

An Assessment of Financial Performance in the Case of International Banks in South Sudan

Author: Ayii Peter Alier

*Lecturer: Faculty of Economics and Social Studies, Upper Nile University – South Sudan
ayiiirehganyang@gmail.com*

Co-author: Degnet Wondu Yaregal

*Lecturer: Faculty of Business and Economics, Queens' College - Ethiopia
Degnet8001@gmail.com*

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Abstract

The purpose of this study is to use the CAMELS approach to examine financial performance in terms of the stability of foreign banks in South Sudan. The research design that is being used is descriptive quantitative. The multinational banks operating in South Sudan between 2019 and 2023 make up the study's population. The financial statements of foreign banks operating in South Sudan from 2019 to 2023, in the form of an income statement and balance sheet, serve as the study's sample. The statistical package for social sciences (SPSS) and the CAMELS method (capital adequacy, asset quality, management capabilities, earnings, liquidity, and sensitivity) were the data analysis methodologies employed in this study. It can be concluded that the financial performance of international banks in South Sudan from 2019 to 2023 using the CAMELS method is in a healthy predicate for three consecutive years in the quite healthy category. The results showed that the calculation of the CAMELS method in 2019 was in the healthy category and that it was in the quite healthy category for three consecutive years from 2020 to 2022. In addition, there was an increase in the healthy category in 2023.

Key Words: Capital Adequacy, Asset Quality, Management Capabilities, Earnings, Liquidity, Sensitivity, Financial Performance, International Banks.

1. Introduction

According to (Curry, Timothy, Elmer, Peter, Fissel and Gary, 2009), in any economy, the primary source of financial stability is banking. Almost all industries are affected by banks, both directly and indirectly (Muhammad and Haidar (2009). It has a significant impact on the distribution of economic resources and the financial stability of a

nation (Barth, Caprio, and Levine, 2004). In the current economy, banks play an inevitable role and have a wide range of implications for society through the products and services they offer (Berger and DeYoung, 1997; Bekana, 2020). According to (Schumacher, 2009 and Bayyurt, 2013), the banking industry plays a crucial role in the financial system and the strategic advancement of national economies.

The banking sector as a whole contributes by promoting innovation, capital formation, monetization, and the appropriate application of monetary policy (Berger and Mester, 1997). While a controlled rate of inflation supports economic development, a robust business climate boosts investor confidence and consumer confidence (Bikker and Hu, 2002; Derviz and Podpiera, 2008; Doumpos and Zopounidis, 2010; Flamini, McDonald, and Schumacher, 2009; Gilbert and Jaya, 2019; Goddard, Molyneux, and Wilson, 2004; Haider, Liu, Wang and Zhang, 2018; Hasan and Marton, 2003; Hays, Lurgio, and Gilbert, 2009). Any economy's banking industry plays a vital role in promoting economic growth through significant investments in infrastructure and other initiatives (Booth, Aivazian, Demirguc-Kunt and Maksimovic, 2001; Hirtle and Lopez, 1999; Jemric and Vujcic, 2002; Jha and Hui, 2012; Kandrac, 2014; Kasman and Yildirim, 2006). Bank reforms are essential for managing and regulating the flow of money in society, (Boungou, 2019; Emase, 2017; Fadzlan, 2009; Fatima, 2014; Ferrouhi, 2018; Kaur, 2010). The complexity of banking has also increased due to technological developments in the areas of mobile banking, online banking, e-wallets, Fintech, artificial intelligence, etc. (Boyd and Smith, 1998). The South Sudanese banking system works hard to provide its clients with the best possible services (Campbell and Mínguez-Vera, 2008; Chaibi and Ftiti, 2015).

In South Sudan, the official method for assessing the health of domestic and foreign banks is the CAMELS method (Chandani, Mehta and Chandrasekaran, 2014). According to (Chen, Guo, and Mande, 2006; Christopoulos, Mylonakis and Diktapanidis, 2011; Cornett, McNutt and Tehranian, 2009; Crystal, Dages and Goldberg, 2002; Demirgüç-Kunt and Huizinga, 1999), the CAMELS method consists of capital (Capital), asset quality (Asset quality), management (Management), profitability (Earnings), and liquidity (Liquidity) which can be assessed using financial ratios, and finally, sensitivity. Financial ratios obtained from the analysis of financial statements, including ROA, ROE, NIM, and BOPO values, are required in order to apply the CAMELS approach (Kingu, Macha and Gwahula, 2018; Kosmidou, 2008). Every financial ratio has a distinct meaning, application, and goal. Subsequently, every measured ratio result is analyzed to provide it significance for making decisions. One element that will identify a bank's state of health is the CAMELS component (Koutsomanoli-Filippaki, Margaritis and Staikouras, 2009).

International banks are among the financial institutions that, through holding the region's treasury and providing a source of original income through a variety of banking products, contribute significantly to regional development in South Sudan. In order to consistently preserve its stability, the financial performance of the global banks in terms of their soundness should be given high attention (Kumar and Gulati, 2008; Kumari, 2017; La Porta, Lopez-de-Silanes and Shleifer, 2002). The analysis of multinational banks' financial ratios from 2019 to 2023 is as follows:

Table 1: Data ROA, ROE, NIM, BOPO and LDR for International Banks from 2019 to 2023

Bank	Year	ROA (%)	ROE (%)	NIM (%)	BOPO (%)	LDR (%)
1. KCB	2019	4.98	34.13	9.47	60.15	88.87%
2. Equity Bank	2020	3.65	28.32	6.19	68.83	93.22%
3. Cooperative Bank	2021	3.79	23.63	6.51	66.54	94.24%
4. Stanbic Bank	2022	3.46	21.56	5.96	69.11	97.49%
5. Qatar National Bank	2023	2.97	18.58	5.84	75.14	95.18%

Source: Data and information in this research (2024)

According to the aforementioned data, the ROA ratio varied from 4.98% in 2019 to 1.33% in 2017, 3.65% in 2017, and 0.14% in 2021. However, it fell from 3.46% in 2022 and 2.97% in 2023—the last two years. The ratio known as return on assets (ROA) indicates how much profit (profits) management has made relative to the total assets they hold.

The ROE ratio then dropped significantly from 34.13% in 2016 to 5.81 percent in 2020, to 28.32% in 2023, and finally to 18.58% in 2023. This decline was caused by a lower rate of return on equity. A higher ROE indicates that a firm is better at managing its management; a lower ROE indicates that the organization is less effective and efficient at controlling costs (La Porta, Lopez-de-Silanes, and Shleifer, 2002).

The NIM Ratio also varied by 9.47% in 2019 and then dropped by 3.28%, reaching 6.19% in 2020, 6.51% in 2021, and then falling during the final two years until it reached 5.84% in 2023. The NIM ratio increased as a result of deposit interest declining more than lending interest. Nonetheless, this ratio declines as a result of a larger drop in loan interest. The Net Interest Margin, or NIM, is a ratio used to assess how well management controls expenses.

