# MODERATING EFFECTS OF FIRM CHARACTERISTICS ON THE RELATIONSHIP BETWEEN FINANCING SOURCES AND FINANCIAL PERFORMANCE OF MICRO SMALL AND MEDIUM ENTREPRISES, IN NAKURU COUNTY, KENYA

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**A THESIS SUBMITTED TO THE SCHOOL OF BUSINESS, ECONOMICS AND MANAGEMENT SCIENCES IN PARTIAL FULFILLMENT OF THE REQUIREMENT FOR THE CONFERMENT OF THE DEGREE OF MASTER OF BUSINESS MANAGEMENT, FINANCE OPTION,**

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# DECLARATION

**Declaration by the Candidate:**

This thesis is my original work and has never been presented for the award of an academic degree in any other university and should not be copied, or reproduced in any format without written authority from the author and/or University of Eldoret.

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**Approval by the Supervisors:**

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## DEDICATION

I would like to dedicate this thesis to my parent Mrs. Jane Njeri for her financial support and prayer and to my colleagues in the school of business, economics and management sciences.

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I would like to acknowledge the Almighty God for giving me the grace that enabled me to develop this thesis and my university of Eldoret supervisors, Dr. Mwengei K. Ombaba and Dr. Arnold Wanjala for their immense supervision and their support in developing this thesis.

## ABSTRACT

Micro, Small and Medium Enterprises (MSMEs) are important drivers of economic development in many countries and thus is a medium of job creation and poverty alleviation. MSMEs financial performance is enhanced by access to equity financing, debt financing and government financing programs which is affected by underlying factors such as inadequate finance, political interference, poor market accessibility, size and low entrepreneurial knowledge. In Nakuru County MSMEs are affected by inadequate funding, political interference and market expansion. It is with this regard that the study sought to explore the moderating effects of firm characteristics on the relationship between sources of finance and the financial performance of MSMEs in Nakuru County, Kenya. The specific objectives were to determine the effect of equity finance sources, the effect of debt financing sources, the effects of government financing programs and the moderating role of firm characteristics on the relationship between equity financing sources and MSME's financial performance, debt financing sources and government financing programs and MSME's financial performance. The study was informed by pecking order theory, the trade-off theory and the financing life cycle of the firm theory. The study employed an exploratory research design which assisted in employing questionnaire as a research instrument. The study employed stratified and simple sampling methods. The target population was 7,384 MSMEs in Nakuru County out of which a sample size of 379 was selected. Validity was tested using Rasch measurement model and reliability was tested using Cronbach Alpha where a value $\geq 0.7$ was considered reliable. Likert scale of 5 points also was employed to test content validity and a pilot study of 37 MSMEs in Eldoret town was done. Data analysis was enhanced by the use of SPSS Version 23 and presentation employed bar graphs, tables, explanation and pie charts. The data was analyzed through hierarchical linear regression model. The direct effects findings were that equity financing had a positive and significance effects ($\beta$=0.147, PV=0.008), debt financing sources had a negative and no significance effects ($\beta$=-0.039, PV=0.521), government financing programs had a direct positive and significance effects ($\beta$=0.33, PV=0.000) and firm characteristics had a positive and significance effects ($\beta$=0.182, PV=0.000) on financial performance of micro, small and medium enterprises in Nakuru County. Firm characteristics were found to have positive effects and significance moderating effects on the relationship between equity financing sources and MSMEs financial performance ($\beta$=0.251, PV=0.000), firm characteristics had a negative and no moderating effects on the relationship between debt financing sources and MSMEs financial performance ($\beta$=-0.048, PV=0.632) and firm characteristics had a positive and no moderating effects on the relationship between government financing programs and MSMEs financial performance ($\beta$=0.006, PV=0.938). Therefore, MSMEs owners and managers should go for equity financing sources for the sources promotes higher profits hence high liquidity and as debt finance and government financing programs source increase, the profit also decreases. Also, management style and production capacity promote MSMEs financial performance. Furthermore, MSMEs in Nakuru should work on operations of the business for it negatively affects financial performance.

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## OPERATIONAL DEFINITION OF TERMS

**Debt financing -** refers to an external source of financing that Nakuru county MSMEs utilize to secure much needed funds for a reason or reasons considered strategically imperative to their operations. (Mwanzito, 2023).

**Equity financing -** refers to funds contributed by Nakuru County MSMEs owners (Abdikadir, 2020)

**Experience** - refers to knowledge competence and skills of Nakuru MSMEs managers and owners (Nurul, 2024).

**Financial Performance -** it refers to Nakuru county MSMEs financial condition over a certain period that includes the collection and use of funds measured by several indicators of capital ratio, liquidity and profitability (Didin, 2018).

**Firm Characteristics -** refers to the attributes which Nakuru County MSMEs possess that define its activities (Ayuba, 2023).

**Government financing programs -** refers to both financial and non-financial support from Nakuru county government and the central government (Dendy, 2023).

**Internal auditing** - is an independent objective assurance and advisory services designed to add value and improve Nakuru County MSMEs operations (Charles, 2024).

**MSMEs -** refers to Nakuru County Micro firm whose employees are 10 or less, small firms whose employees are 50 or less and medium size firms whose employee are 250 or less ( Pedraza, 2021).

## ABBREVIATIONS

| | |
|---|---|
| **ANOVA** | Analysis of Variance |
| **DP** | Domestic Product |
| **EAC** | East Africa Countries |
| **EU** | European Union |
| **EX** | Experience |
| **FC** | Financial Characteristics |
| **GDP** | Gross Domestic Product |
| **IN** | Internal Auditing |
| **KNBS** | Kenya National Bureau of Statistics |
| **MSMEs** | Medium, Small and Micro Enterprises |
| **NDP** | National Development Plan |
| **NTFP** | National Treasury Fiscal Policy |
| **OECD** | Organization for Economic Co-operation and Development |
| **OSL** | Ordinary Least Square |
| **RBV** | Resource Based View |
| **SA** | South Africa |
| **SDGs** | Sustainable Development Goals |
| **SME** | Small and Medium Enterprises |
| **SPSS** | Statistical Package for Social Sciences |
| **SSA** | Sub Saharan Africa |
| **TITC** | The international Trade Centre |
| **UN** | United Nations |
| **UNDP** | United Nations Development Program |

# CHAPTER ONE

# INTRODUCTION

## 1.1 Overview

This chapter contains the background information of the study, statement of the problem, specific objective of the study, general objectives of the study, hypotheses, significance of the study, scope and delimitations of the study and limitations of the study.

## 1.2 Background Information of the Study

MSMEs constitute an important driver of economic development in countries and are the critical to increase competitiveness and the creation of important innovation systems for development countries (Safari, 2020). MSMEs are a net worth driver of economic development being vital to most economies across the world and play a role in job creation, poverty alleviation and economic growth, but they encounter many functioning barriers, (Stefan & Mihai 2020). Raniya (2018), states that SMEs covers many economic sectors such as agriculture, health sectors, education among others which forms the major pillars of Sustainable development goals. The number of employees in SMEs varies from industry to industry (Sonaya, 2019). SMEs are a net worth driver of economic development being vital to most economies across the world (Stephan, *et al.,* 2020). However, the local definition of SMEs varies from country to country and is based not only on number of employee but also by inclusion of other variables such as assets (Desa, 2018).

Financial performance of MSMEs is of crucial importance to economies. Leyla and Judit (2018), defines MSMEs financial performance as prominent achievement in one specific

field of activity and it represents the totality of objectively measurable achievements in certain domain of activity. Additionally, financial performance of a business is actual and objective measure of exactly how effectively a firm is able to utilize its assets in its main economic operations to produce revenues and the broad measure of a firm's general economic health within a certain period (Ndemi, 2018). There are six significant variables associated with MSMEs performance which are profitability, firm size, leverage ratio, revenue growth, GDP growth and quality of local governance (Nguyen, 2021). To add, in terms of financial success, financial performance measures can be based on return on profit investment, turn over or number of customers and the most frequent measures that are applied are efficiency, growth and profit (Leyla, 2018). Furthermore, Nana, Som and Danguah (2021), states that financial performance involves internal factors such as firm size, firm age, growth rate, capital structure and external factors such as GDP growth, inflation, exchange rate and population. Nana *et al.* (2021), suggested that financial performance impacts number of resources controlled by the firm size, which can improve subsequent performances.

Abubakar, Vincent and Bala (2020), states that access to finance is of crucial importance for the ongoing sustainable growth of MSMEs. At every stage of their development, MSMEs need finance for their operation. Firstly, he states that MSMEs need finance for start-up as capital, second finance is needed for expansion and thirdly, finance is needed for innovation. He adds by stating that funding may be made by calling the internal and external funding sources. Internal financing preserves the independence and financial autonomy since it creates no interest. However, external financing is necessary if MSMEs do not have sufficient internal sources to cover the investment. Some of advantages of

internal funding include no cost involved in procurement of funds, they are riskless and these are company's own money, no obligation of any type regarding payment of interest. Additionally, their shortcomings include; the funds are limited to the company and have multiple uses, available on short-term and there is possibility of misuse as they are company's own money (Vika, 2019).

There are several ways of financing through which SMEs can enhance their financial performance. There is equity financing which include the amount of profits retained and ploughed back into business contribution by members and it's an integral component of the capital structure of the firm (Abdikadir, 2020). Retained earnings are part of profit which is not distributed to equity shareholders and these are the assets belonging to equity shareholders in the shape of reserves and surplus. It is safer source for company as it is company's own money in terms of risks viewpoint (Vikas, 2019). Secondly, we have debt financing which involves borrowing funds from creditors with the stipulation of repaying the borrowed funds plus the interest at a specified future time (Sara, Bradley & Anthony, 2021). Furthermore, Sara et al. (2021) states that debt financing comprise of short-term debts such as bank overdrafts, one year loan such as credit cards and mortgage loans which have a term of more than one year where by commercial banks are the frequent lenders and social, credit and cooperative societies alternative lenders. Additionally, government across the globe utilize tax incentives to promote economic activities and investment by enterprises, they introduce these incentives to boost some crucial sectors of the economy where they appear dormant or lacking completely (Rufus, 2019). Rufus adds by stating that incentives increase returns on capital thus making investments more attractive and in turn increases the firm's profitability. Tax incentives

provide growth, development and continued sustenance of SMEs (Twesige & Gasheja, 2019).

Firm characteristics, also, are the behavioral patterns of corporate activity that that enables them to achieve their goals (Akuboere & Emmanuel, 2023). These are factors that are internally controlled (Muema, 2023). Firm characteristic such as the size of the firm is essential in today's world in financial performance because large firms can manufacture items on much lower costs in contrast to smaller firms, (Gayan *et al.* 2019). Firm size is the quantity and array of production capability and potential a firm possess or the quantity and diversity of services a firm can make available concurrently to its clients and due to the phenomenon of economies of scale (Gayan, *et al.* 2019). Smaller firms show larger degree of data asymmetry among insiders and outsiders and they face higher expenses in issuing new value while bigger firm will probably deal with their working capitals more proficiently than little firms (Nadia & Omagwa, 2018). He states that most large-scale firms realize economies of scale and accordingly can limit their expenses and enhance their financial growth and performance. He adds that the growth of MSMEs is highly dependent on their size (Ngatia *et. al*, 2018).

Furthermore, UN global compact (2021-2023), states that SMEs are the engine of private sector growth, both in developing and developed economies, and are critical to the fulfillment of the global goals. Their per capita contribution may be smaller than that of large firms, but cumulative impacts of SMEs is significant. Globally, SME accounts for 90% of business and 50% of total employment. Nese (2019) laid down the importance of SMEs to the world economies in that the industry is a major tool for achieving more

inclusive globalization and growth. She stated that SMEs have an important role to achieve the Sustainable Development Goals (SDGs) and to promote inclusive and sustainable economic growth, employment, fostering innovation and to decrease income inequalities around the world. Conversely, Economic globalization has created many challenges for SMEs due to rapid increase in competition and therefore, the downfall rate of SMEs is relatively high, a short period after their commencement. Accordingly, SME need to adopt survival strategies and strategic methods to succeed in confronting the various global challenges such as policy intervention and cost leadership (Kamara et al., 2020).

MSMEs are the most common type of business in the Europe and they are not only the predominant business, but also the primary driver of employment gross domestic product, and innovation (Luis, Garcia, Sascha & Mathias, 2023). Bella, Katsinis and Laquera (2022), reported that SMEs make up over 99% of business in European Union and the backbone economy and in 2022 about 24.3 million SMEs were active in the EU-27 and SMEs accounted for 99.8% of the enterprises in the non- financial business sector. She adds that these MSMEs employed 84.9 million people in the EU-27 in the year 2022. SMEs are the backbone of the European economy with strong contribution to employment, innovation, growth and social cohesion (Holz, 2017). Holz adds by saying that SMEs need better regulation, better access to markets and finance, enhancing skills and training and also digitization and entrepreneurship education.

In Sub Saharan Africa (SSA), SMEs sectors accounts for 90% of the private sector and 50% employment in most African countries. Despite that, SSA faces numerous economic

and social challenges such as sustainability which have necessitated the intensification of policy enactment directed towards the development of the SMEs, (Aminu, Bawole, Motolani & Abdul, 2018). In Nigeria for instance, most business operate in the form of SMEs and they play a significant role in economic development of Nigeria, (Igwe, Amorachi, Oyedele, Odafe & Juliana, 2018). Also, an increasing number of SMEs formations have led to growth of the economy (Oluyemi & Oyodele, 2020). However, an increase in the amount of SMEs enterprises does not contribute to the development of the economy more than the existing business in Nigeria, (Oluyemi *et. al*, (2020). Furthermore, a study was done on contribution of SMEs to employment, GDP, Economic growth and Development by (Buba & Muhammad, 2022). The findings indicated that SMEs in Nigeria accounted for more than 90% of firms in the economy. Therefore, this advocated that SMEs played an important role in Nigerian economic growth and development. The contribution of SMEs was clear as they contribute to GDP, employment, export creation and introduction of new technologies, (Buba, *et al*. 2022).

In South Africa, the SMEs have formed an integral part in the economic development policy and the National Development Plan (NDP) envisaged that 90% of the 11 million jobs will be generated by SMEs in 2030 (Government Gazette, 2023). The Gazette states that support for SMEs constitute major lover in the inclusive transformation of the economy of South Africa. Despite the South Africa government desires to encourage economic growth through SMEs, attempts to ameliorate the difficulties encountered by SMEs are often hindered by lack of resources one of which is business incubation, (Voyan, Tengeh, 2021). Voyan *et al*., (2021) suggested that at present the volatility of SMEs in South Africa makes them an unreliable part for SA government this is because

the government has provided a limited support system. Additionally, government can provide support systems such as policy interventions such as formation of a database for SMEs, improving startup capital and de-risking SMEs finance through credit guarantee (Government Gazette, 2023).

In Tanzania again, MSME sector has been recognized as a major critical sector in the creation of employment opportunities, the generation of income and in the contribution to GDP and economic growth (Jesca & Mboya, 2019). They add by stating that there are over 3 million SMEs in Tanzania that are engaged in various business such as manufacturing, retail and trade, agriculture and services. Also, Ludwiko, Lunywelele and Kusiluka (2022), states that MSMES significantly contribute to the nation's economic development and employment. However, Tanzania SMEs face several constraints such as limited finances, poor market accessibility, low entrepreneurial knowledge and bureaucracy which hinder their growth (Jesca *et al.*, 2019). One of the keys to stimulating these millions of MSMEs is financing however there is a huge gap in meeting the financing needs of the groups (Kevin, Nipunika & Ben, 2020).

Kenya Vison 2030, the long- term development blue print that seek to transform Kenya into a newly industrialization high middle-income country recognizes the key role of MSMEs in attaining its goals (The International Trade Centre, 2019). The report suggests that similarly SMEs are considered as the bedrock for manufacturing and have been identified as central enablers towards realizing the Big Four Transformative Agenda under manufacturing. Based on the MSMEs definition above, 98% of enterprises in Kenya are micro, 1.8% are small and 0.2% are medium sized. There are about 7.41

million MSMES which collectively create 80% of employment in Kenya; while contributing about 40% to the Gross Domestic Product in the Country (Riro, 2022). The economic significance of MSMES in Kenya notwithstanding the enterprises faces a myriad of challenges that inhibit their growth to their full potential of the 7.41 million MSMES in Kenya. Only 21% (1.56 million) are formally registered and licensed. The remaining 5.54 million enterprises are not licensed hence they operate in the shadows of informality. Operations in the shadow of informal sector subjects 80% of the MSMEs in Kenya to perennial lack of access to funding and other business development support opportunities (Ministry of industrialization, trade and Enterprise Development, 2020). There are about 12,726 licensed businesses in Nakuru County (Nakuru County Statistical Abstract, 2022). Nakuru County contribution to Kenya GDP was 6.1% in 2017 the second share after Kenya's capital Nairobi (21.7%) and in 2021 Nakuru town which was previously designated as a municipality was elevated to city status making it the youngest city in Kenya (Nakuru City Board, 2022). Nakuru is a fast-growing market due to population growth; for instance, the population was 1.6 million in 2009 and by 2018 it was 2.1million (a growth of 29%) and to add SGR opportunities and development of industrial park and the dry port at Naivasha will make Nakuru competitive for trade and investment (Nakuru County, 2019).

Despite these, Nakuru sub counties MSMEs are facing challenges which include inadequate funding and delay disbursement of funds from county treasury, political interference in project implementation, trickle down effects of post covid 19 pandemic, the implementation of the hustler funds and the market expansion and reorganization of trade areas and investments due to the elevation of Nakuru town to city status which has

enhanced the county visibility through increase in meetings, incentives, conferences and exhibitions (County Government of Nakuru report, 2023). Therefore, these progressive challenges warrant the researcher to explore the moderating role of firm characteristics on the relationship between financing sources and financial performance of MSMEs in Nakuru County.

### 1.3 Statement of the Problem

Despite their significant contributions, MSMEs face persistent challenges notably financial constraints which remain a consistent hurdle (Kenya Micro and Small enterprise policy, 2020). Growing firms often encounters tight financial constraints especially when financial market is volatile or unfavorable (Bakhtiari, Breunig & Magnani, 2020). Also, Murori (2022), states that performance of SMEs is affected by inadequate capital and poor access to loan facilities. To add, Amukuya (2019), states that the presence of collateral security by firm increases their chances of receiving credit and improving their performance. SMES also should hold assets or other physical instruments that can be utilized as collateral (Muema, 2020).

Several studies have examined the relationship between finance and MSMs financial performance. Abdikadir (2020) explored equity financing and financial SMEs performance in Garissa County, Kenya, revealing that retained earnings and crowd funding increased performance while ploughed back profit was insignificant. However, more factors influencing SMEs performance need to be investigated beyond these variables (Abdikadir *et al.,* 2020). Muturi, Mwende and Njeru (2019), on their study on the effect of equity finance on financial performance of SMEs in Kenya, found that

equity financing positively predicted the performance of SMES suggesting the encouragement of SMEs to seek loans rather than relying on their personal savings.

Conversely, Rwakihembo (2024) studied the moderating effects of firm characteristics on the relationship between corporate governance and firm financial performance of business in Uganda where he conceptualized firm financial performance in terms of profitability, liquidity, solvency and financial efficiency, revealing that certain financial variables had no direct relationship with firm characteristics. The study left a gap on other variables such as MSMEs financial performance, warranting further research on moderating effects of firm characteristics on the relationship between financial sources and MSMEs financial performance in other regions such as Nakuru County. Therefore, this proposal aims to explore the moderating effects of firm characteristics on the relationship between sources of finance and micro, small and medium enterprises financial performance in Nakuru County.

## 1.4 Objectives of the study

The study was guided by the following objectives.

### 1.4.1 General Objective

To explore the moderating role of firm characteristics on the relationship between financing sources and financial performance of micro, small and medium enterprises in Nakuru County.

### 1.4.2 Specific Objectives

i. To determine the effects of equity financing on financial performance of micro, small and medium enterprises in Nakuru County.

ii. To examine the effects of debt financing on financial performance of micro, small and medium enterprises in Nakuru County.

iii. To assess the effects of government support programs on financial performance of micro, small and medium enterprises in Nakuru County.

iv. To explore the moderating effects of firm characteristics on financial performance of micro, small and medium enterprises in Nakuru County,

v. To examine the effects of:

   a) Equity financing and financial performance of micro, small and medium enterprises in Nakuru County.
   b) Debt financing and financial performance of micro, small and medium enterprises in Nakuru County.
   c) Government support programs and financial performance of micro, small and medium enterprises in Nakuru County.

