

## East African Journal of Business and Economics

[eajbe.eanso.org](http://eajbe.eanso.org)

Volume 8, Issue 1, 2025

Print ISSN: 2707-4250 | Online ISSN: 2707-4269

Title DOI: <https://doi.org/10.37284/2707-4269>

**EANSO**  
EAST AFRICAN  
NATURE &  
SCIENCE  
ORGANIZATION

Original Article

### Moderating Effect of Top Management Expertise on Internal Factors Affecting Financial Performance of Licensed Microfinance Banks in Kenya

Nasubo Okello Felix<sup>1</sup>\*, Prof. Josphat Yegon Cheboi, PhD<sup>1</sup> & Dr. Robert Odunga, PhD<sup>1</sup>

<sup>1</sup> Moi University, P. O. Box 3900-30100, Kesses, Kenya.

\* Correspondence Email: [fnasubo@yahoo.com](mailto:fnasubo@yahoo.com)

Article DOI: <https://doi.org/10.37284/eajbe.8.1.2674>

**Date Published: ABSTRACT**

05 February 2025

**Keywords:**

Age of  
Bank,  
Cash  
Management,  
Credit  
Risk,  
Financial  
Performance,  
Operating Costs,  
Operational  
Efficiency,  
Top  
Management  
Expertise.

Microfinance Banks in Kenya continued to report varied results for a long period. Some microfinance banks have continued to post impressive results while others are performing poorly and facing imminent collapse. It's against this backdrop that research was conducted to analyze the moderating effect of top management expertise on the internal factors affecting the financial performance of licensed microfinance banks in Kenya. The study analyzed the effects of cash management, credit risk, operational efficiency and operating costs as independent variables while financial performance was a dependent variable. The study adopted both explanatory and longitudinal designs. The study used secondary data from 14 licensed microfinance banks for 2018-2023. Regression analysis on a balanced panel data set of 84 observations was used. Four theories; free cash flow, agency, efficiency and upper echelon theories were used. Return on assets was used to identify the financial performance. The study followed a quantitative method by employing panel data analysis. The relationship between variables was established using inferential statistics and regression analysis while STATA version 13 and Excel sheets were used to analyze the data. Pearson correlation matrix was used for predicting and describing the variables in terms of directions and magnitude while regression analysis was conducted. The findings revealed that cash management and credit risk positively and significantly influence financial performance,  $\beta=0.348$ ;  $p<0.0001$  and  $\beta=0.284$ ;  $p<0.048$  respectively. Operating efficiency, though significant, has a moderate effect,  $\beta=0.207$ ;  $p<0.013$  while Operating Costs, when managed, also contribute positively,  $\beta=0.28$ ;  $p<0.0007$ . The inclusion of Top Management expertise enhances the relationships between these variables, cash management ( $\beta = 1.849$ ,  $p>.0001$ ), credit risk ( $\beta = 1.465$ ,  $p>.0007$ ), operation efficiency ( $\beta = 1.235$ ,  $p>.0339$ ) and operating cost ( $\beta = 1.421$ ,  $p>.0087$ ). Recommendations include prioritizing cash and risk management strategies, investing in operational efficiency, and reducing operational costs. Further research on technological innovation and external economic factors.

#### APA CITATION

Nasubo, F. O., Cheboi, J. Y. & Odunga, R. (2025). Moderating Effect of Top Management Expertise on Internal Factors Affecting Financial Performance of Licensed Microfinance Banks in Kenya. *East African Journal of Business and Economics*, 8(1), 96-116. <https://doi.org/10.37284/eajbe.8.1.2674>

#### CHICAGO CITATION

Nasubo, Felix Okello, Josphat Yegon Cheboi and Robert Odunga. 2025. "Moderating Effect of Top Management Expertise on Internal Factors Affecting Financial Performance of Licensed Microfinance Banks in Kenya". *East African Journal of Business and Economics* 8 (1), 96-116. <https://doi.org/10.37284/eajbe.8.1.2674>.

#### HARVARD CITATION

Nasubo, F. O., Cheboi, J. Y. & Odunga, R. (2025) "Moderating Effect of Top Management Expertise on Internal Factors Affecting Financial Performance of Licensed Microfinance Banks in Kenya", *East African Journal of Business and Economics*, 8(1), pp. 96-116. doi: 10.37284/eajbe.8.1.2674.

#### IEEE CITATION

F. O., Nasubo, J. Y., Cheboi & R., Odunga "Moderating Effect of Top Management Expertise on Internal Factors Affecting Financial Performance of Licensed Microfinance Banks in Kenya", *EAJBE*, vol. 8, no. 1, pp. 96-116, Feb. 2025.

#### MLA CITATION

Nasubo, Felix Okello, Josphat Yegon Cheboi & Robert Odunga. "Moderating Effect of Top Management Expertise on Internal Factors Affecting Financial Performance of Licensed Microfinance Banks in Kenya". *East African Journal of Business and Economics*, Vol. 8, no. 1, Feb. 2025, pp. 96-116, doi:10.37284/eajbe.8.1.2674.

## INTRODUCTION

Financial performance is the measure of the financial health of the organization and shows the performance of the executive leadership of the company. The higher the financial performance of the bank, the more effective and efficient the bank is in using the resources and later contributes at the macro-economic level to the country's economy (Matar & Eneizan, 2018). Financial performance is defined as the achievement of a firm's strategic goals and objectives (Almatrooshi, Singh, & Farouk, 2016). Financial Performance is a vital and crucial issue and assessing the financial performance of banks is about examining its development towards accomplishing goals.

Microfinance in Kenya can be practised in a variety of ways, such as through regulated deposit-taking institutions, non-governmental organizations, church-based organizations, Merry-go-rounds, rotating savings and credit associations, accumulative savings and credit associations, and investment clubs (AMFI, 1999). Unregulated credit micro-finance institutions are on the rise with varied business targets ranging from agriculture to asset financing, while some are transforming from unregulated to regulated ones. On the other hand,

the number of licensed microfinance institutions has increased dramatically since 2008. At the end of 2017, there were 114 microfinance bank branches across the country, making the total number of licensed MFBs to 13. The profits within the industry experienced a decline, falling from KSh. 549 million in profit at the end of December 2015 to KSh. 377 million in deficit for the period ending December 2016 as well as KSh. 731 million for the period ending December 2017 (CBK 2018). Uncertainty regarding financial income is the primary cause of the fluctuation in profits. To tackle the growing difficulties in the microfinance sector caused by its rapid growth and shifting dynamics of the market, which have affected the performance of the microfinance bank industry, the regulator has undertaken a comprehensive review of the Microfinance Act (CBK, 2018).

This has in the long run yielded fruits as the sector has recorded an increase in overall financial performance. As the microfinance industry was growing, over time they shifted focus to profitability at the expense of helping the poor and lowering the incidence of poverty. This resulted in mission drift in the microfinance industry to commercialization, which is in line with the Yunus philosophy that the microfinance sector is approaching mission drift by

abandoning their primary social goal of strengthening the underprivileged in society and focusing more attention on meeting the financial aims. The root of the arguments on mission drift is that when competition increases MFIs may move from their social mission and focus on striving for financial returns (Abebe 2020). The focus of MFIs is affected by competition among various industry players which tends to divert from the original mission of social welfare to profitability and the need for returns as most of the MFIs are set up as business ventures

This financial performance can be influenced by what the management of the organization expects, benchmarking with other similar institutions or consistency of the returns (Modigliani & Miller, 1958). The growth of MFIs has led to an increase in domestic savings in Africa. International Monetary Fund (IMF) documents that between 2008 and 2017, the national savings increased from 17.8% to 22% of the GDP in sub-Saharan Africa and from 21% to 30% of the GDP in northern Africa as a result of the embracement of the MFIs. Microfinance banks have further reduced the poverty levels by 13% in sub-Saharan Africa and increased the income of the poorest by 30%. In Kenya, the financial performance of MFIs contributes to an estimated 68% of the total income of investors and savers (Kakwani et al, 2006). MFI also controls national wealth estimated at Kshs. 397 billion, equivalent to 33% of the country's GDP (CBK, 2021). The ongoing worldwide financial crisis and the adjustment to an uncertain "new normal" are making the future microfinance sector different from the past ones. The last decades have witnessed steady increases in savings as opposed to the current trend where reduced savings have been recorded by institutions in recent times. Microfinance banks in Kenya have not been spared either by the uncertainties in the financial industry.