The BOPO ratio was 60.15% in 2019 and then grew to 8.68% in 2020, reaching 68.83% before declining to 2.29% in 2021. The BOPO ratio was 66.54% in 2021, however it has since increased to 69.11% in 2022 and 75.14% in 2023. The table above displays the BOPO ratio over the previous five years, with the exception of 2021, when it fell and the year after that saw an increase (Koutsomanoli–Filippaki, Margaritis and Staikouras, 2009). From 2019 to 2023, the LDR ratio (loan to deposits ratio) climbed dramatically. It was 88.87% in 2019 and increased by 4.35% to reach 93.22% in 2020 before increasing by 1.02%. In 2021, the LDR ratio was 94.24%; it then increased by 3.066% to reach 97.49% in 2022; further, in 2023, it reached 95.18%. The LDR ratio increased as a result of credit (loans) growing faster than savings.

Several of the financial measures mentioned above have experienced significant swings in both rising and falling values. International banks' capacity to sustain financial stability and performance in a manner that keeps them stable and healthy may be impacted by these swings (Chandani, Mehta, and Chandrasekaran, 2014).

Statement of the Problem

In contrast to the global financial crisis, which (except from 2009–10) has exerted pressure on a bank's performance in terms of profitability and capital use, the South Sudanese banking system emerged from the 2013 economic crisis in pieces (Lelissa and Kuhil, 2018; Lin and Zhang, 2009; Liu and Pariyaprasert, 2014). Numerous global banks in South Sudan are dealing with issues like a rise in non-performing assets, a lack of resources, etc. (Magweva and Marime. 2016). In this case, evaluating the banking industry's performance is crucial (Masood, Ghauri, S. M. K., and Aktan, 2016). This study attempts to identify the major factors influencing these banks' financial performance in the South Sudanese economic environment by utilizing the CAMELS model to evaluate and compare the performance of a few foreign banks operating in the country.

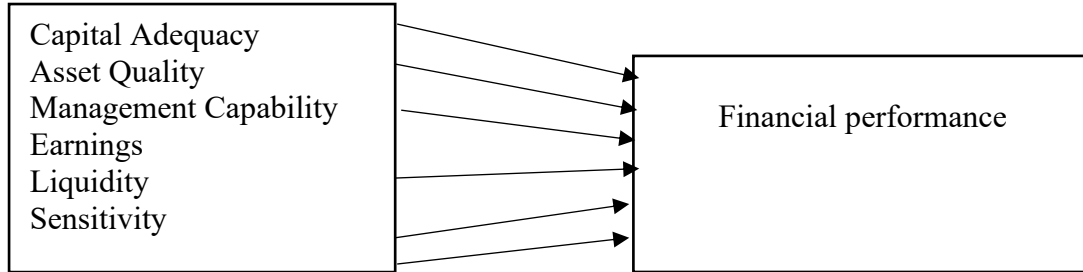
Research Objectives

To identify the impact of financial performance indicators among international banks in South Sudan.

Research Questions

What are the impact of financial performance indicators among international banks in South Sudan?

Figure 1: Conceptual framework



Source: Data and information in this research (2024)

2. Literature review

The abbreviation CAMELS stands for capital adequacy, asset quality, management, earnings, liquidity, and sensitivity (Matar, Al-Rdaydeh, and Odeh, 2018; Mbabazize, Turyareeba, Ainomugisha, and Rumanzi, 2020; Micco and Panizza, 2006; Micco, Panizza and Yañez, 2007). It is a widely accepted international rating system that bank regulatory agencies use to assign a rating to financial institutions based on these six variables (Haider, Liu, Wang and Zhang, 2018). Each bank is given a score for each factor on a scale by supervisory agencies (Miguel, Martínez and Preciado, 2018; Mileris, 2012). A score of one indicates excellence, while a score of five indicates subpar performance (Milne and Wiley, 2001; Hirtle and Lopez, 1999).

The method makes it easier to identify banks that are risky and weak so those banks can address their problems (Mishra, Harsha, Anand and Dhruva, 2012). Therefore, banks with average scores of less than two are regarded as higher-quality institutions, whereas those with scores more than three are regarded as less-than-satisfactory institutions (Mohan and Ruggiero, 2007). A bank is likely to undergo more examinations if its score is higher (Narwal and Pathneja, 2016). The factors capital adequacy, asset quality, management, earnings, liquidity, and sensitivity are used by examiners to grade financial institutions (Flamini, McDonald and Schumacher, 2009). These factors are referred to by the abbreviation CAMELS. Let's examine each factor in greater detail. A score of five represents the worst:

Capital Adequacy: (Kosmidou, 2008) stressed that examiners use capital trend analysis to determine an institution's level of capital adequacy. He also said examiners also make sure that institutions follow rules about the standards for risk-based net worth. In addition to adhering to interest and dividend regulations and procedures, institutions need to have a high capital adequacy rating (Neceur, 2003). The evaluation and assessment of an organization's capital sufficiency also takes into account the growth objectives, economic climate, risk management capabilities, and loan and investment concentrations of the institution (Curry, Timothy, Elmer, Peter, Fissel and Gary, 2009; Barth, Caprio and Levine, (2004; Chandani, Mehta and Chandrasekaran, 2014).

Asset Quality: According to (Goddard, Molyneux and Wilson, 2004) the quality of an institutional loan is determined by its asset quality, which is a reflection of the institution's earnings, (Muhammad and Haidar, 2009). Rating potential investment risk factors for the bank and weighing them against capital earnings are key components of assessing asset quality (Gilbert and Jaya, 2019; Booth, Aivazian, Demircuc-Kunt and Maksimovic, V. (2001).

This demonstrates the bank's resilience to certain risks. Examiners also look at how a company's book value of investments compares to the fair market value of those investments (Hasan and Marton, 2003). The effectiveness of an institution's investing rules and procedures is the final factor that indicates asset quality (Barth, Caprio and Levine, 2004; Campbell and Mínguez-Vera, 2008).

Management Capabilities: According to (Magweva and Marime, 2016) management capabilities is the ability of an organization to respond appropriately to financial strain is assessed by management. The capacity of the management to identify, quantify, monitor, and control risks in the institution's day-to-day operations is reflected in this component ranking (Hays, De Lurgio and Gilbert, 2009). As long as management complies with all relevant internal and external regulations, it encompasses the ability to guarantee the institution operates safely (Bayyurt, 2013; Kumari, 2017).

Earnings: A bank's ability to generate enough revenue to support operations, grow, and maintain its competitiveness is a crucial component in determining how viable it will remain in the long run (Bekana, 2020; Gwahula, 2018; Jemric and Vujcic, 2002; Jha and Hui, 2012).