### 1.5 Hypotheses

**$H0_1$:** Equity financing has no statistical significance effects on financial performance of micro, small and medium enterprises in Nakuru County, Kenya.

**$H0_2$:** Debt financing has no statistical significance influence on financial performance of micro, small and medium enterprises in Nakuru County, Kenya.

**$H0_3$:** Government support programs have no statistical significance effects on financial performance of micro, small and medium enterprises in Nakuru County, Kenya.

**$H0_4$:** Firm characteristics have no statistical significance role on MSMEs financial performance of micro, small and medium enterprises in Nakuru County, Kenya.

**$H0_5$:** Firm characteristics have no moderating role on the relationship between:

**$H0_5$ (a)**: Equity financing and MSMEs financial performance of MSMEs in Nakuru County.

**$H0_5$ (b)**: Debt financing and MSMEs financial performance of MSMEs in Nakuru County.

**$H0_5$ (c)**: Government support programs and MSMEs financial performance in Nakuru County.

### 1.6 Significance of the Study

Both the national and county governments would greatly benefit from the information of this research in the sense that can assist government policies maker to initiate sound financial policies to promote small and medium enterprises development. This is enhanced by considering the moderating role of firm characteristics that affects the relationship between financing sources and performance of micro, small and medium enterprises. Again, both governments can use the information to participate in financing small and medium enterprises.

The theories and literature of this study could help shareholders of the firm to make viables financing decisions for their firms to enhance high benefits. Firms could have capital preferences due to various sources of finance and different MSMEs sizes. Furthermore, shareholders of the firms would guide by the literature of this study on balancing between debt sources of finance and equity sources of finance for high performance of their firms.

The study could be of great importance to future scholars and researchers undertaking research studies on the moderating role of firm characteristics on the relationship between financing sources and performance of micro, small and medium enterprises since the research may be cited in literature and they may also generate their research topics from the results and the recommendations.

### 1.7 Scope of the Study

Micro, small and medium enterprises business provoke many areas in which study can be carried out such as  factors influencing MSMEs performance measurement, Determinant of MSMEs performance and Social capital and performance of MSMEs, but this study focused on exploring the moderating effects of firm characteristics on the relationship between financing sources and financial performance of micro, small and medium enterprises which contribute majorly to the Gross Domestic Product (GDP) of Nakuru County to pave way for the Kenya vision 2030. The study will provide a base and platform for further study concerns since financing sources on financial performance of micro, small and medium enterprises has not been adequately studied. The study took place at Nakuru County which is majorly rich in micro, small and medium enterprises. The study took place between the month of May to September 2024 and an exploratory research design was employed.

# CHAPTER TWO

# LITERATURE REVIEW

## 2.1 Overview

This chapter entails theories considered to be the most appropriate for this study and that forms the basis of the study such as the pecking order theory, the trade-off theory, the financing growth life cycle of the firm theory, concepts of equity financing sources, debt financing sources, government financing programs, firm characteristics and MSMEs financial performance definitions and perspectives to operationalize the variables, empirical literature which looked at what other scholars have done around the world, summary of gaps and the conceptual framework.

## 2.2 Theoretical Review

The study was informed by the pecking order theory, the trade-off theory and financing life cycle of the firm theory.

### 2.2.1 Pecking Order Theory

It was developed by Myers 1984. The theory explains that the firms try to utilize its internal financial sources first i.e., retained earning then issues debt and then would issue equity as a last resort. It explains the financial decision making of the firm. It predicts that the optimal capital structure will not be achieved by firms but firms would follow a certain principle and choose external financing when debt capacity is achieved. It further explains that the asymmetric information between firm insiders and outsiders and the supposition that costs and benefits of outside financing in terms of trade-off they are less important when compared to the costs related to issuance of new securities.

The model has been used by various researchers. Abubakar and Vincent (2020), used the model in their research on effects of financing sources on financial performance of SMEs in Taraba State Nigeria and stated that firms follow an order of first personal savings, retained earning the short-term borrowing and long-term debt and then equity investors.

In addition, (Cruzado, Dimaano, Manahan, Jusmine & Villena 2023), used the model in their study on financial Constraints its impact on access to financing of micro, small and medium business in Calapan City in which there was a strong discontinuity in financing methods between surplus and deficit. On their research, Wekesa, Nderitu and Muthoni (2023), on effects of equity financing on performance of SMEs in Bungoma County Kenya depicts the model as one that provides the order of preference when sourcing the various capitals to attain performance. Also, the model was used by Muturi *et al.* (2019) on his research on the effects of equity finance on financial performance of SMEs in Kenya in that firms follow a hierarchy of financing from internal funds, debts and new equity. The theory is important to the study for it explains the decision making of the MSMEs owners. SMEs owners can decide to use the equity sources of financing or opt for debt financing. It is also useful in the study in testing of performance of equity and debt on SMEs in Nakuru County. Therefore, the theory is informing the study's first and the second objectives.

### 2.2.2 The Trade-off Theory

The developers of the theory were Modigliani and Miller 1958. This theory describes the concepts that a firms make a choice on how much debt and how much equity to use by weighing the costs and benefits and balancing them out. The theory explains the fact that

business units are usually financed partly with debt and partly with equity. The theory shows that there are merits of debt which may include tax benefits but on the other hand there are costs of financial distress including bankruptcy costs of debt. According to Myers 1984, the firm target capital should consider the benefits and costs of debts. The target determined by balancing debt tax shield against costs of bankruptcy.

Existing literature postulates that trading off theory has been used widely. For instance, Mwende, Muturi and Njeru (2019), used the model in their study on effects of equity financial performance of SMEs in Kenya and stated that larger firms tend to increase their level of debt so as to increase the debt tax shield by diversification of activities. Also, Barnabas (2022), states that the theory advocates for the equilibrium level of equity and debts and it protects business against too much debt that supersedes equity. The theory is important as it helps the finance managers to make viable decisions when financing the business to ensure that benefits of debt are more than costs (Muturi, *et al.* 2019). The usefulness of theory to the study will be that it establishes the role of the size of the firm and it establishes both debt and equity as sources of finance for a firm and to test the role of debt financing on the performance of SMEs in Nakuru County.

### 2.2.3 Financing Growth Life Cycle of the Firm Theory

The financing growth life cycle theory was developed by Berger and Udell 1998. According to the financing growth life cycle theory, as with individuals' products entrepreneurial firms go through a life cycle. An entrepreneurial firm may be at the idea stage the prototype stage, the rapid growth stage, or the maturity stage. According to the theory, financial needs and financial options vary as the business grows and become more

experienced, (Muturi, *et al.* 2019). The different forms of financing are closely related to the life cycle of the firm and during the startup period, the sole sources of financing available for SME managers is materialized by the owner's personal capital and public aid. Once in place, the growth phase is generally financed by bank debt through venture capital and finally, during the maturity phase, the objection will be to reduce financial costs and ensure more stable funding (Youseef, 2019). In addition, first firm can finance their operations using internal funds, defaultable long-term debt, and costly equity and secondly firm learn about their profitability over time and face specific volatility (Frederico, 2022).

The model has been used in existing literature. Rwakihembo (2023), on their study on age and financial performance of private limited companies stated that as private enterprises grow, their financial performance improves. Bruno (2017) highlights this model that explains how the firm's life stages influence capital structure decision in that in spite of capital structure adjustment among Iberian non-financial firms in their decline stages they are going away from their target short-term and long-term leverages. In addition, Miroslaw (2020), uses the model and explains that in the early stages of firm's life cycle should be characterized by the tendency for financing through debt. The theory is important to the study because during the earliest stages of the firm financing typically comes from the entrepreneurs' personal financial resources and savings or from family and friends. This is because at this stage firm often lacks a viable product, customers or stable resources. The theory is informing the first, second and third objectives of the study.

## 2.3 The Concept of Financial Performance

Performance is the main objective of the firm. Performance refers to the outcome of firm's business activities (Kibeshi, (2020). Performance also refers to firm survival and firm growth, (Soonac, 2019). Performance enhances profitability and SMEs resilience, (Sivakami 2023). Firm performance is measured by an accounting-based measurement, return on equity which is defined as net income divided by total equity, (Nguyen, *et al.* 2021).

There are several indicators used in measuring performance such as effectiveness, cash flow, liquidity, sales margin, growth, return on equity, total gross profit and stock performance but the mostly used indicators are profitability and sales growth, (Leyla & Judit, *et al.* 2018). Additionally, Azlina, (2023) states performance measures are profitability, sales growth, customer satisfaction and market share in their study on SMEs performance. Secondly, Danh, (2023) outlines performance measures as ratio of total value added over total assets, the total revenue growth rate and the ratio of total gross profit over total assets. However, Gabriel (2021), criticizes the indicators for being retrospective, unable to consider future performance and lack of consideration of differences in risk taking behavior of the firm. In this study, profitability and sales will be adopted as the indicators of performance.

## 2.4 The Concept of Financing Sources

SMES requires finance for development. Sources of finance can be external or internal whereby external sources come from the issuance of equity or debt while internal capital comes from the cash that the business generates which includes cash flow from

operations and assets sales (Maaboussin, 2022). Vika (2019) also categorizes sources of capital as equity finance and debt finance where he indicates that equity finance is a perpetual source of finance for business and debt finance is raised by issuing debentures or bonds or by getting loans from the bank. To add, Gutterman, (2022), states that the choice of finance depends on its sustainability and value creation in business that is the interrelation that exist between environment, social and governance issues at hand. He therefore groups the finance sources into bootstrap financing, government financing program, commercial banks and finance companies, venture catalysts and public offering. Sources of finance are important determinant of SMEs performance. They provide a start-up capital, venture capital and equity financier and therefore firm management should improve on its retained earnings so as to boost their performance (Abubaka, Bala & Vincent, 2020). Secondly, availability of venture capital, commercial banks loans and crowding fund enhance the financial performance of small and entrepreneurship business and by utilizing these sources taking into account the new innovative techniques and various factors affecting the performance of SMEs, start-up business can improve greatly, (Mohamed, 2023).

### 2.4.1 The Concept of Equity Financing

The term equity means entire ownership of an or part of a business and this can range from ownership of a stall in the market, to owning share of a stock in a company (Deloitte, 2019). It is allowing ventures to raise financial resources without increasing their debt (Anna, 2023). Equity financing consists of direct investment by professional investors of young startups and SMEs and such equity is unquoted, non-privately listed or traded and represents interest in privately held company (OECD, 2020). Furthermore, it

involves the sale of a portion of the ownership of a new venture to an investor through the purchase of a percentage ownership in the venture and it involves self-financing and personal saving (Marce, 2019).

Existing literature demonstrates various dimensions of measuring equity finance. Vika, (2019) used trade credits, advance from customers, retained profit, undistributed dividend, depreciation charged on fixed assets as measures of equity finance and the business has access to these funds for short duration. Muturi *et al.* (2019), used loans, trade credits as measurables whereby they had a strong relationship with firm performance. Furthermore, Wekesa, (2023) portrays retained earnings and personal savings and contributions from friends as dimensions in which the utilization of equity financing will enhance the improving in performance. Therefore, the researcher will adopt retained earnings, crowd funding, dividends and advance from customers as indicators for measuring equity financing.

### 2.4.2 The Concept of Debt Financing

Debt financing is one of the sources of funds for SMEs and it refers to the acquisition of capital from specific lender to undertake business operations and repay it back within a predetermined period with interests (Manzano, 2019). It is basically raising money through a loan in which it is cheaper, does not cede ownership control and is tax deductible (Deloitte, 2019). Nazir, Azam and Usman define debt financing as both short and long term in which they have both negative and positive effects to the firm and therefore owners of SMEs and managers should find a satisfactory level when debt financing.

An improved access to debt financing through loans tends to enhance SMEs expansion which might be in form of establishment of an additional assets or expansion of an existing outlet and equally leads to the establishment of additional factories for manufacturing in SMEs (Adelekan, Eze, Uchenna & Ayodele, 2019). From the literature, various scholars have used several debt financing indicators. For instance, Barnabas (2022), used overdrafts, short term loans, trade-credits lease finance as dimensions which affects performance of SMEs in which trade credits and lease finance increases business performance. Also, Yevheniia, Anna, Inno and Alina, (2020), used bank loans, and credit lines as debt financing measures whereby they are in high demand despite the growth of alternatives sources of finance.in addition, Akaji, Nwadialor and Aqubata, (2021) in their study measured debt financing using long term debt finance, short term debt finance and preferred stock and concluded that debt financing has improved firms performance over the years and hence firms should try to finance their investments activities. The researcher will adopt overdrafts, lease finance, short term loan and trade credits as dimensions of measuring debt financing.

### 2.4.3 The Concept of Government Support Programs

Government supports programmes are developed to facilitate and stimulate success of business activities of SMEs; however, SMEs performance still falls below expectation in many governments (Fred, 2018). Governments across jurisdictional boundaries leverage financial incentives as a policy strategy to support and develop the business of SMEs (Crawford, 2021). Government support programs include taxes and subsidies which influences prices and profits in a wide range of market and can be used to stimulate a shift in production or consumption; on the other hand, fiscal instruments such as

concessional loans, guarantees and interest rates subsidies are effective tools in overcoming SMEs barriers (National Treasury, Fiscal Policy Framework, 2022). Also, the government participates in provision of appropriate skills, providing tax incentives and cutting down electricity costs which promote the performance of SMEs (Mwasiaji, 2019).

MSMEs profitability is conditioned by tax, financial and government incentives and these constitute an important economic policy instrument for ensuring the long-term sustainability of business (Sara, 2021). However, the support programs face challenges such as lack of awareness on the availability of public fund by MSMEs and the public funds are unsustainable (Ministry of Industrialization, Trade and Enterprise Development, 2020). Therefore, in this study the researcher will adopt government subsidies and incentives as measures of government financing to MSMES.

### 2.4.4 The Concept of Firm Characteristics

Firm characteristics are specific functions that distinguish one company from another and it could be in term of industry type, geographical location, tangibility, nature of business and corporate governance mechanism (Nangih, 2023). Rwakihembo et. al. (2024), states that large firms with good reputation tend to have a broad-based board that can effectively discharge the oversight role compared to small and new firm.

Literature, have employed several firm characteristics indicators. Financial size is employed as the first measured tool which states and provide attractive returns to investors and performance of a firm and is observed from the perspective of measuring financial ratios, including profitability, liquidity and activity (Ita, 2023). Nangih et al.,

(2023) adopted firm age and firm size as indicators of firm characteristics on the study of firm characteristics and financial performance evidence from Nigeria listed consumers. Therefore, the researcher will contribute to the body of knowledge through introduction of firm characteristics as moderator in exploring the effects of sources of finance on performance of MSMEs. This study will consider production capacity, management factors and operations factors as dimensions of firm characteristics.

## 2.5 Empirical Literature Review

Empirical literature covers previous studies on sources of finance, their role on performance of SMEs and the moderating role of firm size on relationship between finance sources and performance of SMEs.

### 2.5.1 Equity Financing and MSMEs Financial Performance

A study was done by Chindengwike, (2021), on the effects of equity on financial performance among small business firms in East Africa Countries. The study adopted a panel data research design and cross-sectional survey research design where by secondary data were used. The population applied on the financial records of the 2868. The sample size was 828 observations from 296 small firms registered as manufacturing service. Random sampling procedures were employed to select small business firm.

Another study by Dewi and Maria, (2022), was carried out on the effects of equity crowding and business partnership relationships on business performance of MSMEs in Santara. The analysis used was a multiple linear regression approach which was processed with SPSS 26.0 software. The sampling technique used was purposive

sampling method. Questionnaires were distributed to 83 MSMEs registered. The study proved that equity crowd-funding has a significant positive effect on the performance of MSMEs.

A study was done by Ahmed and Germinah (2020), on the impact of venture capital financing on Small and medium sized enterprises performance in Uganda. The study adopted a mixed method and used survey questionnaires administered to 90 SMEs and complemented with data from semi-structured interviews. The results were that the empirical evidence exhibited tremendous growth of venture capital-backed companies in sales turnover, profitability and return on assets matched to the non-venture capital backed firms.

A study was done by Wekesa *et al.* (2023), on effects of equity financing on performance of SMEs in Bungoma County, Kenya. The target population was 4721 licensed SMEs and descriptive and inferential research designs were used. The descriptive statistics results established that majority of the SMEs in Bungoma County have been making use of equity financing in terms of retained earnings, personal savings and contribution from friends. Moreover, the study found that equity financing has a positive correlation with performance of SMEs. Similarly, the study established that equity financing has a positive and significant relationship with performance.

Muturi (2019) did a study on effects of equity finance on financial performance of SMEs in Kenya. The target population was 291,449 licensed SMES. Simple random techniques were used to collect the sample for the study. The findings were that equity finances significantly predicted the performance of SMEs in Kenya. The correlation results

indicated that there was also a significant positive correlation between equity funds and the size of SMEs.

### 2.5.2 Debt Financing Sources and MSMEs Financial Performance

Nazir, Muhammad and Usman (2020), conducted a study on effects of debt financing and firm performance empirical evidence from Pakistan stock exchange. The study used a polled least square regression and fixed and random effects models to analyze a cross sectional of 30 Pakistani companies operating in the automobile, cement and sugar sectors. The results indicated that both short term and long term had negative and significant impacts on firm performance in profitability. The study recommended that future studies to address other sectors.

Research was done by Ophelia, (2021), on the impact of debt financing on performance of SMEs in Ghana. The sample size was 42 companies listed in Ghana stock exchange. The study hypothesis was tested using multiple regression analysis. The results were that an increase in debt on a company's capital structure might result in greater performance because of tax deductible interest payments. Further the findings were that SMEs has been impacted through their debt finance and the use of debt has a significant negative association with performance metrics, including liquidity, profit margin and return on assets. To add, long term and short- term financing have disadvantages impact on SMEs financial performance.

A study by Aakaji, Nwadiator and Agudata (2021), sought to examine the effects of debt financing on performance of firms in Nigeria. The study measured debt financing using the variables of long-term debt, short term debt financing and preferred stock while firm

performance was measured using return on equity. The research design used was ex post Facto design. The findings showed that debt financing had significant and positive effects on Firms performance in Nigeria at 5% significant level.

Another research Manzano (2019), aimed to examine the effects of debt financing on financial performance of listed firms at Nairobi Stock Exchange. A descriptive design was used and the population entailed the 35 no-financial firms listed in the NSE. Secondary data was used. The findings revealed that debt financing had weak negative correlation that was significant.

Barnabas (2022), also did research on effects of short-term debt financing on the financial performance of SMEs in Boment County, Kenya. The data was analyzed and presented using descriptive research design. The sample size was 59 SMEs. The findings were that short term loans, trade credits and lease fiancé make headway in the same direction with SMEs performance in the sense that they affect performance positively. However, overdrafts cause insignificant change to SMEs performance.

### 2.5.3 Government Support Programs and MSMEs Financial Performance

Sara (2021), on the question, does tax, financial and government incentives impact long term Portuguese SMEs sustainable company performance? The results were that tax variables were significant. To add, SMEs benefits from tax reduction which increases profit and government incentives affects SMEs both positively and negatively due to economic crisis in Portugal.

Another study on effects of government incentives on performance of SMEs took place in Cameroon. To achieve the objective, data was collected using questionnaire with sample size of 100 owners and managers of SMEs as respondents. Purposive sampling technique was used. Regression model was used to test the objectives. The findings from the study showed that incentives positively influence the performance of SMEs. There was also positive relationship between government policy regulations and performance of SMEs (Regina, 2019).

Kanbiro (2022) did a study on the effect of tax incentives practices on the sustainability of micro and medium enterprises in Ethiopia during the covid 19 pandemic. To achieve the objective, the researcher employed quantitative research approach with explanatory research design in which six hypotheses was tested. The primary data was collected from 300 MSMEs owner's operators using structured questionnaires. A multiple regression model was employed. According to the regression analysis, the paper revealed that tax holiday, tax allowance reduction in the tax rate accelerated depreciation, loss carry forward and tax exemption have a positive and statistically significant effect on the sustainability of MSMEs. The researcher will adopt subsidies and incentives as measurement of government financing program. Hustler funds will used as indicator of government financing program to fill in the gap in the existing literature.

### 2.5.4 Firm Characteristics and MSMEs Financial Performance

Nisha, (2024) did a study on moderating role of firm characteristics on the relationship between corporate social responsibility and financial performance, evidence from India.

