between interest rates and the financial performance of commercial banks.

Table 9.2.1 reveals that the unstandardized Beta coefficient of the log(IR) is significantly positive (= 41.31904, p-value = 0.000 0.05). The null hypothesis (H_{02}) was rejected in this case, and the study concluded that interest rates had a substantial positive effect on the financial performance of South Sudan commercial banks. Given that the study used a level-log PCSE model, then the β= 41.31904 shows that a 1% increase in interest rates would result in a 0. 4131904 (β/100) unit rise in the financial results (ROA) of commercial banks in South Sudan. The finding of this paper agreed with (Ndlovu&Alagidede, 2018) and (Hossin&Mondol, 2020) **whose findings were the same**

8.3.3. Effect of Inflation Rate (Consumer Price Index, CPI) on the Financial Performance

The study's third objective was to investigate the impact of the inflation rate on the financial results of South Sudan's commercial banks. The null hypothesis was, H_{03}: There is no statistical relationship between the inflation rate and commercial bank financial performance.

Table 9.2.1 reveals that the unstandardized Beta coefficient of the log(CPI) is positive but negligible (= 2.256533, p-value = 0.116 > 0.05). The null hypothesis (H_{03}) was not rejected in this instance, and the analysis indicated that the inflation rate had no noticeable effect on the profitability of South Sudanese commercial banks. The result disagreed with (Abaidoo & Anyigba, 2020) and (Turgut, 2020) who found out that inflation had a significant impact on performance.

8.4. Conclusions and Recommendations

8.4.1. Conclusion of the study

The study's goal was to examine the impact of Macroeconomic Variables (exchange rate, interest rate, and inflation rate) on the financial performance of South Sudan's commercial banks. To obtain the results, the pooled OLS regression model with Panel Corrected Standard Errors (PCSE) was employed. It was concluded that the exchange rate and the inflation rate had no substantial effect on the financial performance of South Sudan commercial banks at a 5% confidence level. While on the interest rate, it was concluded that interest rate had a positive and significant impact on the financial performance of commercial banks in South Sudan at a 5% confidence interval.

8.4.2. Recommendations

The following recommendations were made in the context of the results and conclusions. Among other Macro-Economic issues, commercial banks should pay special attention to interest rate changes, which have a significant impact on the financial success of South Sudan commercial banks. The government should implement regulations and an exchange rate regime that would allow banks to profit from the exchange rate sector. The inflation rate should be monitored to ensure that it is always within the controlof the central bank.

8.5. Suggestionsfor Further Research

Based on the results of this study, the following recommendations for future research were suggested;

Similar studies should be carried out for macroeconomic variables, but this time including GDP growth, money supply, and foreign direct investment.

Another study could look into the impact of macroeconomic variables on the financial performance of South Sudan's commercial banks using a mixed research method with quantitative and a qualitative data.

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