FINANCIAL REGULATIONS AND FINANCIAL PERFORMANCE: (A CASE OF DEPOSIT TAKING SAVINGS AND CREDIT COOPERATIVE SOCIETIES IN MOMBASA COUNTY, KENYA)

Shadrack Kanzenge & Dr. Moses Wanajala Wekesa, PhD

The Strategic JOURNAL of Business & Change MANAGEMENT
ISSN: 2312-9492 www.strategicjournals.com
Vol. 11, Iss.3, pp 662 – 680, October 22, 2024. www.strategicjournals.com, © Strategic Journals

FINANCIAL REGULATIONS AND FINANCIAL PERFORMANCE: (A CASE OF DEPOSIT TAKING SAVINGS AND CREDIT COOPERATIVE SOCIETIES IN MOMBASA COUNTY, KENYA)

Shadrack Kanzenge [1] & Dr. Moses Wanajala Wekesa, PhD [2]

[1] Post Graduate Student, Jomo Kenyatta University of Agriculture and Technology, Kenya
[2] Lecturer, Jomo Kenyatta University of Agriculture and Technology, Kenya

Accepted: October 10, 2024

DOI: http://dx.doi.org/10.61426/sjbcm.v11i4.3110

ABSTRACT

The general objective of the study was to determine the relationship between financial regulations and financial performance of deposit taking Savings and Credit Cooperatives in Mombasa County, Kenya. A descriptive research design was used in the study. Accordingly, a census method involving all the 11 DT SACCOs in Mombasa County was conducted. The research utilized secondary data. The raw primary data collected was coded prior to being input into SPSS statistical analysis software. The study found that the DT-SACCOs maintain adequate capital requirements. Core capital; risk-weighted assets, total capital and equity capital have a significant effect on the financial performance of DT SACCOs in Mombasa County. Credit risk management affects the financial performance of Deposit Taking SACCOs. The credit scoring mechanisms are followed as directed by the SACCOs regulators. Liquidity management affects the financial performance of deposit taking SACCOs in Mombasa County. There was a strong correlation between the independent and dependent variables. There were beta coefficients of 0.612, 0.755, 0.734 for capital adequacy, credit risk management and liquidity management respectively. The study concluded that the DT-SACCOs have adopted capital provisioning policy recommended in Prudential Guidelines. Credit risk management is one of the most important functions affecting the financial performance of financial institutions since they are faced with diverse risks in their operations. The level of liquidity of an institution which was measured by the ratio of total loans to customer deposits or customer deposits to assets ratio had a great influence on financial performance. The study also concluded that firm size had a significant influence on the financial regulation and consequently the financial performance of SACCOs. The study recommended all the SACCOs in Mombasa County to establish policies that clearly outline the Organizational view of capital adequacy and requirement guidelines and the terms and conditions that should be adhered to in order for optimal capital levels are maintained. The study also recommended that the DT- SACCOs in Mombasa should restrict loans and avail loans/credit to the clients depending on their characteristics, capacity/completion, conditions, collateral/security, commonsense/reasonableness and also their contribution. The study also recommended that for efficient and effective credit risk management systems credit policy in the SACCOs should be reviewed regularly, for instance, on quarterly or annual basis. Deposit taking SACCOs in Mombasa County should adopt liquidity management that enhance their compliance with the law and regulatory bodies.

Key terms: Capital Adequacy, Credit Risk Management, Liquidity Management, Firm Size

CITATION: Kanzenge, S., & Wekesa, M. W. (2024). Financial regulations and financial performance: (A case of deposit taking savings and credit cooperative societies in Mombasa County, Kenya). *The Strategic Journal of Business & Change Management,* 11 (4), 662 – 680. http://dx.doi.Org/10.61426/Sjbcm.v11i4.3110

INTRODUCTION

Financial performance was defined as the reflection of the approach within which resources of an organization are utilized in attaining its objectives. According to Hoang, Dang, Tran, Vu and Pham (2019), financial performance of a firm is the capacity to create income from its exercises. Liu, Tang and Zhao (2021) pointed that financial performance is a numerical indicator of the spread to which financial goals are met. In financial institutions like Savings and Credit Co-Operatives (SACCOs), financial performance assesses firm liquidity in the long term or over a specific time frame, as well as the findings are compared to earlier predefined time-frame or to the outcomes of comparable organizations in the industry (Lenar & Papadopoulos, 2020). Vuković, Milutinović, Mijić, Krsmanović and Jakšić (2022) pointed that financial performance demonstrates the ability of an organization to accomplish its mission by engaging in sound management practices, strong governance and persistent re-dedication to achieving the desired results.

The ever-increasing regulatory standards divergence results from the snag of the preceding post-crisis. Ali and Hana (2021) indicated that the consideration given to financial regulations was prompted by the Asian financial crisis of late 1990s and the 2000's financial crisis that shook the United States of America (U.S.A) economy. Between years 2001 and 2002, Argentina experienced a financial crisis which led the country's government to lose access to capital markets. As per Wiley and Navickas (2021) the U.S. financial regulatory systems are often considered to be among the most highly developed, comprehensive, effective, and mimicked in the world. Since its enactment in 2002, Sarbanes-Oxley has been a source of controversy. Many observers argue that the Act did not go far enough in its requirements while many corporate managers argued that the Act imposed unduly expensive reporting and compliance requirements on them. Nonetheless, Mursalov (2021) found that SOX did lead to a decline in earnings management, and Gordon (2020) found that SOX improved the voluntary disclosure of information security activities by firms.

Africa has not been left out of financial regulations aimed at enhancing the financial performance of its financial institutions against financial shocks. According to Ackah and Asiamah (2021), Africa experienced 43 systemic banking crises between the mid-seventies to the mid-nineties (56 in the rest of the world) but since then, the continent registered a single systemic crisis (in Nigeriain 2009) against 47 in the rest of the world. Most regulatory and supervisory authorities in Africa are still using Basel I framework. While most African countries plan to implement Basel II principals,until now only Mauritius and South Africa have done so. According to Gottschalk (2021), international standard-setting bodies such as the Financial Stability Board (FSB), the G-20 and the Basel Committee on Banking Supervision (BCBS) announced various initiatives, strategies, and new or revised requirements and standards. These included a renewed focus on managing system-wide risk across the entire financial sector, both locally and internationally (EY, 2021).

In Kenya, Central bank of Kenya issued prudential regulations for banks that came to effect on 1st January 2013. These regulations were aimed at protecting customer's deposits and manage systemic risks and consequently have a positive impact on the banking sector financial performance (SASRA, 2021). According to Kiplangat (2020), there has been major shift to a system of financial regulation, under which the aims of financial regulation ensure financial stability and consumer protection, and away from the direction of credit and control over interest rates. Mutai, Bii and Mabati (2020) indicated that Kenya drew heavily on regulations from other countries (including, notably, Canada), but over time regulators have adjusted certain aspects of these regulations to be more appropriate for the Kenyan context. Regulators are also applying a "regulatory sandbox" approach, in

which certain regulations can be relaxed to allow financial services innovations to be tested.

