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**EFFECT OF CAPITAL ADEQUACY ON FINANCIAL PERFORMANCE OF ISLAMIC BANKS IN KENYA**

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## EFFECT OF CAPITAL ADEQUACY ON FINANCIAL PERFORMANCE OF ISLAMIC BANKS IN KENYA

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### ABSTRACT

*The study's objective was to ascertain the impact of capital sufficiency on the financial performance of Islamic banks in Kenya. efficiency structure theory was used as guiding theory for the study. The study's research design used was causal research design. The five commercial Islamic banks in Kenya comprised the research population. A census study was used because the population was manageable in size. The study was conducted from 2017 to 2021 during a period of 5 years. Secondary data was used in this study. The Central Bank of Kenya and the Islamic banks' audited yearly financial accounts provide the secondary data for this. Regression, correlation, and descriptive statistics were used for data analysis. Due of the panel structure of the data, STATA was the program used. The study found that capital adequacy (CAR) was positively correlated to changes in financial performance. Based on the study's findings that there was a strong and positive correlation between ROE and capital sufficiency, commercial banks in Kenya should make sure they are in compliance with capital adequacy regulations. The study recommended that commercial banks in Kenya invest more on reducing the total operating expenses for this would help in increasing the level of operating income.*

*Key Words: Capital Adequacy, Islamic Banking, Capital Sufficiency*

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## INTRODUCTION

Islamic banking is well recognized for encouraging the sharing of rewards and risks between lenders and borrowers; however, the extent of risk sharing varies depending on the form of contract chosen by the parties (Shanmugam & Zahari, 2019). The fundamental tenets of Islamic financial transactions, which serve as the rules for all Islamic financial practices, state that the financing purpose must abstain from all actions that are forbidden by Sharia (Islamic Laws), including risky, uncertain, and speculative activities, as well as actions that involve receiving and disbursing interest (Ernst & Young (EY), 2016). Islamic finance incorporates these tenets as well as other tenets of Islam in order to satisfy the rising demand for sharia-compliant financing and investments around the world (Faye, Triki & Kangoye, 2017).

A bank's internal strength, which will enable it to survive and absorb losses during a banking crisis, is represented by its capital adequacy. The capital adequacy ratio (CAR) is used to determine whether capital is adequate (Dang & Uyen, 2016). The capital adequacy directly relates to how resilient a given commercial bank is to a given situational problem. As it dictates the commercial banks' development into riskier regions or enterprises, it may also have a direct impact on their financial performance (Sangmi & Tabassum, 2019). The capital adequacy ratio (CAR) was used in the proposed study as a stand-in for capital adequacy.

Financial performance is the state of the company's finances generally over a given time frame. According to Birya (2019), the ability of a company to create liquidity—that is, money from its existing investments—to maintain other operations, is also referred to as financial performance. In other words, the degree of stability and safety in handling deposited cash can be referred to as financial performance (Mutua, 2017). The bank's profitability, return on equity, and return on assets all reflect this. It also underlines how a bank is successfully leveraging its financial and other resources to create

a profit. A subjective indicator of a company's use of resources from its main business operations and revenue production is financial performance review (Pinto, Hawaldar, Rahiman & Sarea, 2017).

In the literature, there are numerous ways to gauge a bank's success. Among these performance indicators, ROI and ROE were two of the most frequently utilized ratios for evaluating bank performance, according to Jie (2018). ROI is calculated as profit after tax (PAT) to total asset, and the ratio shows how effectively banks can turn their assets into profits. The greater the ROI value, the more capable the company was. The ROI ratio is the primary metric used to assess managerial effectiveness (Samad & Hassan, 2017). The ratio of profit before tax (PBT) to equity capital, known as return on equity (ROE), demonstrates a bank's capacity to generate profits from investments made with shareholder contributions. Therefore, a high ROE suggests better financial performance.

Islamic financial institutions deal in items that adhere to Islamic law (Ullah, Uddin & Ahmad, 2020). Sharia regulations forbid collecting interest (riba) on financial items provided to customers by Islamic organizations. As a result, neither the loans obtained nor those given to consumers are based on interest (Gekara, 2019). Instead, these organizations operate similarly to a trading business that makes purchases, sales, and enters into a variety of contracts like mudharaba and musharaka. Additionally, no illegal sources of income, such as gambling or interest-bearing contracts, may be used to finance the investments or profit of these institutions (Kasmani, 2017).