Fixed effect panel regression and generalized method of moments models were employed for data analysis. Firm life cycle was found to have a significant negative moderating effect on private ownership.

Another study by Ayuba (2023), examined the influence of firm characteristics on financial performance of pension fund administrators in Nigeria. A sample of 10 was selected through purposive sampling and descriptive Pearson correlation and multiple regression models were employed to analyze data with the help of STATA Version 11. Firm age, board size and expenditure of firms were found to be jointly responsible for about 97% of the change in financial expenditure.

Mugwe, (2019) in his study which sought to determine firm characteristics and capital structures of small and medium enterprises in Kenya correlation survey was adopted and ordinary least square model was applied and descriptive and regression analyses were adopted to analyse the data. The findings were that firm size and age negatively associated with the capital structure. Therefore, firm characteristics will be employed as a moderator to fill in the gap in the existing literature.

## 2.6 Research Gap

There were mixed results in the review of empirical literature on the extent to which as shown in Table 2.1.

**Table 2. 1 Summary of the Gaps**

| Author | Topic | Methodology | Findings | Knowledge gap |
|---|---|---|---|---|
| Muturi, Mwende and Njeru, (2019). | Effects of Equity Finance on Financial Performance of Small and medium Enterprises in Kenya | The target population of the study was 291,449 licensed SMEs of which 384 were the sample. Data was collected using a questionnaire. | The findings revealed that there is a statistically significant relationship between loans, trade credits, equity financing and informal financing and financial performance. | The study concentrated with six counties: Nairobi, Mombasa, Machakos, Makueni, Kajiado and Kitui with a target population of 291,449. This study will take place at Nakuru County with a target population of 118,200. |
| Aloys, Elijah and Vitalis, (2022). | Analysis of Retained Earnings Financing on Financial Performance of Listed Manufacturing and Allied Firms. A dynamic Panel Approach. | The study population was 9 listed firms. Peason correlation was used to show the strength and direction of association among the study variables. | The findings were that retention ratio had a moderating positive correlation and a strong positive correlation. The regression coefficient was also positive and significant. | The study targeted only manufacturing and allied firms in Kenya. This study will target all the MSMEs in Nakuru County. The dependent variable used was financial performance while the dependent variable in this study will be performance. |
| Akaji, Nwadiator and Agubata, (2021). | Effects of Debt Financing on Firms Performance in Nigeria. | The study used Ex Post Factor research design. Debt financing was measured using the variable of long-term debt, short term debt and | The findings showed that debt financing has significant and positive effects on firms' performance in Nigeria at 5 % significant level. | Debt financing was measured using long-term, short-term and preferred stock. This study will used bank loans, overdrafts and lease finance as measures of debt financing. |

| | | | | |
|---|---|---|---|---|
| | | preferred stock while firms' performance was measured using return on equity. | | |
| Amir, Muhammed and Usman, (2020). | Debt Financing and Firm Performance. Empirical Evidence from Pakistan Stock Exchange. | The study used pooled ordinary least squares regression and fixed and random effects models to analyse a cross-sectional sample of 30 Pakistan companies operating in automobile, cement and sugar sector. | The results indicated that both short term and long-term debt have negative and significant impacts on firm performance in profitability. Sales growth and firm size have positive effects on the profitability of non-financial sector performance. | The study took place in Pakistan. The sample size was 30 Pakistan companies in automobile, cement and sugar sectors. This study will take place in Nakuru. The population will from all sectors |
| Manzano, (2019). | Effects of debt financing on financial performance among firms listed at Nairobi security exchange. | Descriptive design was used. Population entailed 35 non-financial firms listed in the Nairobi security Exchange. | Findings revealed that debt financing had a weak negative correlation that was significant. | The study used a study population of 35 non-financial firms listed in the Nairobi Security exchange. This study will concentrate with Nakuru County MSMEs. |
| Nisha & Aparna, (2024) | Moderating role of firm characteristics on the relationship | Fixed effect panel regression and generalized method of moments models were used for data | Firm life cycle has a significant negative moderating effect on private ownership. | The study took place in India while this study will take place in Kenya, specifically in Nakuru County. |

| | | | | |
|---|---|---|---|---|
| | between corporate social responsibility and financial performance, evidence from India. | analysis. | | |
| Ayuba & Mathias (2023). | Firm Characteristics and financial performance of pension fund administrators in Nigeria | A sample of 10 selected through purposive sampling and descriptive Pearson correlation and multiple regression model was used to analyze data with the help of STATA Version 11 | Firm age, board size and expenditure of firms are jointly responsible for about 97% of the change in financial expenditure. | The study took place in Nigeria. This study will take place in Kenya. Sample size was 10 while this study has a sample size of 379 |
| Mugwe (2019) | Firm characteristics and capital structures of small and medium enterprises in Kenya. | Correlation survey was adopted and ordinary least square model was applied and descriptive and regression analyses were employed. | Firm size and age were found to be negatively associated with the capital structure. | The researcher studied the SMEs in Kenya while this study will concentrate in Nakuru County. |
| Rwakihembo (2024) | The moderating effects of firm characteristics on the relationship | Positivist paradigm and cross-sectional design was employed and a sample of 394 | Firm characteristics moderated the relationship between corporate and financial performance of business | Sample size employed was 394 while this study will employ a sample size of 379 MSMEs. |

| | | | | |
|---|---|---|---|---|
| | between corporate and financial performance of business enterprises in Uganda. | private companies was determined. | enterprises in Uganda. | |
| Calvin, Min & Morc, (2019). | Credit access tax structure and performance of Malaysian manufacturing SMEs. | The study used the dynamic panel system generalized method of moments, controlling for firm specific as well macroeconomic activity. | The paper found that debt is not conducive to SMEs performance. | The study took place in Malaysia. This study will take place in Nakuru County.<br>The study leaves a gap on the study of the role of government financing programs on MSMEs performance for it concentrated on tax structure only. |
| Kanbiro and Deyganto, (2022) | The effects of tax incentives practices on the sustainability of micro small and medium enterprises in Ethiopia during the outbreak of Corona Virus. | The researcher employed a qualitative research approach with explanatory research design in which six hypotheses were tested. The primary data was collected from 300 MSMEs owners using questionnaire. | According to regression analysis tax holding, tax allowance, prediction in the tax rate, tax exemption and accelerated depreciation had a positive and statistically significant effect on the sustainability of the MSMEs. | The study took place in Ethiopia while this study will take place in Nakuru County.<br>The study also leaves a gap on the roles of government financing programs on MSMs performance as it only concentrated with tax incentives practices. |

## 2.7 Conceptual Framework

From the summary, there are several gaps to be filled by the study. Various researches have concentrated on direct impact of sources of finance on MSME's performance without a moderator. And therefore, this study will fill the gap by employing firm characteristics as a moderator on the relationship between sources of finance and micro, small and medium enterprises performance in the conceptual frame work shown below.

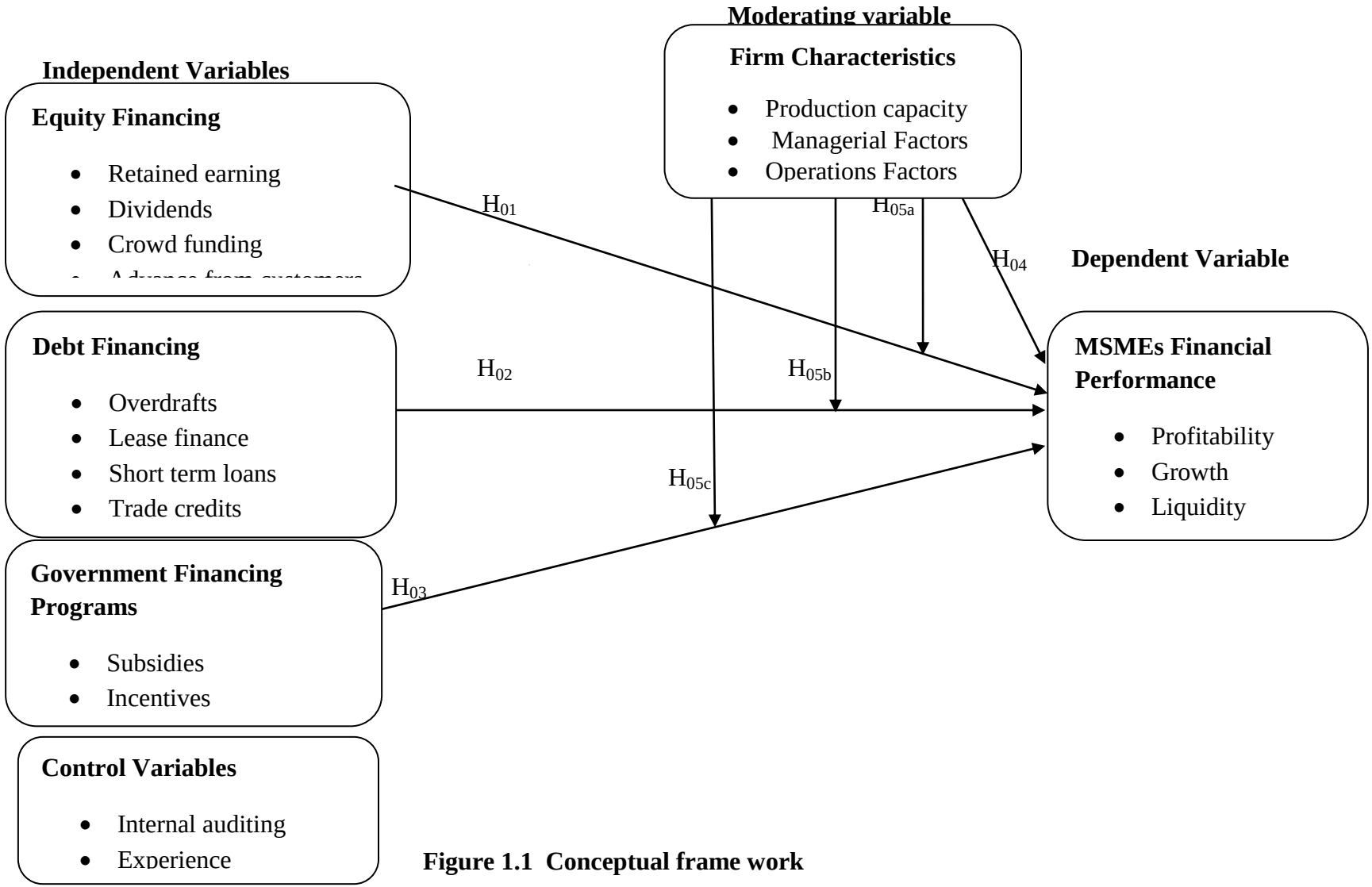


**Figure 1.1 Conceptual frame work**

# CHAPTER THREE

# METHODOLOGY

## 3.1 Overview

This chapter describes the research designs, the study area, the target population, sample and sampling procedures. The chapter also presents the data collection, measurements, data analysis, reliability and validity and ethical consideration.

## 3.2 Research Design

This is the overall research structure of study which helps to ensure that the data is collected effectively and answer research questions, Equnjobi (2022). In explanatory research design, researchers' ideas and thoughts are key as it is primarily dependent on their personal inclination about a particular topic and explanation about unexplained aspects of a subject is provided along with details about what, how and why related to the research questions, (Sumbl, 2019). The explanatory design emphasizes the quantitative phase followed by the qualitative phase. It entails setting up ontological and epistemological position, establishing an approach to inquiry, collecting data, analyzing quantitative data, recollecting data, analyzing qualitative data, and integrating and reporting the results (Mohammad, 2021). Explanatory research design looks for causes and reasons and provides evidence to support or refute an explanatory prediction, (Tesfaye, 2018). This study adopted explanatory research design to determine the moderating role of firm characteristics on the relationship between financing sources and financial performance of MSMEs in Nakuru County.

### 3.3 Study Area

The study targeted MSMEs in Nakuru County. Nakuru County has a population of 2.1 million people, the city has a population of 420,000 people and the county has 11 sub counties (KNBS, 2019). Nakuru County is located in the Rift Valley and boarders seven counties which are: Laikipia to the North -east, Kericho to the West, Narok to the South west, Kajiado to the South, Baringo to the North, Nyandarua to the East and Bomet to the west. Furthermore, the County covers an area of approximately 7498.8km$^2$ and it has 11 sub-counties namely, Naivasha, Nakuru Town west, Nakuru Town East, Kuresoi South, Kuresoi North, Molo, Rongai, Subukia, Njoro, Gilgil and Bahati (UNDP, 2023).

### 3.4 Target Population

Population refers to the whole group of individuals, events or objects taken from general population having similar observable features (Muturi, 2019). The target population in the topic under study was Nakuru County MSMEs. Nakuru County has a total 7,384 registered Micro, Small and Medium Enterprises in the category of manufacturing, wholesale and retail, transport and storage, accommodation and food services and agriculture and fishing (Nakuru County statistical abstract, 2022).

**Tables 3. 1 Target Population**

| Serial No. | Stratum | Size |
|---|---|---|
| 1. | Manufacturing | 1,029 |
| 2. | Whole sales and retail shops | 2,417 |
| 3. | Transport and Storage | 1,924 |
| 4. | Accommodation and food services | 529 |
| 5. | Agriculture and fishing | 1,485 |
| **Total** | | **7,384** |

### 3.5 Sampling Design and Procedures

A sample is a subject of the total amount of data that has been gathered by surveyors or lengthy observations and it is a smaller unit of measurement Mosab (2022). Sampling techniques can either be probability and non-probability and this study will employ probability sampling where each item in the population has equal chance of being chosen, (Mizanur, 2022). The three sub-types of probability sampling that will be used are; cluster sampling, stratified sampling and simple random sampling (Pooja, 2019). In stratified sampling the data is classified into multiple subgroups (strata) based on common characteristics such as age, gender, race and income (Mosab, 2022). In the topic under study the sample was obtained through Taro Yamane 1967 formula. The advantage of the formula is that it was simple and efficient due to its ability to determine the sample size of both continuous and categorical variables (Anokye, 2020).

$n = [N/ 1+N (e)^{2}]$

Where:

N-Population Size

n- Sample Size

e- Level of precision at 95 percent confidence level.

This formula was engaged, and the sample size was computed as indicated below.

$$n = \frac{7{,}384}{1+7{,}384*(0.05)^2}$$

$$n = 379$$

In addition, stratified random sampling is a probability sampling procedure in which the largest population is first separated into mutually exclusive homogenous segments (strata), and then elements are selected through a simple random sample from each segment (stratum) (Lok, 2023). Additionally, required sample from each stratum is calculated through the following formula (Lok *et. al.* 2023).

$S_1$=Sn/ N

Where:

$S_1$ =stratum 1

n= required sample Size

N= Total population

**Table 3. 2 Sample Frame**

| No. | Stratum | Size of stratum | Sample Size |
|---|---|---|---|
| 1. | Manufacturing | 1,029 | 53 |
| 2. | Whole sales and retail shops | 2,417 | 124 |
| 3. | Transport and Storage | 1,924 | 99 |
| 4. | Accommodation and food services | 529 | 27 |
| 5. | Agriculture and fishing | 1,485 | 76 |
| **Total** | | **7,384** | **379** |

### 3.6 Data Collection Instruments

The research study employed the primary data. The primary data was collected through administration of questionnaire to MSMEs. The questionnaire was economical; it reduces biasing error and is efficient in time (Jorge, 2018). Also, data collected using the instrument is fresh and is collected directly from respondent which directly serves the current research and helps in finding the bottom line of the problem (Trung, 2021).

### 3.7 Data Collection Procedure

After receiving research approval from the department of Business Management, the researcher went ahead and applied for the research permit from the National Commission for Science, Technology and Innovation which enhanced data collection.

Upon receiving the research license, the research went ahead and verified the questionnaires and sourced research assistants who had knowledge in finance. The research assistant (11) were introduced to the questionnaires, each 34 questionnaires, and trained on the mode of approach to the respondents which included the ethical considerations. Furthermore, the research assistants were guided on the targeted and shortlisted firms which were manufacturing firms, wholesale and retail shops, transport and storage, accommodation and food services and agriculture and fishing MSMEs.

The questionnaires and research covers letters were administered to the business owners. The respondents were given enough time to ensure all questions were answered and in the event that the respondent demanded extra time to answer the questions, a day to collect was agreed.

### 3.8 Definition, Measurement of Variables and Expected Signs

Ordinal scales which are concerned with rank order and depicts the order of variables and not the difference between each of the variables and is typically used by market researchers to determine non numeric levels and numbers with a 5- point Likert scale which rank the responses and the interval scales (numerical scale) will be used, (Allanson, 2020).

#### 3.8.1 Independent Variables

Independent variables which are financing sources which include equity financing, debt financing and government financing programs will be measured in both ordinal and nominal scales (Allanson, Patricia & Nator, 2020). Equity is the sale of a portion of the ownership of a new venture to an investor through the purchase of ownership in venture, (Marc, Cuban & Rodgers, 2019), and the measurable constructs which are retained earnings, dividends, crowd funding and advance from customers will be adopted from Adeba (2021). While debt financing which is procurement of interest-bearing instruments secured by asset -based collateral and have short term or long-term structures, Wilbert, Kanyepe and Lovemore and Tendai, (2023), it's measurable constructs which are overdrafts, lease financing, short term loans and trade credits will be adopted from Nshimirimana and Agnes, (2021), Wilbert, Kanyepe and Lovemore and Tandai (2023) and the government financing programs constructs which are subsidies and incentives will be adopted from Rufus (2019), Karitu (2023) and Kanbiro (2022).

### 3.8.2 Dependent Variables

Dependent variable which is performance is defined as a broad category that reflects how well a company can achieve its market operations, growth and financial goals within a given time frame, (Evi, 2023), will be measured using ratio scale which is a variable measurement scale that not only produces the order of variable but also makes the difference between variables known along with information on the value of true zero (Allanson, 2020). The measurable constructs which are profitability, growth, liquidity and return on equity will be adopted from Abdikadir (2020).

### 3.8.3 Moderator Variable

Firm characteristics refers to behavioral patterns of corporate activity that enable them achieve their goals throughout the period of their activities, (Akuboere & Emmanuel, 2023). Firm Characteristics has been used as a moderator by Baaba (2024) in assessing how firm characteristics influence the relationship between corporate governance and the quality of financial reporting. Nisha (2024) also employed firm characteristics on the relationship between corporate social responsibility and financial performance. Rwakihembo et al. (2024) employed firm as a moderator in establishing the moderating effects of firm characteristics on the relationship between corporate governance and financial performance of business enterprises. In this study firm characteristics will be adopted as a moderator and will be indicated by three constructs which are production capacity, managerial factors and operations factors adopted from Mutunga, (2024).

### 3.8.4 Control Variables

Two control variables were employed to test the hypotheses. The study included internal auditing and experience as control variables as both variables were found to have effects on performance and have been used in previous studies. With internal auditing adopted from Joy, (2023), Mahammed (2023) and Yousef (2024). Experience was adopted from Masoud and Jitong (2018), and Alfredo and Manuela (2018).

## 3.9 Reliability and Validity of Research Instruments

Validity and reliability are tools of the criteria that contribute to the quality of the questionnaire (Mohd, Saifullyzan, Faizal, Nar & Hadafi, 2021). The validity and reliability of the scales used in research are essential factors that enable the research to yield beneficial results, (Surucu & Maslakci, 2020).

### 3.9.1 Reliability of the Research Instruments

Reliability depicts the uniformity of a research instrument in collecting related details and if the assessment is actually repeated with precisely the same measuring techniques, the conclusion will be precisely the same, (Gakatha, 2018). The reliability was tested using Cronbach Alpha where a value that equal to or greater than 0.7 was considered to be reliable (Wekesa, 2023).

### 3.9.2 Validity of the Research Instruments

There are different forms of validity such as predictive validity, concurrent validity, criterion related validity, internal validity, external validity and content validity (Surucu & Maslakci, 2020). Construct validity is concerned with the degree to which the

instrument measures the concept, behavior, idea or quality that is a theoretical construct that it purports to measure, (Surucu, *et. al*. 2020). Abdikadir (2020), describes validity of content as the measure of the representation of all facets within a given social construct to minimize vague or misinterpreted questions. Content validity estimates the extent to which items of measurement instrument make fair coverage or are representation of the content area the instrument purports to measure (Ijeoma & Eme, 2023). It is the correlation between the content of the test and the construct measured through wording, format, and display of items and a test is considered content valid when the items relevantly measure the construct, (Adiyo, 2023). It is carried out through expert judgement (Rio 2023). Content Validity was tested through questionnaire and relevant scale based on Likert 5 point (Shreerakshal, 2023). Rasch model was employed to test the validity because offered enormous opportunities for investigation, (Mohd, 2021).