The key objective of the MFBs is to provide micro-credit and other financial services like savings to the otherwise excluded poor people and help

alleviate their poverty. Microfinance has been recognized as one of the most important tools for poverty alleviation (Omino, 2005). The micro-finance sector sometimes falls into the informal finance sector which can be described as that part of the economy in which financial activities take place which are not officially regulated or monitored. The principal reason for the emergence of an informal financial market is the unwillingness of the formal financial sector to lend to some relatively risky category of investors (Qiang and Beng, 2014). Therefore, for microfinance to achieve such an objective of poverty alleviation there is a great need for the sector to perform better and expand or grow in the long term, which seems like a great problem for many microfinances. There are many reasons for the failure of such microfinance in Kenya which range from incompetent and inexperienced staff, questionable working practices, poor internal controls and substandard governance (Baumann, and Kaen, 2003) to inadequate management information systems, all of which contribute to African MFB underperformance (CGAP, 2009). All these factors may lead to underperformance hence less profitable MFBs as well as undergrowth which are normally accompanied by their collapse. Therefore, MFBs especially in Kenya need to be profitable enough so as to encourage shareholders to save more as well as be self-sustainable.

The profitability of MFBs is important since the soundness of an industry is closely linked to the soundness of the whole economy (Lipunga, 2014). The financial strength of a banking institution is unquestionably associated with its profitability, thus, the most important need of any bank's management and leadership is to make profits on a continuous basis since this will guarantee the bank's continuous existence. Previous studies across the world have been carried out to research on financial performance of microfinance institutions using attribution models, primarily the return on assets but found mixed empirical results.

Berger and Hunter (2013) using unbalanced pooled time series data studied the factors that influence the performance of microfinance institutions in Greece from the year 1990 to 2002. The research established that more return on average assets was connected to highly capitalized microfinance institutions and low cost-to-income ratios. Al-Khatib (2012) explored the internal factors that influence microfinance institutions' profitability in Zimbabwe. The study sampled five microfinance institutions, which were randomly selected and used secondary data from the bank's financial reports. Using the general linear regression model the study found that the size of the bank; liquidity, gross domestic product and inflation had a positive correlation with profitability (ROA) while operating expenses had a negative association with the profitability of microfinance institutions in Zimbabwe. The study recommended that inflation control policies should be given priority to foster financial intermediation.

Basu (2015) examined the factors influencing the profitability of microfinance institutions in Kenya for a 3 years period from 2010 – 2012. Secondary data collected from the 44 banks in Kenya was used in the study. Using the regression model the study established that capital invested has a significant influence on ROE while operational efficiency, GDP and inflation have insignificant effects on ROE on equity. The study recommended that microfinance institutions in Kenya should put more focus on both the microfinance institution's specific factors and the external environment together to come up with effective strategies to enhance their financial performance.

Cash management is a key element in a sound financial institution. For a microfinance bank to remain in business it must have a prudent cash management system in place that guarantees its customer access to their deposits whenever they need it. Cash flow management is a key element in the banking industry as customers expect safe custody of their money and easy access on demand.

A robust cash management system entails prudent financial accountability and the ability of the firm to meet its financial obligations when they fall due (Lipunga, 2014).

Credit risk according to the Basel Committee of Banking Supervision (BCBS, 2012) (Witzany, 2017); is the possibility of losing the outstanding loan partially or totally, due to credit events (default risk) noted as for example; bankruptcy, failure to pay a due obligation, where the borrower refuses to honour, stops making the agreed-upon payments or not required to make payments to a loan contract or credit rating change and restructure. In Kenya, (Mueni, 2019) considered credit risk variables of non-performing loans and loan loss provisioning; (Kagecha, 2016) included in addition to variables of asset quality, size, and capital adequacy considered other variables to include macro-economic factors evaluated against bank profitability.

Operational efficiency is measured by the ability of the company to minimize service time, have well-defined systems and have seamless operations that reduce idle time in its processes to cut costs and increase profits to prevent the possibility of bank failures (Liargovas & Skandalis, 2008). Management efficiency is very important for a firm to enhance its market performance, stay competitive (Nguyen 2021), and be less vulnerable to outside competition. Management efficiency is an important factor to ensure the health, stability, and growth of the banks but it is difficult to measure because it is a primarily qualitative factor. It is considered as an indicator of administrative efficiency. Efficiency is a vital element of the bank's success because high efficiency indicates the high performance of the firm. Ghasempour & Salami (2016) revealed that management efficiency indicates the ability of management and the board of directors to capture, measure, and control the risk associated with banking activities to ensure sound banking operations. Anderson, C. & Berdahl, (2005) suggested that management efficiency



depends on prescribed norms of management, management capabilities to respond to changing the environment, administrative capabilities, and leadership.

Operating costs are the expenses incurred in the normal running of day-to-day activities of an enterprise. The costs include administrative costs incurred on staff salaries and wages, technology and system upgrades, advertising, publicity and marketing costs. The management must ensure that these costs are minimized for the microfinance bank to remain profitable and maximize shareholders' wealth. Empirical evidence indicates that low operating costs lead to greater profitability of microfinance banks. Other costs like the provisions made towards bad debts and doubtful debts influence performance and are likely to lead to probable annual loss on assets (Qasim and Ramiz, 2011). Expenses are normally the operational cost of a microfinance bank and they specify a fraction of microfinance earnings have an inverse relationship with profit, and indicate the proficiency of the microfinance institution administration and its dealings during operations (Ovamba, 2014).

Due to worldwide corporate governance failures and accounting scandals in recent years, interest has grown in studying the role and responsibility of top management and directors in the performance of a firm. Upper Echelon theory explains how executive characteristics and experiences shape their perceptions, choices and actions in ways that affect a firm's outcome. Some view top management financial expertise as an essential dimension of corporate governance and play a vital role in governance (Ujunwa, et al., 2013; Osazuwa et al., 2016). Top management expertise can play a key role in ensuring transparency, integrity and accountability on a wide range of corporate issues (Johl et al., 2015). Gunner et al. (2008) stressed that it was important for board members to understand accounting principles and financial statements, which will lead to better board oversight and serve the better interests of shareholders.

In Kenya today, the Companies Act, the Microfinance Banks Act, the Central Bank of Kenya Act and various other prudential guidelines issued by the Central Bank of Kenya (CBK) over the years, govern this sector. The banking sector in Kenya was liberalized in 1995 which led to the removal of exchange controls. The CBK is responsible for formulating and implementing the monetary policy adopted by the Kenyan government and ensuring there is liquidity, solvency and proper functioning of the financial system in the country. The CBK also publishes valuable information related to the banking industry in Kenya and the non-banking financial institutions, as well as information about the interest rates prevalent in the country and other publications and guidelines. The Kenyan microfinance banks have come together under an umbrella body referred to as the Association of Microfinance Institutions (AMFI), which serves as a lobbying body for the members' interests and addresses issues affecting the registered microfinance banks in the country (CBK, 2023).

In Kenya, the performance of microfinance banks has been influenced by various factors such as the ability of banks to meet regulatory requirements, these have influenced the performance in negative as well as positive ways depending on the financial expertise and the management skills of the top management of the microfinance banks.

