

EFFECT OF CAPITAL STRUCTURE ON THE FINANCIAL  
PERFORMANCE OF SMALL AND MEDIUM ENTERPRISES IN THE ICT  
SECTOR, KENYA: A CASE OF SELECTED SMEs IN NAIROBI COUNTY,  
KENYA

by

Eustace Mwangi

A thesis presented to the School of Business and Economics

of

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MASTERS OF BUSINESS ADMINISTRATION  
in Finance

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## APPROVAL

EFFECT OF CAPITAL STRUCTURE ON THE FINANCIAL  
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by

Eustace Mwangi

In accordance with Daystar University policies, this thesis is accepted in partial fulfillment of the requirements for the Master of Business Administration degree.

Date:

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Molson Onchomba, PhD,  
1st Supervisor

---

Dorothy Kagwaini, PhD,  
2nd Supervisor

---

Joseph Munyao, MSc,  
HoD, Commerce

---

Evans Amata, PhD,  
Dean, School of Business and Economics

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## DECLARATION

EFFECT OF CAPITAL STRUCTURE ON THE FINANCIAL  
PERFORMANCE OF SMALL AND MEDIUM ENTERPRISES IN THE ICT  
SECTOR, KENYA: A CASE OF SELECTED SMEs IN NAIROBI COUNTY,  
KENYA

I declare this thesis is my original work and has not been submitted to any other college or university for academic credit.

Signed: \_\_\_\_\_  
Eustace Mwangi  
18-0493

Date: \_\_\_\_\_

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## LIST OF ABBREVIATIONS AND ACRONYMS

CBS	Central Bureau of Statistics
GDP	Gross Domestic Product
GoK	Government of Kenya
ICT	Information Communication Technology
IFC	International Finance Corporation
NSE	Nairobi Securities Exchange
ROA	Return of Assets
ROCE	Return on Capital Employed
ROE	Return of Equity
SME	Small and Medium Enterprises
SPSS	Statistical Package for Social Sciences

## ABSTRACT

This study sought to assess the effect of capital structure on financial performance of small and medium enterprises (SMEs) in the ICT sector, Nairobi County. The objectives were to; identify the proportion of debt and equity employed by ICT sector SMEs, assess how performance was measured, and determine the effect of capital structure on performance of ICT sector SMEs. The study employed three theories, namely, the pecking order theory, trade off theory, and agency theory. The study adopted a descriptive research design and a targeted population of 1048 ICT sector SMEs located in Nairobi's CBD. Purposive sampling technique was used to select a sample size of 91 respondents. Data was collected using questionnaires. Quantitative data was analyzed using Statistical Package for Social Sciences (SPSS) version 25, while qualitative data was analyzed using thematic approach. The study found out that capital structure played a major role in the financial performance of SMEs in the ICT sector operating in Nairobi CBD at 72(96%), whereby 37(49.3%) SMEs were financed through short-term debt, 30(40%) through long-term debt, 38(50.7%) through short-term equity while 60(80%) were financed through long-term equity. Consequently, the findings show that 45(60%) of the SMEs were financed through a mix of debt and equity. A total of 72(96.0%) and 69(92%) SMEs measured financial performance in terms of profitability and return on assets. A majority of SMEs at 67(89%) confirmed that there was link between capital structure and financial performance. The study concluded that capital structure is very critical in the financial performance of ICT sector SMEs and hence they need to make informed decisions on how to balance between debt and equity capital sources. The study recommended that the government and other regulatory institutions should ensure that SMEs operate in a financial friendly environment where there is easy access to sources of SMEs financing.

## DEDICATION

This study is dedicated to the Almighty God for giving me the opportunity and resources that were required to successfully complete this study. I also dedicate this thesis to my wife Joyce Rasugu Mweri and my children; Nathan Mweri, Natalie Mweri, Nicholas Mweri, and Noel Mweri for their moral support, patience and understanding when I was unable to spend time with them as I finalized the thesis.

## CHAPTER ONE

### INTRODUCTION AND BACKGROUND TO THE STUDY

#### Introduction

Capital structure is a blend of debt and equity, which an organization considers as suitable in its operations (Friend & Hasbrouck, 2008; as cited in Karanja, 2015). Since all businesses rely on capital to help in supporting their operations, they must acquire it through several means, which may be a mix of debt and equity in some cases, and this mix is what is referred to as the capital structure of the business (Maina & Ishmail, 2014). Further, Maina and Ishmail stated that in some cases, a firm might use equity alone to define its capital structure, while others may use debts alone. In other cases, firms may use a mix of the two. In most cases, poor decisions on capital structure costs businesses a lot, as they are forced to spend a lot on investments that bring minimal returns, and this may reduce the preset value of the accepted investments. Many companies tend to keep their financial mix closer to the capital structure (Hovakimian, Hovakimian, & Tehranian, 2004). Since it is known that the structure may play a role in determining the success or failure of the business, it becomes important for business leaders to make capital structure decisions that reflect the objectives of the business. Across the world, small and medium-sized enterprises (SMEs) are critical in spurring industrialization and the economic growth of a country. SMEs not only increase per capita income and output, but also create jobs, which are important in economic growth (Migiro, 2006). For the SMEs to realize their performance objectives, it is critical that appropriate capital structure decisions are made and implemented.

This chapter presents the background of the study in terms of understanding what capital structure is and its components, the SME sector in Kenya and the effect of capital structure on financial performance. The chapter also presents the statement of the

problem, purpose of the study, objectives and research questions, significance and justification of the study, its scope, limitations and delimitations of the study.

## Background to the Study

### Capital Structure

Capital structure is a combination of different financial aspects, which a firm uses to run its businesses (Fabozzi & Drake, 2017). Jibrán, Wajid, Waheed, and Massod (2012) states that capital structure tries to analyze the blend between availability of stock and financial avenues that a business uses to fund its investment portfolio. According to Adeyemi and Oboh (2018) capital structure refers to the means through which a commercial enterprise finances its operations through either debt or equity capital or both avenues. Sultan and Adam (2015) argued that there is no theory developed on preference of debt and equity, however in the past, there have been theories on the capital structure mix.

There are two conventional sources of external funding in companies in equity and they include capital and debt. However, it occurs as a combination of both (Yusuf, 2015). Equity is the right of an individual to take part in a business. Equity holders are the business proprietors. The equity holders provide funds which are refunded to them at the closure of the business if a surplus is generated. The business proprietors are also granted dividends if the business makes profits. These clauses make equity a risky investment approach according to the investors' opinion (Chisti, Ali & Sangmii, 2013). Debt is the money borrowed by organizations from outsiders who are paid a periodic interest on the money rendered (Ahmad, Salman & Shamsi, 2015). Banks lack participation rights though they are prioritized in the repayment of interest and principal. The capital is acquired through creation of a cost on the business assets. An asset cost means that if a firm do not honor the debt, the debt providers are free to sell the assets of

a firm to recover their money. This reduces the probability of a risk for the investor, but it also gives the firms an extra burden of making huge profits to clear their debt on time (Ulzanah & Murtaqi, 2015).

Globally, studies have been conducted to ascertain how firms make capital structure decisions. For instance, a study by Khan and Jain (2017) in India indicated that stability of sales, asset structure, and size of firm affected how a firm made decisions regarding capital structure. Khan and Jain (2017) postulated that a company exhibiting a stability in sales with lower operating costs and lower chances of risks can incur more debt, hence achieving huge financial costs than a company making irregular sales. Companies making regular and expected sales do not dwell on debts as they have a greater financial power than industries.

Khan and Juan (2017) also acknowledged that companies with a larger share of physical assets that can be used as collateral for loans are levered highly. For example, general-purpose assets that can be used by companies and other businesses for collateral purposes as compared to special purpose assets. Therefore, in the real estate sector, firms that use general-purpose assets are highly prized than technological research firms that use special purpose assets. In regard to company sizes, small sized companies rely on shareholders' contributions for finances hence it is difficult for such companies to secure loans as they are viewed as risky than huge companies by potential investors (Khan & Jain, 2017).

Baker and Martin (2017) in their study in the U.S.A found that Capital structure is determined by profitability, operational leverage, risk, and a firm's growth rate. Baker and Martin (2017) further noted that companies that make huge profits moderately rely on debts because their huge returns enable them to fund their investments internally through their earnings. Similarly, companies with low operating cost have less risks of

operation and can have proper planning and usage, compared to companies with a high operating cost. On growth it was argued that companies that grow fast rely on funding from outside. In addition, companies are encouraged to incur debts since floatation costs imposed on issuance of debts are lower than in equity. However, companies that rely on growth through debts often suffer insecurities for the future hence they do not dwell so much on using debts.

In the U.K, Ehrhardt and Brigham (2018) established that taxes and control are other determinants of capital structure. A debt interest emanates from deductions in expenses during calculations of taxable income. This means that companies with higher tax rates have a greater advantage in the deductions. A company's tax rate is equated to its debt advantage. In terms of control, the capital decision structure of a company is dictated by the perception of the managers towards control making the shareholders the owners of the company. Shareholders in equity shareholdings have a right to vote and can take control of the company activities from the management. Preference shareholders do not have the right to vote except in certain situations. Those responsible for issuing capital debts do not participate in managing the company. If the goal of the management team is to take control of the company, they should fund additional capital requirements with capital debt or through shares. On the contrary, incurring huge debts does not mean that the management will have full control of the company. This is because there are restriction agreements which are restrictions imposed on the management undertakings of the managers in handling loan contracts with debt holders to safeguard their interests (Ehrhardt & Brigham, 2018).

Akintoye (2017) in Nigeria found out that other factors as timing of security issues, firm's flexibility and professional advice may affect capital structure. It was also revealed that proper timing in issue of securities is key, and it should be factored in. This

means that a company has to decide whether to initially fund their business with equity and later with debt or fund with debt and with equity later based on the economic and capital market conditions and expectations of the firm. The author added that professional advice also determines capital structure decisions because capital structure decisions are made by acquiring advice by professionals from credit rating agencies, financial analysts and investment bankers. Flexibility is the ability of an organization to be transparent in future financing activities while making day-to-day financing decision, making it maneuverable to the finance manager.

### Small and Medium-Sized Enterprises Globally

World over, small and medium-sized enterprises (SMEs) are critical in spurring industrialization and the economic growth of a country. SMEs not only increase per capita income and output, but also create jobs, bring a regional economic balance through industrial dispersal and promote proper utilization of resources, which are important to grow the economy (Migiyo, 2006). SMEs are important in the growth of economy. They create job opportunities, offer entrepreneurial skills and innovation. For instance, out of the 25 European Union countries, 23 million SMEs provide 75 million jobs, and this represents 99% of all businesses (European Commission, 2013). In the US, 5,500,000 SMEs create at least two out of three jobs, which account for half the Gross National Product thereby employing half of the workforce (US Census Bureau 2017). Further, in Asia, Japan has employed 69% people in the SMEs (Barnes, 2016). Hence, the importance of SMEs cannot be overstated.

There are various elements which define SMEs including the size of the labor force, turnover, assets, and equity. SMEs are defined by their location, size, age, structure, number of employees, sales volume and asset worth. Different definitions for SMEs have been advanced in different economies, mostly based on the number of

employees. For instance, the European Commission (2013) defined SMEs as businesses that employ less than 250 people and with an annual turnover of 50 million euro, and a yearly balance sheet of approximately 43 million euro. In Kenya, small and medium enterprises are organizations with a workforce of between 1 to 50 people with a yearly income of between Ksh 4 million to Ksh 100 million (CBS-GoK, 2016).

Abor (2008) argued that the small and medium sized enterprise (SME) sector plays a major role in boosting the economy. The sector contributes socially and economically through creating jobs, revenue creation, innovations, and spurring growth in urban and rural areas (Kira & He, 2013). In most developed countries, approximately 98% of all manufacturing companies come from the SMEs sector and they create the most jobs (Kira & He, 2013). The SME sector employs 22% people in the developing countries (Kayanula & Quartey, 2000).

In the European states, SMEs play a key role in creating jobs and also encouraging and spurring entrepreneurship and innovation, and this is key to achieving competition and a high employment rate (Samitowska, 2011).

In the United States of America, SMEs are important in creating employment and spurring net growth (Haltiwanger, Jarmin, & Miranda, 2009). The authors further noted that SMEs create more jobs in developing countries than developed countries. However, they create many employment opportunities for the productive groups' worldwide (Asli, Maria, & Thierry, 2015).

In most African countries, SMEs take the largest share in jobs creation than in the private sector. SME enterprises grow faster; however, they can collapse or fail to grow because of funding and organizational challenges (Muli, 2013). Further, access to funding is a challenge to SMEs in Africa. In South Africa, 74% of the citizens active in the economy are employed by SMEs (Smit & Watkins, 2012).

Loans taken by Nigerian SMEs influenced positively on their economic performance, while interest rate affected economic growth negatively (Onakoya, Fasanya, & Abdulrahman, 2013). SMEs are critical in the economic wellbeing of Ghanaian citizens since they create employment opportunities through innovations and creativity and help in human resource development (Acquaah & Agyapong, 2015). Similarly, SMEs are a source of tax revenues, export, and import revenues. They also help in distribution of goods, developing human resources and are the foundation of innovation and entrepreneurship. Similarly, Mensah (2004) stated that 90% of businesses registered in Ghana were SMEs and that SMEs dominated the Ghanaian private sector, with an average of 80,000 incorporated limited companies, and 220,000 incorporated partnerships. The consequence of this is improved income levels, which eventually contribute to poverty eradication. Kefale and Chinnan (2012) noted that scarcity of working capital, working space were the key challenges that face micro businesses in Ethiopia, and that growth rate of employment in SME business was low.

According to Nasirembe (2007), the SME sector in Kenya engages about 2.3 million people and contributes up to 14% of the Gross Domestic Product (GDP). Kyalo (2014) indicated that on average, female entrepreneurs operate 48% of the micro-, small-, and medium-size enterprises in Kenya.

#### Financial Performance

This is the extent to which an organization achieves its financial objectives. Financial performance allows companies to fulfill the needs of different stakeholders. Cho and Pucik (2005) argued that financial performance is a means of pleasing investors, and it is characterized by growth, profits, and market value. Profitability measures the ability of an organization to give returns (Glick, Washburn, & Miller, 2015). Growth of a company shows its capacity to increase in business size which leads to increase in its

profit and capital. A big company can attract huge economies of scale and market share, hence increasing profits.

The market value is the outward assessment versus the future anticipation in performance of an organization. In a company, there should be a relationship between history of profits and levels of growth. There should also be a strategy on future prospects in case the market fluctuates, or the company faces competition (Glick et al., 2015). If a company is struggling financially, this will have an impact accessibility of internal and external funding, the growth and sustainability of the company.

### Capital Structure and Financial Performance of SMEs

According to Hall, Hutchinson (2003), financial decisions are important for SME owners as they directly affect the capital structure and performance of the SMEs. SMEs prefer using their own funds to incurring debts but for companies that are focused on growth they need to incur more debts to facilitate their growth in future (Lucey & Voronkova, 2008). The Government of Kenya (GoK, 2013) highlighted that SMEs are incubators for job creation and a source of income as create roughly 85 percent of job opportunities in Kenya. Despite the role that SMEs play, the Heshmati (2017) indicated that the major reason for the collapse of SMEs is inadequate financial access. Business enterprises target to improve their productivity and efficiency in their operations and to increase their profits. Various factors might influence their operational efficiency and effectiveness, capital structure included. The capital structure of an organization is a mix of debt and equity that used to fund its business operations. (Njagi, 2017).

Capital structure is the connection between the different types of long-term financing mechanisms (Varaiya, Kerin, & Weeks, 2014). Making the right decisions concerning the financial options might look easy, although they need time. Management of the organization faces a major challenge on whether to source for funds in the retained

earnings kitty internally or externally from loans from banks, trading on credit, and issuance of equity shares. The capital structure employed in any company affects its governance structure, which has a direct force on the strategic decisions made by the company (Njagi, 2017).

