FACTORS INFLUENCING ACCESS TO FINANCE BY SMALL AND MEDIUM HEALTHCARE ENTREPRENEURS IN KISII COUNTY

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DECLARATION

I declare that this work has not been previously submitted and approved for the award of degree by this or any other university. To the best of my knowledge and belief, the proposal contains no material previously published or written by another person except where due reference is made in the proposal itself.

Signature---------- Date-------03/11/2021---------

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MBA-HCM/120469/2019

Approval

This proposal has been reviewed and approved by our University Supervisor.

Signature----------Date---05/11/2021----------

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ABSTRACT

Access to finance is a major constraint for many healthcare entrepreneurs across the sector. Improving direct access to credit for small and medium healthcare entrepreneurs will not only have a strong impact on a country's health system, but it will also have long term positive implications on the country's economy at large. There is a great need for healthcare entrepreneurs to get access to credit facilities and financial institutions should understand and address this issue. This study investigated the factors that limit the accessibility to financing by small and medium healthcare entrepreneurs in Kisii County, Kenya. The study targeted 81 entrepreneurs operating licensed small and medium medical facilities in Kisii County. Data was collected using questionnaires composed of open-ended and closed-ended questions and gathered information in line with the study objectives, after a research permit was obtained from NACOSTI. A descriptive survey design was used for the study and the collected data was organized and analyzed with a statistical package used for social sciences. The study established that Kisii County health SME's is predominantly sole proprietorships, most of which have been in operations for less than ten years. These SME's have less than ten employees and the management of the SME's is mainly carried out by non-professional managers and the owners double up as the managers. Majority of the firms have a monthly turnover of between Kenya shillings thirty thousand and fifty thousand. The study also established that there is a statistically significant relationship between financial inclusion and intermediation efficiency and access in Kisii County while depth is statistically insignificant. In addition, the study established that there is a positive correlation between all the variables which is statistically significant which means that any increases in the variables depth, access and intermediation efficiency will lead to an increase in financial inclusion in SME's in Kisii County.

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CBK	Central Bank of Kenya
GDP	Gross Domestic Product
NACOSTI	National Council for Science, Technology, and Innovation
OECD	Organization for Economic Co-operation and Development
SACCOs	Savings and Credit Cooperative Societies
SMEs	Small and Medium Enterprises
SSA	Sub-Saharan Africa

CHAPTER ONE

INTRODUCTION

1.1 Background

Entrepreneurship is described as the creation of new ventures from an existing idea (Mariotti and Glackin, 2014). Small and Medium Enterprises (SMEs) are defined as enterprises that have relatively small ownerships and assets, sales turnover, and the number of employees in the market. SMEs are managed personally by owners and not through formal management structures (Fjose *et al.*, 2010). Small and medium enterprises (SMEs) are marred by limited access to capital, inadequate knowledge and skills, limited market access, corruption, poor infrastructure, and rapid changes in technology (Barth *et al.*, 2016). Of all these challenges, lack of adequate access to capital is the most prevalent hindrance to SME survival and growth (Smith, 2003).

According to the World Bank(n.d.) financial inclusion or access is a key constraint to SMEs growth being the second most prevalent obstacle cited by SMEs to grow their business in developing and emerging markets. It is less likely for SMEs to access financial services as compared to larger firms; SMEs instead rely on cash from family and friends or internal funds to start and run their enterprises. Estimates by the International Finance Corporation (IFC) show that 65 million firms, or 40% of formal MSMEs in developing countries have a financing gap of $5.2 trillion per annum. The total global financing gap varies from one region to another withEast Asia and Pacific accounting for (46%);The Caribbean and Latin America (23%) and Central Asia and Europe and (15%). Further the gap volume varies significantlyfrom one region to another. The Caribbean and Latin America, North Africa andthe Middle East account for the highest proportion in the financing gap in comparison to potential demand at 87% and 88% respectively. Further, about 50% of formal SMEs lack access to formal credit and the financing gap is even greater when MMSEs and informal enterprises are taken into account.