In order to ascertain this, examiners evaluate the bank's profitability, growth, stability, valuation allowances, net margins, net worth level, and the caliber of its current asset holdings (Doumpos and Zopounidis, 2010). A bank makes money from non-interest sources like fees as well as interest-earning assets like loans (Berger and De Young, 1997).

Liquidity: Examiners evaluate a bank's liquidity based on a number of factors, including its susceptibility to interest rate fluctuations, the availability of easily convertible assets, its reliance on short-term, volatile financial resources, and its technical proficiency in asset and liability management (Berger and Mester, 1997; Crystal, Dages and Goldberg, 2002).

Sensitivity: Sensitivity studies the impact that specific risk exposures may have on organizations. Examiners keep an eye on the management of credit concentrations to determine how sensitive an institution is to market risk (Cornett, McNutt and Tehranian, 2009). Examiners can see how lending to particular industries impacts an institution in this way (Bikker and Hu, 2002).

These loans cover credit card lending, medical financing, lending to the energy sector, and lending to agriculture. Rating a company's vulnerability to market risk also takes into account its exposure to derivatives, foreign exchange, commodities, and stocks (Booth, Aivazian, Demirguc-Kunt and Maksimovic, 2001; Chen, Guo and Mande, 2006; Chandani, Mehta, Chandrasekaran, 2014).

3. Methodology

Population and Sample Size

According to the research questions and objectives, there is need to determine the population and calculate the sample size:

Population: The population for this research are international banks' staff and workers in Juba City. For this research, researcher sample from lists and people available. A target population can be defined as a group of individuals or a group of organization with common characteristics that the researcher can identify and study (Boungou, 2019; Boyd and Smith, 1998). The target population for five international banks in Juba was 9,870 people.

Sample: This involves calculating the sample size based on the above population size. In quantitative research, the sample refers to the participants who provide data in the research (Yamane, 1973). In this study, the Yamane Teruhiro formula was used to determine the sample size. First, a finite population should be dealt with if the population size is known, according to the equation formula. Yamane equation:

$$n = \frac{N}{1 + Ne^2}$$

The Yamane formula determines the sample size according to the research conditions: n is the sample size, N is the population size, and e is the sampling error assumed as 0.05. According to the data, the target population of the study is about 4,846 people over the age of 51 in Juba City. With a 5% margin of error and a 95% confidence level, the sample size is: $n = 9,870 / (1 + 9,870 (0.05)^2)$ which is 370 and so, the sample size is 370 people. 370 questionnaires were dispersed using a purposive sampling method, 6 were deleted by using Mahalanobis by detecting the outliers at 0.005 level of significance, therefore, 364 were returned as usable questionnaire. A 93.7% response rate was indicated by the 364 questionnaires that were received in usable condition. Both qualitative and quantitative analysis were used in this study using a mixed method research design.

Table 2: Financial Performance Level of International Banks using CAMELS Method from 2019 to 2023 in South Sudan

S/NO	Year	International Banks	CAMEL RATIO (%)	Predicate
1.	2019	Kenya Commercial Bank (KCB)	83.2	Healthy
2.	2020	Equity Bank	75.6	Quite Healthy
3.	2021	Cooperative Bank	72.6	Quite Healthy
4.	2022	Stanbic Bank	78.7	Quite Healthy
5.	2023	Qatar National Bank (QNB)	92.3	Healthy

Source: Data and information in this research (2024)

According to above table 2, financial performance of international banks listed above in South Sudan as per the best in those years was KCB with 83.2% in 2019 and the best of them in 2022 was Stanbic bank with 78.7%. however, high increase is expected to come by using financial factors like, growth profit margin, net profit margin, leverage, working capital, return on equity and return on assets as better assessment factors for international banks' performance in South Sudan.

Measurement

The self-administered questionnaire had 370 items that needed to be answered in order to assess the quality of international banks in South Sudan. Questions utilizing a 5-point Likert scale, with 1 denoting "strongly disagree" and 5 denoting "strongly agree," were distributed to the respondents. Both of the variables were measured using scales that were found in an earlier literature review.

Data Analysis

By creating summaries, identifying trends, and using statistical techniques e.g. mean, standard deviation, regression analysis and sample size determination (Christopoulos, Mylonakis and Diktapanidis, 2011). However, data analysis seeks to reduce the amount of accumulated data to a manageable size (Campbell and Mínguez-Vera, 2008; Chaibi and Ftiti, 2015; Chandani, Mehta and Chandrasekaran, 2014). The statistical package for social sciences (SPSS) version 22 was used to code and record the data for analysis.

4. Results and Analysis

Demographic Information

Table 3: Gender of Respondents

	Frequency	Cumulative Percent
Male	274	75.3
Female	90	24.7
Total	364	100.0

Source: Survey Data (2024)

Table 3 above provides an overview of the respondents. It indicates that the respondents with the highest percentage were male 274 (75.3%) while female had 90 (24.7%), thereby indicating that international banks majorly in Juba city has more male employees compare to female employees.

Table 4: Age of Respondents

	Frequency	Cumulative Percent
25-34 years	50	13.7
35-44 years	48	13.2
45-54 years	196	53.8
55-64 years	45	12.4
65 years old or above	25	6.9
Total	364	100.0

Source: Survey Data (2024)

The respondents were asked to indicate the age group the belonged to and the results are as shown. Table 4 shows that 13.7% (50) of the respondents are between 25-34 years of age, 13.2% (48) are between 35-44 years, 53.8% (196) are between 45-54 years, 12.4% (45) are between 55-64 years while 6.9 % (25) are 65 years old or above. This shows that majority of the respondents were aged between 45 and 54 years.

Table 5: Educational Qualifications

	Frequency	Cumulative Percent
Bachelor's Degree	244	67.0
Postgraduate Degree	100	27.5
Master's Degree	20	5.5
Total	364	100.0

Source: Survey Data (2024)

The respondents were asked to indicate the level of education they belonged to and the results are as shown. Table 5 shows that 67% (244) of the respondents had bachelor's degree, 27.5% (100) had postgraduate's degree, and finally, 5.5% (20) had master's degree. This shows that majority of the respondents had bachelor's degree at international banks in Juba City.

Table 6: Work Experience

	Frequency	Cumulative Percent
Valid Less than 1 year	49	13.5
1-5 years	98	26.9
6-10 years	197	54.1
11-15 years	20	5.5
Total	364	100.0

Source: Survey Data (2024)

The respondents were asked to indicate the level of work experience they belonged to and the results are as shown. Table 6 shows that 13.5% (49) of the respondents had worked for less than 1 year, 26.9% (98) had worked for 1-5 years, 54.1% (197) had worked for 6-10 years, and finally, 5.5% (20) had worked for 11-15 years. This shows that majority of the respondents had worked at international banks for 6-10 years in Juba City.