According to Njagi (2017), when funds are raised from outside, companies make this decision based on equity or debt. A lot of energy spent on financial decision-making process is used on determining the appropriate capital structure of a business. That capital structure decisions affect all businesses; however, this happens differently based on the various businesses or the amount of funding needed for the business success.

SMEs have been ranked as the leading sectors in creating jobs for several people in urban areas who have no formal employment. Kipilyango (2012) stated that facilitating the growth of SMEs has been a huge challenge. Capital structure in the SME sector is distinct in relation to other businesses, hence rules on capital structure are not valid in SMEs operations (Osanloo & Grant, 2014). One of the major reasons for the rules is that there are hurdles in soliciting for funds externally as compared to big companies (Da Silva, 2010). For SMEs, it is challenging to access funds to clear debts because the sector does not have collateral to table pledges to get external funding (Kira & He, 2013).

Many SMEs flop due to lack of agreement in terms of what is the ideal capital structure (Ahmad, Abdullah, & Roslan, 2012). A company's capital cost is viewed as an element of its capital structure where the selection of the choice of adequate and suitable funding and investment plans reduces a company's cost of capital. This in turn helps to increase a company's market value thereby maximizing the capital of a business owner (Khrawish, 2011). A financial manager needs to take time when deciding on the capital structure and the use of financial resources. This will assist to reduce a company's cost

of capital and the financial factors, which are the main causes of financial suffering (Memba & Nyanumba, 2013). According to Mwangi, Makau, and Kosimbei (2019), those financial decisions lead to certain capital structure and sub optimal financial decisions can result to the collapse of the company. The greatest setback for management and investors is if there is an optimal capital structure.

### Small and Medium Enterprises Sector in Kenya

The significance of small medium-sized enterprise (SMEs) sector in Kenya has been discussed widely. The SME sector is important as it helps in fighting poverty since it creates jobs to about 6.8 million Kenyans and 89% of the jobs were in the SMEs sector. The government is aware of the impact that companies in the private sector have in spurring the economic development of the country. This has resulted in creation of financial schemes like youth and women fund and Uwezo fund, which are geared towards funding the SMEs (Njagi, 2017).

Small and medium enterprises are viewed as formal and informal businesses in the sector, which employ 1-50 workers (Government of Kenya, 2013). SMEs play a key role in the growth and development of countries through job creation and distribution of gains of economic development (Central Bureau of Statistics, 2015). The sector also strives to increase productivity by increasing competition within the economy.

Previously, SMEs performance has been on a downward trend in Kenya. Several small businesses have failed leading to a shutdown of the SMEs that were creating roughly 40% jobs in Kenya. SMEs have continually faced several setbacks like- overlap, conflicts in legal and sectorial policies and lack of clear boundaries in the mandate of the institutions. They have equally faced lack of proper legal frameworks, invalid council by-laws, lack of land and worksites, lack of inclusion in policy development by of local authorities, lack of access to credit, lack of central control mechanisms and lack of a

devolved system of organizing and execution. Similarly, SMEs do not have access to funding out the key hindrance to their growth in Kenya (Njagi, 2017).

### The ICT Sector in Kenya

In the 1970s computers were introduced in Kenya, and the Internet was made available in 1993 (Ford, 2007). Kenya had 10.5 million Internet users by December 31, 2015, which is 25.5 per cent of the population. Cyber cafés are the main providers of Internet services in Kenya where most Internet users get access to Internet. There are more than 30 Internet service providers in Kenya currently. Regardless of this, access to Internet is low in rural areas (Internet World Stats, 2011). Research has shown that very few people have a computer at home because; most financially unstable people cannot afford a computer. Secondly, due to the limited rural electrification, regular power blackouts and high-power billings tend to curtail the provision and implementation of ICT infrastructures.

The Government of Kenya has set up a National ICT Education and Training Strategy, with a major focus on how ICT can boost the Education Sector. The Ministry of Education has tried to promote the implementation of the strategy. In addition, there are various organizations, which lobby for the implementation and supporting projects relating to ICT in education (Internet World Stats, 2011; Farrell, 2007).

The Kenyan Government established a National ICT Policy in January 2006 with a goal of improving the welfare of people by making ICT services accessible, efficient, reliable and affordable. On Information and Technology, the main goal and strategies for ICT and education purport that the government aimed at having schools employ the use of ICT in schools, colleges, universities and other learning institutions in the country. This will help to boost the value of teaching and learning (Farrell, 2007).

Previously, the Ministry of Education had established the Kenya Education Sector Support Program (KESSP) in 2005. This program highlights the benefits of using ICT as an instrument to boost old-style of teaching and learning. The Kenya Vision 2030 goal is to make Kenya a n industrialization hub – to become middle income country with good living conditions for its people by 2030. (Farrell, 2007).

### Statement of the Problem

Many companies globally are facing a decline in performance, and some have even undergone total shutdown in the last decade. For the case of SMEs, there is evidence that most of them do not last up to the third year after start-up as breaking even becomes far-fetched let alone making profits. It is a more worrying trend when such a scenario happens regularly owing to financing woes. In fact, the main problem in the performance of these SMEs mainly lies with the managers and investors failure to undertake prudent financing decisions. Most of the SMEs fail at the point where they cannot optimize the mix between whether debt or equity because they do not get the appropriate capital structure instrument to boost financial performance and often times, they choose capital structure that maximizes its weighted average costs on capital (Chepkemoi, 2013).

Capital structures have been developed to try to unearth the financing challenges enterprises experience, thus, enhancing financial performance. However, past studies conducted on capital structure and financial performance of enterprises, such as Mathuva (2009); Chebii, Kipchumba and Wasike (2011), Nyamao, Patrick, Martin and Oondo (2012), and Owolabi and Inyang (2013) show conflicting results since none of them put emphasis on the effect of capital structures on financial performance of SMEs. A critical review of the previous studies brings forth a gap in literature in relation to impact of capital structures on the financial performance of SMEs. This calls for urgent research on this subject matter. It is on this premise that this research set out to assess the effects

of capital structure on financial performance of SMEs, particularly in the ICT sector in Nairobi County.

#### Purpose of the Study

The purpose of the study was to assess the effects of capital structure on financial performance of SMEs in the ICT sector in Nairobi County.

#### Objectives of Study

The objectives of this study were:

1. To identify the proportion of debt and equity employed by ICT sector SMEs in Nairobi County.
2. To assess how financial performance was measured in ICT sector SMEs in Nairobi County, Kenya.
3. To determine the effect of capital structure on financial performance of ICT sector SMEs in Nairobi County, Kenya

#### Research Questions

1. What was the proportion of debt and equity employed by ICT sector SMEs in Nairobi County, Kenya?
2. How was performance measured in ICT sector SMEs in Nairobi County, Kenya?
3. What was the effect of capital structure on performance of ICT sector SMEs in Nairobi County, Kenya?

#### Justification for the Study

According to Kizito (2017), financing is a crucial function of an enterprise. This is because capital structure decisions directly affect the profitability of a business enterprise. Proprietors must choose the best mix of debt and equity for their business

enterprise in order to remain in business (Coleman & Robb, 2007; as cited in Kizito (2017). The selection of a successful blend of debt and equity depends on the fundamental elements of a business entity and its financial strategy (Kajananthan & Nimalthasan, 2013). Deciding on an optimal capital mix is important because a company will be guaranteed of satisfying its customers and stakeholders needs.

Economic globalization, change in market trends, business competition, urge for progressive innovation and the adoption of information technologies pose a challenge for organizations in boosting competition. This makes the capital structure such as an important strategy in improving business competitiveness. Awino (2013) asserted that different firms use different strategies to gain competitive edge over other players in the industry and capital structure is one such strategy. This study assessed the effects of capital structure on financial performance of SMEs.

#### Significance of the Study

To the investors and other financiers, the study can serve in enlightening them on how capital structure affects the financial performance of SMEs. This will make them conscious as they make the right investment and loaning decisions that allow them to get a return on their investment. The study can also help policymakers to come up with effective strategies and policies to manage low performance by the SMEs. Further, the findings will provide investors with information on suitable capital mix structures for an SME.

This study will be a source of knowledge and act as a benchmark for future scholars and researchers who may wish to do research in the same field, as it will give new insights on areas for further studies. Similarly, the study adds to the existing body of knowledge in the SME sector, especially by filling the research gap on effects of capital structure on financial performance of ICT sector SMEs.

### Assumptions of the Study

The study made the following assumptions:

1. That the capital structure employed by ICT sector SMEs included debt and equity
2. That there exists a relationship between capital structure and financial performance
3. That the respondents would be willing to supply the required information on the capital structure of their enterprises and their financial performance.

### Scope of the Study

The focus of this study was on SMEs based in the ICT sector located in Nairobi County. The target population of the study was entrepreneurs who were operated ICT related SMEs in Nairobi's CBD. This is because the ICT sector contributes to development through employment opportunities. The study was conducted within a period of three months running from June 2021 to August 2021.

### Limitations and Delimitations of the Study

The study faced financial and time constraints and therefore data was collected from respondents within Nairobi's CBD. Nairobi being a metropolitan area, it was considered a good representation of the whole country. The researcher used research assistants in data collection.

ICT entrepreneurs could have been reluctant to provide sensitive finance related information concerning their businesses. To address this, the researcher assured the respondents that the information sought would be handled with utmost confidentiality and was to be used for academic purposes only.

The researcher encountered the challenge of reaching the owners of businesses due to their busy schedules and activities. However, the researcher booked appointments prior to data collection.

#### Definition of Terms

**SMEs:** This are enterprises in the informal and formal sectors with 1 to 50 employees (Government of Kenya, 2010). They are important as they create jobs and distribute the benefits of economic development. (CBS-GoK, 2016).

**Capital Structure:** This is a mix of debt and equity that a firm considers appropriate to enhance its operations (Friend & Hasbrouck, 2008).

**Performance:** it refers to a measure of output in the financial and non-financial metrics (Simons, 2012).

**Information Communication Technologies (ICT):** The terms refer to a communication device or application such as radio, television, cellular phones, computers, satellite systems, services, and applications linked with them, such as videoconferencing and distance learning (Farrell, 2007).

**Debt:** It refers to funds sourced externally by companies that are to be paid with an interest later (Torteska, 2012).

**Equity:** A form of financing provided by the shareholders of the firm (Stephen, 2012).

**Financial Performance:** This is the process of monetary evaluating the outcome of an organization's policies and operations. It is used to assess an organization's overall financial health over a given time period (Uwuigbe, 2012).

### Summary

This chapter has discussed the study's background focusing on SMEs, capital structure and its elements. The connection between capital structure and performance has been discussed. Further, the statement of the problem, main objective of the research, the objectives and research questions have been highlighted. Further, the study has been justified, its importance, and the assumptions have also been outlined. The chapter has equally presented the scope, limitations and delimitations of the study.

## CHAPTER TWO

### LITERATURE REVIEW

#### Introduction

This section provides a comprehensive literature review of previous studies related to the effect of capital structure on financial performance. It presents literature categorized into four main themes as guided by the study objectives, namely, proportions of debt and equity employed by enterprises, financial performance measurement and the influence of capital structure on performance. The literature is divided into general and empirical literature. A theoretical framework consisting of three theories related to the research topic and a conceptual framework have been explained.

#### Theoretical Framework

A theoretical framework refers to blueprint that guides a study based on an existing theory in a field of investigation that is related a study's hypothesis (Grant & Osanloo, 2014). A theoretical framework is used in order to add value to a study. For the purpose of this study, three theories were used, namely, pecking order theory, trade-off theory and agency theory.

#### Pecking Order Theory

This theory was founded by Donaldson (1961), who stated that business owners preferred funding their investments through their earnings and savings rather than sourcing for loans regardless of the sizes of their businesses. A debt in business can be paid if the profits and savings in a business are more than its investment plans. However, if a company needs to acquire loans for its operations, external equity would be its last choice if funding from outside was needed, external equity would be the last choice after security and debt.

Myers (1984) came up with a pecking order hierarchy of sources of finance that companies prefer. The hierarchy shows that retained earnings are used if they are available. Funding of debts is done when savings and earnings are not enough. Equity is used in special situations though it involves huge financial expenditure in the running of the company. Lastly, the tax in debts encourages soliciting of debts rather than equity funding because a tax shield can reduce the payment of income tax (Kemsley & Nissim, 2002).

According to the theory, organizations establish ranking criteria to fund business activities because of insufficient information and a cordial relationship between potential investors and companies. The ranking criteria includes preferred debt than equity, savings and profits preferred to debt and a short-term loan preferred to long term loans. The theory also affirms that having a financial hierarchy will maximize a company's value (Myers, 1984). The theory assumes there is no optimal debt-to-equity ratio hence companies will make use of the available savings and profits before settling for external funding. This will protect companies from dilution of control (Holmes & Kent, 1991).

Financial institutions are considered as the best external sources of funding for debts. This is because funding from financial institutions results to loss of equity, dilution of control of ownership, a sense of independence in business and financial freedom (Bolton & Freixas, 2000). Proprietors of businesses strive not to lose control of their businesses and property. This mostly occurs in small companies because external equity is viewed as a rare source of funding for small companies (Hamilton & Fox, 1998). This is because few business proprietors have the ways of owning their businesses, and small businesses are not likely to share markets making debt financing a prerequisite for many SMEs (Batten & Hettihewa, 1999).

Capital structure is a critical aspect in this theory also affected by the link between financial capabilities to generate funds internally (retained profits) and the viewpoint of getting new investment projects. This theory argues that for companies that are focused on generating profitable growth elements require external funding if internal sources of funding are not adequate. The above arguments confirmed the findings of Hutchinson (2003) who asserted that those with little remuneration solicit for external financing. According to Hutchinson (2003), small companies need to borrow funds more than big firms when they get investment opportunities. Shyam-Sunder and Myers (1999) stated that loans are granted when a company has insufficient funds. This is because, if there are readily available sources of internal funding, companies will prefer to clear the debts rather than incurring them. However, Seifert and Gonenc (2008) stated that owners who are unwilling to consider external equity in any situation would not consider the pecking order.

The pecking-order theory is anchored on asymmetric information originating from investors and managers. This aids management of business enterprise to settle on the best funding option. This theory states that financial sources that have limited levels of asymmetric information attracts firms that desire for funding because the borrowing cost rises with this measurement (Allen, 1993). Myers (1984) posited that internal financial sources including retained earnings are better than external financial sources like debt and that debt is only better over equity when selection is unfavorable.

According to the Pecking order theory, large size enables an enterprise to consolidate retained earnings and therefore a smaller amount of debt is necessary. Consequently, pecking order theory shows a negative relationship between size and debt (Khrawish, 2011). Big companies have fewer challenges on information asymmetry between the management and creditors. This allows companies to acquire debt favorably

(Myers, 1984). The relationship between size and debt can be positive or negative. In this study, theory on pecking order was important since it aimed at assessing financing performance of the SMEs.

The pecking order theory assumes that experienced companies have a higher chance of holding and consolidating their earnings. This in turn lowers their need to source for external funding to address their financing problems than for new SMEs. The likelihood of old SMEs retaining profits over time is high; hence, old SMEs have lower need for borrowing (Myers, 1984). The pecking order theory stipulates that there is no target capital structure hence companies settle on funding based on their savings, debt and equity. Asymmetric information is another major assumption of pecking order theory. This is because asymmetric information states that managers are more knowledgeable than investors hence their business activities give investors an edge on whether to invest in the company.

The pecking order theory was suitable in studying SMEs in this study because it is solid and it has huge information costs, mostly for those that have not performed for long (Mac- Bhaird & Lucey, 2011). SMEs are opposed to losing control of their enterprises (Berggren, Olofsson, & Silver, 2000) making them settle for funding options that ease the burden their business activities. According to Jordan, Lowe, and Taylor (1998), the main reason for SMEs to choose the pecking order theory of financing is the urge of the business owner to be independent and exercise control of the business.