### Statement of the Problem

Due to Kenya's demographics, there is a high demand for Islamic financial services, and when real financial inclusion begins to take hold in Africa, Islamic finance may be able to provide a better solution (Islamic Finance in Africa, 2017). However, the financial performance of Islamic Banks in Kenya is alarming as depicted in their return on equity; for

instance; the return on equity in 2019 were 4.7, 5.2, (39.6), 18 and 23.8 for Gulf bank, Middle East, Dubai Bank, Bank of India, and Bank of Baroda Respectively. These banks had a declining performance in 2020 and the first three quarters of 2021 as reflected in the ROE of 11.1, 8.3, (24.3), 15.3 and 11.1 % in 2020 for Gulf Bank, Middle East, Dubai Bank, Bank of India, and Bank of Baroda Respectively (Central Bank, 2021). These was a massive decline in ROE from 2018 to 2020 and most of the Islamic banks did not manage to attain more than the industry ROE average of 21.8% and 13.9% in 2019 and 2020 respectively. The financial performance of these five banks could be attributed to their internal characteristics; capital adequacy, asset quality, bank size, and liquidity. For example, Dubai Islamic Bank was ranked position 41 out of 43 among the commercial banks in Kenya in the year 2018. It was also ranked to have the least amount of total assets as compared to other commercial banks (Central bank report, 2019).

Recent researches done globally focusing on Islamic Banking have diverse findings associated with methodological, conceptual and contextual differences. For instance, Ebimobowei and Tebepah (2021) investigated how deposit money banks in Nigeria performed financially. The findings indicated a favorable and significant correlation between bank size and deposit money banks' return on assets in Nigeria. ROA served as a stand-in for financial performance in the study, which focused on Nigerian banks. The Kenyan Islamic Banks in Kenya shall be the subject of the current investigation. Teshome et al. (2018) looked at factors affecting commercial banks' financial performance in Ethiopia from 2007 to 2016. The results of the investigation showed that while non-performing loans (NPLs), loan loss provision (LLP), leverage ratio (LR), and operational cost efficiency (OCE) have negative and statistically significant effects on banks' financial performance, capital adequacy ratio (CAR), credit interest income (CIR), and size of the bank have positive and statistically significant effects on financial performance. Non-performing loans (NPLs), loan loss

provision (LLP), leverage ratio (LR), and operational cost effectiveness were the only factors taken into consideration because the study's focus was on determinants (OCE). The factors that determine the financial performance of Islamic Banks in Kenya will be taken into account in the current study, including capital sufficiency, asset quality, management effectiveness, and bank size. In Indonesia from 2014 to 2016, Edison et al. (2019) looked at capital adequacy, loan to deposit ratio, operational costs, and return on equity. The findings showed that the loan to deposit ratio and capital adequacy ratio had a positive and substantial link with return on equity. The study concentrated on Indonesian banking practices, both conventional and Islamic. The current study concentrates on Kenya's unconventional banks.

Numerous studies have been undertaken to investigate bank characteristics variables' effect on financial performance, but studies reveal a contradicting result from diverse geographical scopes. The diverse findings were associated with the conceptualization of study variables as depicted in the reviewed studies. Additionally, methodological gaps have been evidenced on how different researches considered different models and data sources. The contextual gaps showed that majority of the study considered conventional banks profitability and indicators mostly used was ROA.

### **Objectives of the Study**

The objective of the study was to determine the effect of capital adequacy on financial performance of Islamic banks in Kenya. The study was guided by the following research hypotheses;

- H<sub>0</sub>: The capital adequacy has no statistical significant effect on financial performance of Kenya's Islamic banks

### **LITERATURE REVIEW**

#### **Efficiency Structure Theory**

This theory was put forth by Demsetz (1973). According to the efficient structure theory, under the stress of market competition, efficient

organizations succeed and expand, becoming bigger, gaining a larger market share, and making more money. According to the efficient-structure theory, more concentration comes after higher profitability in terms of timing. In other words, better management and procedures produce larger profits, and over time, stronger performance results in increased market share and concentration.