Once the regulator is able to observe their operation, the regulations that were relaxed can either be reintroduced, modified or removed (CBK, 2020). According to Waitherero (2021), Credit Reference Bureaus (CRBs) were introduced after the Banking (Credit Reference Bureau) Regulations 2008, were introduced by the Government. Revised regulations allowing for sharing of positive and negative credit information by banks and deposit-taking microfinance institutions were gazetted in January 2014. By 2014, the two licensed Credit Reference Bureaus had received a total of 3.5 million credit requests from banks, more than 53,000 requests from individual customers. These policies appear to have produced good results in terms of access to credit. In 2018, 37.2 per cent of firms surveyed in Kenya identified access to finance as a major constraint, compared with a 26.5 per cent average among all countries included in the World Bank Enterprise Survey during the period 2010–2017 (Wanjiru & Jagongo, 2022).

As per Wamukota and Otuya (2021), among SACCOs, 23.5 per cent of firms identified it as a major constraint. This is significantly better than the average across all countries in the World Bank Enterprise Survey (28.5 per cent) (World Bank, 2018). Gulleid (2020) alludes that following the enactment of the Banking Act of 2016, there was an immediate 0.19% gain value in basic trade volumes followed by a 0.33% reduction till lifting of the Cap in 2019. In 2008, the government of Kenya introduced SACCO Society Regulatory Authority (SASRA) legislation's to streamline operations of the SACCO sector after continued complaints of mismanagement, misappropriation of members' savings and poor financial performance by the members. SASRA (2021) reported that the business of DT-SACCOs is regulated by SASRA, which is a statutory regulatory body formed under the Sacco Societies Act 2008 (Cap 490B) and Regulations which was enacted in 2010.

A study by Oketch (2019) found out that there is a positive correlation between financial regulation and the financial performance of financial institutions. Deposit-taking SACCOs are prerequisites for savings mobilization among the low income households who have limited access to mainstream commercial banks. They form a key ingredient within the Kenyan financial sub-sector which provides financial services and products to a large proportion of the Kenyan population (CBK, 2020). SASRA in 2015 had blacklisted Seven Sacco's namely: Good life Sacco Society, Fedha Microfinance ltd, Prevailing Sacco society ltd, Millionaire Sacco Kenya, New Milimani Sacco ltd, Urithi premier and Urithi housing coop society ltd because they did not meet the regulatory criteria and poor governance, some of these Sacco's finally collapsed. Weak governance and non-compliance with regulations are the biggest challenge facing the co-operative movement.

Mathenge (2020) assessed the effect that Central Bank of Kenya regulations have on financial performance of commercial banks in Kenya and found that credit risk management had a positive and insignificant effect on performance of commercial banks while capital requirement had significant negative effect, Gichuru (2021) aimed to determine the influence of regulatory requirements on financial inclusion with a focus on the fintech industry in Kenya and established presence of positive and statistically substantial association amongst capital adequacy and performance of MFIs, while Kiplagat (2020) investigated the effects of prudential regulations on financial performance of commercial banks in Kenya. To the best of the researcher's knowledge, despite the glaring evidence on the need for intervention, the influence of financial regulations on the financial performance of DT SACCOs remained scanty. The researcher observed that Mombasa County had been a casualty of derailed performance of the DT SACCOs yet there had been little attempt to study this aspect in the County. Emanating from this need, the researcher sought to establish the influence of

financial regulations on the financial performance of deposit taking SACCOs in Mombasa County, Kenya.

Objectives of the Study

- To determine the influence of capital adequacy on the financial performance of deposit taking SACCOs in Mombasa.
- To determine the influence of credit risk management on the financial performance of deposit taking SACCOs in Mombasa.
- To determine the influence of firm liquidity management on financial performance of deposit taking SACCOs in Mombasa.
- To determine the moderating role of firm size on financial regulations and financial performance of deposit taking SACCOs in Mombasa Kenya.

The study made the following research hypotheses:

- **H_{01}:** There exists no relationship between capital adequacy and financial performance of deposit taking SACCOs in Mombasa.
- **H_{02}:** There is no relationship between credit risk management influence the financial performance of deposit taking SACCOs in Mombasa.
- **H_{03}:** There exist no statistically significant relationship between firm liquidity management on financial performance of deposit taking SACCOs in Mombasa.
- **H_{04}:** There exists no moderating role of firm size on financial regulations and financial performance of deposit taking SACCOs in Mombasa Kenya

LITERATURE REVIEW

Theoretical Review

Capital Asset Pricing Model

This model was initially formed by Jack Trey in 1962, and then later modified by William Sharpe in 1964 and Mossin in 1966. According to this model, valuing capital assets helps in regulating the required quantity of return on assets, and also in calculating the total assets in a capital portfolio. According to Beck *et al.,* (2018), the model further explains that possible investors have information on the investment especially on the expected risks and the expected return on all assets. The theory further explains that the market portfolio entails all the available assets in the markets, of which every asset is calculated by its own market capitalization. The theory further explains that depositors would hold bigger portfolios and that the stockholders would also be equipped with adequate information on buying and owning diversified portfolios (Gottschalk, 2021).

The Model further explains the risk of a specific portfolio or asset through the excess return on market portfolio. Further,the model illustrates the association that exists between risk and return on assets using the disparities in the returns on investment (French, 2018). The predicted return on investments is the reward while the discrepancies in returns shows the risks. This shows that business investors would go for investments that have minimal variations in returns when placed with two investment choices of similar returns. Similarly, presented with two investments of same variations in the returns but different returns, business ventures would go for investments with bigger return. If the anticipated return is below the expected return, then the business investment should not be carried out and finances should be refunded to the shareholders, to venture on their own to get the expected return from the assets with similar risk level in the market (Glen, 2018).

In the current study, with the presumption that SACCO organizations are prone to risk, the investors are encouraged to invest in the organizations and at the same time, the managers of the SACCO societies must work on the value of the capital assets that would be valuable enough to compensate the investors and cushion them against expected risks. All these are done with respect to SASRA requirements and guidelines (João *et al.,* 2022). Given that it is difficult to completely get rid of the risks, CAPM assist the business investors to compute the likelihoods of anticipated returns on investments and come up with more viable

decisions. Adequate capital helps the SACCOS to be more reliable, dependable and carry out good long-term planning and strengthen the ability of SACCOS to raise sufficient cash deposits to prevent their capital base from depletion. This theory thus played a crucial role in determining the financial performance of deposit taking SACCOs in Mombasa.