Level of Respondents' Responses for Assessment of Financial Performance on International Banks

The respondents were asked to rate various employee training factors using the scale 'SD = Strongly, Disagree, D = Disagree, N = Neutral, A = Agree, SA = Strongly Agree'. The results of the study were as follows:

Table 7: Capital Adequacy

	Frequency	Mean	Std. Deviation	Cumulative Percent
Strongly Disagree	48	1.6066	.55547	13.2
Disagree	30	1.7088	.25658	8.2
Neutral	20	1.8644	.03473	5.5
Agree	73	2.9757	1.46577	20.1
Strongly Agree	193	2.9966	1.46588	53.0
Total	364			100.0

Source: Survey Data (2024)

The respondents were asked to indicate the level of response for capital adequacy and the results are shown. Table 7 shows that 13.2% (48) of the respondents strongly disagree, 8.2% (30) disagree, 5.5% (20) were neutral, 20.1% (73) of the respondents agree while 53% (193) of the respondents strongly agree. This shows that majority of the respondents strongly agree that capital adequacy is an essential factor for assessment of financial performance for international banks in Juba.

Table 8: Factor resource for Capital Adequacy

Factors	Frequency	Percentage
For rating financial institution's capital.	150	41.2
It is enough capital for operation.	56	15.8
It shows available cash for operation.	64	17.6
It determines growth plans	94	25.8

According to table 8 above, the least picks for respondents were; 15.8% (56) and 17.6% (64) accounting for, it is enough capital for operation and It shows available cash for operation. However, the highest picks were it determines growth plans 25.8 (94) and for rating financial institution's capital 41.2 (150). This show that capital adequacy perfectly fit as a financial factor for assessment of financial performance for international banks in South Sudan.

Table 9: Asset Quality

	Frequency	Mean	Std. Deviation	Cumulative Percent
Strongly Disagree	57	1.4222	1.07659	15.7
Disagree	10	1.0532	.05559	2.7
Neutral	28	1.1648	.06462	7.7
Agree	199	2.6674	1.29457	54.7
Strongly Agree	70	2.6676	1.28986	19.2
Total	364			100.0

Source: Survey Data (2024)

The respondents were asked to indicate the level of response for asset quality and the results are shown. Table 9 shows that 15.7% (57) strongly disagree, 2.7% (10) disagree, 7.7% (28) were neutral, 54.7% (199) agree while 19.2% (70) of the respondents strongly agree. This indicates that majority of the employees agree that asset quality is an essential factor for assessment of financial performance for international banks in Juba.

Table 10: Factor resource for Asset Quality

Factors	Frequency	Percentage
Measures how much net asset or profit a company generates as a percentage of its revenue.	88	24.2
Used to compare companies net assets regularly.	96	26.4
Represents the portion of asset that remains as reserve during the operation of business.	138	37.9
Asset quality assures long term firm's success.	42	11.5

According to table 10 above, factors of asset quality were analyzed in that factor with lowest percentage is 11.5% (42) and highest is 37.9% (138) indicating true genuineness of asset quality as positive predictor of assessing financial performance of international banks in South Sudan and respondents answered all questions with interest and enthusiasm.

Table 11: Management Capabilities

	Frequency	Mean	Std. Deviation	Cumulative Percent
Strongly Disagree	68	1.6228	1.53573	18.7
Disagree	10	1.6366	.53470	2.7
Neutral	20	1.7352	.53456	5.5
Agree	78	2.8368	1.63572	21.4
Strongly Agree	188	2.8378	1.73514	51.7
Total	364			100.0

Source: Survey Data (2024)

The respondents were asked to indicate the level of response for management capabilities and the results are shown. Table 11 shows that 18.7% (68) strongly disagree, 2.7% (10) disagree, 5.5% (20) were neutral, 21.4% (78) agree while 51.7% (188) of the respondents strongly agree. This indicates that majority of the employees agree that management capabilities is an essential factor for assessment of financial performance for international banks in Juba.

Table 12: Factor resource for Management Capabilities

Factors	Frequency	Percentage
It measures a company's liquidity and short-term Financial success.	69	20.3
It plans the cost of buying raw materials, paying wages, and covering expenses.	113	33.2
It enhances liquidity, solvency, creditworthiness, and reputation of the enterprise.	82	24.1
It gives businesses borrowing power and can help with long term progress	76	22.4

Table 12 show factors of management capabilities such as; it measures a company's liquidity and short-term financial success at 20.3% (69), it plans the cost for purchasing raw materials, paying wages, and covering expenses at 33.2% (113), it enhances liquidity, solvency, creditworthiness and reputation of the enterprise at 24.1% (82), and finally, working capital gives borrowers power and can help with long term progress at 22.4% (76). This implies that management capabilities is a positive predictor of assessing financial performance of international banks as evidenced by 33.2% and that all respondents responded all the questions with ease.

Table 13: Earnings

	Frequency	Mean	Std. Deviation	Cumulative Percent
Strongly Disagree	39	1.7864	1.05194	10.7
Disagree	35	1.6658	.06186	9.6
Neutral	15	1.1866	.07174	4.1
Agree	76	2.9838	1.28087	20.9
Strongly Agree	199	2.9868	1.39114	54.7
Total	364			100.0

Source: Survey Data (2024)

The respondents were asked to indicate the level of response for earnings and the results are shown. Table 13 shows that 10.8% (40) strongly disagree, 9.5% (35) also disagree, 4.1% (15) were neutral, 21.6% (80) agreed while 54% (200) strongly agree. This indicates that earnings is an essential factor for assessment of financial performance for international banks in Juba.

Table 14: Factor resource for Earnings

Factors	Frequency	Percentage
Enables the bank to sustain its activities.	61	16.8
Earnings can help the bank to expand.	58	15.9
It can help the bank to remain competitive.	112	30.8
It helps in determining existing net assets.	133	36.5

According to table 14, factors for financial leverage shows that the respondents responded by answering all questionnaires in that factor with lowest was 15.9% (58) and the highest was 36.5% (133) which signifies that financial leverage is a positive predictor of assessing financial performance of international banks in South Sudan as analyzed above.

Table 15: Liquidity

	Frequency	Mean	Std. Deviation	Cumulative Percent
Strongly Disagree	18	1.0158	.26545	4.9
Disagree	48	1.0162	1.02555	13.2
Neutral	29	1.0180	.27442	8.0
Agree	69	2.0276	1.28545	19.0
Strongly Agree	200	2.0280	1.29582	54.9
Total	364			100.0

Source: Survey Data (2024)

The respondents were asked to indicate the level of response for liquidity and the results are shown. Table 15 shows that 4.9% (18) strongly disagree, 13.2% (48) disagree, 8% (29) were neutral, 19% (69) agreed while 54.9% (200) of the respondents strongly agree. This indicates that majority of the employees agree that liquidity is an essential factor for assessment of financial performance for international banks in Juba using CAMELS method.