One of the critiques of this theory is that the theory does not show the hierarchy of determining the capital structure of a company. According to Frank and Goyal (2013), pecking order theory does not show where, information asymmetry comes in in small companies. Liesz (2001) also stated that this theory has shortcomings. According to Liesz, the pecking order theory does not explain the impact of taxes, financial distress,

issue security costs, agency costs and the investment opportunities available in a firm based on the company's' capital structure. The theory also does not factor in the problems that can arise when the managers of companies accrue a lot of financial slack hence making resistant to market discipline.

#### Trade-off Theory

The Tradeoff theory originated from a study conducted by Kraus and Litzenberger (1973) who came up with the tax advantage associated with loans and financial distress costs. The theory indicates that the balancing of cost and benefits are the key elements in decision making regarding the capital structure to use. The theory addresses the offsetting of benefits against costs of debt in capital structure (Ju, Parrino, Poteshman, & Weisbach, 2005). It discusses the many business finance alternatives that a business may employ. The theory stresses that debts and equity capital are the two main finance sources an enterprise may use and that urgency and cost of suffering in capital structure are the two issues highlighted by Trade-off theory (Penman, 2001).

As opposed to the pecking order theory where there is no target debt ratio, trade-off theory believes that optimal capital structure exists (Myers & Majluf, 1984). According to Myers (1984), an optimal capital structure is achieved through substituting equity for debt and debt for equity until the company value is maximized (exchange the cost and benefits of debt). Companies' trade-off financial distress acquired through debt and tax savings (Seifert & Gonenc, 2008). As a result, many companies balance on debts to make use of tax deductions (Myers, 1984). However, companies do not use debts unnecessarily so as not to run bankrupt (Myers, 1984).

According to Myers (1984), companies set a target on the debt ratio, focus on attaining it. As opposed to pecking order theory, this theory asserts that many companies making huge profits have a higher target debt ratio. This is because companies making

huge profits focus on not getting bankrupt, getting high tax savings from debts and investing more. Scott (1976) stressed that a trade-off between cost of running bankrupt and the tax advantage of borrowing dictates the optimal debt ratio of a company. However, this impact can be minor because of non-debt tax shields and personal taxes (DeAngelo & Masulis, 1980)

The significance of the capital structure trade-off theory is based its ability to explain that an enterprise's total capital partly comprises of equity and debt. The theory further states that financing of debts have a tax advantage on interest though there are floatation costs, non-bankruptcy and bankruptcy costs involved that constitute the financial distress costs. These costs include labor turnover, harsh credit terms from suppliers and misunderstandings between shareholders and creditors (Muiruri & Bosire, 2015). This theory states that, the suitable capital mix takes place if there is a balance between tax benefits and marginal costs linked to bankruptcy. As a result, most companies would prefer borrowing than equity by businesses to a period where bankruptcy costs become considerable.

The trade-off theory indicates that a firm with no debt value has no challenges resulting from tax shield and financial distress costs. The likelihood of bankruptcy is minimal and insignificant to an enterprise that has not taken loans (Brigham & Ehrhardt, 2014). According to Baxter (2007), huge financial expenditures make the business more vulnerable to liquidity challenges and this leaves businesses asking for additional premiums to cover the risks. Businesses should not dwell on long term funding avenues to an extent where the costs of debts surpass the tax shield benefit. To reduce the tax shield benefit businesses, need to consider anticipated costs of bankruptcy because of the increase in long-term financing. Therefore, the key assumption in this theory is that firms

choose the ways of distributing their resources and comparing the tax benefits of debt with the bankruptcy costs thereby targeting an optimal debt ratio.

This theory was relevant in this study because SMEs consider borrowing costs with the advantages of long-term financing. Bankruptcy costs and paid interest make up the cost of borrowing. Long-term financing is based on the allowances paid on interests from tax and self-control of the management in relation to financing conditions.

This theory was also relevant in this study because SMEs that select their equity levels carefully and outline how they use debts to finance their activities have higher chances of making huge profits as opposed to SMEs that are not keen with the levels of equity and debts. SMEs that incur huge debts are highly disadvantaged. Most companies focus on attaining a balance of equity vs debt capital structure to achieve a tax advantage. However, several scholars have criticized the significance of the trade-off theory. For example, Miller (1977) in his analogy compared the cost-benefit balancing to balancing a horse and a rabbit on either side of the scale. According to his argument, taxes are huge, while bankruptcy is rare and has low costs. He suggested that if the trade-off theory is founded on truth, then businesses should have bigger debts than what is happening now. Another challenge is that when businesses incur debts it is most likely they are struggling financially. This theory stipulates that trade-off between the tax advantage are equated to the use of debt hence a possibility of incurring risks due to financial challenges.

### Agency Theory

The costs that result from a misunderstanding between shareholders, managers, and debt holders are the focus of agency theory. According to Jensen and Meckling (1976), capital structures are determined by the cost of agency-costs of debt and equity. The costs linked to equity include the monitoring expenses of the equity holders, the

bonding expenses of the manager, decreased welfare for the holder because of change in mind of the manager regarding maximizing the welfare of the holder.

The debt issue increases the manager's motivation to invest in a risky business that can yield huge returns however there are chances of making losses that debt holders must share if they occur (Jensen & Meckling, 1976). As a result, if debt holders anticipate the aforementioned outcome, higher premiums are required to raise the cost of debt. According to Holmes and Kent (1991), the agency costs of debt include the opportunity costs resulting from the impact of debt on the company's investment decisions; monitoring and bond expenditures by bondholders and managers; and bankruptcy and reorganization costs. The tradeoff between equity and debt incurs agency costs because of the debt-equity ratio.

According to Jensen and Meckling (1976), there are two types of conflicts that lead to agency costs. They include agency costs resulting from conflicts of interest between managers and shareholders and agency costs that resulting from conflicts of interest between shareholders and debt holders.

A shareholders-managers conflict is a conflict that emerges from the separation of ownership and control (Niu, 2008). In this case, managers who do not have the total ownership of the companies, get very little benefits from their value enrichment activities though they cater for the costs of these activities. The shareholders-managers conflicts take various approaches. Therefore, the agency theory argues through basic assumptions that agents are self-interested, rational and are distinct from principals in their objectives and risk-taking. However, problems come because of the principal employing an agent to make decisions and act on their behalf.

According to Niu (2008), misunderstandings result from managers who use short-term projects that give results earlier to boost their reputation quickly rather than focusing

on long term and profitable projects. Niu (2008) further stated that managers want to stay in leadership for them to maximize their employment termination. Managers may resist takeovers, due to variations in control of companies regardless of their effect on shareholder value. In terms of operating decisions, managers and shareholders can have different inclinations. Harris and Raviv (1991) observed that managers focus on running the companies continuously even if shareholders opt for liquidation.

This theory will be important in this study because it explains how conflicts of interest arise among different stakeholders, shareholders and managers. Bondholders lead to agency costs. This theory further explains how this trade-off between agency costs helps to fix an optimal capital structure that balances the interests of all stakeholders. Management control, motivation and impact are the main themes of this theory, used as the moderating variables of the study.

This theory is further relevant in this study such that it implies that indebtedness should allow bondholders and managers to focus on the same goal of maximizing financial performance and hence shareholders' wealth (Grigore & Stefan-Duicu, 2013). For managers, indebtedness provokes them to succeed because a company with huge debts faces risks of running bankrupt and they risk losing their jobs and remunerations. This is an enough threat in pulling them down based on their ineffective management styles and get a maximum cash flow to reward the debt. The major critique of this theory is that it does not relate to practice. In practice, managers embezzle funds regardless of the debt obligation (Zhang & Li, 2008).

### General Literature Review

This section presents the general literature review, which outlines studies related to the topic. Areas covered in this review include scholarly journal articles, books,

published reports and web content. The literature review provides a description, summary and evaluation of each aspect.

### Components of Capital Structure

The capital structure of a business is a mixture of debt and equity that are used by companies in its operations. Champion (2000) stated that companies can use debt or equity capital to fund their activities. Debt and equity are the best combination. In situations that do not require a deduction on interest owners of businesses are not interested in using debts or equity. If tax on interest is deductible, the managers will make use of their business worth by spending everything on debt financing. The utilization of debt in capital structure of a business contributes to agency charges. Agency charges emanate because of the links between stakeholders, directors, those among debt holders and stakeholders (Jensen & Meckling, 1976).

Shefrin (2005) defined capital structure as a blend of various sources of finance long-term loans or ordinary stock that an organization presents when financing their assets. Ongombe and Mungai (2018) view capital organization as a mixture of equity and loan financing in a business.

Debt and equity financing are important avenues for organizations to acquire capital to run their activities. Making decisions on the means to use to acquire capital depends on the long-term goals of a company and the degree of control that managers want to maintain. However, firms utilize debt and equity funding in an acceptable ratio (Tian & Zeitun, 2017). The debt-to-equity ratio is an important element in determining if managers are operating profitable businesses. However, the debt-to-equity ratios vary based on an industry and company. Abor (2017) stated that there is a rule that outlines that a reasonable ratio should fall between 1:1 and 1:2.

Debt financing refers to money that is borrowed to operate a business. Debt financing refers to borrowing of funds to buy a product, acquire a property or do an expansion (Abor, 2005). Individuals and banks that issue debt financing become creditors. This is because financing a debt involves borrowing capital; hence, debt financing has to be paid through installments and with interest (Ahmad, Abdullah, & Roslan (2012). The interest paid on debt financing is dictated by the wealth of the borrower, the intended usage of the money and by the current financial climate of the financial institution. According to Abor (2005), organizations and corporations view debt financing as attractive because the interest paid is tax deductible.

There are two categories of debt financing based on the type of loan being sought; it can be long term or short-term debt financing. Long-term debt financing involves the assets a business is planning to buy, such as equipment, buildings, land or machinery (Alghusin, 2015). The maturity period is normally beyond 5 years for long-term financing while medium-term financing ranges between 1-5 years. Short-term debt financing relates to money needed for daily operations of a company, such as purchasing inventory, supplies or paying the salaries of employees. Short-term financing is seen as an operating loan or short-term loan because its payment plan occurs in less than one year. An example of a short-term debt financing is a line of credit (Salim & Yadav, 2012).

Loans can be purchased from a financial institution as long-term loans or from investors in debt securities in the form of debentures or preferred stock. It is secured by a floating fee on the company's assets. Unlike principal, it does not include short-term loans in the form of overdrafts (Abor, 2005).

Several variables in the choice of the capital structure and debt maturity structure of which affect the performance of an organization. Debt maturity impacts on an organization's investment option (Tian & Zeitun, 2017). Abor (2005) did a study on the

influence of capital structure on profitability of listed companies on the Ghana Stock Exchange during a five-year period. The study revealed that there is a positive relationship between short-term debt and ROE. According to the study, companies that earn more incur more in short-term debt to fund their business. This means, short-term debt is an important source of funding for the running of companies in Ghana. They represent 85 percent of total debt financing (Abor, 2013). The results of the study demonstrated the adverse relationship between long-term debt and ROE. The regression output indicated that there is positive relationship between debt and ROE hence showing the relationship between total debt and profitability (Abor, 2005). This indicates that companies that make more profits depend on loans as their key financial sources.

Equity financing involves funds acquired from investors in trade for a share in the ownership of the business. Awino (2013) stated that such finances can be gotten from friends and family members of the business proprietor, rich investors or capital firms. An equity investment refers to the buying and holding of shares on the stock exchange by individuals and institutions while expecting dividend income and capital income, as the value of the stock increases up. It can also refer to the acquisition of shares in a private company or start-up (Bragg, 2014). Venture capital refers to the investment in infant companies and it is considered as risky more than investment listed in going-concern situations. Equity Capital represents the personal investment of the business owner (Webster, 2012).

#### Financial Performance

Webster (2012) defined financial performance as the end results of any organization. Vekataran and Varadarajan (2011) defined financial performance as an assessment conducted by managers in an organization in regard to how the organization can use its available assets to create revenues. Financial performance evaluations should

give feedback on whether the organization has sufficient capital to meet all its financial needs, if it is making enough sales based on their investment. In addition, it depends on if the organization collects outstanding accounts from customers without creating burden on its cash flow, if it makes payments to suppliers on time to take advantage of discounts and if an organization has sufficient working capital to finance operations (Salim & Yadav, 2012).

Financial performance is a measure of how a business uses its available resources to generate income. It provides a guide that pave the way for future decisions regarding business development, asset acquisition and management control (Tehrani & Rahnama, 2006). It reflects what on the financial achievements made by the management for a period. It can be used to compare different companies in the industry. According to Onger (2014), financial performance gives aspects for businesses to boost their finances. It shows how a shareholder improves at the end of an accounting period as compared to the beginning. This can be done through using financial ratios from financial statements or using data on market share prices. The main objective of the firm is to maximize the wealth of the shareholders and therefore performance measurement helps to evaluate how richer the shareholder becomes after the investment decisions over a given period (Berger & di Patti, 2006).

The financial performance is measured using different indicators such as revenues, expenses, the net income levels, earnings before interest and tax (EBIT), return on asset, return on equity. However, most frequently used accounting-based measures of performance include ROE and ROA (Reese & Cool, 2012). Return on the shareholders' capital and is calculated through division of Net profits after Taxes by Total Equity capital. It also portrays the levels of profit making of a company as compared to the total sum of capital invested by the shareholders. On the contrary, ROA shows the return on

all assets of the company and companies use it as an overall index of financial performance. It is calculated by dividing Net Income after Taxes divided by Total Assets (Khrawish, 2011). ROA was used in this study to ascertain the financial performance of listed companies.

### Profitability

Profitability is the key determinant of financial performance of any sector and is defined as the measure of the business ability to generate revenues compared to the amount of expenses incurred (Salim & Yadan, 2012). It is therefore important for the company's long-term survival in deciding whether to invest into a business venture. Profitability is measured with income and expenses whereby the income is the money generated from business activities whereas expenses are cost of resources used up or consumed by the business activities. There are two important measures of profitability namely, return on assets (ROA) and return on capital employed (ROCE). Their results can give the much-needed information on the financial health of the business (Swain, 2013).

### Return on Asset (ROA)

Swain (2013) defined return on asset (return on investment) as an indicator of how profitable a company is relative to its total assets. It is therefore a comparative measure that gives an idea of how efficient the management is at using its invested capital to generate earnings. It is therefore a performance measure that evaluates the efficiency of an investment relative to investment costs. As a rule of the thumb, Malik (2011) suggested that the higher the ROA, the more favorable it is for investors since it shows how efficient the company is at managing its assets to produce greater amounts of net income. The annual net income is derived from the company's income statement and

more adjustments are made to Net operating profit after tax (NOPAT) to get a more accurate picture of what was invested into the business (Swain,2013).

The return on assets measures an organization's ability to employ its assets to achieve the total profits (Heikal, Khaddafi, & Ummah, 2014). Anderson, Spade and Jackson (1990) categorized assets as fixed, current, tangible or intangible assets. Efficient utilization of assets can be used to measure the efficiency with which a business enterprise uses its assets to make money. This ratio has a positive relationship with a firm's future potential growth (Jami & Bahar, 2016). Assets being a critical part a firm's capital structure largely depends on its liquidation value (Liu, Liu, & Zhang, 2016). The degree to which assets supports debt is based on the type of asset. Tangible assets can support huge debt as compared to intangible assets (Lim, Macias, & Moeller, 2014).

The capital structure growth of a company is linked to the asset's growth of a company (Kinyua, 2014). A business enterprise can acquire more funds if its assets are properly used, and the optimal levels of production are understood to sustain the productivity and avoid running out of stock. If the profits of an organization are geared towards variations in the asset value, it affects the values of debt negatively as well as equity because securities are less valuable. Therefore, shareholders need to invest in assets whose fluctuations are less interrelated (Kizito, 2017).