According to the Efficiency Structure Theory, more management efficiency leads to increased concentration, which in turn leads to increased earnings. Efficiency alone is a sign of the financial institutions' desired improved profitability, particularly the commercial banks. According to the efficiency structure theory, a firm's performance and efficiency are positively associated. Ayano (2016) contends that higher efficiency is what led to the greater earnings. Efficiency structure theory also includes the two theories of X efficiency and scale efficiency. The first hypothesis (X efficiency) postulates that commercial banks with strong management adopt cost controls, raising income levels, bringing them closer to the finest customer service methods, and lowering the bound cost curve. On the other hand, the scale efficiency theory postulates that many commercial banks improve their operational scale, which reduces expenses (Kimande, 2017).

Efficiency structure theory implies that management inefficiency and capital inadequacy are the primary causes of the low profitability of banks, which is relevant to our subject. The capital adequacy of banks can be used to gauge their efficiency. As a result, banks' profitability improves with increasing capital adequacy and vice versa. Similar to this, banks' management effectiveness also reflects their financial performance because the more effectively a bank is managed, the better its financial performance. In order to improve the financial performance of Islamic commercial banks in Kenya,

the study promotes managerial effectiveness and capital adequacy.

### **Empirical Literature Review**

#### **Effect of Capital Adequacy on Financial Performance**

In Indonesia from 2014 to 2018, Arsew et al. (2020) conducted research on the loan-to-deposit ratio, non-performing loans, and capital adequacy ratio on return on assets with excellent corporate governance. Purposive sampling was used to select a sample size of 10 of the top banks for the study, which used a quantitative approach and a population of 45 banks. The majority of the public financial statements of the sampled banks for the studied period served as the study's primary secondary source for data collection. Return on assets served as the study's dependent variable, while loan to deposit ratio, non-performing loan, capital adequacy ratio, and corporate governance perception index served as its independent variables. Utilizing path analysis, diagnostic tests for heteroscedasticity, multicollinearity, and normality, the financial statements' data was examined. The outcome of the path analysis showed that while the capital adequacy ratio exhibited a positive and substantial influence on excellent corporate governance, the loan deposit ratio and non-performing loans had a negative and significant impact. In contrast to the loan deposit ratio, which showed no significant influence, the second model demonstrated a positive and significant association between non-performing loans, capital adequacy, and corporate governance on return on assets.

In Indonesia from 2014 to 2016, Edison et al. (2019) looked at capital adequacy, loan to deposit ratio, operational costs, and return on equity. The population of the study, which used a quantitative research method, was made up of 43 banks, and a purposive sampling technique was used to create a sample size of 40 banks. The study used secondary data from sample banks' published financial statements for the studied period. Multiple regression analysis was employed to analyze the

secondary data. Return on equity served as the dependent variable, whereas capital adequacy ratio, loan to deposit ratio, and operational costs served as the independent variables. The findings showed that the loan to deposit ratio and capital adequacy ratio had a positive and substantial link with return on equity. The study concentrated on Indonesian banking practices, both conventional and Islamic. The current study will concentrate on Kenya's unconventional banks.

Nguyen *et al.*, (2018) worked on the factors affecting the profitability of thirteen profit-making banks in Vietnam from 2006 to 2015 in an attempt to understand the condition of the banking industry to assist in launching suitable policies. Panel data was collected, and used to devise findings. ROE, ROA and NIM were used as three independent measures. The independent variables comprised of macroeconomic and bank-specific measures of the 19 domestic financial institutions. The bank-specific variables that were examined are size, liquidity, capital adequacy, ownership structure, credit risk and cost to income ratio. Based on their empirical analysis, capital structure was correlated to NIM as well as liquidity was positively related to ROE. The cost-income proportion was found to have a significantly negative impact on all the metrics of profitability, whereby a negative correlation represents efficiency and higher profits. Liquidity had a negative impact on both the NIM and ROE measurements, while capital sufficiency had a negative impact on the ROE measure. The study's time frame was from 2006 to 2015, so its conclusions might not accurately represent the current state of Islamic banks in Kenya.