Top management is the apex management of an organization that is tasked with the responsibility of formulation of policies and implementation of policy guidelines. It's the top cream expertise of an organization. They generate strategic papers for the operationalization of the organizations' visions and objects with the aim of meeting the objectives of revenue maximization and general profitability. They are planners, think tanks and key decision makers of the organization. They play a vital role in monitoring and implementing policies and decisions by the board of directors (Ovamba, 2014). This assertion is supported by the agency theory

that suggests that effective monitoring reduces agency costs as the agents have fewer opportunities to build their wealth at the expense of tools for monitoring board activities and improving the transparency of corporate boards as shareholders. Moreover, Fama (1980) suggests that directors are employed to ensure that competition stimulates actions consistent with shareholders' value maximization. Besides, the number of directors is also valuable as they improve the firm's compliance with the disclosure requirements (Chen and Jaggi, 2010). In addition, Olusanmi, et al., (2015) highly qualified top management will lower the incidence of financial statement fraud, which may occur during normal operations.

Microfinance banks in Kenya have undergone major changes since its establishment until today, changes that were affected by the introduction of new banks in the market, changes in technology and increased competition. Relying on the role of the banking sector in the country's economic development and that Kenya is a country with an underdeveloped economy; this paper analyzed the internal factors affecting the financial performance of microfinance banks. Therefore, in this research Return on Assets (ROA) was set as a measure of financial performance, while internal factors were cash management, credit risk, operational efficiency and operating costs. The study used top management expertise as a moderating variable. The research analyzed the moderating effect of top management expertise on the internal factors affecting the financial performance of licensed microfinance banks in Kenya.

### Statement of the Problem

Since microfinance regulations were enacted, microfinance Banks in Kenya have existed for about 15 years which set in place the licensing, operation and supervision of under CBK. This was aimed at ensuring good governance is practised and the protection of customers' interests. These institutions have continued to report varying results over the years with some banks reporting high

profits while others reporting low profits and in some cases losses.

This study focused on the period of 6 years between 2018 – 2023. This is the period under which the Kenyan economy generally grew at a very declining rate facing a myriad of challenges ranging from high rates of inflation hitting 9% (2020) and 12% (2020), effects of the Covid-19 pandemic, climate change resulting to floods, droughts amongst others. As the economy shrunk, various sectors continued to report slow growth rates and losses which resulted in job cuts. This has never been the case with the financial sector which continued to report impressive performance amidst these challenges.

According to an economy survey report by the Kenya National Bureau of Statistics, in 2022 the economy grew by 5.8% compared to a growth of 5.6% (2021) 4.3% (2020), 5.4% (2019) and 6.3% (2018). In 2022, Key sectors such as manufacturing (6.9%), transportation (7.2%), real estate (6.7%) and financial and insurance (12.5%). The sectors were affected by a number of challenges such as the high cost of living, depreciating Kenyan currency against world major currencies, low purchasing power caused by diminishing disposable income, harsh weather conditions resulting from climate change, effects of Covid-19 on businesses amongst others. Despite these challenges, the finance sector grew by 12.8% (2021) 5.6% (2020), 6.6% (2019) and 8.6% (2018). This is an indicator that the sector has remained resilient and withered all shocks to remain strong amidst the economic challenges.

Despite the challenges faced in the economy, the microfinance sub-sector contributed to the overall growth of the financial sector where a number of MFBs reported high profits while a few reported low profits and in some cases losses.

It's against this backdrop that research is necessitated to investigate the cause of varying results from MFBs operating under the same regulations and in the same economy having been licensed within the same period. Operating in a

liberal economic environment like Kenya, one would expect these MFBs to report almost similar profitability indices over the same period since they face similar challenges and operate in the same environment. However, this is not the case as some MFBs continue to report high profits while others are reporting huge losses and facing imminent collapse. To understand what could be the cause of this, the research will analyze the moderating effect of top management expertise on the internal factors affecting the financial performance of licensed microfinance banks in Kenya hence the need to understand the problem. The internal factors are cash management, credit risk, operating efficiency and operating cost.

## Research Objective

### *General Research Objective*

The general research objective was to analyze the moderating effect of top management expertise on the internal factors affecting the financial performance of licensed microfinance banks in Kenya.

### *Specific Research Objectives*

- To determine the effect of cash management on the financial performance of licensed microfinance banks in Kenya.
- To examine the effect of credit risk on the financial performance of licensed microfinance banks in Kenya.
- To evaluate the effect of operational efficiency on the financial performance of licensed microfinance banks in Kenya.
- To assess the effect of operating costs on the financial performance of licensed microfinance banks in Kenya.
- To investigate the moderating effects of top management expertise on the relationship between cash management quality and financial

performance of licensed microfinance banks in Kenya.

- To analyze the moderating effect of top management expertise on the relationship between credit risk and financial performance of licensed microfinance banks in Kenya.
- To examine the moderating effect of top management expertise on the relationship between operational efficiency and financial performance of licensed microfinance banks in Kenya.
- To assess the moderating effect of top management expertise on the relationship between operating costs and financial performance of licensed microfinance banks in Kenya

## Research Hypothesis

i) Ho1: Cash management quality has no statistically significant effect on the financial performance of licensed microfinance banks in Kenya.

ii) Ho2: Credit risk has no statistically significant effect on the financial performance of licensed microfinance banks in Kenya.

iii) Ho3: Operational efficiency has no statistically significant effect on the financial performance of licensed microfinance banks in Kenya.

iv) Ho4: Operating costs have no statistically significant effect on the financial performance of licensed microfinance banks in Kenya

v) Ho4a: Top management expertise has no significant relationship between cash management quality and the financial performance of licensed microfinance banks in Kenya.

Ho4b: Top management expertise has no significant relationship between credit risk and the financial performance of licensed microfinance banks in Kenya.

Ho4c: Top management expertise has no significant relationship between operational efficiency and financial performance of licensed microfinance banks in Kenya

Ho4d: Top management expertise has no significant relationship between operating costs and the financial performance of licensed microfinance banks in Kenya.

## LITERATURE REVIEW

### Financial Performance

Financial performance refers to the measure of firm efficiency and effectiveness (Cochran & Wood, 1984). It can be said to be the condition of a firm over a certain period, and such conditions can be depicted by dividend payments, share price growth, and profitability. Additionally, financial performance in a firm is judged by its capital adequacy ratio, liquidity, leverage, solvency and profitability. Therefore, it is simply the ability of a firm to manage and control its resources. Profitability refers to money that a firm can produce with the resources it has. The goal of most organizations is profit maximization (Berger and Mester, 1997). Profitability involves the capacity to benefit from all the business operations of an organization, firm or company (Berger et al., 2013). The goal of most organizations is profit maximization (Niresh & Velnampy, 2014). Profitability involves the capacity to benefit from all the business operations of an organization, firm or company (Muya & Gathogo, 2016). Profit usually acts as the entrepreneur's reward for his/her investment. As a matter of fact, profit is the main motivator of an entrepreneur for doing business. Profit is also used as an index for performance measuring of a business (Ogbadu, 2009). Profit is the difference between revenue received from sales and total costs which includes material costs, labor and so on (Stierwald, 2010).

Profitability can be expressed as accounting profits or economic profits and it is the main goal of a

business venture (Anene, 2014). Profitability portrays the efficiency of the management in converting the firm's resources to profits (Muya & Gathogo, 2016). Thus, firms are likely to gain a lot of benefits related to increased profitability (Niresh & Velnampy, 2014). One important precondition for any long-term survival and success of a firm is profitability. It is profitability that attracts investors and the business is likely to survive for a long period of time (Farah & Nina, 2016). Many firms strive to improve their profitability and they spend countless hours in meetings trying to come up with a way of reducing operating costs as well as on how to increase their sales (Schreibfeder, 2006).

Profitability is one of the main aspects of financial reporting for many firms (Farah & Nina, 2016). Profitability is vital to the firm's manager as well as the owners and other stakeholders that are involved or associated with the firm since profitability gives a clear indication of business performance. Profitability ratios are also used to measure the firm's earning capacity and are considered a firm's growth and success indicator (Majed, et al., 2012). Profitability is generally measured using accounting ratios with the commonly used profitability ratio being ROA. ROA determines the amount of the profit earned per shilling of assets. This reflects the efficiency with which the bank's managers use the bank's investment resources or assets in the generation of income (Sehrish, et al., 2010). ROA simply connotes management efficiency and depicts how effectively and efficiently the bank management operates as they employ the organization's assets into the earnings. A high ROA ratio is a clear indicator of the good performance or profitability of a banking entity (Bentum, 2012).