### 3.9.3 Pilot Study

This is a test done on small scale to test the quality of the instrument used in the actual study and it tests the quality and appropriateness of the instrument used in the actual study, Sutha & Nurhanan, (2023). The validity of the study was enhanced by conducting a pilot study of 37 MSMEs in Uasin Gishu County, Eldoret Town. Pilot study was the process of testing the research tool of the level of reliability and validity and once the questionnaire was finalized it was tried out in the field and a sample which is similar in characteristics to the actual sample was employed (Muturi, 2019).

### 3.10 Data processing

Data is defined as things known or assumed as facts which form basis of information, reasoning or calculation (Babajide, 2022). Data processing involves data editing which is primarily concerned with checking illegible, incomplete, illogical or inconsistent responses; coding which is a systematic way of condensing massive data sets into mutually exclusive and collectively exhaustive categories to make it amenable for analysis and data entry in which after data editing and coding, the data was entered in the MS-Excel file or spread sheet (Timira, 2018). Data processing also refers to the extraction of information through organizing, indexing and manipulation (Fang, 2019). Data processing was enhanced by use of bar graphs, linear presenting and use of pie charts in the study.

### 3.11 Data Analysis and Presentation

Data analysis refers to examining what has been collected in survey or experiment and making deductions and inferences by using descriptive statics and inferential statics which include frequencies, percentages, means and standard deviations and inferential statics which includes correlation techniques and multiple regression analysis which is used to the effect of predictor variables to dependent variables (Muturi, 2019). It is reviewing classification, editing, summarizing and coding to reinforce credibility completeness and accuracy (Barnabas, 2022). In this study data analysis was computed using SPSS version 23.

### 3.12 Assumption of Regression Model

Statistical assumptions are determined by the mathematical implications for each statics and they set the guideposts within which we might expect our sample estimates to be biased or our significance tests to be accurate (Winter, 2024). Testing the regression assumptions is a process and the input includes a description of each assumption under regression analysis (Candace & Ronald, 2019).

#### 3.12.1 Linearity

Jason and Elaine (2019) stated that multiple regressions can only accurately estimate the relationship between dependent and independent variables if the relationship is linear in nature. He adds by stating that if the relationship between independent variable and dependent variable is not linear, the results will under-estimate the true relationship. Also, under-estimated carries risk which is the increased chance of type 11 errors for independent variable. ANOVA is a statistical test in which a dependent variable is compared across the three or more groups and tests whether the variances among groups of data in a data set are within acceptable bounds called homogeneity of variance where P Value > .05, (Robert, 2022).

#### 3.12.2 Normality

Regression assumes that variables have normal distributions and non-normally distributed variables can distort relationship and significant tests (Jason & Elaine, 2019). Shapiro Wilk Test tests whether the outcome of data at random sample from the actual population came from a normally distributed population and evaluates how likely it is that values in the sample are observed (Shengping, 2021). The Kolmogorov Smirnova

Tests non parametric for comparing two samples and can also be used to quantify the distance between empirical distribution function of the sample and the cumulative distribution functions of a reference distribution (Shengping et. al., 2021). It is known that Sig (2-tailed) significance value should be greater than 0.050 for decision-making in the Kolmogorov-Smirnov normality test (Meli, 2024).

### 3.12.3 Homoscedasticity

Homoscedastic means that the variance of errors is the same across all levels of independent variable and the variance of errors differ at different values of independent variables, (Jason & Elaine, 2019). Homoscedasticity Assumption actually plays a more critical role than normality on validity analysis of variance because the F-test, testing for overall difference in group means across all the groups is more sensitive to heteroscedasticity, (Kun, Tu & Tian, 2019). To check for homoscedasticity, Levene's test is conducted in which statistical tests has been developed to assess whether the variance among groups of data set are within acceptable bounds called homogeneity of variances where P> .05. The researcher adopted the above approach to test for Homoscedasticity.

### 3.12.4 Multicollinearity

Multicollinearity occurs when the multiple linear regression analysis includes several variables that are significantly correlated not only with the dependent variable but also to each other (Nora, 2020). The first principle of multicollinearity highlights the tolerance values must be greater than 0.2 and variance inflation factor (VIF) values must be lower than 10 however for multicollinearity to exist, tolerance values should be less than 0.2

and VIF values should be greater than 10 (Barnabas, 2022). Therefore, the researcher adopted the above approach to test for multicollinearity.

### 3.13 Data analysis and Presentation

Multiple regression is an equation that link the predicators and the outcome, (Hsueh, 2018). In this study the multiple regressions will test the effects of predictors (equity financing sources, debt financing sources and government financing programs on the outcome (performance of MSMEs). To add, hierarchical regression is an approach that builds regression model by adding the product of X and M to model one and the goal is to determine whether allowing X's effects to be contingent on M produces a better fitting model than one in which the effects of X is constrained to be unconditional to M, (Hayes, 2018).

Additionally, Hayes (2018), states that to test whether M moderates the effects of X on Y using Hierarchical regression, the model for Y is built in steps: step one Y is estimated from X and M and any additional variable other than XM of interest such as covariate and the resulting model becomes model 1 and its squared multiple correlation $R^2_1$ and in the second stage XM is added to model 1 to generate model 2 and its squared multiple correlation $R^2_2$ and the difference in squared multiple correlations $\Delta R^2 = R_2{}^2 - R_1{}^2$ is a descriptive measure of how much better model 2 fits relative to model 2 ( change in $R^2$). To test the effects of the size of the firm (M) on the relationship between financing sources (X) and performance of MSMEs (Y) and the moderating effect of the size of the firm and the relationship between equity financing sources and the performance, debt

financing sources and the performance and government financing programs and the performance, the above approach will be adopted.

The following linear regression model was employed (Ernesto, 2021)**.** The model tested the effects of each additional variable on the $R^2$ as intimated by (Mumtaz, Jun, Ramayah, Francis & Tat, 2019).

$$Y=\beta o+ \beta 1 \text{ internal auditing} + \beta 2 \text{ Experience}\ldots.\Delta R^2 \qquad (M_i)$$

In model ($M_{ii}$), equity financing sources, debt financing sources and government financing programs were added to the first model. The independent variables explained the direct effects on MSMEs financial performance while control variables remained constant.

$$Y= \beta o+ C + \beta 3X1+ \beta 4X2+ \beta 5X3 +\varepsilon\ldots..\Delta R^2 \qquad (M_{ii})$$

$M_{ii}$ to $M_{vi}$ tested the effects brought about by the moderator.

Model ($M_{iii}$) tested the effects brought about by the firm characteristics in the MSMEs financial performance while control variables.

$$Y= \beta o+ C + \beta 3X1+ \beta 4X2+ \beta 5X3 +\beta 6M +\varepsilon\ldots\Delta R^2 \qquad (M_{iii})$$

In model ($M_{iv}$), the role of equity financing on the firm characteristics was tested while control variables, as well as debt financing and government-financing programs held constant.

$$Y= \beta o+ C + \beta 3X1+ \beta 4X2+ \beta 5X3 +\beta 6M + \beta 3X1M+\varepsilon\ldots\Delta R^2 \qquad (M_{iv})$$

. In model ($M_v$) the role of debt financing on the moderator was tested while control variables, as well as equity financing and government-financing programs held constant.

$$Y= \beta o+ C + \beta 3X1+ \beta 4X2+ \beta 5X3 +\beta 6M + \beta 3X1M+ \beta 4X2M +\varepsilon \ldots \Delta R^2 \qquad (M_v)$$

In model ($M_{Vi}$) the effects of government financing programs was tested on the moderator while control variables, as well as equity financing and debt financing held constant.

$$Y= \beta o+ C + \beta 3X1+ \beta 4X2+ \beta 5X3 +\beta 6M + \beta 3X1M+ \beta 4X2M +\beta 5X3M+\varepsilon \ldots \Delta R^2$$

$$(M_{vi})$$

**Where:**

**Y=** Dependent Variable (Financial Performance)

**$\beta_o$ =** The Constants, **$\beta_1$, $\beta_2$, $\beta_3$, $\beta_4$, $\beta_5$, $\beta 6$**, are coefficients of estimate

**C=** Control variables internal auditing and experience

**$X_1$** = Equity Financing

**$X_2$**= Debt Financing

**$X_3$**= Government Financing Programs

**M**= Moderator (Firm Characteristics)

**ε** = Error term

### 3.14 Ethical Consideration

Ethical consideration was enhanced through firstly getting a research letter or consent of research from the department and the permit from NACOSTI. The consent from MSMEs was also was sought so that they were free to participate and give responses. Furthermore, the respondents were briefed on the purpose of the study and assured of information privacy and principles. Also, all respondents were be treated with a lot of respect and courtesy. The culture, community behaviors and the beliefs were highly observed throughout the period. Additionally, the study acknowledged work borrowed from other by citing reference.

# CHAPTER FOUR

# DATA ANALYSIS AND INTERPRETATION

## 4.1. Overview

This chapter entails the descriptive results, data reliability and validity test, factor analysis, test of regression assumptions, regression results for direct effects of equity financing sources, debt financing sources and government financing programs on MSMEs financial performance , regression results for moderating effects of firm characteristics on the relationship between equity financing sources, debt financing sources, government financing programs and MSMEs financing performance, lastly the interaction slopes of the moderating effects.

## 4.2 Response Rate

The researcher administered questionnaires through the help of research assistants. Out of 379 questionnaires, only three were not answered. The 379 questionnaires were then subjected to analysis.

**Table 4.1**

| | |
|---|---|
| Questionnaires answered | 376 |
| Questionnaires not Answered | 3 |
| Total Questionnaires | 379 |

### 4.3 Gender Distribution

The researcher sought to know the gender of Nakuru MSMEs from which male accounted for 53.9 % while female accounted for 46.1% both of which they have been in MSMEs operations and the majority who are male owns most MSMEs.

**Table 4. 1 Gender Distribution**

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | Male | 202 | 53.7 | 53.9 | 53.9 |
| | Female | 173 | 46.0 | 46.1 | 100.0 |
| | Total | 375 | 99.7 | 100.0 | |
| Missing | System | 1 | .3 | | |
| Total | | 376 | 100.0 | | |

### 4.4 Level of Education

The researcher sought to know the four level of education from MSMEs owners in Nakuru County. The results were that the MSMEs owners with certificated account for 45.7%, diploma 37.8%, degree holders were 15.2% and those with master degree accounted for 1.3%. The majority with certificate owned the MSMEs.

**Table 4. 2 Level of Education**

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | Certificate | 172 | 45.7 | 45.7 | 45.7 |
| | Diploma | 142 | 37.8 | 37.8 | 83.5 |
| | Degree | 57 | 15.2 | 15.2 | 98.7 |
| | Master | 5 | 1.3 | 1.3 | 100.0 |
| | Total | 376 | 100.0 | 100.0 | |

**4.5 Age of Respondents**

The searcher also sought to understand the age bracket of the respondents in Nakuru County. The findings were that 18-25 years-18.6%, 25-30 years-37.2%, 35-40 years-27.7, 40-45 years-10.4% and above 45 years-5.9% with age bracket 25-30 years forming a higher response rate and age above 45 year formed the least response.

**Table 4. 3 Age of Respondents**

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | 0 | 1 | .3 | .3 | .3 |
| | 18-25Yrs | 70 | 18.6 | 18.6 | 18.9 |
| | 25-30Yrs | 140 | 37.2 | 37.2 | 56.1 |
| | 35-40Yrs | 104 | 27.7 | 27.7 | 83.8 |
| | 40-45Yrs | 39 | 10.4 | 10.4 | 94.1 |
| | Above45Yrs | 22 | 5.9 | 5.9 | 100.0 |
| | Total | 376 | 100.0 | 100.0 | |

### 4.6 Business Operation Period

Majority of MSMEs owner in Nakuru County have been in operation for 1-2years and few have operated their business for more than 5 years.

**Table 4. 4 Years in Business Operation**

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | 1-2yrs | 124 | 33.0 | 33.0 | 33.0 |
| | 2-3yrs | 92 | 24.5 | 24.5 | 57.4 |
| | 3-4yrs | 66 | 17.6 | 17.6 | 75.0 |
| | 4-5yrs | 52 | 13.8 | 13.8 | 88.8 |
| | Above 5yrs | 42 | 11.2 | 11.2 | 100.0 |
| | Total | 376 | 100 | 100 | |

### 4.7 Data Preparation and Processing

This is the process of assuring and improving data quality for it is necessary to review data that are already available, assess their suitability to the task and investigate the feasibility of sourcing new data collected specifically for the desired task (Zahraa, 2017).

#### 4.7.1 Examination of Missing Data

Data could be missing for many different reasons such as accidentally skipping an item, wrong data entry, lacking knowledge on the issue or becoming frustrated (Nicholas, 2017). There are two methods used to detect missing value one being listwise delete which discards cases with missing values to yield complete data set with reduced samples

size and the other is pair wise deletion in which all the observed values on a subject are retained and missing values are only deleted in pairs as the analysis is carried out (Nicholas et al., 2017).

### 4.8 Descriptive Results

The demographic characteristics of the respondents were presented in the following sub-sections. These characteristics included the gender, level of education, age and the duration the MSMEs have been operated.

#### 4.8.1 Equity Financing and Financial Performance

To determine the effects of equity financing on financial performance of micro, small and medium enterprises in Nakuru County, the descriptive statistics results were as follows:

From table 3.7 it was evident that MSMEs emphasizes on getting funds from retained earnings as indicated by (Mean-2.9 and Std Deviation of 1.432). The business also is frequently financed by retained earnings (Mean 2.83 and St. Deviation of 1.305). Retained earnings by MSMEs helped in reducing cost of borrowing (mean of 3.02 and Std. Deviation of 1.490). Management also considered retained earnings as best source of finance (Mean of 3.41 and Std. deviation of 1.318). From the results also, the MSMEs were very dynamic and considered donations from different sources as indicated by a mean of 3.17 and Std. deviation of 1.376. The businesses also were committed in ensuring that donations are efficiently and effectively used as indicated by a mean of 3.09 and Std. deviation of 1.302. On the other hand, size of investment considered donations as the good form of finance by a mean of 3.07 and std. deviation 1.358. The businesses defined success on the basis of having the most unique or newest donation as indicated

by a mean of 2.94 and std. deviation of 1.316. To add, Nakuru MSMEs considered ploughed back profit as major source of finance (mean 2.94 and Std. deviaon1.50. Furthermore, most frequent the MSMEs ploughed back profit (mean 3.09 and Std. deviation 1.305) and considered investing through the ploughed back profit (mean 3.11 and Std. devaition1.344). Finally, the profit is always available for the use by the business (mean 3.09 and std. deviation 1.375) and advance from customers enhanced business expansion (mean 3.07 and std, deviation 1.389).

**Table 4. 5 Descriptive statistics For Equity Financing Sources**

| | | Mean | Std. Deviation | Variance | Skewness | Kurtosis |
|---|---|---|---|---|---|---|
| 1. | The business Emphasizes on getting funds from retained earnings | 2.90 | 1.432 | 2.049 | .207 | -1.328 |
| 2. | The business is frequently financed by retained earnings | 2.83 | 1.305 | 1.704 | .347 | -0.995 |
| 3. | Retained earnings helps in reducing cost operation | 3.02 | 1.490 | 2.221 | 0.46 | -1.437 |
| 4. | Management considers retained earnings as best source of finance | 3.41 | 1.318 | 1.736 | -.378 | -1.075 |
| 5. | The business is very dynamic and considers donations from different sources | 3.17 | 1.376 | 1.895 | -.101 | -1.280 |
| 6. | The business is committed in ensuring that donations are effectively and efficiently | 3.09 | 1.302 | 1.696 | 0.33 | -1.114 |

| | | | | | | |
|---|---|---|---|---|---|---|
| | utilized | | | | | |
| 7. | The size of investment considers donations as the good form of finance | 3.07 | 1.358 | 1.843 | -.015 | -1.221 |
| 8. | The business define success on the basis of having the most unique or newest donation | 2.94 | 1.316 | 1.733 | 0.89 | -1.176 |
| 9. | The business considers ploughed back profit as major source of finance | 2.94 | 1.350 | 1.823 | .099 | -1.227 |
| 10. | Most frequently the business plough back profit | 3.09 | 1.305 | 1.704 | -.060 | -1.127 |
| 11. | The business considers investing through ploughed back profit | 3.11 | 1.344 | 1.807 | -0.116 | -1.225 |
| 12. | The profit is always available for the use by the business | 3.09 | 1.375 | 1.891 | -0.030 | -1.301 |
| 13. | Advance from customers enhances business expansion | 3.07 | 1.389 | 1.928 | -0.081 | -1.299 |

### 4.8.2 Debt Financing and Financial Performance

To examine the influence of debt financing on financial performance of micro, small and medium enterprises in Nakuru County, the descriptive statistics results were as follows: The descriptive statistics results were that the cost of finance trade credit affected the ability to of MSMEs in Nakuru County access to credit as indicated by mean of 3.17 and

standard deviation of 1.338. Additionally, the collateral of MSMEs affected the ability to access credit financing as indicated by the mean of 3.14 and standard deviation of 1.360. On the other hand, short repayment period affected ability of MSMEs in Nakuru County to access credit as indicated by the mean of 3.31 and standard deviation of 1.332 and also there was business expansion through short term loans shown by mean of 3.13 and Standard deviation of 1.405. The results indicated that there was an increased growth of MSMES through access to short term debt indicated a mean of 2.99 and standard deviation of 1.371. Furthermore, with ease access to short term loans, MSMEs were able to plan for immediate operations as indicated by a mean of 3.15 and std. deviation of 1.255. Obtaining fund also on credit improved sales (Mean of 3.09 and Std. deviation of 1.336). The duration of getting credit finance was found to be always short (Mean 3.11 and Std. deviation 1.342).

**Table 4. 6 Descriptive statistics For Debt Financing Sources**

| | | Mean | Std. Deviation | Variance | Skewness | Kurtosis |
|---|---|---|---|---|---|---|
| 1. | Cost of finance trade credit affects ability to access credit | 3.17 | 1.338 | 1.790 | -0.066 | -1.203 |
| 2. | Collateral affect ability to access credit financing | 3.14 | 1.360 | 1.849 | -0.085 | -1.254 |
| 3. | Short repayment period affect ability to access credit | 3.31 | 1.332 | 1.773 | -0.140 | -.786 |
| 4. | There is business expansion through short term loans | 3.13 | 1.405 | 1.973 | -0.184 | -1.331 |
| 5. | There is always increased growth through access to short term debt | 2.99 | 1.371 | 1.880 | .008 | -1.278 |
| 6. | With ease access to short term loans, I am able to plan for immediate operations | 3.15 | 1.255 | 1.574 | -.053 | -.845 |
| 7 | Obtaining fund on credit improves sales | 3.09 | 1.336 | 1.784 | -.078 | -1.181 |
| 8 | The duration of getting credit Finance is always short | 3.11 | 1.34 | 1.801 | -.105 | -1.210 |

### 4.8.3 Government supports Programs and Financial Performance

To assess the effects of government support programs on financial performance of micro, small and medium enterprises in Nakuru County, descriptive result were as follows, that tax holidays helped in business expansion mean 2.86 and Std deviation of 1.32. Again, tax compliance costs of the MSMEs reduced due to tax holidays (mean 3.12 and Std. deviation of 1.335). Inline to that, the interest rate of the fund was found to be lower than other source of finance with mean of 3.11 and Std. deviation of 1.366. The results also indicated that no collateral required in receiving government funds (mean of 2.89 and Std. deviation of 1.353). The results also were that no threat on failure to repay (mean of 3.06 and Std. deviation of 1.304). Additionally, government financing sources assisted in MSMEs operations (mean 3.06 and Std. deviation1.328). Again, the MSMEs received temporal exemptions for certain activities (mean of 2.9 0 and Std. deviation of 1.344). There was also fairness in funding MSMEs by government fund (mean of 2.94 and Std. deviation of 1.326) and finally Nakuru MSMEs relied on government financing programs as indicated by a mean of 3.08 and Std. deviation of 1.333.