Data from two public and seven private banks for the years that were taken into consideration for the study were studied by Lemma and Rani (2017) to determine the factors that affected the financial performance of commercial banks in Ethiopia. While the internal and external factors were taken into consideration to examine the factors, return on

assets was utilized as a proxy for financial performance. The data was analyzed using descriptive, correlational, and regression techniques, and the results showed that liquidity and earnings ratio have a favorable relationship with return on assets. The results also showed a negative correlation between industry growth, CAR, the ratio of non-performing loans to total loans, and profitability. The study financial performance indicator was ROA prompting the need to examine the ROE in relation to CAR.

Mehta and Bhavani (2017) set out to establish causes of commercial domestic banks' productivity in the United Arab Emirates between 2006 and 2013. A regression analysis using panel data was employed. Profitability was recorded using ROE, ROA as well as NIM. Bank-specific industry variables were used to represent independent measures. The bank-specific variables used were income diversity, growth, capital adequacy size, cost efficiency, and liquidity. The sector-specific measure used was market absorption while the macro-economic measures used were inflation as well as the GDP. The empirical results showed that the cost efficiency was the most substantial measure affecting profitability across all the measures of profitability. Additionally, diversifying capital adequacy also enhanced profitability but had an inverse influence over NIM. The study did not consider diagnostic tests and therefore presents methodological gap which the current study filled by conducting the diagnostic tests.

### **Islamic Banks Financial Performance**

According to Beck *et al.* (2016), who used a sample of 510 banks, including 88 Islamic banks, from 22 different countries, Islamic banks are more capitalized than their conventional counterparts but are less cost-effective. Another illustration is the research by Abedifar *et al.* (2018), which finds no appreciable distinction between Islamic and conventional banks in terms of insolvency or

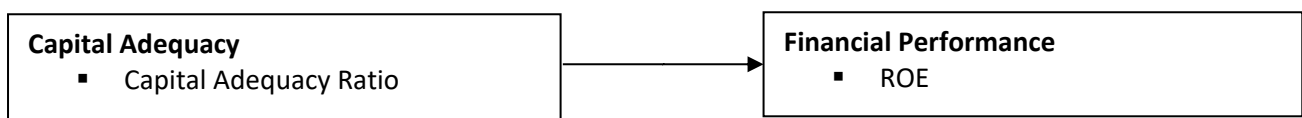
charging consumers more for products that adhere to Shariah law. Additionally, they demonstrate that Islamic banks are less credit-risky than their traditional counterparts.

According to Johnes et al(2017) .'s study of Islamic banks' financial performance, Islamic banks are less effective than conventional banks. This finding suggests that Sharia'a law compliance lowers the industry's effectiveness, but that Islamic banks' competent and skilled managers make up for this shortcoming. Using a variety of profitability measures, Mollah and Zaman (2015) found no discernible differences between the two banking systems. With operations in about 75 countries throughout the world, with the bulk in the Middle East and Southeast Asia, Bahrain and Malaysia serve as the principal hubs for Islamic financial institutions. The Islamic financial sector is a thriving market that has the potential to compete with the traditional sector in many nations because it is a beneficial sector.

Similar results were observed in Bangladesh, where Islamic banks outperformed conventional banks from 2010 to 2015 during the global financial crisis (GFC), which was investigated by multi-directional

efficiency analysis (MEA) to comprehend the inefficiency patterns (Asmild et al., 2019). In 44 Islamic banks from the Asian and African regions, operating efficiency ratios are negatively and significantly affecting profitability in 2013, whereas equity financing is positively and significantly affecting profitability. Credit risk and liquidity risk have little bearing on how well Islamic banks perform (Chowdhury and Rasid, 2015). The Gulf Cooperation Council (GCC) region's 76 banks experienced economic downturns between 2000 and 2013, while Islamic banks that operate on a smaller scale fared better. However, compared to conventional banks, Islamic banks have endured a higher level of financial instability during the current financial crisis (Alqahtani and Mayes, 2018). The opposite conclusion is that banks with larger assets, size, and effective management result in increased returns on assets, supported by management efficiency on operating expenses, which positively and significantly increases the profitability of Islamic banks (Masood & Ashraf, 2012). Larger Islamic banks are more stable, according to a correlation between size and stability in 45 Islamic banks from 13 different countries (Ibrahim & Rizvi, 2017)