#### Return on Capital Employed (ROCE)

Return on capital employed evaluates the profit of a company and the proficiency of using the capital. Capital employed refers to the capital investment, which is key for an organization to function. It is exemplified as a fixed asset plus the working capital. Therefore, it is the sum of shareholders' equity and debt liabilities. For a company to operate for a long time, its ROCE should be higher than its cost of capital. This is because running operations slowly reduces the profits for its shareholders. It is a better

measurement of profitability since it demonstrates how a company is using its equity and debt to generate returns (Bragg, 2014).

### Return on Equity

The return on equity gauges the ease with which a business enterprise uses the capital raised by its shareholders for business growth and determines the dividends or interest paid to shareholders. Therefore, return on equity explains the extent to which enterprise management has succeeded to increase the shareholders' worth. A shareholder's wealth maximizes when a business they have invested in posts increased returns for its shareholders (Brealey, Myers, & Marcus, 2011).

Evaluation of return on equity (ROE) is significant because; the ratio illustrates the degree of funds allocation for stakeholders in a business enterprise and how the management makes use of the funds in the business. The ratio equally indicates the return on the investment of stakeholders, which enables them to reflect on the ability of a company to appreciate its stakeholders.

### Moderating Variables

There is evidence supporting a link between regulatory framework and organizational culture to capital structure decisions among business entities. In a controlled setting, the internal control system of organizations needs to be secure though monitoring costs tend to be higher are if the setting is relaxed. However, companies need frequent follow-ups for the investment and return purposes of the stakeholders. A controlled environment creates room for proper monitoring and lower agency costs. In addition, regulations offer a unique system or standard in the economy. This helps to compare the level of industry practice and the business environment because they can be insecure if regulations are not put in place (Heshmati, 2017).

Organizational culture refers to the working environment and activities that organizations cultivate on to co-exist with employees, organizational values and the beliefs of the organization (Ivankova, 2014). Organizational culture instills a sense of identity to the organizations, outlines its rituals, beliefs, meanings, values, norms and language. Such cultural traits more so stemming from the management impact policies in a business entity and in turn effect capital structure decisions hence the two will act as mediating variables in this study.

#### Effect of Capital Structure on Financial Performance

Results from studies carried out on the effect of capital structure on organizational performance appear to be conflicting. Some studies established a positive relationship while others revealed a negative relationship. Other studies revealed that capital structure and organizational performance have both a positive and negative relationship. However, other researchers indicated that no relationship exist between capital structure and the organizational performance.

A positive relationship exists between capital structure and organizational performance. According to Owolabi, and Inyang (2013), when return on assets surpasses the cost of debt, the financial impact and ROE also increases. The positive relationship can surpass the negative impact of return on sales due to low income.

Other studies found that a negative relationship exists between capital structure and organizational performance, which include: Akeem, Terer, Kinyanjui, and Kayode (2014); Salim and Yadav (2012,) and Ahmad and Rahim (2013). Cheng et al. (2010) found that for business enterprises, a positive relationship exists between the capital structure and organizational performance if the debt is within a 53.97% and 70.48% range. However, when the debt ratio is above 70.48%, a negative relationship is portrayed.

According to studies by Innocent, Ikechukwu and Nnagbogu (2014); Ebaid (2009); Saeedi and Mahmoodi (2013), no relationship exist between capital structure and the organizational performance. The studies involved 320 companies listed in Tehran Stock Exchange (TSE). The studies established that no clear relationship exists between capital structure and the performance of the companies.

Optimal capital structure refers to the level which reduces capital cost for an organization and maximizes organizational performance. From the previous studies, capital structure has an impact on the cost of capital, hence it affects the financial performance of the firm and the share prices (Miller, 2010). Debt financing creates room for the organization to increase the scale of its operations and this boosts its performance in future. However, debt financing affects the performance of the organizations if the return on the assets is greater than the cost of debt (Watkins, 2002). Jensen and Meckling (1976) argued that debt has an impact on the quality of the investment opportunities that the management uses by coercing managers to invest in value addition projects that have an impact on their stakeholders. This helps to minimize the agency and other related costs thereby boosting the financial performance of the companies.

The effect of capital structure on the financial performance of a firm has been studied by many scholars who have confirmed that capital structure has an impact on the financial performance of firms. Eldomiaty and Azim (2012) in a research carried out on the effects of capital structure on financial performance of organizations established that capital structure has a positive effect on the financial performance of the organizations. Salim and Yadav (2012) also supported the argument. On the contrary, Fama and French (2008) found out that capital structure has a negative effect on organizational financial performance. The disagreeing results on the effect of capital structure on the financial performance of an organization depends on the various companies, different countries,

different sectors, different timings, various profitability measures, different debt ratios and different methodologies employed to establish the relationship between capital structure and the performance of an organization (Muchugia, 2013).

Decisions regarding the blend between debt and equity are important because such decisions directly affect a company's profits. The decision is one of the critical components of firm's financial plan). Reinvesting profits into the company is important for it to grow (Kajananthan & Nimalthasan, 2013). Profits making should not be a huge concern for companies because it can undermine a company's liquidity status. Businesses should understand that there are various financial performance indicators, which can boost their financial performance hence they should not dwell on the capital structure only (Xu & Banchuenvijit, 2012). The capital structure guarantees that a firm employs techniques and strategies that for it to achieve accountability with an aim of improving their operations and maximization the reward of stakeholders (Kajananthan & Nimalthasan 2013).

Firms are encouraged to employ debt finance as opposed to other financial sources because of the tax shield advantage on interest expense (Modigliani & Miller, 1963). Business enterprise with low leverage may post low returns hence barring them from making profits, which can be utilized in servicing interest linked to the debt. The size of the capital structure affects the profitability levels of a firm. Small companies have lower debt ratios in their capital structure and may not be in a position to source sufficient financial resources to be invested in higher return programs because of the increased risks associated with such firms (Alghusin, 2015).

#### Empirical Literature Review

Various studies have been carried out on the effect of capital structure on organizational performance at the local and international level. For instance, Abdullah

and Roslan (2019) carried out a study on the effect of debt financing on business performance by assessing the relationship between return on assets (ROA), return on equity (ROE) and short-term debt and total debt in Malaysia. The findings revealed that short-term debt and long-term debts had a major relationship with ROA.

Another study by Cecchetti (2019) on the effects of debt on SMEs in Singapore established that the moderate debt level helps to strengthen welfare and nature growth though high levels can reduce the growth of a firm. According to Cecchetti, the debt had a positive impact on the progress of a company at a certain level. Companies are faced with the risk of a financial crisis is if the ratio surpasses a certain level. However, excessive borrowing can make a company bankrupt thereby ruining its financial power. Cecchetti (2019) states that huge debts limit a company from engaging in profitable projects because they are not able to get more loans from banks. The study concluded that the nature of debt is important in the productivity of an organization and the accessibility of long-term funding boosts the output of a company.

Aziz and Abbas (2019) studied debt financing as a form of capital structure in financing manufacturing SMEs in Pakistan between the year 2008 and 2018. Independent variables were short-term debt and Long-term debt whereas SME performance was determined by Return on Equity and Return on Assets. Secondary data from 14 SMEs indicated that short-term debt had a negative and significant effect on SME performance measured by return on assets.

In Sweden, a study by Halstead and Landgren (2020) assessed the effect of equity financing through angel investing among 41 SMEs. The aim of the study was to determine the impact of value addition activities of investors in boosting the performance of businesses. The findings revealed that equity financing had a positive effect on the

performance of SMEs. It was achieved through profitability, market growth, sales growth and return on assets.

Jones and Edwin (2019) carried out another study on the effect of debt finance on corporate performance in Nigeria. The aim of the study was to examine the effect of debt measured through the short-term debt, long-term debt and total debt on the performance of organizations. Data was collected from 15 medium-sized consumer-based companies. The panel regression results revealed that short-term debt, long-term debt and total debt had a positive effect on the performance of consumer-based corporations in Nigeria.

Caruabna (2020) carried out a study to establish the relationship between debt level and business growth of SMEs in Egypt. The dependent variables in the study were return on assets, return on equity and gross profit margin and short-term debt, long-term debt and the independent variable was total debt. The findings revealed that short-term debt and total debt had a negative effect on return on assets (ROA).

Mwangi et al. (2019) conducted a study in Kenya on donor funding as a source of equity financing: how it influences performance of microfinance institutions. The study used a descriptive cross sectional survey design. The ample size was composed of 57 MFIs. Secondary sources dating from 2011 to 2015 were used. The findings revealed that donor funding had a positive influence on the performance of the firm.

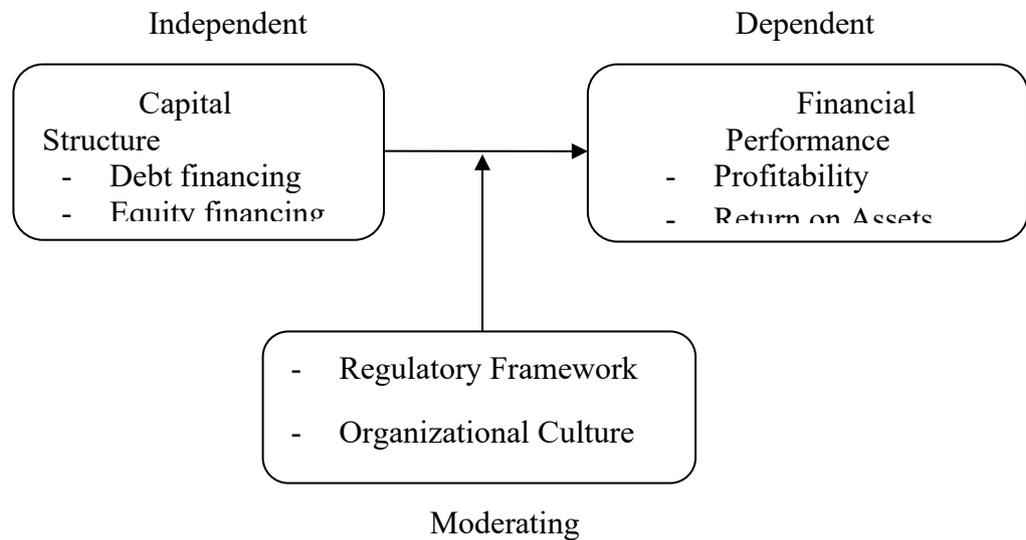
Kamau (2019) assessed the effect of equity financing and performance of SMEs in Thika Town found out that retained earnings after tax have a positive impact on the performance of SMEs and in particular profitability and ROE.

### Conceptual Framework

According to Mugenda and Mugenda (2012), a conceptual framework is the formulation of the correlation between variables in the study and presents the relationship

graphically or diagrammatically. It identifies the ideas under study and their relationship.

Figure 2.1 illustrates the study's conceptual framework.



*Figure 2.1: Conceptual Framework*

Source: Author (2021)

## Discussion

A conceptual framework is a model that aids in assessing and developing realistic justifications of a research (Mugenda & Mugenda, 2012). Figure 2.1 illustrates the relationship between the independent variable (capital structure) and the dependent variable (financial performance). An independent variable refers to a variable that is self-sufficient to describe a phenomenon. It predicts the desired outcome. Concerning this study, capital structure is the independent variable, which is measured by the debt and equity finances. A dependent variable is one, which is the outcome of the independent variables. In this study, the dependent variable is financial performance, measured by profitability and is determined by return on equity and return on capital employed. Customer needs, management control and regulatory framework are the intervening

variables that may influence the relationship between the independent and dependent variables. For example, customer needs drives customers to purchase a given product out of the various competing brands. This affects sales volume which ultimately leads to either an improvement or decline in profitability.

### Summary

The chapter has discussed the study's theoretical framework where the pecking order theory and trade- off theory were outlined. Further, the chapter has reviewed literature from previous studies that are related to the variables of the study. This is in regard to capital structure, financial performance and the relationship between capital structure and financial performance. The chapter has ended with a formulated conceptual framework that illustrates the relationship between the variables of the study. The next chapter discusses the research methodology.

## CHAPTER THREE

### RESEARCH METHODOLOGY

#### Introduction

According to Bose (2013), research methodology is considered as the most important section of any study. It describes the methods and procedures that were used in data collection and analysis. It discusses in detail the research design, population, sample size, sampling technique, data collection tools, data collection procedure, pretesting, data analysis plan and the ethical principles to be observed. The study aimed at assessing the effect of capital structure on financial performance of small and medium enterprises in the ICT sector, Nairobi County.

#### Research Design

According to Sekaran and Bougie (2016), a research design is a guideline for gathering data, analysis and interpretation, which is formulated to respond to research questions. Rahi (2017) observed that three major research designs exist, namely, explanatory research design, exploratory research and descriptive research. Exploratory research design is suitable in a situation where the area of study is new and there is very little, or nothing known about it and no researcher has done a study on it (Neuman, 2014). On the other hand, descriptive research design is a kind of study that collects data on the existing state of a phenomenon (Rahi, 2017). Similarly, strives to establish to explain why a certain phenomenon exists (Neuman, 2014).

A descriptive research design was used to provide a picture of debt and equity used by SMEs in the ICT sector, their financial performance, and a description of capital structures used in improving financial performance of the SMEs in the ICT sector. This was premised on the arguments by Rahi (2017) and Grey (2014) that descriptive research

design describes a situation, people or event to show how things are related to each other and as it naturally occurs. Additionally, Grey (2014) argued that descriptive research design seeks to address the ‘what’ kinds of research questions. Therefore, the researcher used descriptive research in addressing the ‘what’ research questions in this study.

Since, descriptive research design cannot explain why an event has occurred (Punch, 2005), explanatory research approach was suitable for this study to explain and account for the descriptive information. This implies that this study applied explanatory research design to answer the ‘why’ and ‘how’ questions in this study (Grey, 2014). It built on descriptive information and went on to find out the reasons why a phenomenon occurs. Explanatory research design was therefore used in this study to explain the causes of poor financial performance of SMEs in the ICT sector. It was also used to show the effect of capital structure on the performance of SMEs in the ICT sector. Through explanatory research design, the study revealed that there is a positive relationship between capital structures and financial performance of SMEs in the ICT sector.

Under the descriptive and explanatory research designs, this study employed a mixed-method research approach. It focused on sequential QUAN→QUAL mixed approach, whereby both quantitative and qualitative approaches were utilized concurrently. To ensure that parallel mixed-method approach was systematic and rigorous, the researcher designed and conducted a sequential QUAN→QUAL mixed approach, whereby there was more initial quantitative approach compared to a subsequent qualitative approach as described by Ivankova (2014). The sequential QUAN→QUAL mixed method approach was preferred in this study for because of its ability to collect, analyze and integrate quantitative and qualitative data simultaneously. The sequential QUAN→QUAL mixed method approach facilitated the combination of

quantitative and qualitative data. This made the research problem to be understood better (Rahi, 2017).

### Population

This refers to the total collection of subjects or cases from which the researcher will draw inferences (Cooper & Schindler, 2014). It constitutes the complete set of all elements in the researcher's area of investigation (Kothari, 2014). The population for this study was formal SMEs in the ICT sector whose business activities were located in Nairobi City County. According to the Licensing Department business register of Nairobi City County (2019), Nairobi County has 10, 600 formal SMEs in the ICT sector and this comprised the study's population.

### Target Population

Target population defines the total number of cases that the findings of the study will generalize and make inferences on (Cox, 2013). For this study, the target population was formal ICT sector SMEs whose business operations were located in Nairobi's CBD. This included SMEs located in ten Nairobi town streets, including Tom Mboya Street, Mama Ngina Street, Moi Avenue, Mfangano Street, Kimathi Street, Haile Selasie Avenue, Biashara Street, Kenyatta Avenue, Harambee Avenue and Koinange street.