**Table 4. 7 Descriptive Statistics for Government Financing Programs**

| | | Mean | Std. Deviation | Variance | Skewness | Kurtosis |
|---|---|---|---|---|---|---|
| 1. | Tax holidays help in business expansion | 2.86 | 1.362 | 1.855 | .255 | -1.184 |
| 2. | Tax compliance costs of the business have reduced due to tax holidays | 3.12 | 1.335 | 1.782 | -.070 | -1.195 |
| 3. | The interest rate of the fund is lower than other source of finance | 3.11 | 1.366 | 1.866 | -.048 | -1.256 |
| 4. | No collateral required in receiving government funds | 2.89 | 1.353 | 1.831 | .154 | -1.165 |
| 5. | No threat on failure to repay | 3.06 | 1.304 | 1.700 | .002 | -1.134 |
| 6. | The fund has assisted in business operations | 3.06 | 1.328 | 1.764 | .078 | -1.202 |
| 7. | The business receives temporal exemptions for certain activities | 2.90 | 1.344 | .805 | .150 | -1.170 |
| 8. | There is fairness in funding MSMEs by government fund | 2.94 | 1.326 | 1.760 | .075 | -1.141 |
| 9. | I rely on government financing programs | 3.08 | 1.333 | 1.777 | .011 | -1.159 |
| Valid N (listwise) | 376 | | | | | |

### 4.8.4 Firm Characteristics and Financial performance

To explore the moderating role of firm characteristics on financial performance of micro, small and medium enterprises, the below tables presented the descriptive statics results: The results were that consultation in decision making influenced Nakuru MSMEs financial performance as indicated by the mean of 3.13 and Std. deviation of 1.286 and the use of modern technology influenced MSMEs financial performance as shown by the mean of 3.36 and Standard deviation of1.331. Financial reporting style also affected MSMEs credit source as indicated by a mean of 3.33 and Standard deviation of 1.280. Additionally, the total output influenced MSMEs performance and financial assistance and indicated by a mean of 3.34 and Standard deviation of 1.317. Through the descriptive statistics, it was evidence that there was an initiative in new innovation of MSMEs as shown by a mean of 3.17 and Std. deviation of 1.348. Finally, the frequency of MSMEs owners' meetings affected their financial performance as indicated by a mean of 3.02 and standard deviation of .1.307.

**Table 4. 8 Descriptive Statistics for Firm Characteristics**

| | | Mean | Std. Deviation | Variance | Skewness | Kurtosis |
|---|---|---|---|---|---|---|
| 1 | Consultation in decision making, influences your firm Financial performance | 3.13 | 1.286 | 1.653 | .017 | -1.138 |
| 2 | Use of modern technology influences your firm financial performance | 3.36 | 1.331 | 1.771 | -.272 | -1.158 |
| 3 | Your financial reporting style affects your credit source | 3.33 | 1.280 | 1.639 | -.216 | -1.115 |
| 4 | Your total output influences your performance and financial assistance | 3.34 | 1.317 | 1.734 | -.344 | -1.079 |
| 5 | You have an initiative in new innovation of your firm | 3.17 | 1.348 | 1.816 | -.135 | -1.232 |
| 6. | Frequency of meetings affects your firm financial performance | 3.02 | 1.307 | 1.709 | 0.52 | -1.142 |

### 4.8.5 Financial Performance of MSMEs in Nakuru County

From the data analyses on financial performance the results indicated that business sales of Nakuru MSMEs have been increasing as indicated by a mean of 3.00 and standard deviation of 1.276. There was also more customer inflow (mean 3.2 and Std.

deviation1.334). Additionally, internal finances supported Nakuru MSMEs higher profits (Mean 3.25 and Std. deviation1.339) and external finance source increased profits (mean 3.28 and std. deviation 1.304).

The management style promoted the MSMEs financial performance 3.14 and 1.351 and the production capacity also promoted Nakuru MSMEs financial performance (Mean 3.05 and Std. deviation) 1.405. Operations of the business affected financial performance as indicated by mean 3.18 and standard deviation of 1.32. Furthermore, the data was normally distributed with skewness in the range of -1 to +1, and kurtosis was within the range of -3 to +3. (Manzano,

**Table 4. 9 Descriptive Statistics for MSMEs Financial Performance**

| | | Mean | Std. Deviation | Variance | Skewness | Kurtosis |
|---|---|---|---|---|---|---|
| 1 | The business sales have been increasing | 3.00 | 1.276 | 1.629 | .160 | -1.1 |
| 2 | There has been more customer inflow | 3.20 | 1.334 | 1.779 | -.210 | -1.1 |
| 3 | There is a need for internal finances to support your business for higher profits | 3.25 | 1.339 | 1.793 | -.203 | -1.2 |
| 4 | There is a need for external resources to support your business for high profits | 3.28 | 1.304 | 1.702 | -.157 | -1.1 |
| 5 | Your management style promotes The business | | | | | |

| | | | | | | |
|---|---|---|---|---|---|---|
| | financial performance | | | | | |
| 6. | Your production capacity promote the business financial performance | 3.05 | 1.405 | 1.973 | -.015 | -1.3 |
| 7. | Operations of the business affects financial performance | 3.18 | 1.321 | 1.745 | -.166 | -1.1 |

**4.9 Data Reliability Test**

The Cronbach's Alpha reliability analysis showed that equity financing sources value =.614, debt financing sources values=.632, government financing sources values=.606, firm characteristics value=.710, and financial performance value=.674 with the 5 items having a reliability statistic of .698 which is .7. This signified that there was a strong internal consistent and items of measurements were reliable (Sylvester and Ligeiaziba, 2024).

**Table 4. 10 Data Reliability test Statistics**

| | Scale Mean if Item Deleted | Scale Variance if Item Deleted | Corrected Item-Total Correlation | Cronbach's Alpha if Item Deleted |
|---|---|---|---|---|
| Equity Financing | 12.583 | 2.781 | .531 | .614 |
| Debt Financing | 12.6560 | 3.010 | .496 | .632 |
| Government Financing | 12.6076 | 2.875 | .557 | .606 |
| Firm Characteristics | 12.7444 | 3.208 | .314 | .710 |
| Financial Performance | 12.7197 | 3.190 | .391 | .674 |

| Cronbach's Alpha | N of Items |
|---|---|
| .698 | 5 |

### 4.10 Factor Analysis

It is particularly suitable to extract few factors from the large number of related variables to a more manageable numbers prior to using them in other analysis such as multiple regression or multivariate analysis of variance  Noora, (2021). Kaiser Meyer Olkin Measure of sample adequacy and Bartlett's test of Sphericity are used to assess the factorability of the data extracted and to determine the number of factors to be extracted Kaiser's criterion and scree test are examined, Varimax orthogonal factor rotation method is applied to minimize the number of variables that have high loadings on each factor (Noora et al. 2021).

#### 4.10.1 Factor Analysis for Equity Financing Sources

If KMO value which ranges between 1 and 0 is 0.6 and above, it indicates a sufficient value for factor analysis (Lufti, 2024). A significant of 0.06 and above and a Bartlett's test of Sphericity being P <.05 indicates that the data are suitable for factor analysis (Luft et. Al 2024). The Bartlett's test of Sphericity of the research items of 307.423, ($P<0.001$) confirmed that data on equity financing sources was suitable for further analysis

**Table 4. 11 Factor Analysis for Equity Financing Sources**

| | | |
|---|---|---|
| Kaiser-Meyer-Olkin Measure of Sampling Adequacy. .685 | | 0 |
| Bartlett's Test of Sphericity 307.423 | Approx. Chi-Square | |
| | Df | 78 |
| | Sig. | 0.000 |

| | Components | Initial Eigen's Values Total | % of variance | Cumulative % | Extraction Sums of Squared loading Total | % of variance | Cumulative % |
|---|---|---|---|---|---|---|---|
| 1 | The business emphasizes on getting funds from retained earnings | 2.288 | 17.602 | 17.602 | 2.288 | 17.602 | 17.602 |
| 2. | The business is frequently financed by retained earnings | 1.263 | 9.717 | 27.319 | 1.263 | 9.717 | 27.319 |
| 3. | Retained earnings helps in reducing cost of borrowing | 1.14 | 8.783 | 36.10 | 1.145 | 8.783 | 36.103 |
| 4. | Management Considers retained earnings as best source of finance | 1.10 | 8.516 | 44.619 | 1.107 | 8.516 | 44.619 |
| 5. | The business is very dynamic and considers donations from different sources | .987 | 7.591 | 52.209 | | | |
| 6. | The business is committed in ensuring that donations are | .979 | 7.528 | 59.737 | | | |

| | | | | |
|---|---|---|---|---|
| | efficiently and effectively used | | | |
| 7. | The size of Investment considers donations as the good form of finance | .857 | 6.592 | 66.329 |
| 8. | The business define success on the basis of having the most unique or newest donation | .843 | 6.487 | 72.816 |
| 9. | The business considers ploughed back profit as major source of finance | .826 | 6.352 | 79.169 |
| 10 | Most frequent the business plough back | .763 | 5.872 | 85.041 |
| 11 | The business considers investing through the ploughed back profit | .699 | 5.379 | 90.420 |
| 12 | The profit is always available for the use by the business | .64 | 4.936 | 95.357 |
| 13 | Advance from customers enhances business expansion | .604 | 4.643 | 100.000 |

The principle component analysis of all the 13 variables yielded four factors based on Kaiser's criterion of retaining the Eigen values greater than 1 and the first factor

accounted for 17.602 %, the second accounted for 27.319%, the third 36.103% and the fourth accounted 44.619% and all factors were retained for further analysis.

### 4.10.2 Factor analysis for Debt Financing Sources

KMO value which ranges between 1 and 0 is 0.6 and above, indicates a sufficient value for factor analysis (Lufti, 2024) and a significant of 0.06 and above and a Bartlett's test of Sphericity being P <.05 indicates that the data are suitable for factor analysis (Luft et. Al 2024). The Bartlett's test of Sphericity of the research items of 155.430, (P<0.001) confirms that data on debt financing sources was suitable for further analysis (Ganyaupfu, 2013).

**Table 4. 12Factor Analysis for Debt Financing Sources**

| | | |
|---|---|---|
| Kaiser-Meyer-Olkin Measure of Sampling Adequacy. | | .655 |
| Bartlett's Test of Sphericity | Approx. Chi-Square | 155.430 |
| | df | 28 |
| | Sig. | .000 |

| | Components | Initial Eigens Values Total | % of variance | Cumulative % | Extraction Sums of Squared loading Total | % of variance | Cumulative % |
|---|---|---|---|---|---|---|---|
| 1 | Cost of finance trade credit affects ability to access credit | .875 | 23.411 | 23.441 | 1.875 | 23.44 | 23.411 |
| 2. | Collateral affect ability to access credit financing | 1.123 | 14.036 | 37.477 | 1.123 | 14.036 | 37.477 |
| 3. | Short repayment period affect ability to access credit | 1.014 | 12.672 | 50.149 | 1.014 | 12.672 | 50.149 |
| 4. | There is | .946 | 11.821 | 61.971 | | | |

| | | | | |
|---|---|---|---|---|
| | business expansion through short term loans | | | |
| 5. | There is always increased growth through access to short term debt | .852 | 10.648 | 72.619 |
| 6. | With ease access to short term loans, I am able to plan for immediate | .832 | 10.396 | 83.015 |
| 7. | Obtaining fund on credit improves sales | .718 | 8.973 | 91.988 |
| 8. | The duration of getting credit finance is always short | .641 | 8.012 | 100.000 |

The principle component analysis of all the 9 variables yielded three factors based on Kaiser's criterion of retaining the Eigen values greater than 1 and the first factor accounted for 23.441 %, the second accounted for 37.477%, the third 36.103% and the fourth accounted 50.149% and all the factors were retained for further analysis.

### 4.10.3 Factor analysis for Government Financing Programs

KMO value which ranges between 1 and 0 is 0.6 and above, this indicates a sufficient value for factor analysis (Lufti, 2024) and a significant of 0.06 and above and a Bartlett's test of Sphericity being P <.05 indicates that the data are suitable for factor analysis(Luft et. Al 2024). The Bartlett's test of Sphericity of the research items of 147.824, (P<0.001) confirms that data on government financing programs was suitable for further analysis (Ganyaupfu, 2013).

**Table 4. 13: Factor Analysis for Government Financing Programs**

| | | |
|---|---|---|
| Kaiser-Meyer-Olkin Measure of Sampling Adequacy. | | .691 |
| Bartlett's Test of Sphericity | Approx. Chi-Square | 147.824 |
| | df | 36 |
| | Sig. | .000 |

**Total Variance Explained**

| | Components | Initial Eigens Values Total | % of variance | Cumulative % | Extraction Sums of Squared loading Total | % of variance | Cumulative % |
|---|---|---|---|---|---|---|---|
| 1 | Tax holidays help in business expansion | 1.920 | 21.331 | 21.331 | 1.920 | 21.331 | 21.331 |
| 2. | Tax compliance costs of the business have reduced due to tax holidays | 1.041 | 11.564 | 32.895 | 1.041 | 11.564 | 32.895 |
| 3. | The interest rate of the fund is lower than other source of finance | .990 | 11.003 | 43.898 | | | |
| 4. | No collateral required in receiving government funds | .977 | 10.680 | 54.758 | | | |
| 5. | No threat on failure to repay | .936 | 10.395 | 65.153 | | | |
| 6. | The fund has assisted in business operations | .900 | 10.004 | 75.157 | | | |
| 7. | The business receives temporal exemptions for certain activities | .791 | 8.788 | 83.945 | | | |
| 8. | There is | .751 | 8.342 | 92.287 | | | |

| | | | | |
|---|---|---|---|---|
| | fairness in funding MSMEs by government fund | | | |
| 9. | I rely on government financing programs | .694 | 7.713 | 100.000 |

The principle component analysis of all the 9 variables yielded two factors based on Kaiser's criterion of retaining the Eigen values greater than 1 and the first factor accounted for 21.331 %, the second accounted for 32.895%. All factors were retained for Further

### 4.10.4 Factor Analysis for Firm characteristics

If KMO value which ranges between 1 and 0 is 0.6 and above, this indicates a sufficient value for factor analysis (Lufti, 2024) and a significant of 0.06 and above and a Bartlett's test of Sphericity being P <.05 indicates that the data are suitable for factor analysis (Luft et. Al 2024). The Bartlett's test of Sphericity of the research items of 94.353, (P<0.001) confirmed that the data on firm characteristics was suitable for further analysis (Ganyaupfu, 2013).

**Table 4. 14 Factor Analysis for Firm Characteristics**

| | |
|---|---|
| Kaiser-Meyer-Olkin Measure of Sampling Adequacy. | .666 |
| Bartlett's Test of Sphericity | |
| Approx. Chi-Square | 94.353 |
| df | 15 |
| Sig. | .000 |

**Total Variance Explained**

| | Components | Initial Eigen's Values Total | % of variance | Cumulative % | Extraction Sums of Squared loading Total | % of variance | Cumulative % |
|---|---|---|---|---|---|---|---|
| 1 | Consultation in decision making influences your firm financial performance | 1.699 | 28.322 | 28.322 | 1.699 | 28.322 | 28.322 |
| 2. | Use of modern technology influence your firm financial performance | 1.007 | 16.789 | 45.111 | 1.007 | 16.789 | 45.111 |
| 3. | Your reporting style affects your credit source | .900 | 14.992 | 60.103 | | | |
| 4. | Your total output influences your performance and financial | .851 | 14.181 | 74.284 | | | |
| 5. | You have an initiative in new innovation of your firm | .825 | 13.74 | 88.030 | | | |
| 6. | Frequency of meetings affects your firm financial | .718 | 11.970 | 100.000 | | | |

performance

The principle component analysis of all the 6 variables yielded two factors based on Kaiser's criterion of retaining the Eigen values greater than 1 and the first factor accounted for 28.322 %, the second accounted for 45.111%. All factors were retained for further analysis.

### 4.10.5 Factor Analysis for the Financial Performance

If KMO value which ranges between 1 and 0 is 0.6 and above, it indicates a sufficient value for factor analysis (Lufti, 2024), a significant of 0.06 and above and a Bartlett's test of Sphericity being P <.05 indicates that the data are suitable for factor analysis (Luft et. Al 2024). The Bartlett's test of Sphericity of the research items of 178.197, (P<0.001) confirmed that the data on equity financing sources was suitable for further analysis (Ganyaupfu, 2013).

**Table 4. 15: Factor Analysis for MSMEs Financial Performance**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Kaiser-Meyer-Olkin Measure of Sampling Adequacy. | | | | | .727 | | |
| Bartlett's Test of Sphericity | Approx. Chi-Square | | | | 178.197 | | |
| | df | | | | 21 | | |
| | Sig. | | | | .000 | | |

**Total Variance Explained**

| | Components | Initial Eigen's Values Total | % of variance | Cumulative % | Extraction Sums of Squared loading Total | % of variance | Cumulative % |
|---|---|---|---|---|---|---|---|
| 1 | The business sales have been increasing | 2.022 | 28.891 | 28.891 | | | |
| 2. | There has been more customer inflow | .978 | 13.976 | 42.867 | | | |
| 3. | There is a need for internal finances to support your business for higher profits | .932 | 13.316 | 56.183 | | | |
| 4. | There is a need for external resources to support your business for high profits. | .903 | 12.904 | 69.087 | | | |
| 5. | Your management style promotes the business financial | .799 | 11.416 | 80.503 | | | |

| | | | | |
|---|---|---|---|---|
| | performance | | | |
| 6. | Your production capacity promotes the business financial | .704 | 10.064 | 90.567 |
| 7. | Operations of the business affects financial performance | .660 | 9.433 | 100.000 |

The principle component analysis of all the 7 variables yielded 1 factor based on Kaiser's criterion of retaining the Eigen values greater than 1 and the first factor accounted for 28.891 %. All factors were retained for further analysis

**4.11 Transformation of Data**

In order to analyse the data and to perform regression analysis the data was transformed as follows. Equity financing sources had four items of measurement which were retained earnings, dividends, crowd funding and advance from customers which was the dependent variables was transformed as; (EFS1 +EFS2 +EFS3 +EFS4 +EFS5 +EFS6 +EFS7 +EFS8 +EFS9 +EFS10 +EFS11 +EFS12 +EFS13/5), debt financing sources had four indicators which were overdrafts lease finance, short term loan and trade credits it was transformed as (DFS 1 +DFS2 +DFS3 +DFS4 +DFS5 +DFS6 +DFS7 +DF8/5) and government financing programs with two measurable items which were incentives and subsidies it was transformed as (GFP1 +GFP2 +GFP3 +GFP4 +GFP5 +GFP6 +GFP7 +GFP8 +GFP9 +GFP10/5), firm characteristics which was the moderator had three indicators which were production capacity, managerial factors and operations factors and

it was transformed as (FC1 +FC2 +FC3 +FC4 +FC5 +FC5 +FC7/5) and financial performance which was the independent variables had four indicators which were profitability, growth liquidity , return on equity was transformed as (FP1 +FP2 +FP3 +FP4 +FP5 +FP6 +FP7/5).

**Table 4. 16 Descriptive Statistics after Factor Analysis**

| | N | Minimum | Maximum | Mean | St. Deviation |
|---|---|---|---|---|---|
| Equity Financing sources | 376 | 2.08 | 10.92 | 3.2445 | .65764 |
| Debt Financing Sources | 376 | 1.50 | 4.88 | 3.1742 | .59159 |
| Government Financing Programs | 376 | 1.67 | 4.78 | 3.2201 | .60297 |
| Firm Characteristics | 376 | 1.50 | 5.00 | 3.0832 | .65680 |
| MSMEs Financial Performance | 376 | 1.71 | 4.86 | 3.1079 | .59595 |

### 4.12 Test of Regression Assumptions

Statistical assumptions are determined by mathematical implications for each statistics and they set the guideposts within which we might expect our sample estimates to be biased or our significance test to be accurate of which there are two basic approaches to exploring whether assumptions violations may be a serious concern in which one is by inspecting numeric indexes and the other is by inspecting graphs of the data (Newsom, 2024).

### 4.12.1 Normality Test

Regression assumes that variables have normal distributions and non-normally distributed variables can distort relationship and significant tests (Jason & Elaine, 2019). Jason et al., (2019), stated that normality can be tested through visual inspection of data plots, skewness, kurtosis and Q-Q plots and outlier can be identified either through visual inspection of histograms or frequency distributions. The above approach was adopted by the researcher to test the normality.