Table 16: Factor resource for Liquidity

Factors	Frequency	Percentage
Liquidity is a measure of a company's financial performance.	209	57.4
It preserves a company's net assets.	71	19.5
Liquidity is a gauge of a corporation's profitability and How efficiently it generates those profits.	56	15.4
Liquidity ensures long term stability of the bank	28	7.7

In table 16 above, the respondents were asked to indicate the level of response for liquidity and the results are shown. The table shows that liquidity is a measure of a company's financial performance has 57.4% (209), it preserves a company's net assets 19.5 (71), liquidity is a gauge of a corporation's profitability and how efficiently it generates those profits 15.4 (56), finally, liquidity ensures long term stability of the bank 7.7 (28). This shows that liquidity is an essential factor for assessment of financial performance for international banks in Juba using CAMELS method

Table 17: Sensitivity

	Frequency	Mean	Std. Deviation	Cumulative Percent
Strongly Disagree	19	1.1852	.04824	5.2
Disagree	11	1.1228	.04862	3.0
Neutral	18	1.1744	.05758	5.0
Agree	121	2.2976	1.06665	33.2
Strongly Agree	195	2.2988	1.07522	53.6
Total	364			100.0

Source: Survey Data (2024)

The respondents were asked to indicate the level of response for sensitivity factors and the results are shown. Table 17 shows that 5.2% (19) strongly disagree, 3% (11) disagree, 5% (18) were neutral, 33.2% (121) agreed while 53.6% (195) of the respondents strongly agree. This indicates that majority of the employees strongly agree that sensitivity is an essential factor for assessment of financial performance for international banks in Juba using CAMELS method.

Table 18: Factor resource for Sensitivity

Factors	Frequency	Percentage
Sensitivity covers how particular risk exposures can affect banking institution.	177	48.6
Monitors the management of credit concentrations.	62	17.0
Enables examiners to see how lending to specific industries can affect an institution.	80	22.0
It gives the bank an exposure to foreign exchange, credit card lending, and derivatives.	45	12.4

According to table 18 above, the respondents were asked to indicate the level of response for ROA and the results are shown. Table 16 shows that sensitivity is a CAMELS method factor that covers how particular risk exposures can affect banking institution 48.6% (177), monitors the management of credit concentrations 17% (62), enables examiners to see how lending to specific industries can affect an institution 22% (80), finally, it gives the bank an exposure to foreign exchange, credit card lending, and derivatives 12.4% (45). According to analysis, it indicates that sensitivity is an essential factor for assessment of financial performance for international banks in Juba using CAMELS method

Table 19: Correlations Model

Model factors		Capital Adequacy	Asset Quality	Mgt Capabilities	Earnings	Liquidity	Sensitivity
Capital Adequacy	Pearson Correlation (2-tailed)	1 .000 340	.937** .000 340	.975** .000 340	.980** .000 340	.881** .000 340	.762** .000 340
Asset Quality	Pearson Correlation (2-tailed)	.935** .000 340	1 .000 340	.936** .000 340	.933** .000 340	.830** .000 340	.681** .000 340
Management Capabilities	Pearson Correlation (2-tailed)	.976** .000 340	.938** .000 340	1 .000 340	.960** .000 340	.848** .000 340	.763** .000 340
Earnings	Pearson Correlation (2-tailed)	.982** .000 340	.933** .000 340	.958** .000 340	1 .000 340	.876** .000 340	.754** .000 340
Liquidity	Pearson Correlation (2-tailed)	.883** .000 340	.834** .000 340	.849** .000 340	.877** .000 340	1 .000 340	.791** .000 340
Sensitivity	Pearson Correlation (2-tailed)	.764** .000 340	.682** .000 340	.765** .000 340	.756** .000 340	.793** .000 340	1 .000 340

** Correlation is significant at the 0.01 level (2-tailed).

Table 19 below illustrates the correlation model; the coefficients shows that all the eight factors measuring brand preference were all positively related within the range of .681** to .98** , all were significant at $p < 0.01$ level. The analysis did not reveal any negative correlational relationship as the variables are all significantly related.

Table 20: Coefficient of Determination

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.748 ^a	.685	.007	1.50085

a. Predictors: Financial products (Constant), Accountability, Profitability

The regression model (see table 20) shows the Model coefficient of determination or R² found indicates that 68.5% of the variation in the measurement (financial products, profitability and accountability) can be described by shares, bonds, investment funds, job satisfaction, rewards and recognition, growth strategy, higher levels of trust, higher employee engagement, an effective & efficient communication. The remaining 31.5% of variations on the nature of financial institution are explained by other variables out of this model or variables which are not incorporated in this study.

Table 21: ANOVA^a

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	10.047	2	5.024	2.230	109 ^b
	Residual	759.114	337	2.253		
	Total	769.162	339			

a. Independent Variable: Financial products**b. Predictors: Financial products (Constant), Accountability, Profitability**

The ANOVA indicated that there was significant ($p < 0.05$) relationship between the dependent variable and independent variable. There is no significant variation between independent and dependent variable with ($F = 2.230$).

Table 22: Regressions Model

Model		Unstandardized		Standardized	t	Sig.
		Coefficients		Coefficients		
		B	Std. Error	Beta		
1	Capital Adequacy	.196	.051		3.875	.000
	Asset Quality	.021	.026	.019	2.804	.422
	Management Capabilities	.357	.029	.385	2.249	.000
	Earnings	.433	.041	.411	1.619	.000
	Liquidity	.151	.045	.132	2.386	.001
	Sensitivity	.081	.022	.062	2.380	.000

a. Independent Variable: Capital Adequacy

b. Predictors: Capital Adequacy, Asset Quality, Management Capabilities, Earnings, Liquidity, Sensitivity.

The coefficients show that all the eight factors measuring financial performance were all positively related within the range of (1.619 to 3.875), all were significant at $P < 0.05$ level. One dependent variable i.e. capital adequacy shows a moderate level of positive relation with the dependent variables (asset quality, management capabilities, earnings, liquidity and sensitivity).

The study revealed the influence of capital adequacy on the performance of international banks in South Sudan with a t-statistics that is higher than $P < 0.05$ (3.875) signifying that capital adequacy is first essential factor for measuring the performance of international banks across different respondents of diverse educational group using CAMELS method. The statistical test shows that asset quality is also significant ($p < 0.05$) as shown by t-statistics, ($t = 2.804$) as second predictor of financial performance ($\beta = 0.19$, $p = 0.84$) as it is higher than $P < 0.05$ (and consumers consider it a useful factor for measuring financial performance).