Shiftability Theory

H.G Mouton propounded the shift-ability theory in 1918. The theory was grounded on the idea that in case "safe" deposits are used in purchasing salable assets within a secondary market; market liquidity can be provided. Through the theory, commercial financial institutions will not need to rely on maturities in case they can maintain a massive amount of assets that can easily be shifted to other financial institutions devoid of material loss in case of necessity. Msuku (2020) supported that for an asset to be declared as perfectly shifting able, it must be immediately transferrable without any loss in the capital when the liquidity need arises. This mostly applied to treasury bills and other bills that financial institutions can sell to raise funds. However, the bills associated with such must be short-term market investments. However, at times financial institutions are in dire need for liquidity in case of a crisis. Basing on the shift-ability theory, financial institutions must, therefore, have such assets in place that were directed back to the lender of last resort, in this case, the Central Bank.

The shift-ability theory presupposes that self-liquidating bills should not only be the main instruments used in tying assets. Instead, assets can also be held in other shiftable open-market assets, such as government securities (Moti, Masinde, & Mugenda, 2018). According to the theory, a financial institution's ability to move its assets to a different individual at a predictable amount is what determines a financial institution's liquidity. Hosna and Manzura, (2019) state that the shift-ability theory had a profound effect on banking practices arising from the fact that it redirected the financial authorities and financial institutions attention into investments form loans as the core financial institution liquidity source. The financial systems did not have any form of liquidity arising from a mere shift-ability of the assets. Moreover, another factor that has largely been ignored by the shift-ability theory is that financial institutions cannot shift debentures and shares to others in the event of acute depression.

Chowdhury *et al.,* (2019) indicated that in such a situation, the owners of the debentures and shares will want to sell them off yet there are no willing buyers. In the case of a financial institution run, a single financial institution that has adequate assets might try to sell them off basing on the shift-ability theory, and this might have adverse effects on the entire financial sector. The main critic of the theory is that it is heavily reliant on the economic circumstances. The theory has also been criticized as being likely to cause devastating impacts on both the borrowers and lenders in case there is a simultaneous shift of assets engaged by all the financial institutions. However, the theory still remains strong in supporting the role of liquidity management on financial performance of institutions as investigated in this study. Indeed, proponents of the theory argued that the liquidity management of short-term, commercial loans is largely fictional in any case. It was therefore critical in determining the influence of firm liquidity management on financial performance of deposit taking SACCOs in Mombasa.

Conceptual Framework

The conceptual framework outlines the relationship between the dependent and independent variables. In this research, capital adequacy, credit risk management and liquidity management represented the independent variables while the financial performance represented the dependent variable. The figure below outlined the study's dependent and independent variables relationships;

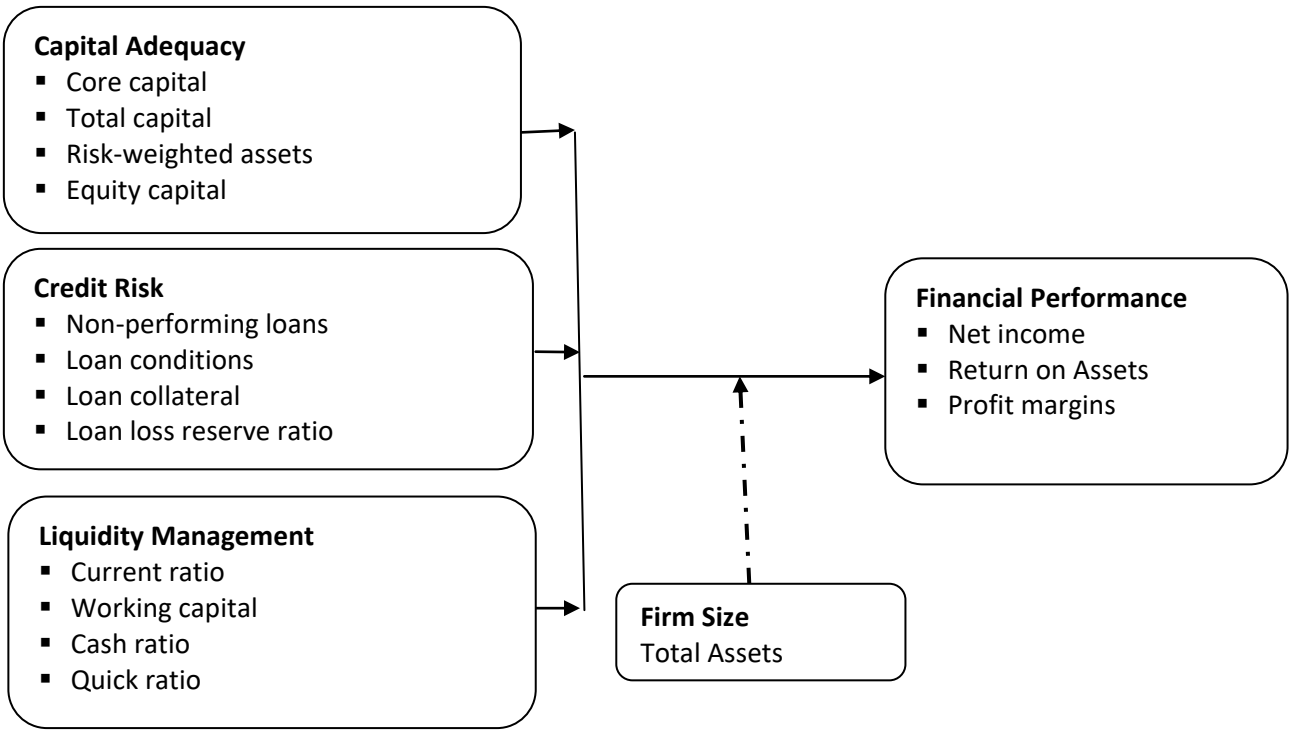

Figure 1: Conceptual Framework

Capital Adequacy and Financial Performance

Capital adequacy requirements have always formed part of the major policy instruments given that the Basel Accords have always been adopted to manage financial steadiness of the financial industry. According to Waitherero (2021), SACCO business organizations have an incentive to carry out risk shifting or asset replacement, meaning they engage on excess risks with the knowledge that the downside risks are created by their depositors. Expecting SACCO organizations to maintain least capital to assets ratio lessens the SACCOs' facilitation to risk. On the aspect of risk sharing, capital plays a buffering role that might pay up the losses or risks created by the creditors (depositors)and permits orderly liquidation and selling off of assets in case of financial difficulty (Mutai *et al.,* 2020). Nevertheless, extreme regulations may pose adverse effects because it may raise the cost of intermediation and lessen the profit of SACCOS. On the same note, Owalo *et al.,* (2021) alluded that if SACCO organizations focus only on complying with the standards set by the SASRA, their strategies may be adversely affected because SACCOS may eventually alter their way of operations, hence failing to meet their financial target but satisfy the SASRA rules.

Chinada (2020) carried out an examination on the effect of least capital prerequisites on Zimbabwean financial institutions performance and to break down the connection concerning the financial institutions least capital necessities and the performance. The examination utilized the triangulation of a quantitative and subjective research outline where both essential and auxiliary information was utilized. Questionnaires and narrative examination were utilized. The investigation discovered that Minimum capital prerequisite enables financial institutions to redeem benefits as meeting the base capital diminishes the probabilities of financial institution misfortunes, as short-term borrowing will not compel the institutions, which is commonly at an astonishing cost. According to the examination, there is a direct relationship between the financial institution's general execution and its additional quality, capital, and intensity. A financial institution with sufficient capital has a competitive advantage

in its operational market as it can offer more items and this makes it more focused on its operations; hence, it can capture a bigger market share.