The formal ICT sector SMEs was targeted because they were registered with the Licensing Department of Nairobi City County and were easily accessible. According to the Licensing Department business register of Nairobi City County (2019), Nairobi CBD had 1048 formal SMEs in the ICT sector and this was the target population for this study.

### Sample Size

According to Saunder, Lewis, and Thornhill (2014), a sample is a small portion that is chosen to represent the study's population. According to Yamane (1967); Fisher

(1992); Mugenda and Mugenda (2012); Kothari, 2014), if the target population is less than 10,000 cases, the following formula is used to calculate the random sample for a study.

$$n = \frac{N}{1 + N(e^2)}$$

Whereby,

N=Target Population

n=Sample size

e= the desired precision rate (acceptable level of sampling error

Since the target population for this study was 1,048, which is less than 10,000, the researcher used the  $n=N/N+N(e^2)$  formula to compute the sample size for this study. For the sake of this research, the desired precision that was preferred is (e) rate of 10% (0.1) and the target population (N) of 1,048 as illustrated below.

$$n = \frac{N}{1 + N(e^2)}$$

$$n = \frac{1048}{1 + 1048(0.1)^2}$$

$$n = \frac{1048}{11.48}$$

$$n = 91$$

Therefore, the calculated sample size for this research was 91 respondents who were operating SMEs in the ICT Sector in Nairobi's CBD.

### Sampling Technique

Sampling is a procedure done by collecting study information from a small section of the target population which is then used to generalize the findings to the whole

population (Kothari, 2014). A researcher applies a specific sampling approach to arrive at a representative sample for study. To achieve the objectives of this study, purposive and random sampling approaches were adopted in selecting the sample size.

Purposive sampling techniques are used to select a study sample depending on the researcher's discretion or judgment about the kind of respondents to use in a study (Kothari, 2014). Therefore, in applying purposive sampling technique, the researcher selects respondents based on specific characteristics, while eliminating those that do not fulfill the set criteria. This therefore means that ICT SMEs were chosen purposively to take part in this study. This, therefore, facilitated the researcher to collect information that effectively met the objectives of the study.

Further, upon purposively identifying ICT SMEs, the researcher employed simple random sampling to select respondents of the study. This included the owners of the businesses and financial officers. The implication of this is that every ICT SME operating in Nairobi CBD had an equal opportunity of being selected to participate in this study. According to Cooper and Schindler (2014), random sampling minimizes the error of sampling in the population hence increasing the accuracy for the estimation approach used.

#### Data Collection Instruments

Data collection instruments refers to the tools applied in collecting data so as to gain new understanding and answers to a given phenomenon (Cooper & Schindler, 2014). This study made use of questionnaires only.

#### Questionnaires

For the purpose of this study, semi-structured questionnaires were employed in data collection. Sekaran and Bougie (2016) described a semi-structured questionnaire as

a pre-designed written collection of questions to which study participants provide responses. The suitability of a semi-structured questionnaire used in data collection was justified in this study because it facilitated the researcher to obtain quantitative data in standardized manner for consistency and coherence (Roopa & Rani, 2012). Similarly, semi-structured questionnaires were efficient and cost-effective. In addition, questionnaire tended to encourage accurate responses from study participants and, hence eliminating bias. They were also efficient and an impersonal approach of data collection (Cannoway & Powell, 2010). Equally, a questionnaire was deemed useful by the researcher since it was time saving and it was easy to administer.

The questionnaire contains both closed-ended and open-ended questions. It has four sections. Section A collected data on the demographic characteristics of the respondents. Section B collected data about the objectives of the study and specifically objective one touching on the components and proportion of capital structure. Section C outlined the financial measures employed by SMES, which was the second objective. Section D detailed items linking capital structure and financial performance of SMEs. The tool had 13 questions.

#### Data Collection Procedures

Prior to actual data collection exercise, the research recruited and trained three professional research assistants to help in the process of data collection. The research assistants were trained on how to collect data while taking caution in protecting the confidentiality and privacy of the responses received.

For the questionnaire administration, this study employed 'drop and pick' method. This implies that the participants were issued with the questionnaires, and they were given time to fill them, after which the duly filled questionnaires were picked at an agreed appropriate time but within the research time schedule. Before issuing

respondents with questionnaires, the research assistants introduced themselves and explained to the respondents the purpose of study and the study requirements. Additionally, the research assistants ensured that the respondents were well conversant with the language used in the questionnaire. In cases where a respondent confirmed that he/she did not understand the language used in the questionnaire, the research assistant administered the questionnaire using face-to-face method, thus, reading and explaining to the respondent each question. Once the consent was granted, the questionnaires were distributed to the respondents to fill then they agreed with the research assistant on the appropriate time to pick the duly filled questionnaires.

### Pretesting

Pretesting is a procedure undertaken to identify weakness in the structure of data collection tools and procedures that were used in the study. Further, pre-testing facilitates the researcher to evaluate the efficiency and clarity of the research tools (Kothari, 2014). According to Cooper and Schindler (2014), pretesting enables errors in the research instruments to be noted for elimination and serves as an opportunity for training the research team before to the actual data collection process begins. For the purpose of this study, nine questionnaires were pretested, which represent 10% of the sample size of 91 respondents, as recommended by Saunders et al. (2012). The pretest study involved ICT SMEs from streets that were not part of the actual targeted streets, which included Luthuli Avenue and Moktar Daddah Street.

### Validity and Reliability of the Research Instruments

According to Kothari (2014), reliability is ensuring that the research tools are consistent and reliable and will produce similar results every time they are administered. In this study, reliability was guaranteed by calculating the Cronbach's alpha. Bryman and Bell (2011) posited that the questionnaire is reliable if the Cronbach's alpha value is greater than or equal to 0.7. This study's the Cronbach's alpha was more than 0.7, hence the questionnaire was reliable

Validity refers to the ability of an instrument to measure what it needed in a study. It shows how data in a study represents a given variable (Bryman & Bell, 2011). The validity of a research instruments is achieved based on the literature review. In addition, feedback is gotten from the scholars in the field of inquiry mostly the supervisors and lecturers. The feedback allowed for the revision and improvement of the research instruments hence it enhanced their validity.

#### Data Analysis Plan

Kothari (2014) defined data analysis as a process that entails organizing, manipulating and considering of meaning of data that has been collected. Cooper and Schindler (2014) also noted that data analysis encompasses reducing the collected data to manageable portions, developing summaries, identifying patterns, and employing statistical approaches like descriptive techniques.

Quantitative data was collected through closed-ended questions in the questionnaire was coded and tabulated using the Statistical SPSS version 25 for analysis. The study utilized descriptive techniques in analyzing quantitative data, which included frequencies and percentages. The descriptive statistics enabled descriptions of the study results in details, thus, presenting the data in a more meaningful way that allowed simpler interpretation of the study findings.

Quantitative data from open-ended questions in the questionnaire was analyzed using thematic approach. This implies that the responses were first categorized in themes and sub-themes based on the purpose and objectives of the study. Then the themes and sub-themes were identified, coded and analyzed through SPSS to provide descriptive statistics.

### Ethical Considerations

The researcher was committed to fulfil all ethical principles during the study. To start with, the researcher informed participants to understand the purpose of the study and their consent was sought prior to participation in the study. Participation was entirely on voluntary terms and sufficient steps were followed to ensure confidentiality of the data obtained. The questionnaires were anonymous hence, the respondents used codes. Participation in the study was on personal consent by the respondents who read and signed consent forms.

An introduction letter from the Daystar University's School of Business and Economics was sought. Further, a research permit from the National Council of Science Technology and Innovation (NACOSTI) was obtained before proceeding to the field for data collection. On ethical conditions, the researcher sought clearance from Daystar University's Ethics Review Board.

This study observed the right to confidentiality by ensuring that the collected information was handled confidentially. The collected data was kept safely and was not used for any other purposes other than for this study.

### Summary

This chapter has presented the research methodology used to conduct the study. It described the research design, population, sampling size, sampling techniques, types

of data, data collection instruments, data analysis, presentation and research ethics. The next chapter presents, analyses, data and interprets the study findings.

## CHAPTER FOUR

## DATA PRESENTATION, ANALYSIS, AND DISCUSSION

## Introduction

In this chapter, data that was collected from the field is presented, analyzed, and interpreted in response to the purpose of the study, the objectives, and the research questions. The study focused on the effects of capital structure on financial performance of SMEs in the ICT sector in Nairobi County. The results are summarized in frequencies and percentages and presented in tables and figures. Other results are presented in form of correlation and regression coefficients.

## Analysis and Interpretation

This section presents the response rate and the analysis and interpretation of the study findings. For quantitative data obtained from the duly filled and returned questionnaires, descriptive (frequencies and percentages) were utilized to provide detailed research findings based on the research objectives.

## Response Rate

A response rate is the total number of questionnaires returned after being filled by respondents. The study sampled 91 respondents from the formal SMEs in the ICT sector in Nairobi Central Business District. Table 4.1. illustrates the response rate.

*Table 4. 1: Response Rate of Respondents*

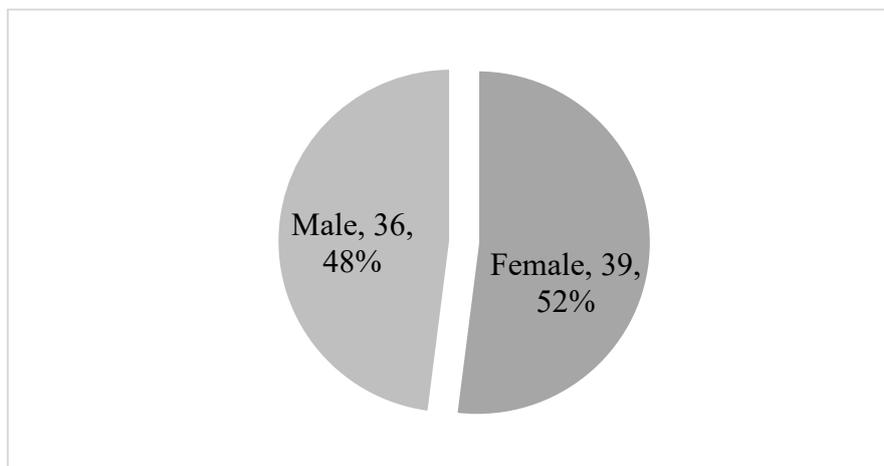
	Targeted Sample	Actual Sample	Response Rate
	91	75	82.4%
Total	91	75	82.6%

Table 4.1 indicates that 91 questionnaires were issued to the respondents out of which 75 were filled and returned resulting in a response rate of 82.4%. According to

Mugenda and Mugenda (2003), a response rate of 50% in a descriptive study like the current study is sufficient for analysis and reporting, 60% is good, while 70% and above is excellent. This implies that this study's response rate of 82.4% was excellent for data analysis and reporting of the results.

### Demographic Profile

This study sought to capture the demography of operators of SMEs in the ICT sector in Nairobi CBD. The first demographic information the study sought to capture was gender of the respondents. Findings were as presented in Figure 4.1.



*Figure 4.1: Gender of the Respondents*

The findings shown in Figure 4.1 indicate that 39(52%) of the respondents were female whereas 36(48%) were male. This result demonstrates that both sexes were represented in this study, indicating that the findings are not gender biased, making the study relevant and reliable. Also, this finding implies that at the time of the study, more females operating SMEs in the ICT sector in Nairobi CBD were available to respond to the questionnaire compared to male operators.

### Age of Respondents

The study findings in regard to the age bracket of the respondents were as shown in Table 4.2.

*Table 4. 2: Respondents by Age*

Age	Frequency	Percentage (%)
26-30 years	21	28.0
31-35 years	22	29.3
36-40 years	1	1.3
41-45 years	9	12.0
Above 46 years	22	29.3
Total	75	100.0

The results in Table 4.2 indicates that 21(28%) of the respondents were between the ages of 26-30 years, 22(29.3%) were between 31-35 years old, one (1.3%) was between 36-40 years old, 9(12%) were between 41-45 years old, whereas 22(29.3%) above 45 years old. The findings show that most of the operators of SMEs in the ICT sector located within Nairobi CBD were between 31-35 years old and above 46 years old who cumulatively represented 44(58.6%).

### Education Level

Table 4.3 presents the study findings on the education level of the respondents.

*Table 4.3: Respondents by Education Level*

Education Level	Frequency	Percentage (%)
Primary	5	6.6
Secondary	12	16.0
Diploma	15	20.0
Undergraduate	26	34.7
Master's	17	22.7
Total	75	100.0

Education level of the operators of SMEs in the ICT sector within Nairobi CBD is varied across education levels in Kenya. Seventeen (22.7%) of the respondents

indicated that they had a masters' degree level of education, followed by 26(34.7%) who had undergraduate degrees. Further, 15(20%) of the respondents had diplomas, 12(16%) had secondary level of education and 5(6.6%) had primary level of education. This finding implies that majority of the respondents at 43(57.4%) had undergraduate and master's degrees. This may imply that due to the limited formal employment opportunities, many of the graduates from universities venture into business where they operate small and medium enterprises, meaning the Kenyan economy is driven by the SME sector, a fact that concurs with the Kenya Bureau of Statics (2015) which noted that SMEs play a key role in the economic growth and development of countries through job creation and distribution of gains of economic development.

#### Position Held in the Business

Another demographic aspect of the respondents the research sought to understand is the position the operators of ICT sector SMEs held. Findings were as presented in Table 4.4.

*Table 4.4: Position Held in the Business*

Position held	Frequency	Percentage (%)
Business owner	23	30.7
Manager	23	30.7
Casual employee	15	20.0
Marketing	7	9.3
Cashier	7	9.3
Total	75	100.0

Findings in Table 4.5 show that the majority of the respondents were business owners at 23(30.7%), 23(30.7%) were employed in the SMEs as managers, 15(20%) were casual employees, while 14 (18.6%) were marketers and cashiers. This finding show that respondents of this study held different positions in their respective SMEs in the ICT sector within Nairobi CBD. This finding demonstrates that business owners in

the SME sector create jobs ranging from business managers, casual employees, cashiers and marketers and this leads to economic growth which is consistent with Migiro (2006) who stated that SMEs are important in the growth of economy in creating job opportunities and offering entrepreneurial skills.

#### Number of Years Respondents Had Worked in the Business

The researcher sought to know the period respondents had worked in their respective SMEs in the ICT sector within Nairobi CBD with an aim of understanding their experience in the ICT sector SMEs. The results were as shown in Table 4.5.

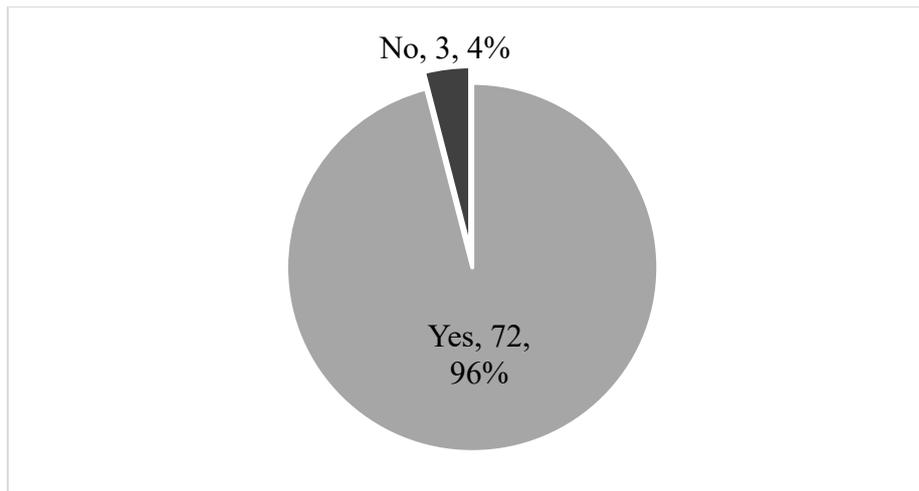
*Table 4. 5: Period Worked in the ICT Sector SMEs*

Period	Frequency	Percentage (%)
3-5 years	35	46.7
6-8 years	23	30.7
9 years and above	17	22.6
Total	75	100.0

The findings show that 35(46.7%) of the respondents had worked in the ICT sector SMEs for a period of 3-5 years, 23(30.7%) had worked for a period of 6-8 years, while 17(22.6%) had worked for a period of more than 8 years. These findings show that all respondents of this study had experience of at least three years working with ICT sector SMEs, thus, they had a good understanding of the effect of capital structure on financial performance of SMEs in the ICT sector.