The statistical test shows that management capabilities is significant $p < 0.05$ as third predictor of financial performance of international banks in South Sudan ($\beta = .357$, $P = 2.249$) signifying that management capabilities is a significant factor for measuring the performance of international banks using CAMELS method. The respondents were also impressed with earnings as a fourth positive predictor for assessing the performance of international banks in South Sudan as t - statistics reveals, $t = 1.619$ signifying true relevance of earnings quality as an authentic factor for measuring performance of

international banks in South Sudan. Furthermore, the respondents also responded positively by acknowledging that liquidity and sensitivity as fifth and sixth predictors are significant factors for assessing financial performance of international banks as t - statistics reveals, ($t = 2.386$ and $t = 2.380$) signifying true significance of these two factors as positive predictors of financial performance of international banks in South Sudan using CAMELS method.

Conclusions

Based on the findings of the study, the following conclusions have been drawn;

1. Based on the survey's findings, there are more male respondents than female respondents. The researcher conclude that female respondents are more shy to respond than male respondents.
2. The researcher conclude that more work should be done to improve impact of earnings quality, liquidity and sensitivity as their t – statistics are quite lower compared to other factors. The researcher concludes that management capabilities stands at a healthy value as it shows continuous success of financial performance of international banks in South Sudan.
3. The researcher conclude that all six factors responsible for assessing financial performance are interrelated and offers positive significant impact towards measuring financial performance of international banks in South Sudan.
4. Finally, the researcher concluded that CAMELS method is the best rating method as well as SPSS for measuring healthy and unhealthy predicate of the financial performance of international banks in South Sudan as evidenced by the results in table 1, table 2 and table 22.

Implications

This study confirms earlier research findings in the literature about financial performance from the viewpoint of financial performance for international banks in South Sudan, focusing on five key factors: growth profit margin, net profit margin, working capital, leverage, return on equity and return on assets.

First, while the literature on assessing financial performance is expanding, there are only a few empirical studies examining the idea within financial performance in the

context of international banks. Before previous studies has been done from Asian and European context. Little research has been conducted from African countries' perspectives. The data was gathered in South Sudan, one of the newest economies in the world, where the market is vibrant and competitive. This paper finally set out to explore employee training and business performance, wherein the current study remains inconclusive.

Finally, the study's managerial implications primarily center on enhancing the assessment of financial performance of international banks South Sudan.

Limitations of the study

By choosing not to reply to the questionnaires that were sent to them, a few of the study's targeted participants chose not to provide any information. There is a chance that the non-respondents omitted some important information, which would have introduced response bias into the current study.

In addition, the study's small sample size was considerably small hence, leading to generation of limited results applied in this research. Furthermore, the current study was carried out in Juba City, where the commercial banks operates differently than it does in rural areas. It's assumed that it could have been different were this research conducted in another city in South Sudan as limitations may vary because of limited resources in most cities in the case of accessing research inputs. These variations could limit the findings' general applicability and reduce their usefulness.

Future research/studies

However, thorough further studies need to be done on this topic to enhance adequate knowledge to assess the financial performance of international banks either in South Sudan or outside the country so scholars and researchers may have more and comprehensive understanding of this study. The data for similar study is recommended to have big data for comprehensive analysis and results of the study.

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Yaregal; conclusion: Ayii Peter Alier; original draft preparation and editing: Ayii Peter Alier and Degnet Wonda Yaregal. Both authors have read and agreed to the published version of the manuscript. Both the authors made substantial contributions to the conception and design of the work, the analysis, and the consideration of the main conclusions. Both the authors approved the submitted version. Both the authors agreed to be personally accountable for their own contributions and for ensuring that questions related to the accuracy or integrity of any part of the work, even ones in which the authors were not personally involved, are appropriately investigated, resolved, and documented in the literature. All authors have read and agreed to the published version of the manuscript.

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References

- Curry, Timothy J., Elmer, Peter J., Fissel and Gary S. 2009, September 11. "Using Market Information to Help Identify Distressed Institutions: A Regulatory Perspective". Retrieved October 10, 2011. Available at:
[http://www.fdic.gov/bank/analytical/banking/2003sep/1_15n3 .pdf](http://www.fdic.gov/bank/analytical/banking/2003sep/1_15n3.pdf)
- Muhammad and Haidar. 2009. "Banks and Camels". Retrieved October 15, 2011.
Available at: <http://ezinearticles.Com/?Banks-And-CamelsandId=2565867>
- Barth, J., Caprio, G., & Levine, R. 2004. Bank supervision and regulation: What works best? *Journal of Financial Intermediation*, 13, 205–248.
<https://doi.org/https://doi.org/10.1016/j.jfi.2003.06.002>
- Bayyurt, N. 2013. Ownership effect on bank's performance: Multi criteria decision making approaches on foreign and domestic Turkish banks. *Procedia - Social and Behavioral Sciences*, 99, 919–928.
<https://doi.org/https://doi.org/10.1016/j.sbspro.2013.10.565>

- Bekana, D. M. 2020. Innovation and economic growth in sub-Saharan Africa: Why institutions matter? An empirical study across 37 countries. *Journal of Economic Theory and Practice*, 1–40.
<https://doi.org/https://doi.org/10.1177/0976747920915114>
- Berger, A. N., and DeYoung, R. 1997. Problem loans and cost efficiency in commercial banks. *Journal of Banking and Finance*, 21, 849–870.
[https://doi.org/https://doi.org/10.1016/S0378-4266\(97\)00003-4](https://doi.org/https://doi.org/10.1016/S0378-4266(97)00003-4)
- Berger, A. N., and Mester, L. J. 1997. Inside the black box: What explains differences in the efficiencies of financial institutions? *Journal of Banking and Finance*, 21 (7), 895–947. [https://doi.org/http://dx.doi.org/10.1016/S0378-4266\(97\)00010-1](https://doi.org/http://dx.doi.org/10.1016/S0378-4266(97)00010-1)
- Bikker, J. A., and Hu, H. 2002. Cyclical patterns in profits, provisioning and lending of banks and procyclicality of the new basel capitak requirements. *BNL Quarterly Review*, 55(221), 143–175. <https://ideas.repec.org/a/psl/bnlqrr/200222.html>
- Booth, L., Aivazian, V., Demirguc-Kunt, A., and Maksimovic, V. 2001. Capital structures in developing countries. *The Journal of Finance*, 56 (1), 87–130.
<https://doi.org/http://dx.doi.org/10.1111/0022-1082.00320>
- Bougou, W. 2019. Negative interest rates, bank profitability and risk-taking. In *Sciences PO OFCE working paper (Vol. 10, pp. 1–41)*. SSRN. www.ofce.sciences-po.fr/pdf/dtravail/WP2019-10.pdf
- Boyd, J., and Smith, B. 1998. Capital market imperfections in a monetary growth model. *Economic Theory*, 11 (2), 241–273.
<https://doi.org/https://doi.org/10.1007/s001990050187>
- Campbell, K., and Mínguez-Vera, A. 2008. Gender diversity in the boardroom and firm financial performance. *Journal of Business Ethics*, 83 (3), 435–451.
<https://doi.org/https://doi.org/10.1007/s10551-007-9630-y>
- Chaibi, H., and Ftiti, Z. 2015. Credit risk determinants: Evidence from a cross-country study. *Research in International Business and Finance*, 33, 1–16.
<https://doi.org/https://doi.org/10.1016/j.ribaf.2014.06.001>
- Chandani, A., Mehta, M., and Chandrasekaran, K. B. 2014. A working paper on the impact of gender of leader on the financial performance of the bank: A case of ICICI bank. *Procedia Economics and Finance*, 11(2014), 459–471.
[https://doi.org/https://doi.org/10.1016/S2212-5671\(14\)00212-3](https://doi.org/https://doi.org/10.1016/S2212-5671(14)00212-3)
- Chen, C. R., Guo, W., and Mande, V. 2006. Corporate value, managerial stockholdings and investments of Japanese firms. *Journal of International Financial Management & Accounting*, 17 (1), 29–51. <https://doi.org/https://doi.org/10.1111/j.1467-646X.2006.00120.x>