Credit Risk Management and Financial Performance

Credit risk management is one of the main elements that in a big way influences how financial institutions performs financially. Therefore, it cannot be ignored when establishing if, in any way, there exists any correlation between good credit risk management practices and how financial institutions perform. This was supported by findings in a study undertaken in Pakistan by Shahid *et al.,* (2019). The study used data obtained from 24 financial institutions for period between year 2010 and 2017. The core business for financial institutions is to mobilize deposits from the public and then lend to various sectors of the economy at a premium. Variability in returns may arise if several customers defaults on loan repayments thereby creating Credit risk. A study undertaken in Pakistan by Shahid *et al.,* (2019).

Vossen (2020), carried out a study on bank liquidity management in New York. Using descriptive research method, noted that banks are responsible for managing liquidity reaction and liquidity risks that exposes the banks to financial challenges. The study found that liquidity managements have a positive effect in liquidity risks reduction thus increase firm performance. Naceur and Omran (2021) investigated on bank performance and regulation carried out on the Middle East and North Africa region. The study investigated the effect of regulation, competition and financial reforms on the performance of banks across the broad Middle East and North Africa regions spectrum. The study used empirical data to evaluate the significance of bank-specific characteristics. The study found that regulation and credit risk have positive and significant effect on profitability, interest margins, cost efficiency and stock returns.

Liquidity Management and Financial Performance

Farhi Golosov, and Tsyvinski, (2019) explains liquidity as the capacity of any financial organization to finance its total asset holdings and still promptly take care of its obligations whenever they fall due. Liquidity management is one of the key purposes of business administrators in the management and control of liquidity risks which can at times be as a result of unbalanced assets holdings and 'obligations due" . In a scenario withdrawable cash deposits, taking place in a single institution, can lead toa systemic impact on the entire business organization. Due to this, financial regulators such as SASRA try to control liquidity risk by imposing the least liquidity ratio that a SACCO organization ought to operate with. Some SACCOS on the other hand have also tried to maintain a ratio well in surplus of the least set by the regulatory body. However, this comes with repercussion such as the opportunity cost that comes as a result of missing a lucrative business opportunity venture or investments.

A Pakistan based study on Habib bank limited was conducted for the period 2008-2017 to examine the relationship between the bank's profitability and liquidity (Rizwan & Mutahhar, 2019). To determine the various variables relationship, the researcher used correlation and regression analysis. Secondary data gathered from the annual accounts were used in the study. The research found out there is a significant positive relationship between the banks' liquidity and profitability. The study used proxies representing profitability (profit after tax) and liquidity management (bills and certificates, bank balances and treasury and cash and short-term funds). From the study, the banking industry is widely affected by liquidity management. The research recommended the banking institutions to employ qualified and competent personnel who will have the ability to formulate the right decisions and adopt them with the optimum level of profit and liquidity maximization.

Moderating Effect of Firm Size

Hassan et al., (2023) examined the moderating effect of bank size on the relationship between interest rate, liquidity, and performance of the banks in Nigeria. An ex-post-facto research design was adopted, where the bank-specific data were

sourced from the published annual financial statements of 12 commercial banks listed on the Nigerian Stock Exchange and the macroeconomic data were extracted from the WDI database for a ten-firm-year period from 2011 to 2020. The analysis was done using the panel regression technique with the support of Stata software version 14.2. Findings on the direct effects showed a significant and negative relationship between deposit rate and performance, and both the lending rate and loan-to-deposit ratio have positive and significant relationships with performance. Meanwhile, the intervention effects showed that the bank size has positively moderated the relationship between deposit rate and performance; whereas bank size has negatively moderated the relationship between loan-to-deposit ratio and performance.

Ishmail et al., (2023) explored the moderating effect of Firm Size on the relationship between credit risk and financial performance of Microfinance banks in Kenya. The target population was MFBs regulated by Central Bank of Kenya (CBK). The study employed census method. Secondary data for thirteen (13) MFBs was collected from published annual reports for the period 2011-2019. The study employed explanatory research design. Unbalanced panel regression model was employed to examine the impact of independent variables on dependent variable using unbalanced panel data. The dependent variable, financial performance was measured by Return on Equity (ROE). The finding depicted Credit risk had negative significant effect on financial performance. The model F statistics indicated a strong statistical significance of credit risk on financial performance of MFBs at 5% level of significance. The finding further showed that the firm size had a positive significant moderating effect on the relationship between credit risk and financial performance, thus depict that large sized MFBs were better placed in managing credit risk.

METHODOLOGY

Research design is the arrangement of conditions and analysis of data in a manner that aims to combine relevance to the research purpose with economy in procedure. Descriptive research design in form of mean, median, standard deviation, minimum and maximum was adopted in this study. The descriptive research collected data in order to answer questions concerning the current status of the subject under study. Descriptive research design permitted accurate estimation of the population parameters and subsequent generalization. The descriptive research design allowed for use of research instruments such as questionnaires and other data collecting instruments and can be employed in collection of data from the samples in a relatively short period. Both quantitative and qualitative approaches were used in this research study.

A descriptive research design was preferred in this study as it allowed the researcher to pinpoint any form of relationship between the study variables. According to Siedlecki (2020), descriptive research gives a precise and substantial portrayal of the components or factors that relate or are important to the examination queries. Descriptive research design was used because the researcher explored the effect of different lending policies on loan performance. In addition, this approach was preferred because it enabled the researcher to analyze a large number of factors at once, and it also allowed the researcher to describe the many variables and circumstances of the research.

The population of study in this research was the DT SACCOs in Mombasa County. According to SASRA (2021), there are 11 Deposit Taking SACCOs in Mombasa County. As such, the target population of study constituted the 11 Deposit Taking SACCOS operating in Mombasa County.

Table 1: Target Population

DT SACCOs	Years Studied	%
Bandari Sacco Society Ltd	5	9.09
Jitegemee Sacco	5	9.09
Mafanikio Sacco Society Ltd	5	9.09
Hazina Sacco Society Ltd	5	9.09
Kenya Police Sacco Society Ltd	5	9.09
Stima Sacco Society Ltd	5	9.09
Kivuko Sacco Society Ltd	5	9.09
Chai Sacco Society Ltd	5	9.09
Mwalimu National Sacco Society Ltd	5	9.09
Afya Sacco Society Ltd	5	9.09
Harambee Sacco Society Ltd	5	9.09

The study scrutinized the financial regulations enacted by the government in recent years and their impact on 11 Mombasa-based deposit taking SACCOs' financial performance. The sampling technique used by the study was the census method. This involves collecting data from all the population within the study setting. A sampling configuration is mostly used in the case there is a reasonable and small population. In this case, the census befits this study as the entire population consisted only of 11 deposit taking SACCOs in Mombasa making it manageable and small. The main factor considered in determining the sample size is the need to keep it manageable enough. Accordingly, a census method involving all the 11 DT SACCOs in Mombasa County was conducted. This made it easier to get adequate and accurate information necessary for the research. The selection was as shown in Table 2.