#### Proportion of Debt and Equity Employed by ICT Sector SMEs

The first objective of this study was to identify the proportion of debt and equity employed by ICT sector SMEs in Nairobi County. To address this objective, the researcher first asked respondents whether they would say that capital structure plays a role in the financial performance of their businesses. Their responses were as presented in Figure 4.2.



*Figure 4.2: Capital Structure and Financial Performance*

As per the findings shown in Figure 4.2, 72(96%) of the respondents agreed that capital structure played a major role in the financial performance of their SMEs, while 3(4%) respondents indicated that capital structure did not play a major role in the financial performance of their SMEs. This finding demonstrate that capital structure is a key component in the success of SMEs in terms of financial performance. This finding concurs with Halstead and Landgren (2020) who found that capital structure through equity financing had a positive effect on the performance of SMEs in terms of profitability, market growth, sales growth and return on assets.

#### Sources of Finance for SMEs in ICT Sector in Nairobi CBD

The respondents were also asked to indicate the sources of finance they used in their SMEs. The findings were as shown in Table 4.6.

*Table 4. 6: Sources of Finance for SMEs in ICT Sector in Nairobi CBD*

Statements regarding capital structure		4	3	2	1	Total
My business was financed through short term debt	N	22	15	7	31	75
	%	29.3	20.0	9.3	41.4	100
My business was financed through long term debt	N	15	15	8	37	75
	%	20.0	20.0	10.7	49.3	100
My business was financed through short term equity	N	23	15	7	30	75
	%	30.7	20.0	9.3	40.0	100
My business was financed through long term equity	N	37	23	0	15	75
	%	49.3	30.7	0	20.0	100
My business was financed through a mix of debt and equity	N	30	15	8	22	75
	%	40.0	20.0	10.7	29.3	100

4= Very Large Extent, 3= Large Extent, 2= Moderate Extent, 1= No extent

The findings in Table 4.6 show that most of the SMEs in the ICT sector in Nairobi CBD at 60(80%) indicated that they were financed through equity to a very large extent; out of which 37(49.3%) were financed through long-term equity while 23(30.7%) were financed through short-term equity. This was supported by a large number of SMEs at 68(90.7%) who said they were not financed through debt to any extent. However; 45(60%) of the SMEs indicated that they were financed through a mix of equity and debt, out of which only 37(49.3%) were financed through either long-term or short-term debt.

These findings demonstrate that most of the SMEs in the ICT sector in Nairobi CBD used equity financing, while some used a mix of both equity and debt. Champion (2000) stated that business enterprises use either equity, debt or a mix of both to finance their business operations. Champion (2000), however, noted that use of both is the best combination. Baker and Martin (2017) found that capital structure is determined by profitability, operational leverage, risk, and a firm's growth rate and therefore companies make a choice on what source of financing depending on these factors. However, for small and medium businesses, equity is usually more compared to debt.

In order to identify the proportion of debt and equity employed by ICT sector SMEs in Nairobi County, the researcher asked respondents to indicate the proportion of short-term and long-term debt and equity their business capital structure was composed of for a period of at least three years in operation. Then the average proportion of short-term and long-term debt and equity was calculated, and Table 4.7 shows the study findings.

*Table 4. 7: Average Proportion of Short-term and Long-term Capital Structure*

Average proportion		Short-term Debt		Long-term Debt		Short-term Equity		Long-term Equity	
		N	%	N	%	N	%	N	%
Year 1	Less than 100,000	10	13.3	0	0.0	6	8.0	20	26.7
	100,000-249,000	8	10.7	3	4.0	4	5.3	30	40.0
	250,000-499,000	3	4.0	10	13.3	2	2.7	10	13.3
	500,000 & above	0	0.0	8	10.7	0	0	3	4.0
	Total	21	28.0	21	28.0	12	16.0	63	84.0
Year 2	Less than 100,000	15	20.0	5	6.7	10	13.3	30	40.0
	100,000-249,000	8	10.7	10	13.3	3	4.0	21	28.0
	250,000-499,000	5	6.7	15	20.0	4	5.3	6	8.0
	500,000 & above	0	0.0	13	17.3	0	0.0	1	1.3
	Total	28	37.4	43	47.3	17	22.6	58	77.4
Year 3	Less than 100,000	20	26.7	10	13.3	15	20.0	15	20.0
	100,000-249,000	10	13.3	15	20.0	7	9.3	14	18.7
	250,000-499,000	7	9.3	10	13.3	6	8.0	11	14.7
	500,000 & above	0	0.0	2	2.7	2	2.7	0	0.0
	Total	37	49.3	37	49.3	30	40.0	40	53.4

From the results in Table 4.7, the proportion of equity employed by ICT sector SMEs in Nairobi County compared to the proportion of debt show in the first year that majority of the SMEs employed long-term equity at 63(84%), whereby the highest average proportion was between Kshs 100,000-249,000. This represented 30(40%), while only a few at 3(4%) had an average proportion of long-term equity that was above Kshs 500,000. These findings show that the capital structure of ICT sector SMEs in the first year of operations mostly consists more of equity as compared debt. This is

supported by the findings in a study by Mwangi (2020) which revealed that donor funding as a source of equity had a positive influence on the performance of the firm in its first year of operations.

In the second year of operation, long-term equity was still high at 58(77.4%), with the highest average proportion being less than Kshs 100,000 at 30(40%) as opposed to the first year which was between Kshs 100,000-249,000. However, it is worth to note that there was an increase in the average proportion of both short-term and long-term debt from 42(56%) in the first year to 71(84.7%) in the second year. The highest average proportion of long-term debts between Kshs 250,000-499,000 increased from 10(13.3%) in the first years to 15(20%) in the second year. These findings show that the capital structure of SMEs in the second year of operations was more of equity compared to debts.

Further, in the third year of SMEs operation, 40(53.4%) of the respondents indicated that their capital structure employed long-term equity in while 30(40%) of the respondents indicated that they employed short-term equity in their third year of business operations. There was an increase of debt in capital structure of SMEs in the ICT sector, where 37(49.3%) respondents indicated that their capital structure employed long-term debt, while a similar number of respondents at 37(49.3%) indicated that their capital structure employed short-term debt.

These current study findings on the average proportion of equity and debt employed by ICT sector SMEs in Nairobi County, for a period of three years in operation, have demonstrated that equity, especially long-term equity, is highly employed in the first and second years of SMEs' operation. However, in the third year, the proportion of debt in the capital structure of the SMEs increases significantly. Similarly, several previous empirical studies have shown that different types of financing are appropriate for different stages of business development. Njeru (2013) notes that it is normal that in

the early stages of a business (i.e., first year of operation) funding usually comes from personal financial sources and savings or long-term equity (i.e., from family and friends).

According to Onyiego et al. (2017), long-term equity is heavily used by a business during its first year of operation because at this time the business often lacks viable products, customers, or steady revenue. According to this theory, financing needs and funding options vary as the business grows and becomes more experienced. However, as the business grows and begins to generate income, angel investors and venture capitalists may become interested (Onyiego et al., 2017). When the business achieves certain profitability and stability, especially in the third year of operation and subsequent years, debt such as bank loans can become an option (Amidu, 2007).

Additionally, when the firm has achieved significant revenues and growth, that is in the third year of operation and subsequent years, it may be a candidate for sale or for an initial public offering. Thus, a potential source of capital varies according to the age of the business. During the rapid growth stage (third year of operation onwards), the firm consumes cash faster than it brings it in. This necessitates identifying and securing external financing such as debts from banks (Namusonge, 2010). This literature explains the current study's findings on the high proportion of long-term equity in the first year of operation of SMEs in the ICT sector in Nairobi CBD and gradual significant increase in the proportion of debts in the second and third years of operation of the SMEs. However, according to Okwanfor (2019) who examined the relationship between structure of capital of SMEs and financial performance of firms in Nigeria, the earning ability and the performance SMEs is dependent on the capital structure mix.

#### Financial Performance of ICT Sector SMEs

The study sought to assess how performance was measured in ICT sector SMEs in Nairobi County. Therefore, respondents were first asked whether profitability and

Return on Assets (ROA) were forms of measuring financial performance of their businesses. The findings were as shown in Table 4.8.

*Table 4. 8: Measuring of Financial Performance*

Measures of Performance		Yes	No	Total
Profitability	N	72	3	75
	%	96.0	4.0	100
Return on Assets (ROA)	N	69	6	75
	%	92.0	8.0	100

From the findings in Table 4.8, most of the respondents at 72(96.0%) and 69(92%) agreed that profitability and ROA respectively represent how they measured financial performance of their business. This shows that profitability and ROA are the major indicators of measuring financial performance among SMEs in the ICT sector. According to Swain (2013), there are two important measures of profitability namely, Return on Assets (ROA) and Return on Capital Employed (ROCE) and their results provide the much-needed information on the financial health of the business. Return on asset (ROA) is an indicator of how profitable a company is relative to its total assets. It is a performance measure that evaluates the efficiency of an investment relative to investment costs (Swain, 2013). Return on capital employed on the other hand evaluates the profit of a company and the proficiency of using the capital (Malik, 2011).

Further, the study sought to examine the proportion of profitability and ROA gained by SMEs in the ICT sector operating in Nairobi County. Therefore, the respondents were asked to indicate the average amount of profits and ROA gained in their respective businesses for a period of the first three years they had been in operation. Findings were as presented in Table 4.9.

*Table 4. 9: Average Profit and ROA Gained by ICT Sector SMEs*

Average proportion	Profits		ROA	
	N	%	N	%
Less than 100,000	25	33.3	0	0.0

Year 1	100,000-249,000	40	53.3	3	4.0
	250,000-499,000	5	6.7	0	0.0
	500,000 & above	2	2.7	0	0
	Total	72	96.0	4	5.3
		N	%	N	%
Year 2	Less than 100,000	15	20.0	11	14.7
	100,000-249,000	42	56.0	14	18.7
	250,000-499,000	12	16.0	5	6.7
	500,000 & above	6	8.0	2	2.7
	Total	75	100.0	32	42.8
		N	%	N	%
Year 3	Less than 100,000	9	12.0	15	20.0
	100,000-249,000	26	34.7	22	29.3
	250,000-499,000	30	40.0	9	12.0
	500,000 & above	10	13.3	7	9.3
	Total	75	100	53	70.6

Findings in Table 4.9 indicate that 72(96%) of the SMEs indicated that they gained profit in the first year of operation, whereby most of them at 40(53.3%) earned an average proportion of profits between Kshs. 100,00-249,000. The earned profits in the first year of operation did not had much return on assets (ROA). Only 3(4%) of the SMEs had ROA of between Kshs 100.000-249,000.

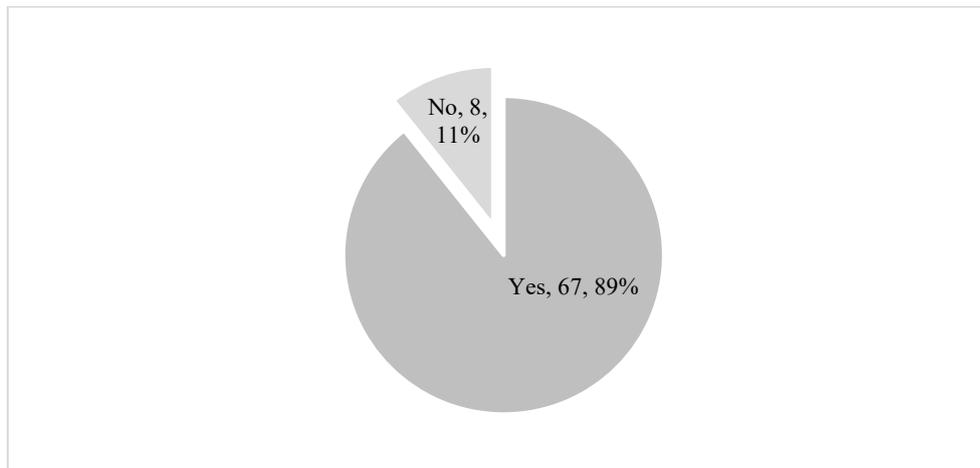
In the second year of operation, the average proportion of profits gained by SMEs in the ICT sector was still more compared to return on assets (ROA). In the second year, there was a slight increase in most of the SMEs at 42(56%) who earned average profits of between Kshs 100,000-249,000 when compared to the first year. However, there was a huge increase in the average proportion of ROA in the second year of SMEs' operations, whereby 14(18.7%) of the SMEs managed to have ROA of between Kshs 100,000-249,000 while 11(14.7%) had ROA worth between Kshs 1-100,000.

Further, the findings show that in the third year of operation, the amount of profits gained by most of the SMEs in the ICT sector in Nairobi CBD ranged from Kshs 100,000-499,000 represented by 56(74.7%). This yielded an increase in return on assets (ROA) ranging from Kshs 1-249,000 represented by 37(49.3%) of the SMEs.

Overall, these findings have shown that in the first year of operation, SMEs in the ICT sector in Nairobi CBD make more profits with very few with ROA. Unlike in the first year, the findings show that there was an increased number of profits gained in the second year and the subsequent third year. Majority of the respondents at 60(80%) and 66(88%) made more than Ksh 100,000 annual profits in the second and third year respectively.

#### Effect of Capital Structure on Performance of ICT Sector SMEs

The third objective of this study was to determine the effect of capital structure on performance of ICT sector SMEs in Nairobi County. To achieve this objective effectively, the researcher started by asking respondents whether they thought there was a connection between capital structure and financial performance. The results were as shown in Figure 4.2.



*Figure 4.3: Link between Capital Structure and Financial Performance*

A majority of the respondents at 67(89%) agreed that there was link between capital structure and financial performance, while 8(11%) denied existence of such a link. The finding demonstrate that capital structure plays a major role in the financial performance of SMEs in the ICT sector, thus, the existence of link between the two. This finding concurs with Varaiya et al. (2014) who found that making the right decisions concerning the capital structure affects the financial performance (Njagi, 2017). For

example, Halstead and Landgren (2020) found that Equity financing has a positive effect on the performance of SMEs which was achieved through profitability, market growth, sales growth and Return on Assets. Equally, Jones and Edwin (2019) found that that short-term debt, long-term debt and total debt had a positive impact on the performance of consumer-based corporations in Nigeria.

In order to ascertain the link between capital structure and financial performance, the researcher designed eight statements in relation to how capital structure link with financial performance. Then respondents were asked to rate the extent to which the statements demonstrated a link between capital structure and financial performance. Findings were as shown in Table 4.10.

*Table 4. 10: How Capital Structure Link with Financial Performance*

Statements		4	3	2	1	Total
Short term debt has an effect on profitability in my business	N	23	7	15	30	75
	%	30.7	9.3	20.0	40.0	100
Long term debt has an effect on profitability in my business	N	22	6	17	30	75
	%	29.3	8.0	22.7	40.0	100
Short term equity has an effect on profitability in my business	N	23	38	14	0	75
	%	30.7	50.7	18.6	0.0	100
Long term equity has an effect on profitability in my business	N	38	30	7	0	75
	%	50.7	40.0	9.3	0.0	100
Short term debt has an effect on ROA in my business	N	16	8	8	43	75
	%	21.3	10.7	10.7	57.3	100
Long term debt has an effect on ROA in my business	N	8	7	8	52	75
	%	10.7	9.3	10.7	69.3	100
Short term equity has an effect on ROA in my business	N	8	37	30	0	75
	%	10.7	49.3	40.0	0	100
Long term equity has an effect on ROA in my business	N	7	60	8	0	75
	%	9.3	80.0	10.7	0.0	100

4= Very Large Extent, 3= Large Extent, 2= Moderate Extent, 1= No extent

According to the findings in Table 4.10, 30(40%) of respondents indicated that short-term debt had no effect on the profitability of their business, and long-term debt had no effect on the profitability of their business (40%). However, the majority of 38(50.7%) SMEs agreed that short-term equity and long-term equity had a large and very large effect on their business's profitability.