Generally, the Microfinance bank sector in Kenya has witnessed a growth in reported profitability since inception with a few reported drops and losses among certain banks. The Microfinance sector has evolved over the years in Kenya and globally. In Kenya, this sector was established to majorly target the low- and middle-income earners who did not



have access to mainstream banking. These are mainly those people in the informal sector who banks consider to be high-risk borrowers. With time, the sector has grown tremendously and with stiff competition in the financial sector, the MFBs compete with commercial banks for available customers in the economy.

To be able to steer growth and profitability through prudent financial management, the sector has evolved over the years through the adoption and use of international financial accords and models such as the Basel Accord and Camel model.

## **Theoretical Review**

### ***Free Cash Flow Theory***

The theory asserts that management has a responsibility to hold cash to gain control over it in making investment decisions (Huseyin, 1997). When cash is readily available investment is made easier by the managers. The management must always ensure that it invests in activities which maximize the shareholders' returns. By holding a sufficient amount of cash, the management is guaranteed in the investment growth projects due to the availability of funds hence the improved financial performance. The scarcity of funds means that the management will not be able to invest in any investment aimed at improving the welfare of shareholders. Eljelly (2004) criticized the free cash flow theory by arguing that managers holding too much cash can easily make poor investments.

This theory was useful to this research study as it helped to explain the effects of cash management as a key factor influencing the financial performance of licensed microfinance banks in Kenya.

### ***Agency Theory***

Agency theory was proposed by Jensen & Meckling (1976). The theory is that conflicts are seen to rise in organizations due to; the separation of ownership from control, the difference between the principles

and the agents, and finally, information asymmetry. The agency theory is grounded on the hypothesis that is richer in information about the firm than the other stakeholders. This state of information asymmetry creates conflicts of interest between the principles and the agents. Conflicting interests lead to problems between: principals and agents, majority and minor shareholders, and finally, owners and creditors of the firm (Panda & Leepsa, 2017; Jensen & Meckling, 1976; Vitolla, et al., 2020). To MFBs, just like other firms, managers may attempt to maximize their interest rather than shareholders when ownership and the management of firms are separate (Jensen & Meckling, 1976). This may arise in a form where managers engage in risky business to please the shareholders and reward themselves with expensive holiday trips, pay raises and other incentives at the expense of the shareholders (Panda & Leepsa, 2017). The top management is responsible for developing policies and preparing the books of accounts. They also ensure that these books are prepared in accordance with the applicable accounting standards. The activities of the top management are expected to align the interests of managers with those of the institution's main objectives.

The agency theory was ideal for this study as it explained the effect of credit risk on financial performance so far as the principal-agent relationship is concerned in making financial management decisions such credit risk of the firm.

### ***Efficiency Theory***

The efficiency theory was formulated by Demsetz (1973) as an alternative to the market power theory. Athanasoglou, Brissimis and Delis (2005) analyzed the efficiency theory and concluded that better management and scale efficiency result in higher concentration thus greater and higher profits. Accordingly, the theory explores that management efficiency not only increases profits but also results in larger market share gains and improved market concentration. The efficiency theory also states that a positive concentration–profitability relation may

be a sign of a positive connection relating to efficiency and size.

The theory postulates that a positive association between concentration and profit arise from a lower cost which is mainly achieved through efficient practices and increased managerial processes (Birhanu, 2012). The efficiency theory supports that the most favourable production can be attained through economies of scale. Thus, maximum operational efficiency in the short run is achieved at a level of output where all economies of scale available are being employed in an efficient manner (Odunga et al., 2013). Additionally, Mirzaei et al., (2012) examined and found out that efficiency theory explains that attaining higher profit margins arises from efficiency which allows banks to obtain both good financial performance and market shares. The efficiency theory presupposes that profitability and high concentration result from efficient cost-reduction practices and better management strategies across the organization (Fatima, 2015). Thus, efficient firms in the market lead to an increase in their market share and the size of their firm because of aggressive production and management techniques (Birhanu, 2012).

The efficiency theory is used to study and explain the effect of operational efficiency and operating costs on the financial performance of licensed microfinance banks in Kenya.

### ***Upper Echelon Theory***

Upper echelon theory was set forth by Hambrick Donald C and Phyllis A Mason (1984). This theory postulates that individual characteristics play a significant role in corporate-level decision-making. Top managers' characteristics significantly influence firms' strategic choices and eventually firm performance.

Upper echelon theory examines how executive characteristics and experiences share their perceptions, choices and actions in ways that affect a firm's outcome. The upper-echelon theory

assumes that top management characteristics can explain some external and internal decision-making processes and affect a company's performance (Carpenter, 2002). The characteristics of values, experience, age and education can strongly affect how managers interpret situations and how they make strategic decisions, which ultimately affects the firm's performance.

This theory was useful to this study as it explained the effects of top management characteristics, the board, on the firm's performance.

### **Empirical Literature Review**

Ali Abdi Sheikhdon (2016) examined the effect of liquidity management on the financial performance of commercial banks in Mogadishu. The study used a descriptive survey, the target population of the study was 112 employees of commercial banks in Mogadishu. A sample size of 87 respondents was selected using Slog van's formula. The data collection methods used included a questionnaire. The selection sample technique was a purposive or judgmental approach. Data was analyzed using the SPSS version. The key findings were that liquidity management drivers individually had a positive influence on the financial performance of commercial banks in Mogadishu-Somalia. The overall results indicated that there was a significant linear relationship between account receivable management, account payable and cash management on the financial performance of commercial banks in Mogadishu.

Rono, et al., (2014) assessed the relationship between interest rate spread on the performance of Kenyan quoted banks. The study employed a descriptive design and secondary from published annual reports from the year 2007 to 2012. Using the Pearson product-moment correlation, the study found that commercial banks adopt different interest rate spreads to cover their costs and earn profit. The research findings also found that there was a significant correlation between interest rate spread and ROA, interest 20 spread and ROE, while

the study found an insignificant correlation between interest rate spread and non-performing loan expense.