Table 2: Sample Population

DT SACCOs	Years Studied	%
Bandari Sacco Society Ltd	5	9.09
Jitegemee Sacco	5	9.09
Mafanikio Sacco Society Ltd	5	9.09
Hazina Sacco Society Ltd	5	9.09
Kenya Police Sacco Society Ltd	5	9.09
Stima Sacco Society Ltd	5	9.09
Kivuko Sacco Society Ltd	5	9.09
Chai Sacco Society Ltd	5	9.09
Mwalimu National Sacco Society Ltd	5	9.09
Afya Sacco Society Ltd	5	9.09
Harambee Sacco Society Ltd	5	9.09

The raw primary data collected was coded prior to being input into SPSS statistical analysis software. Once coded, the data was then cleaned to ensure accuracy and completeness of the information obtained. Data collected was purely quantitative and it was analyzed by descriptive analysis. The researcher also conducted a multiple regression analysis. The multiple regression model equation was as follows:

$$Y= \beta o +\beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 +\varepsilon$$

Where;

Y= Financial Performance

X_1= Capital adequacy

X_2 = Credit risk management

X_3 = Liquidity management

X_4 = Firm size

βo = Constant term/intercept,

β_1, β_2, β_3, β_4 are regression Co-efficient of variables X_1, X_2, X_3 and X_4 respectively,

ε =Error term

The qualitative data was analyzed using content analysis and presented in prose form. Tables were used to summarize responses for further analysis and facilitate comparison. Both quantitative and qualitative data were compiled to generate the final report.

FINDINGS

Model Summary

The model summary was a representation of the coefficient of determination as obtained. The model summary shows the R, R-Squared and adjusted R-Squared statistics. The *R* statistic is the multiple correlation coefficients that shows quality of the prediction of the dependent variable by the independent variable. The R-squared statistic measures the proportion of the variation in the dependent variable (Y) explained by the study independent variables (X) in the linear regression model. Therefore, R-Squared statistic accounts for the cumulative effect of the independent variables together with the related errors to the dependent variable. On the other hand, the adjusted R-Squared disintegrates the effect of the error (external) factors from influencing the dependent variable hence leaving out the effect if error terms. This is the aspect that distinguishes R-Squared and adjusted R-Squared.

Table 3: Regression Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.9473	0.8974	0.768	0.049

From the results depicted in Table 3, the *R* value was 0.947, the R-Square was 0.8974 and the adjusted R-Square was 0.768. The R-Square value of 0.8974 implies that the independent variables (financial regulations) would contribute to 89.74% of the dependent variables (financial performance) when the external factors are not eliminated from the model. In addition, the adjusted *R-square* of 0.768 indicated that when the external effects are eliminated, the independent variables would provide a 76.8% of the prediction of the dependent variable. The values of the Adjusted *R-Squared* showed that after the model is adjusted for inefficiencies the independent variables would explain 76.8 percent of financial performance of DT SACCOs in Mombasa County. From these statistics point that there was a strong correlation between the independent and dependent variables.

Analysis of Variance

The Analysis of variance (ANOVA) was employed in this study to help establish if there was a regression relationship between the variables in the study. A significant F statistic indicated in ANOVA simply demonstrated that the model was fit for the estimation. The model was tested at 5 percent significance level with a 2 tailed test.

Table 4: Anova Test Results

Model	Sum of Squares	Df	Mean Square	F	Sig.
Regression	1.904	4	0.4760	3.228	.010(a)
Residual	0.249	103	0.00242		
Total	2.153	107			

As per Table 4, the F value estimated at a 5 percent significance level was 3.228, with a significance value of 0.010, which was less than the crucial value produced from a 2-tailed test at the same significance level. This model's computed F was higher than the F critical (at 4 103, F critical= 2.41). This was an indication of the model's overall importance. As a result, the study established that there was a substantial link between financial regulations and financial performance of DT SACCOs in Mombasa County. The importance of the regression model, which was determined to be statistically significant, was demonstrated by these findings. Any fluctuation in the variables was negligible, and any adjustment would not result in a substantial difference. The model was therefore relied upon to explain the effect of capital adequacy, interest rate, credit risk management and liquidity management on financial performance of DT SACCOs in Mombasa County.

Regression Coefficients

To answer the proposed model for the relationship between financial regulations and financial performance of DT SACCOs in Mombasa County, the multiple regression coefficients were calculated and presented in Table 5. These with their significance values measures the effect of each independent variable on financial performance of DT SACCOs in Mombasa (dependent variable). The effect that would occur to financial performance of DT SACCOs in Mombasa County to changing (increasing/decreasing) these variables.

Table 5: Regression Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	0.856	0.578		1.481	0.021
Capital adequacy	0.612	0.438	0.174	1.397	0.048
Credit risk management	0.755	0.494	0.261	1.528	0.022
Liquidity management	0.734	0.476	0.258	1.542	0.032
Firm size	0.652	0.444	0.196	1.481	0.044

Based on the coefficients shown in Table 5, the regression model ($Y = \beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \beta_4X_4 + \varepsilon$) therefore becomes.

$Y=0.856 +0.612X_1+ 0.755X_2+0.734 X_3+0.652 X_4$……Equation 1

Substituting the dummy variables with the study variables culminates to the following equation:

Financial performance = 0.856 +0.612 Capital adequacy +0.755 Credit risk management +0.734 Liquidity management +0.652 Firm size ……Equation 3

The model indicates that, holding the predictor variables constant, the financial performance of DT SACCOs in Mombasa County would be 5.970. The results from the regression analysis revealed that there were beta coefficients of 0.612, 0.755, 0.734 and 0.652 for capital adequacy, Credit risk management, Liquidity management and firm size respectively. The corresponding t and p values for capital adequacy (t= 1.397; p= 0.048), Credit risk management (t= 1.528; p= 0.042), Liquidity management (t= 1.542; p= 0.032) and firm size (t= 1.481; p= 0.044) which are statistically significant, because p values were less than 0.05.

From the results it can be concluded that a one unit increase in the studied financial regulations aspects the financial performance of DT SACCOs in Mombasa County improved as a result. This demonstrates that each financial regulations aspect has a positive and significant effect on the financial performance of DT SACCOs in Mombasa. These results conform with those of Berger and Bouwman (2019) who demonstrated that capital adequacy, interest rate, credit risk management and liquidity management enhance safety nets for members'

deposits, provision of operating capital, increased lending capacity, providing a base for future growth, and preventing insolvency.