Several tests can be used for testing data normality. The Shapiro Wilk test is considered the most powerful one in most situations which tests whether the outcome, at random sample from the entire population, came from a normally distributed population (Shengpin, 2021).The other test is the Kolmogorov-Smirnoff test in which if the P value from the test is less than a pre-specified significance level then the null hypothesis is rejected (Shengpin et al, 2021).

**Table 4. 17 Test of Normality Statistics**

| | Kolmogorov-Smirnova | | | Shapiro-Wilk | | |
|---|---|---|---|---|---|---|
| | Statistic | df | Sig. | Statistic | df | Sig. |
| Equity Financing sources | .101 | 376 | .000 | .770 | 376 | .000 |
| Debt Financing sources | .063 | 376 | .001 | .993 | 376 | .102 |
| Government Financing sources | .061 | 376 | .002 | .993 | 376 | .071 |
| Firm Characteristics | .079 | 376 | .000 | .989 | 376 | .005 |
| Financial Performance | .061 | 376 | .002 | .990 | 376 | .012 |

a. Lilliefors Significance Correction

From the table it is known that Sig (2-tailed) significance value of .000, .001, .002, .000, .002 is greater than 0.050 and thus, following the basis for decision-making in the

Kolmogorov-Smirnov normality test, it can be concluded that the data on equity financing sources, debt financing sources, government financing sources, firm characteristics and financial performance was normally distributed (Meli, 2024). Based on these results, it is known that the significance value (Sig.) of the Shapiro-Wilk test for the pretest and posttest values were .000, .102, .071, .005 and .012 respectively and from the output results with a pretest significance value of .000, 102, .071, .005 and .012 > 0.050 it was concluded that the data were normally distributed (Meli et. Al. 2024)

### 4.12.2 Test of Multicollinearity

Occur when the multiple linear regression analysis includes several variables that are significantly correlated not only with the dependent variable but also to each other (Noora, 2020). Variance Inflation Factor (VIF) is used to measure how much the variance of the estimated regression coefficient is inflated if the independent variables are correlated (Noora et al.2020) The lower the tolerance the more likely is the multicollinearity Variance Inflation Factor (VIF) Interpretation states that when VIF = 1 No multicollinearity between the independent variables, VIF > 1 and < 5 Moderate multicollinearity, VIF > = 5 High multicollinearity among the independent variables, VIF > = 10 Very high multicollinearity (Robin, 2025). Using the VIF and tolerance levels to assess multicollinearity in the table below, the results showed that VIF were less than 10, which signified no multicollinearity.

**Table 4. 18 Test of Collinearity Statistics**

| Collinearity Statistic | Tolerance | VIF |
|---|---|---|
| Equity Financing | .626 | 1.598 |
| Debt Financing | .631 | 1.584 |
| Government Financing | .758 | 1.319 |

### 4.12.3 Test of linearity

Multiple regressions can only accurately estimate the relationship between dependent and independent variables if the relationship is linear in nature and if the relationship between independent variable and dependent variable is not linear, the results will under-estimate the true relationship (Jason & Elaine, 2019). There should be a linear relationship between the dependent and independent variable and the scatterplots are used to check whether a linear relationship exits (Robin, 2025). From the ANOVA statistical data, it was established that there was a linear relationship between equity financing sources and MSMEs financial Performance P value < 0.05, F= (2.127>0.05), debt financing sources and MSMEs financial performance P value <0.05, F = (1.68>0.05), government financing programs and MSMEs financial performance P value = <0.05, F=(3.017>0.05) and firm Characteristics and MSMEs financial performance P value <0.05, F=(4.94>0.05) .

**Table 4. 19 Test of Linearity Results**

| | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|
| Equity Financing Sources | 34.531 | 53 | .652 | 2.127 | .000 |
| Within Groups | 98.653 | 322 | .306 | | |
| Total | 133.184 | 375 | | | |

| | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|
| Debt Financing Sources | 15.958 | 28 | .570 | 1.68 | .000 |
| Within Groups | 117.226 | 347 | .338 | | |
| Total | 133.184 | 375 | | | |

| | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|
| GFP | 26.879 | 29 | .927 | 3.017 | .000 |

| | | | | | |
|---|---|---|---|---|---|
| Within Groups | 106.304 | 346 | .307 | | |
| Total | 133.184 | 375 | | | |

| | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|
| FC | 26.430 | 20 | 1.321 | 4.394 | .000 |
| Within Groups | 106.754 | 355 | .301 | | |
| Total | 133.184 | 375 | | | |

### 4.12.4 Homoscedasticity Test

Homoscedastic means that the variance of errors is the same across all levels of independent variable and the variance of errors differ at different values of independent variables, (Jason & Elaine, 2019). Homoscedasticity Assumption actually plays a more critical role than normality on validity analysis of variance because the F-test, testing for overall difference in group means across all the groups is more sensitive to heteroscedasticity, (Kun, Tu & Tian, 2019). Homoscedasticity is tested by graphs through a scatterplot of the residuals versus predicted values which should be the same for all predicted values, (Candace & Ronald, 2019). Plotting the residuals against the explanatory variables is a useful method for visually checking whether or not the residuals are homoscedastic (Mark et al. 2020). The table below shows the test of homoscedasticity through Levene's statistics where P>0.05 hence no homoscedasticity was violated.

**Table 4. 20 Homoscedasticity Statistical Results**

| | Levene's Statistics | Sig | df |
|---|---|---|---|
| Equity financing sources | 3.263 | .072 | 374 |
| Debt financing Sources | 0.100 | .752 | 374 |
| Government financing programs | 1 | .313 | 374 |
| Firm Characteristics | .007 | .933 | 374 |

### 4.13 Regression Results

Regression analysis is a statistical technique used to analyse the relationship between a dependent variable (target) and one or more independent variables ( predictors) and it is an estimation of unknown values or prediction of one variable from known values of other variables (Nand K, 2025). Linear regression is a statistical test that was applied is this study to test data set to define the and quantify the relation between equity financing sources, debt financing sources, government financing programs , firm characteristics and MSMEs financial performance through regression models (Khushbu, 2018). In model ($M_{ii}$), equity financing sources, debt financing sources and government financing programs were added to the first model. The equity financing sources, debt financing sources and government financing programs variables explained the direct effects on MSMEs financial performance while control variables remained constant.

#### 4.13.1 Relationship between equity financing sources and MSMEs financial performance

The first objective of the study was to determine the direct effects of equity financing on financial performance of micro, small and medium enterprises in Nakuru County. The hypothesis was ***$H0_1$:*** *Equity financing has no statistical significance effects on financial performance of micro, small and medium enterprises in Nakuru County, Kenya.*

R-squared indicates the proportion of variances in the response variable explained by the predictor which represents the portion of variances in the response variable explained by the predictor variable which ranges from 0 to 1 (Robin 2025). To indicate the proportion

of variance in the response of MSMEs financial performance, $R^2$ =.152, and to account for equity financing which is the predictor adjusted $R^2$=.141 (Robin et al. 2025).

The Model summary indicated that equity financing sources explained 15.2% of the disparity in the MSMEs financial performance as indicated by the ($R^2$) of .152 and the correlation coefficient of (R) .390 showed a weak connection among the independent and dependent variables.

The results in the table 4.20 showed that the equation was significant and a good predictor of equity financing sources on dependent variable MSMEs financial performance, P Value <0.05 (p value=0.000). The ANOVA methods statistics F statistic =13.294, P value .000 < 0.05 (p value=.000). The coefficients results indicated that the relation between equity financing sources and MSMEs financial performance was positive and significant P Value .0000 <0.05 (p value =.008), β=.147). From the findings, equity financing sources had a direct statistical significance effects on financial performance of micro, small and medium enterprises in Nakuru County, Kenya, hence $H0_1$ rejected.

### 4.13.2 Relationship between debt financing sources and MSMEs financial performance

The second objective of this research study was to examine the effects of debt financing on financial performance of micro, small and medium enterprises in Nakuru County. The hypothesis was

***$H0_2$:*** Debt financing has no statistical significance influence on financial performance of micro, small and medium enterprises in Nakuru County, Kenya.

The results in the table 4.20 below showed that the equation was significant and a good predictor of debt financing sources on dependent variable MSMEs financial performance, P Value <0.05 (p value=0.000). The ANOVA methods statistics F statistic =13.294, P value .000 < 0.05 (p value=.000). The coefficients results indicated that the relation between debt financing sources and MSMEs financial performance was negative and not significant P Value .0000 >0.05 (p value =.521), β=-.039). From the findings, debt financing sources had no direct statistical significance effects on financial performance of micro, small and medium enterprises in Nakuru County, Kenya, hence $H0_2$ accepted.

### 4.13.3 Relationship between government financing programs and MSMEs financial performance

The third objective was to assess the effects of government support programs on financial performance of micro, small and medium enterprises in Nakuru County. The hypothesis was **$H0_3$**: Government support programs have no statistical significance effects on financial performance of micro, small and medium enterprises in Nakuru County, Kenya.

The results in the table 4.20 below showed that the equation was significant and a good predictor of government financing programs on dependent variable MSMEs financial performance, P Value <0.05 (p value=0.000). The ANOVA methods statistics F statistic =13.294, P value .000 < 0.05 (p value=.000). The coefficients results indicated that the relation between government financing programs and MSMEs financial performance was positive and significant P Value .000 <0.05 (p value =.000), β=.300). From the findings, government financing programs had direct statistical significance effects on financial performance of micro, small and medium enterprises in Nakuru County, Kenya, hence $H0_3$ rejected.

**Table 4. 21 Regression Results for Direct Effects**

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate |
|---|---|---|---|---|
| 2 | .390[a] | .152 | .141 | .552 |

a. Predictors: (Constant), internal auditing(IA), experience(EX), equity financing sources (EFS), debt financing sources (DFS), government financing programs (GFP

**ANOVA[a]**

| Model | | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|---|
| 2 | Regression | 20.283 | 5 | 4.057 | 13.294 | .000[b] |
| | Residual | 112.901 | 370 | .305 | | |
| | Total | 133.184 | 375 | | | |

a. Dependent Variable: FP

b. Predictors: (Constant), internal auditing(IA), experience(EX), equity financing sources (EFS), debt financing sources (DFS), government financing programs (GFP).

**Coefficients[a]**

| Model | | B | Unstandardized Coefficients Std. Error | Standardized Coefficients Beta | t | Sig. |
|---|---|---|---|---|---|---|
| 2 | | 1.905 | .209 | | 9.100 | .000 |
| | (Constant | -.086 | .057 | -.072 | -1.507 | .133 |
| ) | | .004 | .021 | .008 | .170 | .865 |
| | AU | .147 | .055 | .162 | 2.678 | .008 |
| | EXP | -.039 | .061 | -.039 | -.642 | .521 |
| | EF | .300 | .054 | .304 | 5.524 | .000 |
| | DF | | | | | |
| | GF | | | | | |

a. Dependent Variable: MSMES financial Performance

| | **Model** | **2** |
|---|---|---|
| | **β** | **P value** |
| Constant | 1.905 | .000 |
| IA | -.086 | .133 |
| EX | .004 | .865 |
| EFS | .147 | .008 |
| DFS | -.039 | .521 |
| GFP | .300 | .000 |
| $R^2$ | .152 | |
| $\Delta R^2$ | .141 | |
| F | 13.294 | |

### 4.13.4 Relationship between Firm Characteristics and MSMEs Financial Performance

The fourth objective was to explore the moderating role of firm characteristics on financial performance of micro, small and medium enterprises in Nakuru County. The hypothesis was:

H04: Firm characteristics have no statistical significance role on financial performance of micro, small and medium enterprises in Nakuru County, Kenya.

M iii tested the effects brought about by the moderator; firm characteristics. The results in the table 4.21 below showed that the equation was significant and a good predictor of firm characteristics on dependent variable; MSMEs financial performance, P Value (0.000 <0.05 (p value =.000) and F statistics 14.335. The coefficients results indicated that the relation between firm characteristics and MSMEs financial performance was positive and significant (P Value .0000 <0.05 (p value=.000), β= .182). Firm characteristics had a positive and astatistical significance effects on financial performance of MSMEs in Nakuru County, Kenya, hence $H0_4$ rejected.

**Table 4. 22 Regression Results for Direct Effects of Firm Characteristics on the MSMEs Financial Performance**

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate |
|---|---|---|---|---|
| 3 | .435[a] | .189 | .176 | .541 |

**ANOVA[a]**

| Model | | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|---|
| 3 | Regression | 25.176 | 6 | 4.196 | 14.335 | .000b |
| | Residual | 108.008 | 369 | .293 | | |
| | Total | 133.184 | 375 | | | |

a. Dependent Variable: FP

b. Predictors: (Constant), internal auditing(IA), experience(EX), equity financing sources (EFS), debt financing sources (DFS), government financing programs (GFP), firm characteristics (FC).

**Coefficients[a]**

| Model | | B | Unstandardized Coefficients Std. Error | Standardized Coefficients Beta | t | Sig. |
|---|---|---|---|---|---|---|
| 3 | | 1.527 | .225 | | 6.789 | .000 |
| | (Constant | -.080 | .056 | -.067 | -1.435 | .152 |
| ) | | .011 | .021 | .025 | .530 | .597 |
| | IA | .139 | .054 | .154 | 2.590 | .010 |
| | EX | -.048 | .060 | -.048 | -.805 | .422 |
| | EFS | .251 | .055 | .254 | 4.604 | .000 |
| | DFS | .182 | .045 | .201 | 4.089 | .000 |
| | GFP | | | | | |
| | FC | | | | | |

a. Dependent Variable: MSMEs Financial Performance

| | **Model** | **3** |
|---|---|---|
| | **β** | **P value** |
| Constant | 1.527 | .000 |
| IA | -.080 | .152 |
| EX | .011 | .597 |
| EFS | .139 | .010 |
| DFS | -.048 | .422 |
| GFP | .251 | .000 |
| FC | .182 | .000 |
| $R^2$ | .189 | |
| $\Delta R^2$ | .176 | |
| F | 14.335 | |

**4.14 Test of the Moderation.**

The fifth objective was to explore the moderating effects of firm characteristics on financial performance of micro, small and medium enterprises in Nakuru County, the moderating role of firm characteristics on equity financing and financial performance of MSMES in Nakuru County. the moderating role of firm characteristics on debt financing and financial performance of micro, small and medium enterprises in Nakuru County and the moderating role of firm characteristics on government support programs and financial performance of micro, small and medium enterprises in Nakuru County. The hypotheses were:

**H05a**: Firm characteristics have no moderating role on the relationship between equity financing and financial performance of MSMEs in Nakuru County.

**H05b** Firm characteristics have no moderating role on the relationship between debt financing and financial performance of MSMEs in Nakuru County.

**H05c** Firm characteristics have no moderating role on the relationship between government support programs and financial performance of MSMEs in Nakuru County.

In model ($M_{iv}$), the role of equity financing on the firm characteristics was tested while control variables, as well as debt financing and government-financing programs held constant.

The following in table 4.23 were the test values of firm characteristics moderating equity financing sources and MSMEs financial performance (R =.466, R2=.218), The ANOVA Value F test=14.383, P=.000 <0.05 (p value=.000). The coefficients statistics were T test =3.628, β=.251 and P value <.05 (P values <.000). Firm characteristics had a positive and

moderating significance effects on the relationship between equity financing sources and financial performance of MSMEs in Nakuru County, hence rejected.

**Table 4. 23 Regression Results for the Moderating Effects of Firm Characteristics on the Relationship between Equity Financing Sources and MSMEs Financial Performance**

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate |
|---|---|---|---|---|
| 4 | .466[a] | .218 | .202 | .535 |

[a.] Predictors: (Constant), internal auditing(IA), experience(EX), equity financing sources (EFS), debt financing sources (DFS), government financing programs (GFP), firm characteristics (FC), firm characteristics interacting equity financing sources(FCIEFS).

**ANOVA[a]**

| Model | | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|---|
| 4 | Regression | 28.856 | 7 | 4.122 | 14.383 | .000[b] |
| | Residual | 103.750 | 362 | .287 | | |
| | Total | 132.606 | 369 | | | |

a. Dependent Variable: FP

b. Predictors: (Constant), internal auditing(IA), experience(EX), equity financing sources (EFS), debt financing sources (DFS), government financing programs (GFP), firm characteristics (FC), firm characteristics interacting equity financing sources(FCIEFS).

**Coefficients[a]**

| Model | | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. |
|---|---|---|---|---|---|---|
| | | B | Std. Error | Beta | | |
| 4 | | 1.669 | .227 | | 7.352 | .000 |
| | (Constant | -.066 | .056 | -.055 | -1.182 | .238 |
| ) | | .019 | .021 | .043 | .916 | .360 |
| | IA | .078 | .056 | .087 | 1.394 | .164 |
| | EX | -.021 | .060 | -.021 | -.354 | .723 |
| | EFS | .236 | .055 | .238 | 4.323 | .000 |
| | DFS | .170 | .044 | .187 | 3.825 | .000 |

| | | | | | |
|---|---|---|---|---|---|
| GFP<br>FC<br>FCIEFS | .251 | .069 | .183 | 3.628 | .000 |

a. Dependent Variable: MSMEs financial performance

| | **Model** | **4** |
|---|---|---|
| | **β** | **P value** |
| Constant | 1.669 | .000 |
| IA | -.066 | .238 |
| EX | .019 | .360 |
| EFS | .078 | .164 |
| DFS | -.021 | .723 |
| GFP | .236 | .000 |
| FC | .170 | .000 |
| FCIEFS | .251 | .000 |
| $R^2$ | .218 | |
| $\Delta R^2$ | .202 | |
| F | 14.383 | |

In model ($M_v$) the role of debt financing on the moderator was tested while control variables, as well as equity financing and government-financing programs were held constant.

In table 4.24, the results shows that firm characteristics had a negative and no moderating significance effects on the relationship between debt financing sources and financial performance of MSMEs in Nakuru County significance The following were the test values of firm characteristics moderating debt financing sources and MSMEs financial performance (R =.473, R2=.224), The ANOVA Value F test=12.842, P=.000 <0.05 (p value=.000). The coefficients statistics were T test =-.479, β=-.048 and P value >.05 (P values =.632). Firm characteristics had a negative effects and no moderating significance effects on the relationship between debt financing sources and MSMEs financial performance hence H05 (b) was accepted.

**Table 4. 24 Regression Results on the Moderating Effects of Firm Characteristics on the relationship between Debt Financing sources and MSMEs Financial Performance.**

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate |
|---|---|---|---|---|
| 5 | .473[a] | .224 | .207 | .535 |

a. Predictors: (Constant), internal auditing(IA), experience(EX), equity financing sources (EFS), debt financing sources (DFS), government financing programs (GFP), firm characteristics (FC), firm characteristics interacting equity financing sources(FCIEFS), firm characteristics interacting debt financing sources (FCIDFS).

**ANOVA[a]**

| Model | | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|---|
| 5 | Regression | 29.422 | 8 | 3.678 | 12.842 | .000b |
| | Residual | 101.952 | 356 | .286 | | |
| | Total | 131.374 | 364 | | | |

a. Dependent Variable: FP

b. Predictors: (Constant), internal auditing(IA), experience(EX), equity financing sources (EFS), debt financing sources (DFS), government financing programs (GFP), firm characteristics (FC), firm characteristics interacting equity financing sources(FCIEFS), firm characteristics interacting debt financing sources (FCIDFS).

**Coefficients[a]**

| Model | | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. |
|---|---|---|---|---|---|---|
| | | B | Std. Error | Beta | | |
| 5 | (Constant) | 1.682 | .229 | | 7.344 | .000 |
| | | -.074 | .056 | -.061 | -1.304 | .193 |
| | | .018 | .021 | .040 | .855 | .393 |
| | IA | .071 | .059 | .079 | 1.203 | .230 |
| | EX | -.021 | .060 | -.021 | -.354 | .724 |
| | EFS | .246 | .055 | .248 | 4.476 | .000 |
| | DFS | .168 | .044 | .186 | 3.776 | .000 |

| | | | | | |
|---|---|---|---|---|---|
| GFP | .289 | .108 | .212 | 2.683 | .008 |
| FC | -.048 | .100 | -.035 | -.479 | .632 |
| FCIEFS | | | | | |
| FCIDFS | | | | | |

a. Dependent Variable: MSEs financial performance

| | **β** | **P value** |
|---|---|---|
| Constant | 1.682 | .000 |
| IA | -.074 | .193 |
| EX | .018 | .393 |
| EFS | .071 | .230 |
| DFS | .021 | .724 |
| GFP | .246 | .000 |
| FC | .168 | .000 |
| FCIEFS | .289 | .008 |
| FCIDFS | -.048 | .632 |
| $R^2$ | .224 | |
| $\Delta R^2$ | .207 | |
| F | 12.842 | |

In model ($M_{Vi}$) the moderating effects of firm characteristics on government financing programs and MSMEs financial performance was tested while control variables, as well as equity financing sources and debt financing sources were held constant.