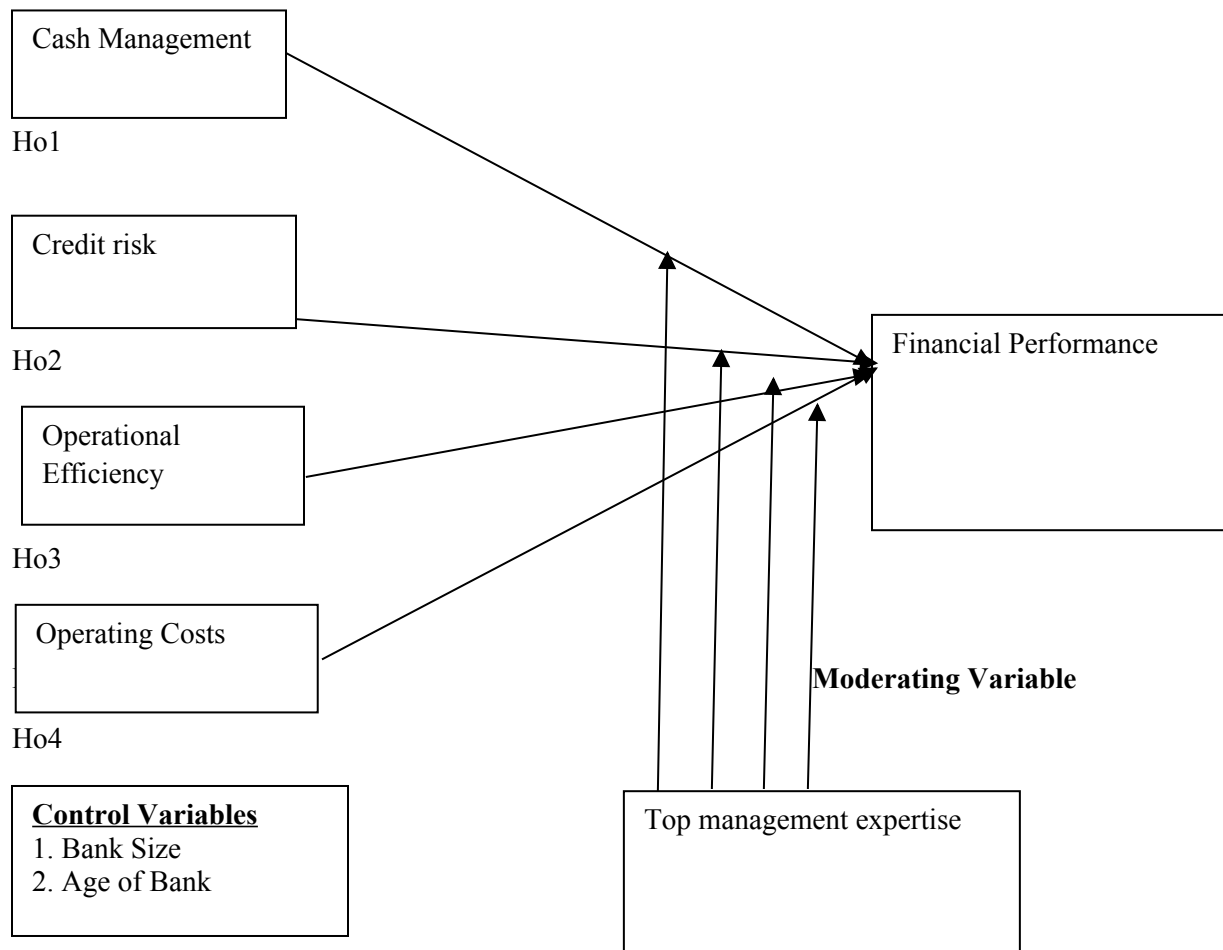
Gitau (2011) assessed the relationship between employee efficiency tools for business performance in the aviation sector with Kenya Airways as a case study. He employed a descriptive research design method using primary data. It was established that factors such as employee benefits, employee training and employee recognition are key factors for promoting efficiency hence resulting in high production.

Muriithi (2017) conducted research on the connection between operational expenses and the financial performance of occupational pension schemes in Kenya. The study focused on secondary data based on 164 pension schemes from the year 2007 to the year 2009. A sample of 329 pension schemes was obtained through a stratified technique. It was observed that the investment management costs as well as administrative costs exhibited a negative correlation with financial performance.

### Conceptual Framework

#### Independent Variables

#### Dependent Variable



## METHODOLOGY

### Types and Sources

This study used a combination of explanatory and longitudinal research design, explanatory because it examined the effect of naturally occurring treatment after it has occurred and because it also tries to verify the formulated hypothesis that refers to the present situation in order to elucidate it (Bechhofer and Paterson, 2008) and longitudinal because the correlation study repeated observations of the same items over a long period of time. It involves tracking changes over time in a broad range of populations. This study used explanatory research design in analyzing the moderating effect of top management expertise on the internal factors

affecting the financial performance of licensed microfinance banks in Kenya for a period of six (6) years from 2018 to 2023.

The population comprises specifically the 14 microfinance banks. Audited financial statements available for the years ended 2018 - 2023 for the 14 licensed microfinance banks in Kenya as of 31<sup>st</sup> December 2023 were examined. The study included all microfinance banks consistently to avoid missing information and to deal with balanced data, this being a period under which all microfinance banks had been licensed and in full operation, hence giving 84 observations. Secondary data from audited and published annual financial statements was used in the study.

### Measurements of Variables

VARIABLE	MEASUREMENT	EMPIRICAL REVIEW
<b>Dependent</b>		
Financial Performance	ROA = Net Income/Total Assets	Khan et al., (2020); Mueni, (2019); Almaqtari, et al., (2019)
<b>Independent Variable</b>		
Cash Management	Cash Ratio = Cash/Current Liabilities	Nguyen (2021) and Khan (2006)
Credit risk	CR ratio= NPL/Total Loans	Ombangi, (2018) Boahene et al., 2012; Afriyie & Akotey, 2011; Kolapo et al. 2012; and Kithinji, 2010.
Operational efficiency	Operation efficiency ratio = Operating expenses/Loan portfolio	Ombangi, (2018)
Operating costs	OC ratio = Operating expenses/Total Assets	Hirindu, K. & Panditharathna (2017)
<b>Moderating Variable</b>		
Top management expertise	= Total Income/Total Assets	Hirindu, K. & Panditharathna (2017)
<b>Control Variables</b>		
Bank size	Natural log of total assets	Thanatawee (2013)
Age of the bank	The bank's launch date to time t and is expressed in years	Eshima & Anderson (2017)

Source: Researcher (2024)



**Data Analysis**

Data processing starts with data preparation, coding, editing and cleaning. Both descriptive and inferential statistics were used to analyze data.

**Regression Model**

A hierarchical multiple linear regression model was utilized to test the direct effects and the moderating effect.

The regression model is as follows

$$ROA = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \varepsilon$$

Where Y is the dependent variable and is a linear function of  $X_1 X_2 X_3 \dots X_4$  plus  $\varepsilon_1$ ,  $\alpha$  is the regression constant or intercept,  $\beta_1 \dots \beta_n$  is the regression coefficient or change induced in Y by each X,  $X_1 \dots X_n$  are independent variables,  $\varepsilon_1$  is the error term that accounts for the variability in Y that cannot be explained by the linear effect of the predictor variables. Where;

Y(ROA) = Return on Assets (ROA= net income / total assets)

$X_1$ (CM) = Cash management= cash & cash equivalent/current liabilities

$X_2$ (Cr)= Credit Risk= NPL/Total Loans

$X_3$ (OE)= Operation efficiency = Operating expenses/Loan portfolio

$X_4$ (OC)= operating costs =Operating expenses/Total Assets

tm=top management decisions expertise

$\beta_0$ it = constant

$\beta_1$ it –  $\beta_7$ it = regression coefficients

$\varepsilon$  = the error terms

i = microfinance banks

**DATA ANALYSIS AND RESULTS**

**Table 4.1 Descriptive Statistics**

Statistics	Performance of licensed microfinance banks in Kenya	Cash Management	Credit Risk	Operating Efficiency	Operating Costs	Top Management Expertise
Mean	6.97325	14.58943	15.15105	14.38143	15.09638	15.77976
Median	1.52342	14.67890	22.05186	14.57093	15.15105	15.71359
Maximum	94.36874	20.72432	8.748305	22.43793	22.05186	22.22789
Minimum	-36.78629	2.575195	2.360296	7.075809	8.748305	-1.783196
Std. Dev.	18.42124	2.915449	0.001883	2.810855	2.360296	2.562871
Skewness	2.974357	-0.232278	4.066611	-0.005169	0.001883	-0.716941
Kurtosis	12.34567	5.328723	20.99954	3.004665	4.066611	7.895415
Jarque-Bera	2210.423	17.28728	0.002000	0.002407	20.99954	485.7273
Probability	0.000000	0.000000	0.000000	0.998797	0.000028	0.000000

The findings on the features of each variable are shown in Table 4.1. The results indicate that the variables are not normally distributed: Performance of licensed microfinance banks in Kenya had a Mean of 6.97325, Median of 1.52342, Maximum of 94.36874, Minimum of 36.78629, Std. Deviation of 18.42124, Skewness of 2.974357, Kurtosis of 12.34567, Jarque-Bera of 2210.423 and a