- Christopoulos, A. G., Mylonakis, J., and Diktapanidis, P. 2011. Could Lehman brothers collapse be anticipated? an examination using CAMELS rating system. *International Business Research*, 4 (2), 11–19.
<https://doi.org/https://doi.org/10.5539/ibr.v4n2p11> .
- Cornett, M. M., McNutt, J. J., and Tehranian, H. 2009. Corporate governance and earnings management at large US bank holding companies. *Journal of Corporate Finance*, 15), 412–430.
<https://doi.org/https://doi.org/10.1016/j.jcorpfin.2009.04.003>
- Crystal, J. S., Dages, G., and Goldberg, L. S. 2002. Has foreign bank entry led to sounder banks in Latin America? *Federal Reserve Bank of New York Current Issues in Economics and Finance*, 8(1), 2–5.
https://www.newyorkfed.org/medialibrary/media/research/current_issues/ci8-1.html
- Demirgüç-Kunt, A., and Huizinga, H. 1999. Determinants of commercial bank interest margins and profitability: Some international evidence. *The World Bank Economic Review*, (13), 379–408.
<https://doi.org/https://doi.org/10.1093/wber/13.2.379>
- Derviz, A., & Podpiera, J. 2008. Predicting bank CAMELS and S&P ratings: The case of the Czech Republic. *Emerging Markets Finance and Trade*, 44 (1), 17–130.
<https://doi.org/https://doi.org/10.2753/REE1540-496X440107>
- Doumpos, M., & Zopounidis, C. 2010. A multicriteria decision support system for bank rating. *Decision Support Systems*, 50 (1), 55–63.
<https://doi.org/https://doi.org/10.1016/j.dss.2010.07.002>
- Emase, M. A. 2017. Effect of macroeconomic factors on the profitability of commercial banks listed at the Nairobi securities exchange in Kenya. *The School of Business And Public Management, KCA University*.
<http://41.89.49.13:8080/xmlui/handle/123456789/1325>
- Fadzlan, S. 2009. Determinants of bank profitability in a developing economy: Empirical evidence from the China banking sector. *Journal of Asia-Pacific Business*, 10 (4), 201–307. <https://doi.org/https://doi.org/10.1080/10599230903340205>
- Fatima, N. 2014. Capital adequacy: A financial soundness indicator for banks. *Global Journal of Finance and Management*, 6(8), 771–776.
https://www.ripublication.com/gjfm-spl/gjfmv6n8_12.pdf
- Ferrouhi, E. M. 2018. Determinants of banks' profitability and performance: An overview. *MPRA Paper*, 89470, 1, 1–15. <https://mpra.ub.uni-muenchen.de/89470/>

- Flamini, V., McDonald, C., & Schumacher, L. 2009. Determinants of profitability in Sub-Saharan Africa (pp. 1–30). IMF: IMF Working Paper NO 09/15. International Monetary Fund. <https://doi.org/https://doi.org/10.5089/9781451871623.001>
- Gilbert, B., & Jaya, S. 2019. Inflation and Profitability of Commercial Banks in Rwanda: A Case Study of Bank of Kigali. *International Journal of Business and Management*, 14 (10), 35–43.
<https://doi.org/https://doi.org/10.5539/ijbm.v14n10p35>
- Goddard, J., Molyneux, P., and Wilson, J. O. S. 2004. The profitability of European banks: A cross-sectional and dynamic panel analysis. *Manchester School*, 721, 363–381. <https://doi.org/https://doi.org/10.1111/j.1467-9957.2004.00397.x>
- Haider, Z. A., Liu, M., Wang, Y., and Zhang, Y. 2018. Government ownership, financial constraint, corruption, and corporate performance: International evidence. *Journal of International Financial Markets, Institutions and Money*, 53, 76–93.
<https://doi.org/https://doi.org/10.1016/j.intfin.2017.09.012>.
- Hasan, I., and Marton, K. 2003. Development and efficiency of the banking sector in a transitional economy: Hungarian experience. *Journal of Banking & Finance*, 27(12), 2249–2271. [https://doi.org/https://doi.org/10.1016/S0378-4266\(02\)00328-X](https://doi.org/https://doi.org/10.1016/S0378-4266(02)00328-X)
- Hays, F. H., De Lurgio, S. A., and Gilbert, A. H. 2009. Efficiency ratios and community bank performance. *Journal of Finance and Accountancy*, 1(1), 1–15.
<http://www.aabri.com/manuscripts/09227.pdf>
- Hirtle, B. J., and Lopez, J. A. 1999. Supervisory information and the frequency of bank examinations. *FRBNY Economic Policy Review*, 5(1), 1–19.
<https://ssrn.com/abstract=1004357>
- Jemric, I., & Vujcic, B. 2002. Efficiency of banks in Croatia: A DEA approach. *Comparative Economic Studies*, 44(2–3), 169–193.
<https://doi.org/https://doi.org/10.1057/ces.2002.13>
- Jha, S., and Hui, X. 2012. A comparison of financial performance of commercial banks: A case study of Nepal. *African Journal of Business Management*, 6 (25), 7601–7611. <https://doi.org/https://doi.org/10.5897/AJBM11.3073>
- Kandrac, J. 2014. Modelling the causes and manifestation of bank stress: An example from the financial crisis. *Applied Economics*, 46 (35), 4290–4301.
<https://doi.org/https://doi.org/10.1080/00036846.2014.955257>
- Kasman, A. and Yildirim, C. 2006. Cost and profit efficiencies in transition banking: The case of new EU members. *Applied Economics*, 38 (9), 1079–1090.
<https://doi.org/https://doi.org/10.1080/00036840600639022>