The following table 4.24, showed the test values of firm characteristics moderating government financing programs and MSMEs financial performance (R =.482, R2=.233), The ANOVA Value F test=11.155, P=.000 <0.05 (p value=.000). The coefficients statistics were T test =-.078, β=-.006 and P value >.05 (P values =.938). Firm characteristics had a negative effects and no moderating significance effects on the relationship between government financing programs and MSMEs financial performance hence H05 (c) was accepted.

**Table 4. 25 Regression Results on the Moderating effects of firm Characteristics on Government financing programs and MSMEs Financial Performance**

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate |
|---|---|---|---|---|
| 6 | .482[a] | .233 | .212 | .539 |

a. Predictors: (Constant), internal auditing(IA), experience(EX), equity financing sources (EFS), debt financing sources (DFS), government financing programs (GFP), firm characteristics (FC), firm characteristics interacting equity financing sources(FCIEFS), firm characteristics interacting debt financing sources (FCIDFS) , firm characteristics interacting government financing programs (FCIGFP).

ANOVA[a]

| Model | | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|---|
| 6 | Regression | 29.183 | 9 | 3.243 | 11.155 | .000b |
| | Residual | 96.217 | 331 | .291 | | |
| | Total | 125.400 | 340 | | | |

a. Dependent Variable: FP

b. Predictors: (Constant), internal auditing(IA), experience(EX), equity financing sources (EFS), debt financing sources (DFS), government financing programs (GFP), firm characteristics (FC), firm characteristics interacting equity financing sources(FCIEFS), firm characteristics interacting debt financing sources (FCIDFS) , firm characteristics interacting government financing programs (FCIGFP).

**Coefficients[a]**

| Model | | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. |
|---|---|---|---|---|---|---|
| | | B | Std. Error | Beta | | |
| 6 | | 1.739 | .234 | | 7.424 | .000 |
| | (Constant | -.082 | .059 | -.068 | -1.388 | .166 |
| ) | | .010 | .022 | .023 | .472 | .637 |
| | IA | .066 | .060 | .074 | 1.100 | .272 |
| | EX | -.033 | .062 | -.033 | -.526 | .600 |
| | EFS | .254 | .056 | .262 | 4.562 | .000 |
| | DFS | .168 | .046 | .186 | 3.651 | .000 |
| | GFP | .275 | .115 | .204 | 2.398 | .017 |

| | | | | | |
|---|---|---|---|---|---|
| FC | -.036 | .104 | -.027 | -.348 | .728 |
| FCIEFS | .006 | .079 | .005 | .078 | .938 |
| FCIDFS | | | | | |
| FCIGFP | | | | | |

a. Dependent Variable: MSMEs financial performance

| | **β** | **P value** |
|---|---|---|
| Constant | 1.739 | .000 |
| IA | -.082 | .166 |
| EX | .010 | .637 |
| EFS | .066 | .272 |
| DFS | -.033 | .600 |
| GFS | .254 | .000 |
| FC | .168 | .000 |
| FCIEFS | .275 | .017 |
| FCIDFS | -.036 | .728 |
| FCIGFP | .006 | .938 |
| $R^2$ | .233 | |
| $\Delta R^2$ | .212 | |
| F | 11.155 | |

### 4.14.1 Interactions Slopes

To interprete moderation effects of firm characteristics on equity financing sources and MSMEs financial performance, debt financing sources and MSMEs financial performance and government support programs and MSMEs financial performance of micro, small and medium enterprises in Nakuru County, the simple slopes approach was adopted which involved plotting the relationship between the independent variable and dependent variable where quantities of interest were computed (Julie,2022).

From the finding, the following slope was the results of the moderating role of firm characteristics on the relationship beween equity financing and MSMEs financial perfomamnce of MSMEs in Nakuru County, in that firm characteristics strengthens the positive relationship between equity financing and financial performance MSMEs

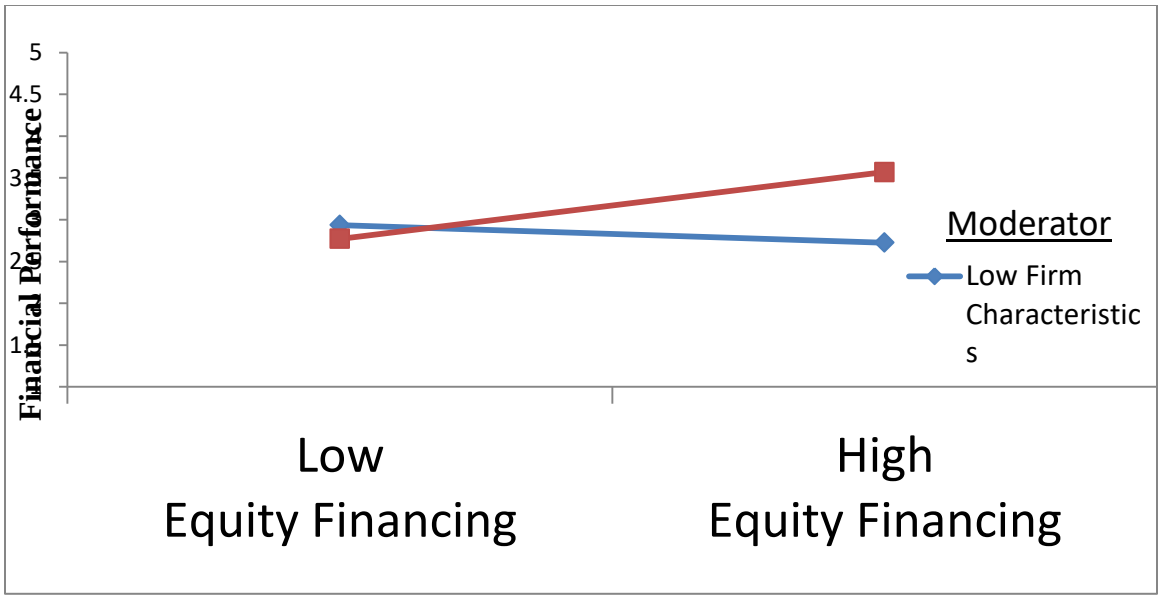


**Figure 0-1: Slope on moderating role of firm characteristics on the relationship between equity financing sources anf MSMEs Financial Performance Source: (Researcher, 2024)**

At low equity financing sources, there is a low moderation effects of MSMEs financial performance and on the other hand at high equity financing sources the slope steepen hence higher moderation effects.

In addition, the following slope was the results of the moderating role of firm characteristics on the relationship beween debt financing and MSMEs financial perfomamnce of MSMEs in Nakuru County, in that firm Characteristics strengthens the negative relationship between debt financing and financial performance MSMEs.

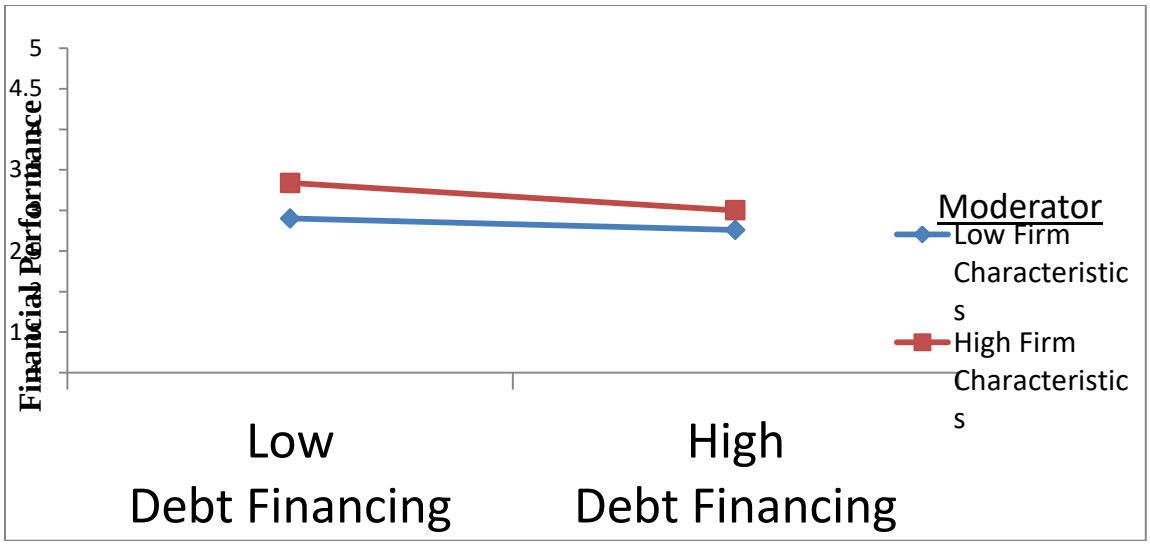


**Figure 0-2Slopes on the Moderating Role of Firm Characteristics on the Relationship between Debt Financing Sources and Financial Performance of MSMEs**

At lower debt financing sources the slope shows a low moderation effects and at high debt financing sources the moderation role is low.

Source: (Researcher, 2024)

Also, the following slope was the results of the moderating role of firm characteristics on the relationship beween government financing programs and financial perfomamnce of MSMEs in Nakuru County, in that firm characteristics strengthens the positive relationship between government financing programs and Nakuru MSMEs financial performance.

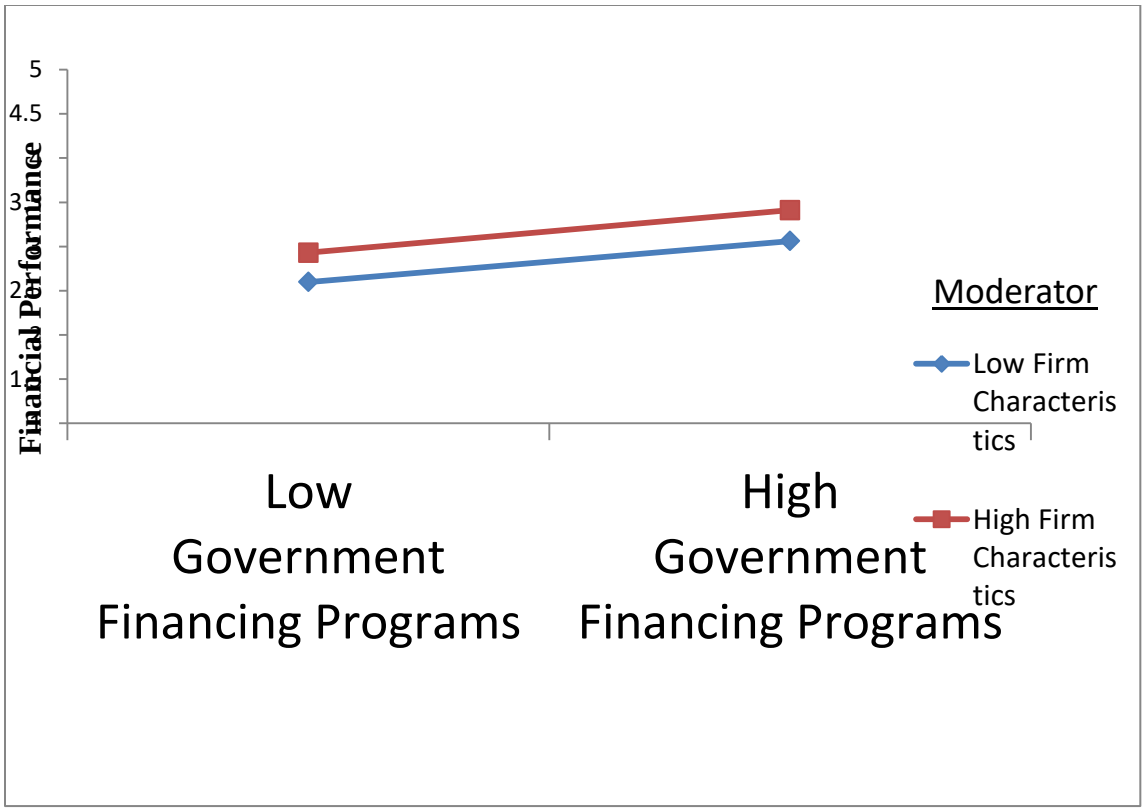


**Figure 0-3 Slopes of the Moderating Effects Firm Characteristics on the Relationship between Government Financing programs and Financial Performance of MSMEs**

At lower government financing programs, the moderation effects on MSMEs financial performance is as shown by the slope while at higher government financing programs the slope of the moderation effects steepens.

# CHAPTER FIVE

# DISCUSSION OF RESULTS

## 5.1 Overview

This research aimed to explore the moderating effects of firm characteristics on the relationship between financing sources and financial performance of MSMEs in Nakuru County Kenya. The specific objectives were to determine the effects of equity financing sources on financial performance of micro, small and medium enterprises in Nakuru County, to examine the effects of debt financing sources on financial performance of micro, small and medium enterprises in Nakuru County, to assess the effects of government support programs on financial performance of micro, small and medium enterprises in Nakuru County and explore the moderating effects of firm characteristics on financial performance of micro, small and medium enterprises: equity financing sources and financial performance of micro, small and medium enterprises, debt financing sources and financial performance of micro, small and medium enterprises and government support programs and financial performance of micro, small and medium enterprises.

## 5.2 Summary of the Findings

From the findings on the relationship between equity financing sources and MSMEs financial performance in Nakuru County, P Value <0.05 (p value=0.000). The ANOVA methods statistics F statistic =13.294, P value .000 < 0.05 (p value=.000). The coefficients results indicated that the relation between equity financing sources and MSMEs financial performance was positive and significant P Value .0000 <0.05 (p value =.008), β=.147). From the findings, equity financing sources had a direct statistical

significance effects on financial performance of micro, small and medium enterprises in Nakuru County, Kenya.

From the findings, equity financing had a direct statistical significance effects on financial performance of micro, small and medium enterprises in Nakuru County, Kenya From the relationship between debt financing sources and MSMEs financial performance the results showed the. P Value <0.05 (p value=0.000). The ANOVA methods statistics F statistic =13.294, P value .000 < 0.05 (p value=.000). The coefficients results indicated that the relation between debt financing sources and MSMEs financial performance was negative and not significant P Value .0000 >0.05 (p value =.521), β=-.039). From the findings, debt financing sources had no direct statistical significance effects on financial performance of micro, small and medium enterprises in Nakuru County, Kenya.

From the relationship between government financing programs and MSMEs financial performance the results were P Value <0.05 (p value=0.000). The ANOVA methods statistics F statistic =13.294, P value .000 < 0.05 (p value=.000). The coefficients results indicated that the relation between government financing programs and MSMEs financial performance was positive and significant P Value .000 <0.05 (p value =.000), β=.300). From the findings, government financing programs had direct statistical significance effects on financial performance of micro, small and medium enterprises in Nakuru County.

On the effects of the relationship between firm characteristics and MSMEs financial performance, P Value (0.000 <0.05 (p value =.000) and F statistics 14.335. The coefficients results indicated that the relation between firm characteristics and MSMEs

financial performance was positive and significant (P Value .0000 <0.05 (p value=.000), β= .182). Firm characteristics had a positive and a statistical significance effects on financial performance of MSMEs in Nakuru County, Kenya.

The following was the effects of moderating Role of firm Characteristics on the Relationship between equity Financing Sources and Financial Performance of MSMEs in Nakuru County Kenya. The following were the test values of firm characteristics moderating equity financing sources and MSMEs financial performance (R =.466, R2=.218), The ANOVA Value F test=14.383, P=.000 <0.05 (p value=.000). The coefficients statistics were T test =3.628, β=.251 and P value <.05 (P values <.000). Firm characteristics had a positive effects and moderating significance effects on the relationship between equity financing sources and financial performance of MSMEs in Nakuru County.

Firm characteristics had a negative effects and no moderating significance effects on the relationship between debt financing sources and financial performance of MSMEs in Nakuru County significance The following were the test values of firm characteristics moderating debt financing sources and MSMEs financial performance (R =.473, R2=.224), The ANOVA Value F test=12.842, P=.000 <0.05 (p value=.000). The coefficients statistics were T test =-.479, β=-.048 and P value >.05 (P values =.632). Firm characteristics had a negative effects and no moderating significance effects on the relationship between debt financing sources and MSMEs financial performance.

The following were the test values of firm characteristics moderating government financing programs and MSMEs financial performance (R =.482, R2=.233), The

ANOVA Value F test=11.155, P=.000 <0.05 (p value=.000). The coefficients statistics were T test =-.078, β=-.006 and P value >.05 (P values =.938). Firm characteristics had a negative effects and no moderating significance effects on the relationship between government financing programs and MSMEs financial performance. To interprete moderation effects of firm characteristics on equity financing sources and financial performance, debt financing sources and financial performance and government support programs and financial performance of micro, small and medium enterprises in Nakuru County, the simple slopes approach was adopted which involved plotting the relationship between the independent variable and dependent variable where quantities of interest were computed (Julie,2022).

From the finding, the slope of the moderating role of firm characteristics on the relationship beween equity financing sources and financial perfomamnce of MSMEs in Nakuru County, in that firm characteristics strengthens the positive relationship between equity financing and financial performance MSMEs Firm characteristics had moderating role on the relationship between, equity financing and financial performance the results were β = 0.525 and P value 0.000. In addition, the slope of the moderating role of firm characteristics on the relationship beween debt financing and financial perfomamnce of MSMEs in Nakuru County, in that firm Characteristics strengthens the negative relationship between debt financing sources.

## 5.3 Conclusions

In relation to the first objective on the effects of equity financing sources on the financial performance of MSMEs in Nakuru County, equity financing sources were found to have a positive and significant effects on financial performance of micro, small and medium enterprises in Nakuru County.

Debt financing sources were found to have a negative and insignificant effect on financial performance of MSMEs in Nakuru County. Firm characteristics were found to have a positive and a significant effect on financial performance of micro, small and medium enterprises in Nakuru County.

On the moderating role of firm characteristics on the relationship between financing sources and financial performance of MSMEs in Nakuru County, the objective concluded that firm characteristics were found to have a moderating role on the relationship between equity financing and debt financing sources. Also, firm Characteristics had no moderating effects on government financing programs.

## 5.4 Recommendations

From the conclusion MSMEs in Nakuru County should utilize equity financing sources since a unit change in equity financing sources will result in a unit change in MSMEs financial performance. Hence, the management of the MSMEs should consider retained earnings as the best sources of financing for higher profits. Debt financing sources is insignificant and therefore, short repayment periods, cost of credits and collateral have a negative impact to Nakuru MSMEs. Therefore, MSMEs management should consider not engaging in any debt financing sources.

The positive and significant relationship between government financing programs and financial performance of MSMEs in Nakuru County in that a unit change in government financing program would result into 0.301 unit change in financial performance indicates that government financing programs are good sources of financing. Therefore, MSMEs in Nakuru County should utilize the sources for it results into higher profits. There was no significant effect of firm characteristics on financial performance and the management style, innovation and use of modern technology didn't influence MSMEs financial performance.

## 5.5 Implications of the study.

### 5.5.1 Theoretical Implications

It was developed by Myers 1984. The theory explains that the firms try to utilize its internal financial sources first i.e., retained earning then issues debt and then would issue equity as a last resort. It explains the financial decision making of the firm. It predicts that the optimal capital structure will not be achieved by firms but firms would follow a certain principle and choose external financing when debt capacity is achieved. It further explains that the asymmetric information between firm insiders and outsiders and the supposition that costs and benefits of outside financing in terms of trade-off they are less important when compared to the costs related to issuance of new securities.

Other researchers had utilized the pecking order theory as stated that firms follow an order of first personal savings, retained earning the short-term borrowing and long-term debt and then equity investors. In addition, other scholars have depicted the model as one that provides the order of preference when sourcing the various capitals to attain

performance. Also, the model was in that firms follow a hierarchy of financing from internal funds, debts and new equity. The theory is important to the study for it explains the decision making of the MSMEs owners in Nakuru County. MSMEs owners can decide to use the equity sources of financing or opt for debt financing. It is also useful in the study in testing of performance of equity and debt on SMEs in Nakuru County.