Probability of 0.000000. This shows significant departures from the mean. This variable diverged from the central tendency criteria, according to the interpretation, as indicated. Cash Management; Mean 14.58943, Median 14.67890, Maximum 20.72432, Minimum 2.575195, Std. Dev. 2.91114, Skewness – 0.365778, Kurtosis 4.234308, Jarque-Bera 37.22798 and Probability 0.000000

this shows significant departures from the mean. This variable diverged from the central tendency criteria, according to the interpretation, as indicated. Operating Efficiency; Mean 14.38143, Median 14.57093, Maximum 22.43793, Minimum 7.075809, Std. Dev. 2.810855, Skewness -0.005169, Kurtosis 3.004665, Jarque-Bera 0.002407, Probability 0.998797. This shows that this variable is normally distributed. This variable diverged from the central tendency criteria, according to the interpretation, as indicated. Operating Costs; Mean 15.09638, Median 15.15105, Maximum 22.05186, Minimum 8.748305, Std. Dev. 0.360296, Skewness 0.001883, Kurtosis 4.066611, Jarque-Bera

20.99954 and Probability 0.000028 this shows significant departures from the mean. This variable diverged from the central tendency criteria, according to the interpretation, as indicated and finally top management expertise Mean 15.77976, Median 15.71359, Maximum 22.22789, Minimum -1.783196, Std. Dev. 2.562871, Skewness -0.716941, Kurtosis 7.895415, Jarque-Bera 485.7273 and Probability 0.000000 this shows significant departures from the mean. This variable diverged from the central tendency criteria, according to the interpretation, as indicated. To handle the non-normality, the researcher employed the proper robust instruments modelling.

### Unit Root Test

**Table 4.3: ADF - Fisher Chi-square Unit Root Test**

Method	Statistic	Prob.**
Series: Performance of licensed microfinance banks in Kenya		
ADF - Fisher Chi-square	112.710	0.0391
Series: Cash Management		
ADF - Fisher Chi-square	117.561	0.0135
Series: Credit Risk		
ADF - Fisher Chi-square	125.579	0.0053
Series: Operating Efficiency		
ADF - Fisher Chi-square	123.468	0.0076
Series: Operating Costs		
ADF - Fisher Chi-square	173.054	0.0000

The findings of the unity root approach used to determine whether research variables were stationary are shown in Table 4.3. The findings demonstrate that all study variables are stationary at the level. The performance of licensed microfinance banks in Kenya's PP- Fisher Chi-square has a value of 112.710 and a p-value of 0.0391, or less than 0.05. Consequently, this implies that the presence of a unit root was rejected as the null hypothesis. Therefore, the p-values for Cash Management, which was 117.561, Credit Risk, which was 125.579, Operating Efficiency, which was 123.468, and Operating Costs, which was 173.054, which was 0.0000, are all 0.5, indicating that all the variables are stationary at level. This

will be important for regression analysis to avoid sub-optimal results.

Olowe (2011) emphasizes the importance of stationary variables in time series analysis, noting that non-stationary variables can lead to misleading regression results due to spurious correlations. Similarly, Nyasha and Odhiambo (2015) found that stationarity is critical for ensuring the robustness of models used to analyze financial performance, particularly in banking studies. The rejection of the null hypothesis in this study, based on the PP-Fisher Chi-square test, aligns with research by Adebayo and Simpasa (2021), who also utilized unit root tests to confirm stationarity in their assessment of

bank performance factors, ensuring accurate and reliable regression analysis outcomes.

### Pairwise Granger Causality Tests

**Table 4.6: Pairwise Granger Causality Tests**

<b>Null Hypothesis:</b>	<b>F-Statistic</b>	<b>Prob.</b>
Cash Management does not Granger Cause Performance of licensed microfinance banks in Kenya.	0.32316	0.9244
Performance of licensed microfinance banks in Kenya does not Granger Cause Cash Management	0.61258	0.4482
Operating Efficiency Does not Granger Cause Performance of Licensed Microfinance Banks in Kenya.	0.68096	0.5068
Performance of licensed microfinance banks in Kenya does not Granger Cause Operating Efficiency	0.01156	0.9885
Credit Risk Does not Granger Cause Performance of Licensed Microfinance Banks in Kenya.	0.06579	0.9363
Performance of licensed microfinance banks in Kenya does not Granger Cause Credit Risk	1.50951	0.2225
Operating Costs do not Granger Cause Performance of Licensed Microfinance Banks in Kenya.	0.01233	0.9623
Performance of licensed microfinance banks in Kenya does not Granger Cause Operating Costs	1.308421	0.3268
Top management expertise does not Granger Cause Performance of licensed microfinance banks in Kenya.	0.37657	0.6865
Performance of licensed microfinance banks in Kenya does not Granger Cause Top management expertise	1.08844	0.3379

The results of the Granger causality tests are shown in Table 4.6. Given that the crucial value was discovered to be 0.32316 and 0.61258, and the corresponding p-value was 0.9244 and 0.4482, it was determined from the data that Cash Management does in fact create Granger's Performance of licensed microfinance banks in Kenya. The findings also demonstrate that Credit Risk does not increase the likelihood of Performance of licensed microfinance banks in Kenya because the crucial values were discovered to be 0.01156 and 0.68096, with related p-values of 0.5068 and 0.9885.

The findings also demonstrate that equity does not increase the likelihood of a Performance of licensed microfinance banks in Kenya, as the crucial values were discovered to be 0.06579 and 1.50951, with corresponding p-values of 0.9363 and 0.2225. The results also show Top management expertise does not granger cause Performance of licensed microfinance banks in Kenya since the critical

values were found 0.37657 and 1.08844 and the associated p-values were 0.6865 and 0.3379. The checking of Granger causality is important for the optimal introduction of the lags and optimal model identification. For all the other pairs there is no Granger causality problem.

The results of the Granger causality tests, which show that Cash Management Granger causes financial performance in licensed microfinance banks in Kenya, align with similar findings in the literature. Studies by Mensi et al. (2014) and Salim et al. (2021) have also demonstrated that larger institutions are better positioned to influence their financial outcomes due to economies of scale and more efficient resource allocation. However, the lack of Granger causality between Credit Risk and financial performance contrasts with some previous studies, such as those by Kolapo et al. (2012), which found a direct link between higher credit risk and financial returns, though only under certain risk management conditions. The results regarding

equity and top management expertise are consistent with research by Robert (2001), who found that while these factors play a role in long-term growth, they may not have an immediate causal impact on short-term financial performance, as suggested by the Granger causality test results.

## CONCLUSION

From the results, several key conclusions can be drawn regarding the financial performance of licensed microfinance banks in Kenya. First, Cash Management plays a crucial role in enhancing financial performance. The positive and significant coefficient suggests that as microfinance banks expand their asset base, they are likely to see improved financial outcomes. This can be attributed to economies of scale, where larger institutions can spread fixed costs over a greater volume of business, thereby increasing profitability.

Second, Credit Risk management is another critical factor influencing financial performance. The positive effect of Credit Risk indicates that taking on higher risk in lending when managed properly, can lead to increased financial returns. Microfinance banks that effectively manage credit risks may benefit from higher interest rates on loans, driving profitability. However, it also highlights the importance of maintaining a balance to avoid excessive default rates that could undermine financial performance.

Third, Operating Efficiency has a positive, though moderate, effect on financial performance. While operational improvements are beneficial, the results suggest that efficiency alone may not be enough to drive significant financial gains. Instead, it likely works in conjunction with other factors such as risk management and cost control to support profitability. Microfinance banks should continue to invest in efficiency improvements to reduce waste and optimize resource use, as these efforts contribute to long-term financial stability.

Fourth, Operating Costs also contribute positively to financial performance, challenging the typical assumption that higher costs hurt profitability. The positive relationship between operating costs and performance suggests that investments in areas such as technology, staffing, and infrastructure can lead to improved services and higher revenue, outweighing the costs. This implies that microfinance banks need to view certain operational expenses as investments that support growth and expansion, rather than as mere costs to be minimized.