Furthermore, in terms of return on assets, 43(57.3%) of respondents indicated that neither short-term nor long-term debt had any effect on their business's return on assets at 43(57.3%) and 52(69.3%) respectively. However, the majority 60(80%) of ICT SMEs indicated that long-term equity had a significant effect on their business, whereas only 37(49.3) showed that short-term equity had an effect on return on assets. This is consistent with Halstead and Landgren (2020) who found that equity financing has a positive effect on the performance of SMEs. It is achieved through profitability, market growth, sales growth and ROA.

Further, the findings show that short-term and long-term debts did not have any substantial effect on return on assets (ROA) for SMEs in the ICT sector as indicated by 51(68%) and 60(80%) of the SMEs respectively. However, short-term and long-term equity had significant effect on ROA for SMEs in the ICT sector as noted by 45(60%) and 67(89.3%) of the SMEs respectively. This is consistent to Caruabna (2020) who researched on the relationship between debt level and business growth of SMEs and found that short-term debt had an effect on return on assets (ROA). Owolabi, and Inyang (2013) also established a positive relationship between capital structure and business performance. That when return on assets surpasses the cost of debt, the financial effect and ROA also increases. The positive relationship can surpass the negative impact of return on assets due to low income.

#### Factors Moderating the Link between Capital Structure and Financial Performance

There are various factors influencing how capital structure affects financial performance of SMEs. This study concentrated on two main factors, namely, regulatory framework and organizational culture. Firstly, respondents were asked whether the two moderation factors had an effect on the link between capital structure and financial performance in their businesses. The results were as presented in Table 4.11.

*Table 4. 11: Factors Affecting the Link between Capital Structure and Financial Performance*

Moderating Variables		Yes	No	Total
Regulatory framework	N	71	4	75
	%	94.7	5.3	100
Organizational Culture	N	70	5	75
	%	93.3	6.7	100

Findings in Table 4.11 reveals that the majority of the respondents at 71(94.7%) agreed that regulatory framework affect the link between capital structure and financial

performance while very few at 4(5.3%) disagreed. Similarly, many of the respondents at 70(93.3%) agreed that organizational culture affect the link between capital structure and financial performance while very few at 5(5.3%) disagreed to the same.

The respondents who agreed that regulatory framework and organizational culture affect the link between capital structure and financial performance were further asked to highlight ways in which the two moderating factors have an effect in their businesses' financial performance. Table 4.12 shows the study findings.

*Table 4. 12: Effect of Moderating Variables on the Link between Capital Structure and Financial Performance*

Effects of moderating factors	No. of responses	Percentage (%)
<b>Regulatory framework</b>		
The taxes on SMEs are high hence lowering financial performance	14	18.7
Lowering interest rates can give us freedom of borrowing since it is manageable to pay back at given time	11	14.7
High costs of licensing annually affect financial performance of SMEs	9	12.0
Borrowing regulations, such as need for a collateral, influence financial performance	7	9.3
High interest rates on borrowing, especially bank loans, affect financial performance	5	6.7
No response	29	38.6
<b>Total</b>	<b>75</b>	<b>100.0</b>
<b>Organizational Culture</b>		
Customer orientation enhances financial performance	22	29.3
Clear organization objective and performance expectation	11	14.7
Employee participation in financial decision-making affects financial performance	8	10.7
Leadership style affect the overall performance of the organization	8	10.7
Creating a conducive working environment can affect financial performance	7	9.3
No response	19	25.3
<b>Total</b>	<b>75</b>	<b>100.0</b>

The findings in Table 4.12 reveals that the moderating variables including the regulation framework and organizational culture affect financial performance in various ways. In relation to regulation framework, respondents majorly noted that; the taxes on SMEs were high hence lowering financial performance (18.7%), lowering interest rates could give them freedom of borrowing since it could be manageable to pay back at given time (14.7%), and that high costs of licensing annually affect financial performance of SMEs (12%). Additionally, respondents noted that; borrowing regulations, such as need for a collateral, influence financial performance, and that high interest rates on borrowing, especially bank loans, affect financial performance.

With regards to organization culture, respondents highlighted that; customer orientation enhanced financial performance of their SMEs at 29.3%, there was clear organization objective and performance expectation at 14.7%, and that employee participation in financial decision-making effects financial performance at 10.7%. Moreover, the respondents noted that the leadership style they employed in their SMEs affected the overall performance of the organization at 10.7%, and that creating a conducive working environment affected financial performance of their business at 9.3%. These findings have shown that the two moderating factors, regulation framework and organization culture of the SMEs play a critical role in the connection between how SMEs perform financially and the kind of capital structure they employed.

#### Summary of Key Findings

1. The majority of SMEs in the ICT sector in Nairobi CBD at 39(52%) were operated by female. The SMEs were majorly operated by the youth aged between 26-35 years at 47(57.3%). Majority of these SMEs had operators who had attained education up to undergraduate and Master's degree level at 43(57.4%).

2. A majority of the SMEs in the ICT sector in Nairobi CBD at 60(80%) indicated that they were financed through equity to a very large extent. However; 45(60%) of the SMEs indicated that they were financed through a mix of equity and debt.
3. The proportion of equity employed by ICT sector SMEs in Nairobi County is more compared to the proportion of debt employed. For a period of three years in operation, equity was highly employed in the first and second years of SMEs' operation. However, there was a gradual increase in the debt employed in the second and third years of the SMEs operation.
4. Close to all SMEs in the ICT sector in Nairobi CBD at 72(96%) indicated that they gained profit in the first year of operation, however, the earned profits in the first year of operation did not had much return on assets (ROA) with only 3(4%) of the SMEs indicating that they had ROA worthy Kshs 100,000-249,000 in the first year. In the second year of operation, there was a huge increase in the average proportion of whereby 14(18.7%) of the SMEs managed to have ROA of between Kshs 100,000-249,000 while 11(14.7%) had ROA worth between Kshs 1-100,000. In the third year of operation, there were more profits gained by most of the SMEs in the ICT sector in Nairobi CBD, which yielded an increase in return on assets (ROA) ranging from Kshs 1-249,000 represented.
5. Equity had more effect on profitability of SMEs in the ICT sector in Nairobi CBD compared to debts. Most of the SMEs in the ICT sector indicated that both short-term and long-term debts did not have any effect on their profitability at 45(60%) and 47(62.7%) respectively. On the other hand, short-term equity and long-term equity had effect on profitability of SMEs in the ICT sector to 'very large' and 'large extent' at 61(81.4%) and 68(90.7%) respectively. Similarly, short-term and long-term debts did not have any substantial effect on return on assets (ROA) for SMEs in the ICT

sector as indicated by 51(68%) and 60(80%) of the SMEs respectively. However, short-term and long-term equity had significant effect on ROA for SMEs in the ICT sector as noted by 45(60%) and 67(89.3%) of the SMEs respectively.

### Summary

This chapter presented detailed research findings provided by respondents, summarized and presented the data in an understandable way. The data are arranged and presented in tabular form in accordance with the objectives of the study. The analyzed data form the basis for the Chapter Five presented, providing discussions, conclusions, and recommendations, including areas for future research.

## CHAPTER FIVE

### DISCUSSIONS, CONCLUSIONS, AND RECOMMENDATION

#### Introduction

The chapter discusses key findings of the study in relation to previous theoretical and empirical literature. It also provides the study's conclusions, recommendations, and areas for further research. The discussion, conclusions and recommendations are done based on the purpose and objectives of the study.

#### Discussion of the Key Findings

The discussion of the key findings is guided by the research objectives, which were to identify the proportion of debt and equity employed by ICT sector SMEs, assess how performance was measured in ICT sector SMEs, and determine the effect of capital structure on performance of ICT sector SMEs in Nairobi County.

#### Proportion of Debt and Equity Employed by ICT Sector SMEs

This study established that the proportion of equity employed by ICT sector SMEs in Nairobi County is more compared to the proportion of debt employed. For a period of three years in operation, equity was highly employed in the first and second years of SMEs' operation. However, there was a gradual increase in the debt employed in the second and third years of the SMEs operation. For instance, in the first year of operation, majority of the SMEs employed long-term equity at 63(84%) while those that employed both short-term and long-term debt stood at 42(56%). In the second year of operation, long-term equity was still high at 58(77.4%), but there was an increase in the average proportion of both short-term and long-term debt from 42(56%) in the first year to 71(84.7%) in the second year. In the third year of SMEs operation, there was an increase of debt in capital structure whereby 37(49.3%) respondents indicated that their

capital structure employed long-term debt, while a similar number of respondents at 37(49.3%) indicated that their capital structure employed short-term debt. This implies that the SMEs in the ICT sector in Nairobi CBD were majorly financed by equity with some financed by a mix of both equity and debt. A mixture of more equity and less debt and a business is what is referred to as the appropriate capital structure of the SMEs especially in the first three years of operation (Maina & Ishmail, 2014). This is because most of the SMEs rely on equity that emerge from long-term savings to help in supporting their operations with less borrowings (Maina & Ishmail, 2014).

However, in some cases, a business may use equity alone to define its capital structure, while others may use debts alone. In other cases, firms may use a mix of the two. Nevertheless, in most cases, poor decisions on capital structure costs businesses a lot as they are forced to spend a lot on investments that bring minimal returns, and this may reduce the preset value of the accepted investments. Majority of the companies or firms try to maintain their mix of financials as near to the capital structure they are targeting as possible (Hovakimian et al., 2004).

Since this study has revealed that the capital structure plays a key part in financial performance determination, it becomes important for ICT sector SMEs owners to make capital structure decisions that reflect the objectives of their SMEs. According to Tian and Zeitun (2017), debt and equity financing are vital sources of capital to run their operational activities. Therefore, capital structure decision depends on the long-term objectives of the firms and the level of control management wish to have. Ideally, it is suggested by experts that businesses employ both debt and equity financing in ratios that are commercially acceptable (Tian & Zeitun, 2017). The debt-to-equity ratio is a vital factor analyst employ in the determination of whether the business is being run profitably. Even though debt-to-equity ratios differ greatly by industry and organization,

a general rule of thumb states that a reasonable ratio should fall between 1:1 and 1:2. (Abor, 2017).

The debt-to-equity ratios is particularly very critical in the first and second year of business operations, because without effective capital structure decisions (debt-to-equity ratios), the business may close-down due to poor financial performance. From the current study findings, 84% of the ICT sector SMES in Nairobi County employed long-term equity in their first year of operations, 16% employed short-term equity, 47.3% employed long-term debt, while 28% employed short-term debt. In the subsequent second and third years of their operations, the proportion of equity in their capital structure reduced gradually as the proportionate of debt increased gradually. These findings imply the ICT sector SMEs in Nairobi County employed approximately a debt-to-equity ratio of 1:2 in their first and second years of operations, while in the third year and probably the subsequent years, they employed a debt-to-equity ratio of 1:1.

A study by Khan and Jain (2017) found that stability of sales, asset structure, and size of a firm affected how the firm made decisions regarding capital structure composition. Khan and Jain's study further found that a firm that has relative stability in sales is an indication of low levels of business risk due to the low levels of operations. The ultimate end of such a firm is that it can manage to use of more debts in its capital structure and at the same time incur higher fixed financing costs than a firm that experiences instability in its sales.

Consistent with the current study, it was found that SMEs in the ICT sector in Nairobi County use more equity in their first and second year of operations compared to debt. This may be associated to the fact that many of the SMEs have instability in sales during the first and second years of their operations, thus, could not safely afford to use more debt and incur higher fixed financing costs like other firms that had been in

operation for more than three years. This could be the reason why the study found that in the third year of operation for SMEs in the ICT sector in Nairobi County, the ratio of debt-to-equity in most of the SNMEs was approximately 1:1. This was probably because in the third year and the subsequent years, the SMEs could safely afford to use more debt and incur higher fixed financing costs due to stability in their sales. Additionally, the current study findings indicated that the ICT sector SMEs accumulated more ROA in their third years compared to the first and second years of their operation.

Large proportions of tangible ROA could have also facilitated the increase in the proportion of debts in the capital structure of the SMEs in their third year of operation. This concurs with Khan and Jain (2017) who found that having large proportions of ROA are suitable as collateral for debts such as loans which tend to become highly levered. For instance, general purpose assets which can be utilized by numerous businesses may be said to act as good collateral in comparison to special purpose assets. As a result, SMEs, which mainly use general-purpose assets, tend to use higher leverage than SMEs engaged in technology research using special-purpose assets.

With regards to size of the firm, Khan and Jain (2017) stated that SMEs rely to a considerable degree upon the shareholders' funds, referred to as equity for their financing as it very difficult for them to obtain debt capital. Such SMEs are considered to be risky than large forms by prospective investors (Khan & Jain, 2017). This calls for a balance of debt-to-equity ratio when entrepreneurs make decisions on the capital structure of SMEs in the ICT sector. In addition to the current study findings on the proportion of debt-to-equity ratio, a study by Akintoye (2017) in Nigeria found out that other factors, such as timing of security issues, firm's flexibility, and professional advice may influence the capital structure of a firm.

#### Measurement of Financial Performance in ICT Sector SMEs

This study found that close to all SMEs in the ICT sector in Nairobi CBD at 72(96%) gained profits in the first year of operation, however, the earned profits in the first year of operation did not have much return on assets (ROA) with only 3(4%) of the SMEs indicating that they had ROA worthy Kshs 100,000-249,000 in the first year. In the second year of operation, there was a huge increase in the average proportion of whereby 14(18.7%) of the SMEs managed to have ROA of between Kshs 100,000-249,000 while 11(14.7%) had ROA worth between Kshs 1-100,000. In the third year of operation, there were more profits gained by most of the SMEs in the ICT sector in Nairobi CBD, which yielded an increase in return on assets (ROA) ranging from Kshs 1-249,000 represented. According to Reese and Cool (2012), major indicators for measuring financial performance of a firm include profitability, firm's growth in terms of size, market value, revenues, expenses, EBIT), ROA, and ROE. However, Reese and Cool (2012) further noted that one of the most frequently used accounting-based measures of financial performance is ROA, while Salim and Yadav (2012) observed that profitability is the key determinant of financial performance of any sector. Therefore, the current study focused on profitability and ROA as the measures of financial performance for ICT sector SMEs.

The current study findings revealed that measurement of financial performance of ICT sector SMEs operating in Nairobi County is based on profitability and ROA. The majority of the respondents at 96.0% and 92% agreed that profitability and ROA represented how they measured financial performance of their business respectively. Further findings indicated that in the first and second year of operations, majority of the SMEs measured their financial performance with more of profitability compared to ROA. However, in the third year, measurement of financial performance was relatively balanced between profitability and ROA.

In a study that was conducted in the U.S.A by Baker and Martin (2017), it was found that financial performance of firms, such as SMEs, is determined by profitability, operational leverage and risk, and a firms' growth rate. These findings were similar to the current study findings, which revealed that financial performance of SMEs in the ICT sector operating in Nairobi CBD was determined by majorly profitability, especially in the first and second years of their operations. The current study findings further concurred with Baker and Martin's (2017) by establishing that findings that the profitable SMEs in the ICT sector tended to use relatively lower amount of debt as their high rates of return enabled them to finance most of their investments with internal sources of fund such as equity.