The Trade-off theory describes the concepts that a firms make a choice on how much debt and how much equity to use by weighing the costs and benefits and balancing them out. The theory explains the fact that business units are usually financed partly with debt and partly with equity. Other researchers employed the model in their study on effects of equity financial performance and stated that larger firms tend to increase their level of debt so as to increase the debt tax shield by diversification of activities and the theory advocates for the equilibrium level of equity and debts and it protects business against too much debt that supersedes equity. The theory is important as it will helps the Nakuru MSMEs finance managers to make viable decisions when financing the business to ensure that benefits of debt are more than costs.

The financing growth life cycle of the firm theory state that as with individuals' products entrepreneurial firms go through a life cycle in that it may be at the idea stage the prototype stage, the rapid growth stage, or the maturity stage. According to the theory, financial needs and financial options vary as the business grows and become more experienced. The different forms of financing are closely related to the life cycle of the firm and during the startup period, the sole sources of financing available for MSMEs managers is materialized by the owner's personal capital and public aid. Once in place,

the growth phase is generally financed by bank debt through venture capital and finally, during the maturity phase, the objection will be to reduce financial costs and ensure more stable funding. In addition, first firm can finance their operations using internal funds, defaultable long-term debt, and costly equity and secondly firm learn about their profitability over time and face specific volatility. Firm's life stages influence capital structure decision. The theory is important to the study because during the earliest stages of the MSMEs financing typically comes from the entrepreneurs' personal financial resources and savings or from family and friends. That MSMEs manager will go for equity financing sources first and government financing programs, then for debt financing sources.

### 5.5.2 Practical and Policy Implications

The conclusion indicates that business sales of Nakuru MSMEs owners have been increasing due to more customer inflow. Therefore, MSMEs managers and owners should go for internal finances support for it promotes higher profits hence high liquidity and as external finance source increase, the profit also decreases. The management style promotes the MSMEs financial performance and the production capacity also promotes Nakuru MSMEs financial performance. Furthermore, MSMEs in Nakuru should work on operations of the business for it affects financial performance.

### 5.5.3 Recommendations for further Study

The study concentrated on the moderating role of firm characteristics on the relationship between financing sources and financial performance of MSMEs in Nakuru County. The independent variable were equity financing sources, debt financing sources and

government financing programs, the moderating variable was firm characteristics while the independent variable was financial performance. The study took place in Nakuru County, Kenya. Therefore, other study should be carried out to incorporate other variables that affect financial performance of MSMEs.

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# APPENDICES

## Appendix I. Letter of introduction

University of Eldoret,

School of Business, Economics and Management Science,

Eldoret.

Date: -/-/ 2024.

Dear Respondent,

**Ref: Data Collection for research Proposal**

I am a student at the University of Eldoret pursuing Master degree in Business Management, Finance, the study topic is ***"Moderating role of Firm Characteristics on the Relationship between Financing Sources and Performance of Micro Small and Medium Enterprises in Nakuru County, Kenya"***. Your assistance is data collection will be highly appreciated.

Your answers will be confidently reserved for data analysis and will not be disclosed to any other respondent.

Thank you for your assistance.

Njeri Njoroge Joseph.

Researcher

**Appendix II. Questionnaire**

The questionnaire is for the data collection. The assistance offered in answering these questions on the study, ‘‘**moderating role of firm characteristics on the relationship between financing sources and performance of micro medium and small enterprises in Nakuru County, Kenya,’’** will be appreciated. The answers will be included to other responses given by other business owners for the academic study.

Date (day/month/year) ____ /___ /2024

Sub-county……

**Section A: General Information**

Gender

Male [ ]

Female [ ]

2. What is your age bracket?

18 -25Yrs. [ ]

25 - 30 Yrs. [ ]

35 -40 Yrs. [ ]

40 -45 Yrs. [ ]

Above 45 Yrs. [ ]

3. The educational level

Certificate [ ]

Diploma [ ]

Degree [ ]

Masters [ ]

How long have you operated this business?

1 -2 years [ ]

2-3 Years [ ]

3-4 Years [ ]

4-5 Years [ ]

Above 5 years [ ]

There is always an internal auditing in my business

Yes [ ] NO [ ]

**Section B**

For statements use a Likert scale of 1-5 where 1= not sure, 2= strongly disagree, 3= disagree, 4= agree and 5= strongly agree.

**Equity Financing Sources**

| | Statements | 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|---|
| 1 | The business emphasizes on getting funds from retained earning | | | | | |
| 2 | The business is frequently financed by retained earning | | | | | |
| 3 | Retained earnings helps in reducing cost of borrowing | | | | | |
| 4 | Management considers retained earnings as best source of finance | | | | | |
| 5 | The business is very dynamic and considers donations from different sources | | | | | |
| 6 | The business is committed in ensuring that donations are efficiently and effectively used | | | | | |
| 7 | The size of investment considers donations as the good form of finance | | | | | |
| 8 | The business define success on the basis of having the most unique or newest donation | | | | | |
| 9 | The business considers ploughed back profit as major source of finance | | | | | |
| 10 | Most frequent the business plough back profit | | | | | |
| 11 | The business considers investing through the ploughed back profit | | | | | |
| 12 | The profit is always available for the use by the business | | | | | |
| 13 | Advance from customers enhances business expansion | | | | | |

**Debt Financing Sources**

| | Statement | 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|---|
| 1 | Cost of finance trade credit affects ability to access credit | | | | | |
| 2 | Collateral affect ability to access credit financing | | | | | |
| 3 | Short repayment period affect ability to access credit | | | | | |
| 4 | There is business expansion through short term loans | | | | | |
| 5 | There is always increased growth through access to short term debt | | | | | |
| 6 | With ease access to shirt term loans, I am able to plan for immediate operations | | | | | |
| 7 | Obtaining fund on credit improves sales | | | | | |
| 8 | The duration of getting credit finance is always short | | | | | |

**Government Financing Programs**

| | Statement | 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|---|
| 1 | Tax holidays help in business expansion | | | | | |
| 2 | Tax compliance costs of the business have reduced due to tax holidays | | | | | |
| 3 | The interest rate of the fund is lower than other source of finance | | | | | |
| 4 | No collateral required in receiving government funds | | | | | |
| 5 | No threat on failure to repay | | | | | |
| 6 | The fund has assisted in business operations | | | | | |

| | | | | | | |
|---|---|---|---|---|---|---|
| 7 | The business receives temporal exemptions for certain activities | | | | | |
| 8 | There is fairness in funding MSMEs by government fund | | | | | |
| 9 | I rely on government financing programs | | | | | |

**Firm Characteristics**

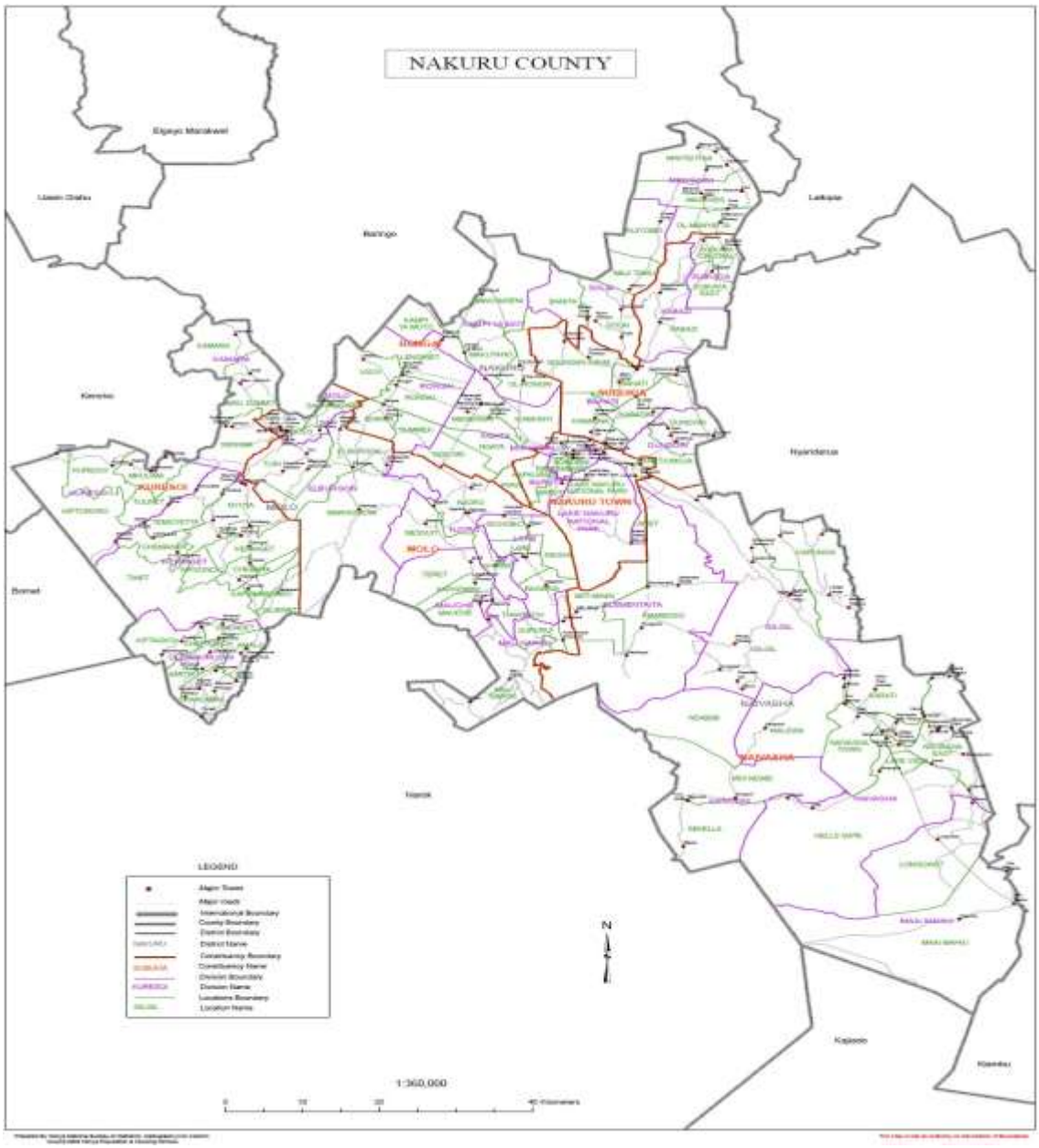
| | Statement | 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|---|
| 1 | Consultation in decision making, influences your firm financial performance. | | | | | |
| 2 | Use of modern technology influences your firm financial performance | | | | | |
| 3 | Your financial reporting style affects your credit source | | | | | |
| 4 | Your total output influences your performance and financial assistance | | | | | |
| 5 | You have an initiative in new innovation of your firm | | | | | |
| 6 | Frequency of meetings affects your firm financial performance | | | | | |

**Financial Performance**

| | Statement | 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|---|
| 1 | The business sales have been increasing | | | | | |
| 2 | There has been more customer inflow | | | | | |
| 3 | There is a need for internal finances to support your | | | | | |

| | | | | | | |
|---|---|---|---|---|---|---|
| | business for higher profits | | | | | |
| 4 | There is a need for external resources to support your business for high profits | | | | | |
| 5 | Your management style promotes the business financial performance | | | | | |
| 6 | Your production capacity promotes the business financial performance | | | | | |
| 7 | Operations of the business affects financial performance | | | | | |

**Appendix III. Map of the Study Area**




Source : Researcher (2025)

**Appendix IV: Regression Model Summary**

| | **Model** | **2** | **Model** | **3** | **Model** | **4** | **Model** | **5** | **Model** | **6** |
|---|---|---|---|---|---|---|---|---|---|---|
| | **β** | **P value** | **B** | **P value** | **β** | **P value** | **β** | **P value** | **β** | **P value** |
| Constant | 1.905 | .000 | 1.527 | .000 | 1.669 | .000 | 1.682 | .000 | 1.79 | .000 |
| Internal auditing | -.086 | .133 | -.080 | .152 | -.066 | .238 | -.074 | .193 | -.082 | .166 |
| Experience | .004 | .865 | .011 | .597 | .019 | .360 | .018 | .393 | .010 | .637 |
| Equity financing sources | .147 | .008 | .139 | .010 | .078 | .164 | .071 | .230 | .066 | .272 |
| Debt financing sources | -.039 | .521 | -.048 | .422 | -.021 | .723 | .021 | .724 | -.033 | .600 |
| Government financing Sources | .300 | .000 | .251 | .000 | .236 | .000 | .246 | .000 | .254 | .000 |
| Firm characteristics | | | .182 | .000 | .170 | .000 | .168 | .000 | .168 | .000 |
| Firm characteristics interacting equity financing sources | | | | | .251 | .000 | .289 | .008 | .275 | .017 |
| Firm characteristics interacting debt Financing sources | | | | | | | -.048 | .632 | -.036 | .728 |
| Firm characteristics interacting government financing programs | | | | | | | | | .006 | .938 |
| **$R^2$** | **.152** | | **.189** | | **.218** | | **.224** | | **.233** | |
| **$\Delta R^2$** | **.141** | | **.176** | | **.202** | | **.207** | | **.212** | |
| **F** | **13.294** | | **14.335** | | **14.383** | | **12.842** | | **11.55** | |

**Appendix V: Letter from the Department**

University of Eldoret

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## OFFICE OF THE DEPUTY VICE CHANCELLOR (ASA)

### SCHOOL OF BUSINESS, ECONOMICS AND MANAGEMENT SCIENCES
### DEPARTMENT OF BUSINESS MANAGEMENT

TO: DIRECTOR BOARD OF POSTGRADUATE STUDIES

**REF**: UOE/B/BBM/ATT/032 **DATE**: 6th September, 2024

Dear Sir/Madam,

**SUBJECT: REQUEST FOR NACOSTI LICENSE - NJERI JOSEPH NJOROGE, SBUS/BBM/M/004/21**

Reference is made to the above named who is applying to the National Commission for Science Technology and Innovation for a Research permit.

Mr Njoroge is a student at University of Eldoret undertaking a Master Degree in Business Management in the School of Business, Economics and Management Science. He has completed presenting his research proposal titled "*Moderating Role of Firm Characteristics on the Relationship Between Financing Sources and Financial Performance of MSMEs, in Nakuru County, Kenya* "

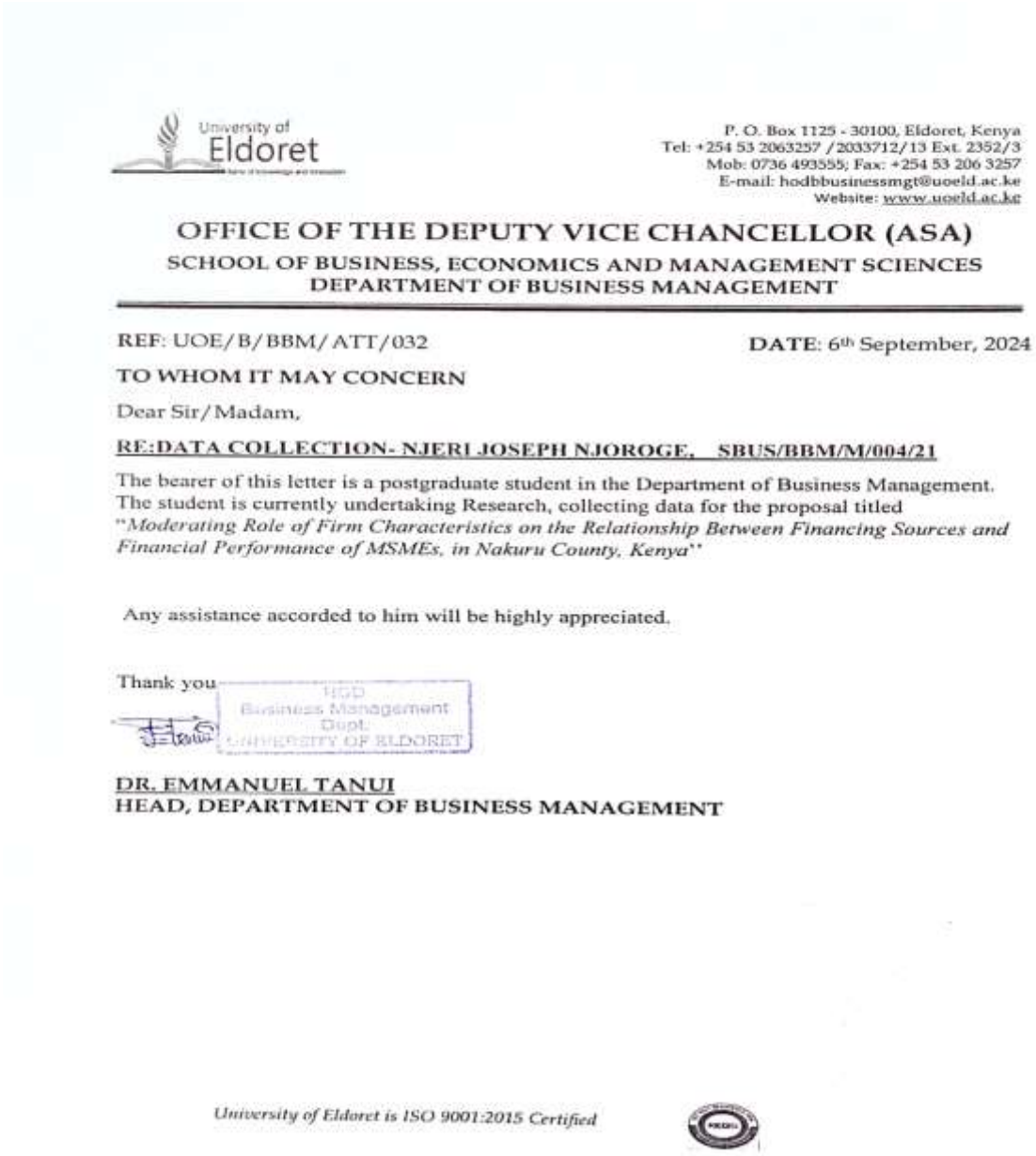
Any assistance accorded to him will be highly appreciated.

Thank you

HOD
Business Management
Dept.
UNIVERSITY OF ELDORET

**DR. EMMANUEL TANUI**
**HEAD, DEPARTMENT OF BUSINESS MANAGEMENT**

## Appendix VI: Data Collection Authorization



University of Eldoret

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**OFFICE OF THE DEPUTY VICE CHANCELLOR (ASA)**
**SCHOOL OF BUSINESS, ECONOMICS AND MANAGEMENT SCIENCES**
**DEPARTMENT OF BUSINESS MANAGEMENT**

REF: UOE/B/BBM/ATT/032 DATE: 6th September, 2024

**TO WHOM IT MAY CONCERN**

Dear Sir/Madam,

**RE:DATA COLLECTION- NJERI JOSEPH NJOROGE, SBUS/BBM/M/004/21**

The bearer of this letter is a postgraduate student in the Department of Business Management. The student is currently undertaking Research, collecting data for the proposal titled "*Moderating Role of Firm Characteristics on the Relationship Between Financing Sources and Financial Performance of MSMEs, in Nakuru County, Kenya*"

Any assistance accorded to him will be highly appreciated.

Thank you

HOD
Business Management
Dept.
UNIVERSITY OF ELDORET

**DR. EMMANUEL TANUI**
**HEAD, DEPARTMENT OF BUSINESS MANAGEMENT**

*University of Eldoret is ISO 9001:2015 Certified*

## Appendix VII: Data Collection License

REPUBLIC OF KENYA

NATIONAL COMMISSION FOR SCIENCE,TECHNOLOGY & INNOVATION

Ref No: **992790** Date of Issue: **25/September/2024**

**RESEARCH LICENSE**

**This is to Certify that Mr.. JOSEPH NJOROGE NJERI of University of Eldoret, has been licensed to conduct research as per the provision of the Science, Technology and Innovation Act, 2013 (Rev.2014) in Nakuru on the topic: Moderating Role of Firm Characteristics on the Relationship Between Financing Sources and Financial Performance of MSMEs, in Nakuru County, Kenya for the period ending : 25/September/2025.**

License No: **NACOSTI/P/24/40338**

**992790**

Applicant Identification Number

Director General
NATIONAL COMMISSION FOR SCIENCE,TECHNOLOGY & INNOVATION

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**Appendix VIII: Similarity Report**

University of Eldoret

## University of Eldoret

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