Finally, the introduction of Top Management Expertise as a moderating factor significantly enhances the financial performance of microfinance banks. The substantial changes in the coefficients after accounting for management expertise indicate that strategic leadership plays a pivotal role in optimizing the financial structure of these institutions. Strong management can help navigate the complexities of credit risk, operational efficiency, and cost management, ensuring that the banks' financial performance is maximized. This underscores the importance of skilled and experienced leadership in driving sustainable financial success in the microfinance sector.

## Recommendations

Based on the findings, several key recommendations can be made for licensed microfinance banks in Kenya to enhance their financial performance. First, increasing Cash Management should be a strategic priority. The positive impact of Cash Management on financial performance suggests that microfinance institutions should focus on expanding their asset base and market reach. This could be achieved through mergers, acquisitions, or organic growth strategies that enable them to tap into economies of scale, thus improving profitability. Larger institutions can spread costs more efficiently, reduce operational redundancies, and attract more customers.



Second, effective credit risk management is essential for sustaining profitability. While taking on higher credit risks can lead to better financial returns, it is crucial that microfinance banks develop robust credit risk assessment and mitigation frameworks. Implementing strong risk monitoring systems, improving customer credit assessments, and offering well-structured loan products can help reduce defaults while maintaining profitability. Training staff on risk management practices and ensuring that the risk appetite aligns with the bank's long-term goals will further enhance financial performance.

Lastly, investment in operational efficiency and cost management should continue to be a focus for microfinance banks. Enhancing operational efficiency can streamline processes and reduce unnecessary expenditures, while thoughtful management of operating costs, particularly in areas such as technology and human resources, can yield higher returns. However, these banks should view certain expenses as necessary investments in their future growth. Ensuring that management expertise is integrated into decision-making processes will help strike the right balance between cost and performance, maximizing returns from strategic investments in operations.

## REFERENCES

- Abebe, T. (2014). Determinants of Financial Performance: An Empirical Study on Ethiopian Commercial Banks. Unpublished MBA Project. Jimma University, Ethiopia
- Afriyie, H. O., & Akotey, J. O. (2011). Credit risk management and profitability of selected rural banks in Ghana. Ghana: Catholic University College of Ghana, 7(4), 176-181.
- Al-Khatib, H.B. (2012) Predicting Financial Distress of Public Companies Listed in Amman Stock Exchange. European Scientific Journal vol. 8, No.15 ISSN: 1857 – 7881 (Print) e - ISSN 1857- 7431
- Almaqtari, F. A., Al-Homaidi, E. A., Tabash, M. I., & Farhan, N. H. (2019). The determinants of profitability of Indian commercial banks: A panel data approach. *International Journal of Finance & Economics*, 24(1), 168-185.
- Almatrooshi, B., Singh, S. K., & Farouk, S. (2016). Determinants of organizational performance: a proposed framework. *International Journal of Productivity and Performance Management*, 65(6), 844–859. <https://doi.org/10.1108/IJPPM-02-2016-0038>
- Anderson, C.& Berdahl, (2005). Customer satisfaction, market share and profitability: findings from Sweden. *Journal of Marketing*, 58, 53-66.
- Anene, E.C. and Oyelere, B.A. (2014) An Evaluation of the Applications of Quantitative Techniques (QTs) to Production Planning and Control in Manufacturing Industries. *European Journal of Business and Management*, 6, 23-30.
- Athanasoglou, P. P., Brissimis, S N& Delis, M. D. (2005). "Bank-Specific, Industry-Specific and Macroeconomic Determinants of Bank Profitability," Bank of Greece Working Paper, No. 25, 2005.
- Association of Microfinance Institutions (AMFI). Annual supervisory reports publication (2016)
- Basel Committee on Banking Supervision (BCBS), (2012), Results of the Basel III Monitoring Exercise as of 30 June 2011 (*Basel: Bank of International Settlements*).
- Basu, C. (2015). Four Types of Financial Ratios Used to Measure a Company's Performance, *Houston Chronicle, Demand Media, C 25299*
- Baumann, H. D. & Kaen, F.R. (2003). Firm Size, Employees and Profitability in U.S. Manufacturing Industries. *Social Science Research Network*.

- Bechhofer, F., & Paterson L. (2008). Principles of research design and social science New York: Routledge.
- Bentum. W. (2012). The Determinants of Profitability of the Commercial Banks in Ghana during the Recent Years of Global Financial Crisis. Master. Thesis. Aarhus University.
- Berger, A. N. & Mester, L. J. (1997). Operating Costs on the Productivity of Financial Institutions? *Journal of Banking and Finance*, 18(4), 723-812
- Berger, A. N., Hunter W, C. & Timme S. G. (2013). The Efficiency of Financial Institutions: A Review and Preview of Research Past, Present, and Future.” *Journal of Banking and Finance*, 17, 221-249.
- Birhanu, K. (2012) Market Access and Value Chain Analysis of Dairy Industry in Ethiopia: The Case of Wolaita Zone. Ph.D. Dissertation, Haramaya University, Ethiopia.
- Boahene, S. H., Dasah, J., & Agyei, S. K. (2012). Credit risk and profitability of selected banks in Ghana. *Research Journal of finance and accounting*, 3(7), 6- 14.
- Carpenter, M. A. 2002. The implications of strategy and social context for the relationship between top management team heterogeneity and firm performance. *Strategic Management Journal*, 23: 275–284.
- CBK, (2023). Bank supervision Annual report. [Online] Available: <http://www.centralbank.go.ke>
- CBK, (2021). Bank supervision Annual report. [Online] Available: <http://www.centralbank.go.ke>
- CBK, (2018). Bank supervision Annual report. [Online] Available: <http://www.centralbank.go.ke>
- CGAP Brief, (2009) The Rise, fall, and Recovery of the Microfinance Sector in Morocco
- Chen, Charles J. P. & Jaggi, Bikki, (2010) Growth and Vulnerabilities in Microfinance. Focus Note 61. Washington, D.C: CGAP
- Cochran, P. L., & Wood, R. A. (1984). Corporate social responsibility and financial performance. *Academy of Management Journal*, 27(1), 42-56.
- Demsetz, H. (1973). The property rights paradigm. *Journal of Economic. History* 33:16-27.
- Eljelly, A.M. (2004) Liquidity-Profitability Tradeoff: An Empirical Investigation in an Emerging Market. *International Journal of Commerce and Management*, 14, 48-61. <https://doi.org/10.1108/10569210480000179>
- Eshima & Brian S. Anderson, 2017. "Firm growth, adaptive capability, and entrepreneurial orientation," *Strategic Management Journal*, Wiley Blackwell, vol. 38(3), pages 770-779, March.
- Fama, E. (1980) Agency problems and the theory of the firm. *Journal of Political Economy*, 88, 288-307.
- Gitau, R. M. (2011). The relationship between financial innovation and financial performance of commercial banks in Kenya (Doctoral dissertation, University of Nairobi).
- Ghasempour, S., & Salami, M. (2016). Ranking Iranian private banks based on the CAMELS model using the AHP hybrid approach and TOPSIS. *International Journal of Academic Research in Accounting, Finance and Management Sciences*, 6(4), 52-62.
- Gunner, A.B., Malmendier, U. & Tate, G. 2008. Financial expertise of directors. *Journal of Financial Economics* 88: 323-354
- Hambrick, D. C., & Mason, P. A. (1984). Upper echelons: The organization as a reflection of its