**Conceptual Framework**



**Independent Variable**

Researcher, (2021)

**Dependent Variable**

**METHODOLOGY**

In this study, a causal research design was used. In order to understand the patterns of interactions between variables, causal investigations concentrate on an analysis of a situation or a particular issue (Cooper & Schindler, 2009). The 5 (five) Islamic Commercial Banks were the study's unit of analysis. The five Islamic commercial banks in Kenya's financial statements served as the observational

unit. The period was between 2017 and 2021 for this was the period in which the Islamic banks faced poor financial results reflected in their ROE. All five of Kenya's Islamic banks—the Gulf Bank of Kenya, Middle East Bank of Kenya, Dubai Bank of Kenya, Bank of India Kenya, and Bank of Baroda Kenya—were the subject of the study, which used a census technique. Since the targeted bank numbers were small and manageable, the Census was used.

Secondary data was used in this investigation. The planned study would employ data from secondary sources, therefore information from the Central Bank of Kenya (CBK), the Kenya National Bureau of Statistics (KNBS), and the five Kenyan Islamic commercial banks' audited financial statements was used. The study concentrated on the years 2015 through 2021. With the use of the secondary data assessment guide provided in appendix I, the sourced data were collected. This researcher collected data from the Islamic banks' financial statements and the central bank of Kenya reports for the period 2015 to 2021.

The relevant ratios were computed using the secondary data that was obtained. The data was analyzed using STATA software. Descriptive and inferential analysis was used to explore the panel data. Mean, standard deviation, minimum and maximum were all descriptive terms. Correlations and regressions were included in inferential statistics.

### **FINDINGS AND DISCUSSIONS**

This section presents the descriptive findings for of capital adequacy and financial performance (ROE). The data was acquired between 2017 and 2021. The data was acquired for five (5) Islamic commercial banks in Kenya.

On descriptive statistics, the findings on capital adequacy presented by capital adequacy ratio (CAR) indicated that the highest CAR was 30.7% and the lowest was 8.9%. The mean of CAR was 16.52% indicating that the average CAR for Islamic banks was below the 19.5 CAR average score for the same period 2017 to 2021. This indicated that the Islamic banks had inadequate capital base to support their operations and offer loans.

The random effect model results indicated that Capital adequacy (CAR) was positively correlated to changes in financial performance(ROE) at 95% confidence level (Sig=0.00). A Unit change in CAR would result to changes in financial performance.

The study rejected  $H_0$ : There is no significant relationship between capital adequacy and financial performance was accepted. The findings were supported by Arsew et al., (2020) that capital adequacy had a significant effect on financial performance. Additionally, Edison et al. (2019) findings showed that the loan to deposit ratio and capital adequacy ratio had a positive and substantial link with return on equity.

### **CONCLUSIONS AND RECOMMENDATIONS**

The capital adequacy data reported by capital adequacy ratio (CAR) showed that the greatest CAR was 30.7% and the lowest was 8.9%. The average CAR was 16.52%, suggesting that the average CAR for Islamic banks was lower than the 19.5 CAR average score from 2017 to 2021. This suggests that the Islamic banks lacked the capital necessary to support their operations and provide loans.

The study concluded that capital adequacy (CAR) was positively correlated to changes in financial performance (ROE) at 95% confidence level (Sig=0.00). A Unit change in CAR would result to changes in financial performance. The study therefore rejected  $H_0$ : There is no significant relationship between capital adequacy and financial performance was accepted.

Based on the finding that there was a strong and positive correlation between ROE and capital sufficiency, commercial banks in Kenya should make sure they are in compliance with capital adequacy regulations and focus their efforts on growing their size in terms of capital.

### **Suggestions for Further Study**

The study results was limited to Islamic Commercial banks in Kenya. Further study should be carried out to include other banks other than Islamic commercial banks. The results of the study was limited to capital adequacy. Other variables which explain the bank characteristic should be incorporated in the model.



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