Hypothesis Testing

$H0_1$: There exists no relationship between capital adequacy and financial performance of deposit taking SACCOs in Mombasa

The first hypothesis stated that there exists no relationship between capital adequacy and financial performance of deposit taking SACCOs in Mombasa. According to the results, the p-value was 0.013, which was less than 0.05 Level of Significance, and therefore the null hypothesis was rejected. The study thus pointed that capital adequacy has significant positive influence on the financial performance of deposit taking SACCOs in Mombasa.

$H0_2$: There is no relationship between credit risk management influence the financial performance of deposit taking SACCOs in Mombasa

The second null hypothesis stated there is no relationship between credit risk management influence the financial performance of deposit taking SACCOs in Mombasa. According to the results, the p-value was 0.006, which was less than 0.05 level of significance; therefore, the study rejected the null hypothesis and concluded that credit risk management is positive and significantly related to financial performance of deposit taking SACCOs in Mombasa. According to the findings, financial performance and more particularly, credit risk management directly affect financial performance of deposit taking SACCOs in Mombasa.

$H0_3$: There exist no statistically significant relationship between firm liquidity management on financial performance of deposit taking SACCOs in Mombasa.

The third hypothesis stated that there is no significant influence of firm liquidity management on the financial performance of deposit taking SACCOs in Mombasa. According to the results, the p-value was 0.022, which was less than 0.05 level of significance and therefore the study concluded that firm liquidity management positively and significantly affects financial performance of deposit taking SACCOs in Mombasa.

H_{04}: There exists no moderating role of firm size on financial regulations and financial performance of deposit taking SACCOs in Mombasa Kenya

The fourth hypothesis stated that There exists no moderating role of firm size on financial regulations and financial performance of deposit taking SACCOs in Mombasa Kenya. According to the results, the p-value was 0.014, which was less than 0.05 level of significance and therefore the study concluded that firm size positively and significantly affects financial performance of deposit taking SACCOs in Mombasa.

Table 6: Summary for Null Hypotheses Tests

Null Hypothesis	Alternative Hypothesis	Criteria	Interpretation
There is no significant influence of capital adequacy on the financial performance of deposit taking SACCOs in Mombasa	There is a significant influence of capital adequacy on the financial performance of deposit taking SACCOs in Mombasa	P < 0.05	Null Rejected
There is no significant influence of credit risk management on the credit risk management	There is a significant influence of credit risk management on the financial performance of deposit taking SACCOs in Mombasa	P < 0.05	Null Rejected
There exists no statistically significant relationship between firm liquidity management on financial performance of deposit taking SACCOs in Mombasa	There is a significant influence of firm liquidity management on the financial performance of deposit taking SACCOs in Mombasa	P < 0.05	Null Rejected
There exists no moderating role of firm size on financial regulations and financial performance of deposit taking SACCOs in Mombasa Kenya	There exists a significant moderating influence of firm size on financial regulations and financial performance of deposit taking SACCOs in Mombasa Kenya	P < 0.05	Null Rejected

CONCLUSIONS

The study findings resulted to various deductions regarding the influence of financial regulations on financial performance of deposit taking SACCOs in Mombasa County, Kenya. Following the study findings, several conclusions were made. These conclusions are presented in this section as guided by the research objectives.

The study concludes that the DT-SACCOs have adopted capital provisioning policy recommended in Prudential Guidelines. The capital requirement reduces the less moral hazard incentives in SACCOs by absorbing a larger part of the losses; capital adequacy determines the capacity of the SACCOs in terms of meeting the time liabilities and other risks and that independent functions have been set up to monitor capital adequacy in the SACCOs. These is an affirmation that categorization of assets and capital in these DT-SACCOs is highly standardized so that they can be risk weighted. Capital adequacy have a moderate effect on the financial performance of the Deposit Taking SACCOs in Mombasa County, Kenya.

The study deduces that core capital, total capital and risk-weighted assets are the key aspects of capital adequacy that affect the financial performance of the Deposit Taking SACCOs in Mombasa County. Accordingly, capital adequacy protects a financial institution against credit, market and operational risks so that it can absorb any losses that may arise and protect debtors. The DT SACCOs maintain adequate capital requirements, they have adopted capital provisioning policy recommended in Prudential Guidelines, they meet the time liabilities and other risks, and they monitor capital adequacy, to reduces the less moral hazard incentives and reduce the risk of insolvency in case of sudden shocks.

The study further concludes that credit risk management have a great impact on the financial performance of Deposit Taking SACCOs in Mombasa County. Credit risk management is one of the most important functions affecting the financial performance of financial institutions since they are faced with diverse risks in their operations. Non-performing loans, loan terms and conditions and loan loss reserve ratio contribute immensely to the financial performance of the DT SACCOs. High credit risks have been resulted to of non-performing loan ratios, loan terms and conditions, loan collaterals and loan loss reserve ratios which contributes greatly to the financial performance of the SACCO sector.

The results showed that credit risk identification, analysis, and mitigation practices are essential in minimizing loan defaults, facilitating efficient and effective methods of concurring various credit risks and helping the SACCOs cope with the overall risks in their operating environment. The importance of the credit risk management is recognized by financial institutions for it can establish the standards of process, segregation of duties and responsibilities such in policies and procedures endorsed by the financial institutions.

The study further concludes that the level of liquidity of an institution which is measured by the ratio of total loans to customer deposits or customer deposits to assets ratio has a great influence on financial performance. the deposit taking SACCOs have been observant on policies regarding current ratio, working capital, cash ratio and quick ratio in their operations. These enables the SACCOs to cope with the liquidity risks that could have negative results on their financial performance. liquidity management has facilitated the capacity to finance the SACCOs total asset holdings as well as other prompt obligations hence positive impact on financial performance. Financial institutions have been faced with liquidity risks especially due to asset and liabilities mismatch and that lack of proper liquidity risk management strategies has contributed to declining trend in profitability in SACCOs.

The study also concludes that firm size has a significant influence on the financial regulation and consequently the financial performance of SACCOs. As such, there is a correlation between the firm

sizes and the capital adequacy requirements, which has an effect on the entire financial performance of SACCOs. Large SACCOs can easily access funds to finance their growth and also their cash flow requirements. Firms finance their operations from their earnings hence profitable firms are generally expected to perform well financially.

The study deduces that deposit taking SACCOs have created a bigger pool of finances from members deposits and offer attractive products and better services than their competitors in the finance sector. From the findings, financial regulations play critical role on the financial performance of DT SACCOs including growth in sales, profits, assets and equity among others. Financial regulations allow financial institutions to absorb the various economic predicaments and cushion their financial performance from being affected negatively.

From the model summary there was a strong correlation between the independent and dependent variables. From the ANOVA test, there was a substantial link between financial regulations and financial performance of DT SACCOs in Mombasa County. The ANOVA test revealed that the model explained the effect of capital adequacy, interest rate, credit risk management and venture capital monitoring on financial performance of DT SACCOs in Mombasa County. The regression analysis revealed that a unit increase in the studied financial regulations aspects the financial performance of DT SACCOs in Mombasa County improved as a result. Each financial regulations aspect has a positive and significant effect on the financial performance of DT SACCOs in Mombasa.