- top managers. *The Academy of Management Review*, 9(2), 193–206.  
<https://doi.org/10.2307/258434>
- Hirindu, K. & Panditharathna K. (2017) The factors Affecting Banks Profitability; *International Journal of Scientific and Research Publications, Volume 7, Issue 2, February 2017* 212 ISSN 2250-3153
- IMF (2009). Micro-finance: Access to sustainable funds. Retrieved from: <http://www.emeraldinsight.com>.
- Jensen, M. C., & Meckling, W. H. (1976). Theory of the firm: Managerial behaviour, agency costs and ownership structure. *Journal of Financial Economics*, 3, 305– 360.
- Johl, S. K., Kaur, S., & Cooper (2015). Board characteristics and firm performance: Evidence from Malaysian public listed firms. *Journal of Economics, Business and Management*, 3, 239–243
- Kagecha, P. (2016). Bank Performance: Does Bank Size Matter? (Doctoral dissertation, University of Nairobi).
- Kakwani, N., B. Prakash, and H. Son (2006) Economic Growth, Inequality, and Poverty: An Introductory Essay. *Asian Development Review* 16:2, 1–22.
- Khan, M. A., Siddique, A., & Sarwar, Z. (2020). Determinants of non-performing loans in the banking sector in developing state. *Asian Journal of Accounting Research*, 5(1), 135-145.
- Khan, A. (2006). Impact of Interest Rate Changes on the Profitability of four major commercial banks of Pakistan. *International Journal of Accounting and Financial Reporting*, 4(1), 142-148
- Kithinji, A. M. (2010). Credit risk management and profitability of commercial banks in Kenya
- Kolapo, T. F., Ayeni, R. K., & Oke, M. O. (2012). Credit Risk and Commercial Banks' Performance in Nigeria A Panel Model Approach
- Liargovas, P., & Skandalis, K. (2008), Factor affecting firm's financial performance: The Case of Greece. Athens: University of Peloponnese Press.
- Lipunga, A. M. (2014). Determinants of Profitability of Listed Commercial Banks in Developing Countries: *Evidence from Malawi. Research Journal of Finance and Accounting*, 5(6), 41-49
- Majed, V., Said, U., & Firas, K. (2012). An empirical study on application of bank size in forecasting distress in Sri Lankan banks. *Journal of Management*, 1(4), 78-92.
- Matar, A. and Eneizan, B. M. (2018). Determinants of financial performance in the industrial firms: Evidence from Jordan. *Asian Journal of Agricultural Extension, Economics & Sociology*, 22(1): 1-10.
- Mensi, W., Hammoudeh, S., & Yoon, S. M. (2014). Factors affecting the attractiveness of African financial markets: The case of the WAEMU stock market assessed using quantile regression. *Journal Publication of Bankers Markets & Investors* 2024/1(176):3-14
- Mirzaei, H., Salehi, E. M & Saeidinia, M. (2012). Differences of “Traditional Marketing” in Opposition to “Electronic Marketing” 2012 IEDRC Singapore Conference Volume: 29
- Mueni., (2019). Effects of Motivation on organizational productivity in Banking sector. A case study of equity bank, Narok Branch.
- Muriithi, J. (2017). *Analysis of the Effect of Operating Costs on Financial Performance of Occupational Pension Schemes in Kenya. Unpublished PhD thesis, Nairobi: University of Nairobi*

- Muya, T. W. and Gathogo, G. (2016). Effect of Working Capital Management on the Profitability of Manufacturing Firms in Nakuru Town, Kenya
- Modigliani, F. and Miller, M. (1958) The Cost of Capital, Corporation Finance and the Theory of Investment. *American Economic Review*, 48, 261-297.
- Nguyen, M. S (2021). Capital adequacy ratio and a bank's financial stability in Vietnam. *Banks and Bank Systems*, 16(4), 61.
- Nireesh, J. A., & Velnampy, T. (2014). Firm Size and Profitability: A Study of Listed Manufacturing Firms. *International Journal of Business and Management*, 8
- Nyasha, S., & Odhiambo, N. M. (2015). The impact of banks and stock market development on economic growth in South Africa: an ARDL-bounds testing approach. *Contemporary Economics*, 9(1), 93-108.
- Odunga, R. M. Nyangweso P. M. and Nkobe, D. (2013). Liquidity, capital adequacy and operating Efficiency of Commercial Banks in Kenya Research. *Journal of Finance and Accounting*, 4(8), pp.76-80.
- Ogbadu, C. S. (2009). Money, banking methods and process. Enugu; Emma Okaro Publishing.
- Olowe, R. (2011), Exchange Rate Volatility, Global Financial Crisis and the Day-of-the-Week Effect. *KCA Journal of Business Management*, 3, 138- 149. <https://doi.org/10.4314/kjb.m.v3i3.72101>
- Olusanmi, O., Uwuigbe, U., & Uwuigbe, O. R. (2015). The effect of risk management on banks financial performance in Nigeria. *Journal of Accounting and Auditing, Research & Practice*, 23(9), 38-54.
- Ombangi, D. (2018). Challenges that Face the Operations of Microfinance Institutions in Nairobi County. *International Journal of Business and Management*, 7(9), 69-77.
- Omino, G. (2005) *Regulation and supervision of Microfinance Institution in Kenya*. Kenya
- Osazuwa, N. P., Ahmad, A. C., & Che-adam, N. (2016). Financial Performance in Nigerian Quoted Companies: The Influence of Political Connection and Governance Mechanisms.
- Ovamba, E.K., (2014). Effect of Macroeconomic Factors on Commercial Banks Profitability in Kenya: Case of Equity Bank Limited. *Journal of Economics and Sustainable Development*. Vol.5, No.2.
- Qasim, S., & Ramiz, R. (2011). "Impacts of liquidity ratios on profitability". *Interdisciplinary Journal of Research in Business*. Vol. 1, Issue 7.
- Qiang, C., Beng, W. G. & Jae B. K., (2014). Internal Control and Operational Efficiency. Four School Conferences. *Research Collection School of Accountancy*.
- Panda, B., & Leepsa, N. (2017). Agency Theory Review of Theory and Evidence on Problems and Perspectives. *Indian Journal of Corporate Governance*, 10, 74-95
- Robert, N. (2001). *Management Accounting*, New York: Prentice Hall, Cit. Sambamurthy, V., Bharadwaj, A. and Grover, V. (2003). Shaping agility through digital options: Reconceptualizing the role of information technology in contemporary Firms<sup>1</sup>, *MIS Quarterly* (27:2), Jun 2003, p 237
- Rono, B. K., Wachilonga, L. K. & Simiyu, R. S. (2014). Assessment of the Relationship between Interest Rate Spread and Performance of Commercial Banks Listed In Nairobi Securities Exchange. *International Journal of Financial Economics*, 3(2), 98-112



- Salim, B. F., and Zaroug, O. & Bilal, M. (2021). The impact of liquidity management on financial performance in Omani Banking Sector. *International Journal of Applied Business and Economic Research* 14(1):545-565
- Sehrish, G., Irshad, F., & Khalid, Z. (2010) Factors Affecting Bank Profitability in Pakistan. *The Romanian. Economic Journal* Year XIV, No.30
- Schreibfeder, G. H. (2006). The variability of profitability with size of firm. *European Journal of Financial Intelligence*, 59(2), 1183–1193.
- Sheikhdon A., (2016). Effects of liquidity management on financial performance of commercial banks in Mogadishu, Somali. *International Journal for Research in Business, Management and Accounting*, Vol. 2 Issue 5 May 2016 I SSN: 2455-6114
- Stierwald, A. (2010). "Determinants of Profitability: An Analysis of Large Australian Firms," Melbourne Institute Working Paper Series wp2010n03, Melbourne Institute of Applied Economic and Social Research, The University of Melbourne
- Thanatawee, Y. (2013). "Ownership structure and dividend policy: Evidence from Thailand." *International Journal of Economics and Finance*, 5(1), 121-132.
- Ujunwa, A., Salami, P. O., & Umar, A. H. (2013). CEO duality and firm performance: An integration of institutional perceptive with agency theory. *International Journal of Social, Management, Economics and Business Engineering*, 7(1), 97–103. [doi.org/10.5281/zenodo.1079418](https://doi.org/10.5281/zenodo.1079418)
- Vitolla, F. Raimo., N & Rubino., M. (2020). Board Characteristics and Integrated Reporting Quality: An Agency Theory Perspective Corporate Social Responsibility and Environmental Management 27(2):1152-1163 DOI:10.1002/csr.1879
- Witzany, (2017). "Credit Risk Management," Springer Books, Springer, number 978-3-319-49800-3.