#### Effect of Capital Structure on Financial Performance of ICT Sector SMEs

From the study findings, equity had more effect on profitability of SMEs in the ICT sector in Nairobi CBD compared to debts. Most of the SMEs in the ICT sector indicated that both short-term and long-term debts did not have any significant effect on their profitability at 45(60%) and 47(62.7%) respectively. On the other hand, short-term equity and long-term equity had effect on profitability of SMEs in the ICT sector to 'very large' and 'large extent' at 61(81.4%) and 68(90.7%) respectively. Similarly, short-term and long-term debts did not have any substantial effect on return on assets (ROA) for SMEs in the ICT sector as was indicated by 51(68%) and 60(80%) of the SMEs respectively. However, short-term and long-term equity had significant effect on ROA for SMEs in the ICT sector as noted by 45(60%) and 67(89.3%) of the SMEs respectively.

Consistent with the current study findings, a study conducted by Abdullah and Roslan (2019) in Malaysia on the effect of debt financing on SME s financial

performance, it was found that short-term and long-term debt had a significant relationship with ROA, which was a measure of financial performance.

Similarly, Cecchetti (2019) conducted a study in Singapore on the effects of debts on financial performance of SMEs and concluded that moderate debt level improves welfare and enhances growth, but high levels of debts can lead to a decline in the growth of a firm. Cecchetti (2019) argued that debts impact positively to the growth of SMEs when they are within certain levels. However, when the ratio goes beyond certain levels, financial crises is very likely. Moreover, Aziz and Abbas (2019) studied debt financing as a form of capital structure in financing manufacturing SMEs in Pakistan between the year 2008 and 2018. Independent variables were short-term and long-term debts whereas SME performance was measured by return on equity and return on assets. Secondary data from 14 SMEs indicated that short-term debts had a negative and significant effect on SME performance measured by ROA.

Consistent with Roslan (2019) and Cecchetti (2019), the current study findings established that ICT sector SMEs operating within Nairobi County were adamant in putting high level debts in their capital structure, especially during their first and second years of operation. Even in the third year of their operations, the ICT sector SMEs' debt-to-equity ratio was approximately 1:1. Therefore, the ICT sector SMEs in Nairobi County were cautious of the fact that over borrowing (high levels of debts) can lead to bankruptcy and financial ruin in their businesses.

Further in line with the current study findings, a study in Kenya by Mwangi (2020) looked at donor funding as a source of equity financing and how it affects performance of microfinance institutions. The analyzed findings indicated that donor funding positively influence performance of the firm. Likewise, Kamau (2019) did a study assessing the effect of equity financing and performance of SMEs in Thika Town,

Kenya and found that retained earnings after tax have a positive and significant effect on performance of SMEs and in particular profitability and ROE.

Regarding the level of the impact of equity when it comes to financial of SMEs, studies by Blouin (2020), Halstead and Landgren (2020), Okwanfor (2019), Mwangi (2020), and Kamau (2019) are consistent with the current study findings that there a significant and positive impact in terms of financial performance when equity is largely employed in establishing the capital structure, not only in the ICT sector but also in other sectors. The current study findings revealed that all SMEs that participated in the study utilized both short-term and long-term equity in enhancing profitability and ROA in their businesses. This shows the significant effect of equity in financial performance of ICT sector SMEs.

### Conclusions

Capital structure in business is a mixture of both debt and equity, and decisions in regard to the mix between debt and equity are critical since such decisions directly effect on financial performance of the business. The study established that the debt-to-equity ratio in capital structure of ICT sector SMEs is reasonable at approximately 1:2 in the first and second years of their operations, while in the third and subsequent years the ratio falls to 1:1. This debt-to-equity proportion was found to influence financial performance of the ICT sector SMEs, whereby, there are more of profitability compared to ROA in the first and second years of their operation. However, in the third year, measurement of financial performance was relatively balanced between profitability and ROA.

There is link between performance of the ICT sector SMEs financially and the nature of the capital structures they employ, which comprises both debts and equity. A mix of long term and short-term debts and equity plays a major role on financial

performance of ICT sector SMEs. However, equity has a more significant positive impact on profitability and ROA of ICT sector SMEs compared to debts. This is particularly witnessed in the first and second years of the SMEs' operation whereby profitability is very high compared to ROA. As the businesses enter their third year and thereafter, the effect of debts and equity on profitability and ROA starts to come to a balance.

Therefore, the study concludes that capital structure is very critical in the financial performance of ICT sector SMEs. Enterprises need to make informed decisions on how to balance between debts and equity based on the timings and financial performance of the businesses.

#### Recommendations

1. The government and other regulatory institutions responsible for establishment and operations of SMEs in the ICT sector need to ensure that the SMEs operate in a financial friendly environment, where there is easy access to sources of financing the SMEs that are affordable. This is based on the study findings that sources of financing SMEs in Nairobi County lean towards equity than debts, simply because debts are not easily accessible, and they are not affordable among majority of the SMEs.
2. The government should ensure that the financial regulatory frameworks for SMEs in the ICT are favorable, thus, enhancing growth of the SMEs. Study findings revealed that some financial regulatory frameworks for SMEs operating in Nairobi County are unfavorable among majority of the SMEs. Most of the SMEs interviewed revealed that government financial regulatory frameworks such as interest rates on debts, taxes, and licensing costs were unaffordable.
3. ICT sector SMEs should have a well-controlled and managed organizational culture, such as customer orientation, having clear organization objective,

employee participation in financial decision-making, good working environment, accountability and transparency, among others. The study established that a good organizational culture greatly affects financial performance of many ICT sector SMEs.

#### Recommendations for Further Research

1. This was a longitudinal study that was limited to ICT sector SMEs; thus, the findings could not represent all SMEs operating in Nairobi County. Therefore, a further a cross-sectional study should be conducted to assess the effect of capital structure on financial performance of SMEs across major sectors of the economy in Kenya.
2. The study concentrated in Nairobi County, which is the capital city of Kenya where major financial resources in Kenya are centered. This implies that ICT SMEs in Nairobi have many options in their disposal in relation capital structure of their businesses compared to the SMEs in other regions in Kenya, especially in rural towns. Therefore, further research is recommended focusing on the effect capital structure on financial performance of ICT sector SMEs in rural Kenya.

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## APPENDICES

## Appendix A: Questionnaire

Dear Respondent,

I am a student at Daystar University. In order to fulfil the requirements of Master of Business Administration in Finance; I am undertaking an academic research project on “The effects of capital structure on financial performance of small and medium enterprises in the ICT sector in Nairobi County”. Therefore, I am kindly requesting your assistance in providing data by filling out the accompanying questionnaire. The information provided will exclusively be used for academic purposes and will be held in strict confidence.

*This questionnaire is to collect data for purely academic purposes. All information will be treated with strict confidence. Do not put any name or identification on this questionnaire. Answer all questions as indicated by either filling in the blank or ticking the option that applies.*

Kindly confirm by ticking that you have read and fully understood the purpose of this research, and that you agree to voluntary participate in this study.

Yes [ ]                      No [ ]

### Instructions

In some questions, choices are provided so please put a **tick**  in the appropriate box. Where choices are not provided, answer using your own words in the most appropriate and comprehensive way.

### SECTION A: DEMOGRAPHIC CHARACTERISTICS

1. Kindly indicate your gender:

Female [ ]                      Male [ ]

2. Kindly indicate your age:

Below 18 years [ ]    19-25 years [ ]    26-30 years [ ]    31-35 years [ ]

36-40 years [ ]    41-45 Years [ ]    above 46 years [ ]

3. Highest level of education attained

Primary school level [ ] Secondary school level [ ] Diploma education [ ]

Undergraduate Degree [ ] Master's level [ ] Other [ ]

4. Please indicate the position you hold in your business.

-

5. How long have you worked in this business?

Less than two years [ ] 3-5 years [ ] 6-8 years [ ] above 9 years [ ]

**SECTION B: CAPITAL STRUCTURE**

6. In your opinion would you say Capital structure plays a role in the financial performance of this business?

Yes [ ] No [ ]

7. Which of the following statements do you agree with? Whereby: 4= Very Large Extent, 3= Large Extent, 2= Moderate Extent, 1= No extent (Tick as appropriate)

Statements regarding Capital Structure	4	3	2	1
My business was financed through short term debt				
My business was financed through long term debt				
My business was financed through short term equity				
My business was financed through long term equity				
My business was financed through a mix of debt and equity				
Other _____				

8. Kindly indicate below the proportion of short term and long-term debt your business capital structure is composed of.

Company Name	Year	Short-term Debt	Long-term Debt	Short-term Equity	Long-term Equity
	1				
	2				
	3				
	4				
	5				
	6				

### SECTION C: FINANCIAL PERFORMANCE

9. Do the following represent how you measure financial performance in your business?

Measures of Performance	ES	O
Profitability		
Return on Assets (ROA)		
Other		

10. Could you indicate the profits and ROA gained by your business in the table below? (For loss use a negative/minus sign before number). If not certain provide a range.

Company Name	Year	Profits	ROA	Remarks
	1			
	2			
	3			
	4			
	5			
	6			

### SECTION D: LINK BETWEEN CAPITAL STRUCTURE AND FINANCIAL PERFORMANCE

11. In your opinion is there a link between capital structure and financial performance?

Yes [ ] No [ ]

12. To what extent do you agree with the below statements? Whereby: 4= Very Large Extent, 3= Large Extent, 2= Moderate Extent, 1= No extent (Tick as appropriate)

Statements regarding Capital Structure link with Financial Performance	4	3	2	1
Short term debt has an effect on profitability in my business				
Long term debt has an effect on profitability in my business				
Short term equity has an effect on profitability in my business				
Long term equity has an effect on profitability in my business				

Short term debt has an effect on ROA in my business				
Long term debt has an effect on ROA in my business				
Short term equity has an effect on ROA in my business				
Long term equity has an effect on ROA in my business				

### SECTION E: MODERATING VARIABLES

13. In your opinion do the following have an effect on your business financial performance?

Moderating Variables	YES	NO
Regulatory framework		
Organizational Culture		

14. If yes, in what ways would you say the following have an effect on your business financial performance?

- Regulatory Framework

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- Organizational Culture

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THANK YOU FOR YOUR PARTICIPATION



## Appendix B: Ethical Clearance

**VERDICT: APPROVAL WITH COMMENTS**

Daystar University Ethics Review Board

Our Ref: **DU-ERB/17/08/2021/000565**Date: 17<sup>th</sup> August 2021

To: Eustace Mwangi

Dear Eustace,

**RE: EFFECT OF CAPITAL STRUCTURE ON THE FINANCIAL PERFORMANCE OF SMALL AND MEDIUM ENTERPRISES IN THE ICT SECTOR: A CASE OF SELECTED SMES IN NAIROBI COUNTY, KENYA**

Reference is made to your ERB application reference no. 100821-01 dated 10<sup>th</sup> August 2021 in which you requested for ethical approval of your proposal by Daystar University Ethics Review Board.

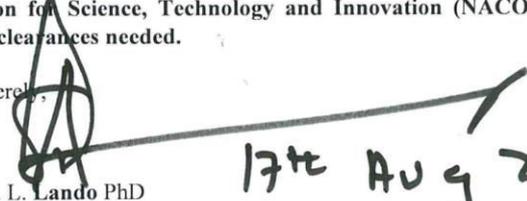
We are pleased to inform you that ethical review has been done and the **verdict is to revise to the satisfaction of your Supervisors before proceeding to the next stage**. As guidance, ensure that the attached comments are addressed. Please be advised that it is an offence to proceed to collect data without addressing the concerns of Ethics Review board. Your application approval number is **DU-ERB-000565**. The approval period for the research is between **17<sup>th</sup> August 2021 to 16<sup>th</sup> August 2022** after which the ethical approval lapses. Should you wish to continue with the research after the lapse you will be required to apply for an extension from DU-ERB at half the review charges.

This approval is subject to compliance with the following requirements.

- i. Only approved documents including (informed consents, study instruments, MTA) will be used.
- ii. All changes including (amendments, deviations, and violations) are submitted for review and approval by Daystar University Ethics Review Board.
- iii. Death and life threatening problems and serious adverse events or unexpected adverse events whether related or unrelated to the study must be reported to Daystar University Ethics Review Board within 72 hours of notification.
- iv. Any changes anticipated or otherwise that may increase the risks or affected safety or welfare of study participants and others or affect the integrity of the research must be reported to Daystar University Ethics Review Board within 72 hours.
- v. Clearance for export of biological specimens must be obtained from relevant institutions.
- vi. Submission of a request for renewal of approval at least 60 days prior to expiry of the approval period. Attach a comprehensive progress report to support the renewal.
- vii. Submission of a signed one page executive summary report and a closure report within 90 days upon completion of the study to Daystar University Ethics Review Board via email [duerb@daystar.ac.ke].

**Prior to commencing your study, you will be expected to obtain a research license from National Commission for Science, Technology and Innovation (NACOSTI) <https://research-portal.nacosti.go.ke> and other clearances needed.**

Yours sincerely,

  
 Sr. Prof. A. L. Lando PhD  
 Chair, Daystar University Ethics Review Board

17<sup>th</sup> Aug 2021

Encl. Review Report

## Appendix C: Introduction Letters from Daystar University

19<sup>th</sup> August 2021



**Athi River Campus**  
P.O. Box 17, Daystar University,  
90145, Athi River, Kenya

**Valley Road Campus**  
P.O. Box 44400 - 00100,  
Nairobi, Kenya

Tel: 0709 972 000 (Pilot Line)  
0716 170 313 (Marketing)  
0748 100 759 (PR Line)

E-mail: [admissions@daystar.ac.ke](mailto:admissions@daystar.ac.ke) OR  
[info@daystar.ac.ke](mailto:info@daystar.ac.ke)

Website: [www.daystar.ac.ke](http://www.daystar.ac.ke)

TO WHOM IT MAY CONCERN

Dear Sir/Madam,

**RE: EUSTACE MWANGI : STUDENT NO: 18-0493**

Eustace is a fully registered student in the School of Business & Economics at Daystar University. He has completed his course work towards a Master of Business Administration (MBA) in Finance. He is now working on the research for his thesis.

Eustace's thesis topic is:

***"Effect of Capital Structure on the Financial Performance of Small and Medium Enterprises in the ICT sector: A Case of Selected SMEs in Nairobi County, Kenya."***

The purpose of my writing is to request that you give the necessary assistance to enable him to complete this important academic exercise.

We assure you that any information collected will be used strictly for academic purposes and will remain absolutely confidential. Upon completion of the research, his thesis will be available at our library.

We appreciate your support for our student towards the successful completion of his thesis research.

Yours Sincerely,

**Mr. Joseph Munyao**  
**HOD, COMMERCE**

19<sup>th</sup> August 2021



**Athi River Campus**  
P.O. Box 17, Daystar University,  
90145, Athi River, Kenya

**Valley Road Campus**  
P.O. Box 44400 - 00100,  
Nairobi, Kenya

Tel: 0709 972 000 (Pilot Line)  
0716 170 313 (Marketing)  
0748 100 759 (PR Line)

E-mail: admissions@daystar.ac.ke OR  
info@daystar.ac.ke

Website: www.daystar.ac.ke

National Council for Science & Technology

P.O. Box 30623-00100

NAIROBI

Dear Sir/Madam

**RE: EUSTACE MWANGI : STUDENT NO: 18-0493**

The above named person is a fully registered student in the School of Business and Economics at Daystar University. He is seeking a research permit from your office.

Eustace's thesis topic is:

***"Effect of Capital Structure on the Financial Performance of Small and Medium Enterprises in the ICT sector: A Case of Selected SMEs in Nairobi County, Kenya."***

Kindly accord him the necessary assistance to allow him to collect data.

Thanks in advance for your cooperation.

Yours Sincerely,

**Mr. Joseph Munyao**  
**HOD, COMMERCE**