RECOMMENDATIONS

The study recommends all the SACCOs in Mombasa County to establish policies that clearly outline the Organizational view of capital adequacy and requirement guidelines and the terms and conditions that should be adhered to in order for optimal capital levels are maintained. Applying minimum capital adequacy ratios serves to promote the stability and efficiency of the financial system by reducing the likelihood of banks becoming insolvent. The capital adequacy requirement guidelines should be updated at least annually to reflect changes in the economic outlook and the evolution of the SACCOs' portfolio, and be distributed to all the relevant areas of operations. The guidelines should be approved by the Managing Director/CEO & Board of Directors of the SACCOs based on the endorsement of the SACCOs' heads of credit risk management and the heads of corporate sections.

The study also recommends that the DT- SACCOs in Mombasa should restrict loans and avail loans/credit to the clients depending on their characteristics, capacity/completion, conditions, collateral/security, commonsense/reasonableness and also their contribution. This would eliminate levels of non-performing loans by optimizing SACCOs' reserves, enhancing capital base, reinforcing the SACCOs' capability to offer quality credits and reducing financial distress. Since interest rate capping has resulted in credit rationing the study recommends that the relevant policy makers should review the various aspects that seem to affect the financial soundness of the banks thus increasing the amounts available for credit.

The recommends that DT SACCOs in Mombasa should embrace credit risk management. This will help the SACCOs to be able to lower the risks associated with credit in the SACCOs. The study also recommends that for efficient and effective credit risk management systems credit policy in the SACCOs should be reviewed regularly, for instance, on quarterly or annual basis. The study recommends that SACCOs should also adopt the credit risk techniques that really mitigate their credit risk to reduce risk exposure and thus have good performance. Vibrant credit risk management procedures should be put in place to counter credit risk default, sovereign risk, concentrated risk and counter-party risk.

In addition, the study recommends that the deposit taking SACCOs in Mombasa County should adopt liquidity management that enhance their compliance with the law and regulatory bodies. This

will entail adhering to legal systems, liquidity, deposit taking and financial audit. Profitability and liquidity reinforce each other and therefore finance managers should not consider the two variables as independent. The SACCOs should adhere to all the provided liquidity managements, and comply with the laws and regulatory bodies like SASRA, KUSCO, Ministry as this will put them in a better position to absorb the various economic predicaments, and enhance transparency and accountability in operations.

It is evident that firm size plays a crucial role on the financial performance of SACCOs. Since firm size depends on diverse factors, DT-SACCOs should therefore take into account the factors like country characteristic, development period, amounts of sales and total assets and, profitability which will affect the overall performance of SACCOs.

Suggestions for Further Research

The study investigated the influence of financial regulations on financial performance of deposit taking SACCOs in Mombasa County, Kenya. The SACCOs sector in Kenya however consists of various other SACCOs spread across the 47 counties which differ in their way of management and have different settings all together. This warrants the need for another study which would ensure generalization of the study findings for all the SACCOs in Kenya and hence pave way for new policies. The study therefore recommends another study be done with an aim to investigate the influence of financial regulations on financial performance of deposit taking SACCOs in Kenya.

REFERENCES

Abdul-Jalil, S. (2019). *Financial repression and capital controls in Sudan: an evaluation of fiscal effects.* Paper presented at African Economic Conference, Addis Ababa, December 2019. Available at https://www.uneca.org/sites/default/files/web-form/callforpaperaec2017/abdul-jalil-sawsan.pdf

Ackah, C. & Asiamah, J.P. (2021). Financial regulation in Ghana: balancing inclusive growth with financial stability. In *Achieving Financial Stability and Growth in Africa*, Stephany Griffith-Jones and Ricardo Gottschalk, eds. London: Routledge.

Ahmed, I. (2019). Assessing Interest Rate Risk. *EPRA International Journal of Economic and Business Review, 3*(11), 15-28.

Al-ahdal, W. M., Alsamhi, M. H., Tabash, M. I., & Farhan, N. H. (2020). The impact of corporate governance on financial performance of Indian and GCC listed firms: An empirical investigation. *Research in International Business and Finance,* 51, 101083

Anarfo, E.B & Abor, J.Y. (2020) Financial regulation and financial inclusion in Sub-Saharan Africa: Does financial stability play a moderating role? *Research in International Business and Finance,* 51: 101070

Asian Development Bank (2020) *Asian development outlook (ADO) 2020: Growth slows further in developing Asia's giant, s.l.* Asian Development Bank.

Asongu, S.A. & Odhiambo, N.M. (2020). Inequality thresholds, governance and gender economic inclusion in sub-Sahran Africa. *International Review of Applied Economics,* 34 (1), pp. 91-114.

Central Bank of Kenya, (2020). *Annual report 2020.* [Online] Available: http://www.centralbank.go.ke.

Central Bank of Kenya. (2021). *Annual Bank Supervision Reports.* Retrieved 30th January 2022.

Chowdhury, MD., Zaman, S. & Alam, M.D. (2019). Liquidity Risk Management of Islamic Banks in Bangladesh. *International Journal of Business and Technopreneurship 9(1),* 37-48.

Dan, A. & Kathryn, J. (2020) *Why Financial Regulation Keeps Falling Short*, 61 B.C. L. REV.2295 (2020). Available at: https://scholarship.law.columbia.edu/faculty_scholarship/2604

EY (2021). *Financial Sector Regulation Act. Implementing Twin Peaks and the impact on the industry.* Available at https://www.ey.com/Publication/vwLUAssets/ey-financial-sector-regula-tion-act-twin-peaks/$FILE/ey-financial-sector-reg-ulation-act-implementing-twin-peaks-and-the-im-pact-on-the-industry.pdf

Gachigo, J., Ondigo, H., Aduda, J., & Onsomu, Z. (2022). The Effect of Mergers and Acquisitions Strategies on Financial Performance of Commercial Banks in Kenya. *European Scientific Journal, ESJ,* 18(25), 110. https://doi.org/10.19044/esj.2022.v18n25p110

Gachigo, J., Ondigo, H., Aduda, J., & Onsomu, Z. (2022). The Effect of Mergers and Acquisitions Strategies on Financial Performance of Commercial Banks in Kenya. *European Scientific Journal, ESJ,* 18(25), 110. https://doi.org/10.19044/esj.2022.v18n25p110

Gambo. H., Abdu, B., Murtala. I., & Sulaiman A. (2020). Credit Risk Management and Financial Performance of Quoted Deposit Money Banks in Nigeria. *International Journal of Economics and Financial Management, 10*(2), 26-42.

Gottschalk, R. (2021). Assessing capacity constraints for effective financial regulation in Sub-Saharan Africa. In *Achieving Financial Stability and Growth in Africa*, Stephany Griffith-Jones and Ricar-do Gottschalk, eds. London: Routledge. pp. 61–82.