- Kaur, H. V. 2010. Analysis of banks in India - A CAMEL approach. *Global Business Review*, 11, 257–280.
<https://doi.org/https://doi.org/10.1177/097215091001100209>
- Kingu, P. S., Macha, D. S., and Gwahula, D. R. 2018. Impact of non-performing loans on bank's profitability: Empirical evidence from commercial banks in Tanzania. *International Journal of Scientific Research and Management*, 6(1), 71–79.
<https://doi.org/https://doi.org/10.18535/ijstrm/v6i1.em11>
- Kosmidou, K. 2008. The determinants of banks' profits in Greece during the period of EU financial integration. *Managerial Finance*, 34 (3), 146–159.
<https://doi.org/https://doi.org/10.1108/03074350810848036>
- Koutsomanoli-Filippaki, A., Margaritis, D., and Staikouras, C. 2009. Efficiency and productivity growth in the banking industry of Central and Eastern Europe. *Journal of Banking & Finance*, 33 (3), 557–567.
<https://doi.org/https://doi.org/10.1016/j.jbankfin.2008.09.009>
- Kumar, S., and Gulati, R. 2008. Evaluation of technical efficiency and ranking of public sector banks in India: An analysis from cross-sectional perspective. *International Journal of Productivity and Performance Management*, 57 (7), 540–568.
<https://doi.org/https://doi.org/10.1108/17410400810904029>
- Kumari, I. G. 2017. A study of the financial performance on foreign commercial banks in Sri Lanka: An application of CAMEL Rating System. *Economics, Commerce and Trade Management: An International Journal*, 1 (1), 59–70.
<https://airccse.com/ectij/papers/1117ectij05.pdf>
- La Porta, R., Lopez-de-Silanes, F., and Shleifer, A. 2002. Government ownership of banks. *The Journal of Finance*, 57 (1), 265–301.
<https://doi.org/https://doi.org/10.1111/1540-6261.00422>
- Lelissa, T. B. and Kuhil, A. M. 2018. Empirical evidence on the impact of bank-specific factors on the commercial banks performance: The CAMEL model and case of Ethiopian banks. *Global Journal of Management and Business Research (C): Finance*, 18 (4), 37–48. <https://doi.org/https://doi.org/10.26643/gis.v13i3.3287>
- Lin, X. and Zhang, Y. 2009. Bank ownership reform and bank performance in China. *Journal of Banking & Finance*, 33, 20–29.
<https://doi.org/https://doi.org/10.1016/j.jbankfin.2006.11.022>
- Liu, J. and Pariyaprasert, W. 2014. Determinants of bank performance: The application of the CAMEL model to banks listed in China's stock exchanges from 2008 to 2011. *AU-GSB e-JOURNAL*, 7(2), 80–95.
<http://www.assumptionjournal.au.edu/index.php/AU-GSB/article/view/1067>

- Magweva, R., and Marime. 2016. Bank specific factors and bank performance in the multi-currency era in Zimbabwe. *African Journal of Business Management* 10(15), 373–383. <https://doi.org/https://doi.org/10.5897/AJBM2016.8076>
- Masood, O., Ghauri, S. M. K., and Aktan, B. 2016. Predicting Islamic banks performance through CAMELS rating model. *Banks and Bank Systems*, 11 (3), 37–43. [https://doi.org/https://doi.org/10.21511/bbs.11\(3\).2016.04](https://doi.org/https://doi.org/10.21511/bbs.11(3).2016.04)
- Matar, A., Al-Rdaydeh, M. and Odeh, M. 2018. Factors affecting the corporate performance: Panel data analysis for listed firms in Jordan. *Academy of Accounting and Financial Studies Journal*, 22(6), 1–10. <https://www.abacademies.org/articles/Factors-Affecting-the-Corporate-Performance-Panel-Data-Analysis-for-Listed-Firms-in-Jordan-1528-2635-22-6-315.pdf>
- Mbabazize, R. N., Turyareeba, D., Ainomugisha, P. and Rumanzi, P. 2020. Monetary policy and profitability of commercial banks in Uganda. *Open Journal of Applied Sciences*, 10 (10), 625–653. <https://doi.org/https://doi.org/10.4236/ojapps.2020.1010044>
- Micco, A. and Panizza, U. 2006. Bank ownership and lending behaviour. *Economics Letters*, 93 (2), 248–254. <https://doi.org/https://doi.org/10.1016/j.econlet.2006.05.009>
- Micco, A., Panizza, U., & Yañez, M. 2007. Bank ownership and performance. Does politics matter? *Journal of Banking & Finance*, 31 (1), 219–241. <https://doi.org/https://doi.org/10.1016/j.jbankfin.2006.02.007>
- Miguel Á., T.-Z., Martínez, F. V., & Preciado, V. H. T. 2018. Effects of inflation on financial sector performance: New evidence from panel quantile regressions. *Investigación Económica*, LXXVII, (303), 94–129. <https://doi.org/https://doi.org/10.22201/fe.01851667p.2018.303.64156>
- Mileris, R. 2012. Macroeconomic determinants of loan portfolio credit risk in banks. *Inzinerine Ekonomika-Engineering Economics*, 23 (5), 496–504. <https://doi.org/https://doi.org/10.5755/j01.ee.23.5.1890>
- Milne, A., & Wiley, A. E. 2001. Bank capital regulation and incentives for risk-taking. *Cass Business School Research Paper*, 17, 1–52. <https://doi.org/http://dx.doi.org/10.2139/ssrn.299319>
- Mishra, A. K., Harsha, G. S., Anand, S., & Dhruva, N. R. 2012. Analyzing soundness in Indian banking: A CAMEL approach. *Research Journal of Management Sciences*, 1 (3), 9–14. <http://www.isca.in/IJMS/Archive/v1/i3/2.ISCA-RJMS-2012-028.pdf>
- Mohan, N., & Ruggiero, J. 2007. Influence of firm performance and gender on CEO compensation. *Applied Economics*, 39 (9), 1107–1113. <https://doi.org/https://doi.org/10.1080/00036840500474264>

- Narwal, K. P., & Pathneja, S. 2016. Effect of bank-specific and governance-specific variables on the productivity and profitability of banks. *International Journal of Productivity and Performance Management*, 65, 1057–1074.
<https://doi.org/https://doi.org/10.1108/IJPPM-09-2015-0130>
- Neceur. 2003. The determinants of the Tunisian banking industry profitability: Panel evidence. Retrieved from <https://www.mafhoum.com/press6/174E11.pdf>