Hoang, T. V. H. ., Dang, N. H. ., Tran, M. D. ., Vu, T. T. V. ., & Pham, Q. T. . (2019). Determinants Influencing Financial Performance of Listed Firms: Quantile Regression Approach. *Asian Economic and Financial Review,* 9(1), 78–90. https://doi.org/10.18488/journal.aefr.2019.91.78.90

Hoang, T. V. H. ., Dang, N. H. ., Tran, M. D. ., Vu, T. T. V. ., & Pham, Q. T. . (2019). Determinants Influencing Financial Performance of Listed Firms: Quantile Regression Approach. *Asian Economic and Financial Review,* 9(1), 78–90. https://doi.org/10.18488/journal.aefr.2019.91.78.90

João, J., Madaleno, M. & Botelho, A. (2022). Financial Regulation, Financial Inclusion and Competitiveness in the Banking Sector in SADC and SAARC Countries: The Moderating Role of Financial Stability. *International Journal of Financial Studies* 10: 22. https://doi.org/10.3390/ijfs10010022

Kaimu, A., & Muba, S. (2021). The Relationship between Credit Risk and Financial Performance: Evidence from Commercial Banks in Tanzania. *East African Journal of Business and Economics, 4*(1), 22-33.

Kiplagat, K.E. (2020). *Effects of prudential regulations on financialperformance of commercial banks in Kenya.* Masters Research Project, University of Nairobi

Lenar, C. & Papadopoulos, G. (2020). Determinants of firm investment: Evidencefrom Slovenian firm-level data. *MPRA Paper*, University Library of Munich, Germany.

Lessambo, F. I. (2020). *Overview of the US Banking System. In The US Banking System* (pp. 1-5). Palgrave Macmillan, Cham.

Liu, X., Tang, Z. & Zhao, Y. (2021). Determinants of financial performance: An evidence from Internet finance sector. *Managerial and Decision Economics,* 43(5): 1256-1265. https://doi.org/10.1002/mde.3451

Macey, J. R., & O'hara, M. (2020). The corporate governance of banks. *Economic policy review,* 9(1), 27-41

Malik, A.H., Isa, A.H., Jais,M., Rehman, A.U. & Khan, M.A. (2022). Financial stability of Asian Nations: Governance quality and financial inclusion. *Borsa Istanbul Review*, 22(2): 377-387. http://www.elsevier.com/journals/borsa-istanbul-review/2214-8450

Morara, K., & Sibindi, A. B. (2021). Determinants of Financial Performance of Insurance Companies: Empirical Evidence Using Kenyan Data. *Journal of Risk and Financial Management,* 14(12), 566. MDPI AG. Retrieved from http://dx.doi.org/10.3390/jrfm14120566

Msuku, C.C. (2020) *The Effect of Liquidity Risk Management on Financial Performance of Commercial Banks in Tanzania.* Masters thesis, The Open University of Tanzania.

Mursalov, M. (2021). Banking regulations, financial system stability and trust in the ECB: a structural equation model. *Economic Annals- 21,* 192(7-8(2)), 148-157. doi: https://doi.org/10.21003/ea.V192-12

Mutai, N.C., Bii, P.K. & Mabati, J.R. (2020). Effect of interest rates regulations on loan provisions: Case study of SACCOs in Kenya. *International Journal of Advanced Research,* 8(4): 981-985.

Nugroho, M. (2021). Corporate governance and firm performance. *Accounting*, 7: 13–22

Otwoko, B. E., Maina , K. E., & Kwasira, J. (2021). Influence of monetary policy on financial performance of DT SACCOs in Kenya. *African Journal of Emerging Issues, 3*(1), 118-128. Retrieved from https://ajoeijournals.org/sys/index.php/ajoei/article/view/163

Owalo, M., Ndede, F., & Atheru, G. (2021). Ethnic Diversity and Financial Performance of Deposit-Taking Savings and Credit Co-Operative Societies in Nairobi County, Kenya. *Journal of Accounting and Finance in Emerging Economies,* 7(4), 991-1001. https://doi.org/10.26710/jafee.v7i4.2108

Perera, H. & Perera, H. (2020). The Impact of Liquidity Risk on the Financial Performance of Banks and Finance Companies in Sri Lanka. *Journal of Economics, Business and Management, 7*(9), 299-303.

SASRA. (2021). *Co-operatives societies in Kenya.* Retrieved from https://www.sasra.go.ke/: https://www.sasra.go.ke/

Sengul, S. (2020). Financial regulations and risk in the contextof the global recession. *Journal of Business, Economics and Finance (JBEF),* 9(4): 320-335

Shaddady, A., & Moore, T. (2019). Investigation of the effects of financial regulation and supervision on bank stability: The application of CAMELS-DEA to quantile regressions. *Journal of International Financial Markets, Institutions and Money,* 5(8) 96-116

Spratt, S. (2021). *Financial regulation, stabil-ity and growth in low-income countries: A review of the evidence and agenda for research.* In Achiev-ing Financial Stability and Growth in Africa, Stephany Griffith-Jones and Ricardo Gottschalk, eds. London: Routledge.

Triki, T. (2019). Bank regulation and efficiency: What works for Africa? *Research in International Business and Finance,* 39 (PA), pp. 183–205.

Vo, D.H., Nguyen, N.T. & Van, T.H.L (2021). Financial inclusion and stability in the Asian region using bank-level data. *Borsa Istanbul Review,* 21: 36-43.

Vuković, B.; Milutinović, M.; Mijić, K.; Krsmanović, B.; & Jakšić, D. (2022). Analysis of financial performance determinants: evidence from the European agricultural Companies. *Custose@gronegócioonline,* 18(1): 285-306

Waitherero, K. F. (2021). Interest rate risk and value of the firm among private equity firms in frontier markets: Insights from deposit taking savings and credit cooperatives in Kenya. *International Academic Journal ofEconomics and Finance, 3*(6), 388-404.

Wamukota, M. & Otuya, W. (2021). Critical analysis of interest rate and financial performance of SACCOs in Kenya. *The Strategic Journal of Business & Change Management, 8* (2), 58–63.

Wanjiru, P. ., & Jagongo, A. (2022). Liquidity risk and financial performance of deposit taking savings and credit cooperative societies in Kenya. *International Journal of Finance and Accounting,* 7(1), 1 – 14. https://doi.org/10.47604/ijfa.1465

Warrada, L. & Khaddam, L. (2020). The effect of corporate governance characteristics on the performance of Jordanian banks. *Accounting* 6 (2020) 117–126.

Wiley, B. J., & Navickas, J. (2021). Effect of Financial Regulation on Performance of Banking Sector in the United States of America. *Journal of Finance and Accounting,* 5(3). Retrieved from https://stratfordjournals.org/journals/index.php/journal-of-accounting/article/view/912

Zwedu, G.A. (2021). *Financial inclusion, regulation and inclusive growth in Ethiopia. In Achieving Financial Stability and Growth in Africa,* Stephany Griffith-Jones and Ricardo Gottschalk, eds. London: Routledge