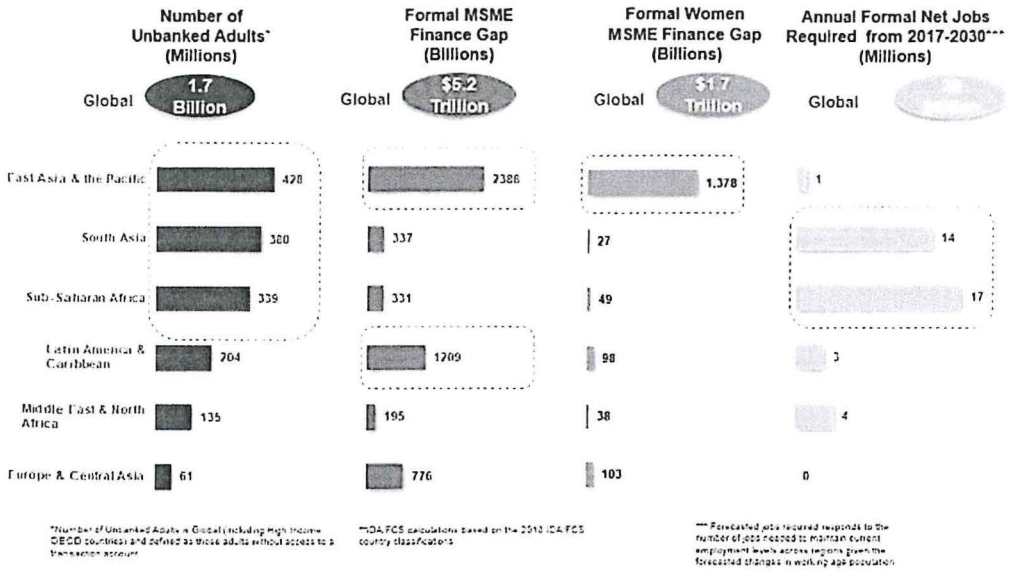

Figure 1.1. Formal Finance gap across the world

Source: World Bank (World Bank, n.d.)

A study by Blancher et al. (2019) focusing on the Middle East and Central Asia Regions (MENAP and CCA regions) shows that many countries encounter formidable challenges to stronger and more all-encompassing growth from a vibrant private sector due to challenges in financial inclusion. The share of SMEs financing compared to total bank lending in these countries only accounted for 7% which is the lowest in the world. Similarly, Karpowicz (2016) posits that there has been a mismatch between financial inclusion an growth of credit with broad use of credit concentrated amongst the largest firms. The study of Colombia in Latin America showed that 41% of SMEs (with less than 20 employees) has access to a line of credit or bank loan as compared to 72% of large firms. Further, the study established that financial deepening varied from industry to industry with firms in the food industry being the most affected. Overall, among all companies in Colombia, over 50 percent of SMEs (with less than 20 employees) identified finance accessibility as a main constraint for their operations in 2010.

Demirgüç-Kunt et al. (2008) posits that the link empirical evidence and theoretical models on access to finance has not been very close due to lack of data on access to financial services. The

theory focuses on the significance of wider access and greater financial inclusion, comparatively little empirical evidence links financial accessibility to development outcomes.Ozili (2020) argues that to improve on the link between theories and empirical evidence, poorer theories of financial inclusion should be replaced with better ones if they explain existing observations more effectively. Further, empirical modelling of determinants of financial inclusion should take into account the nature andtype of data as well as the magnitude of the unexplained and explained variations in a financial inclusion models.

Access to capital has been a major constraint in starting and expanding healthcare businesses in Kenya, East Africa, and Africa as a whole (Odero *et al.,* 2016). According Grazier & Metzler (2006)entrepreneurial activity in the healthcare sector has been slow-paced, and this is generally due to the lack of capital for new healthcare ventures. Secondly, the growing economic development that drives the expansion of the health care industry is also further endangered by the use of financing models that are below the optimal standards for health care entrepreneur. Conversely, despite the financing potential of new ventures in the healthcare space, the dearth in entrepreneurial activities in this industry maybe because healthcare entrepreneurs fail to consider new strategies and approaches to partnerships.

In almost all world economies, most SMEs experience a gap in financing and rely heavily on financial institutions and venture capitalists for their start-up capital (Westervelt *et al.*, 2016). This gap is formed by the difference between the demand for capital by SMEs and the supply of capital by the financing institutions. Access to finance is a challenge common to all SMEs, and this challenge is compounded for healthcare business owners by the complexity of the health system (Ravishankar and Lehmann, 2015). In Kenya, SMEs struggle to access capital to invest even though Kenya has one of the most developed financial sectors in East Africa (Rintaugu, 2013). In early 2017, a survey by the Kenya National Bureau of Statistics indicated that about 400,000 micro and SMEs in Kenya do not get to celebrate their second or fifth birthday due to financial challenges (Momanyi and Muturi, 2017).

Generally, the SME sector has been playing a very important role in Kenya's economy. The sector contributes about 40 percent of Kenya's Gross Domestic Product (GDP) (Capital Markets Authority, 2010).The National Economic Survey report by the Central Bank of Kenya (CBK)

indicates that SMEs constitute 98 percent of businesses in Kenya and create 30 percent of the jobs annually as well as contributing 3 percent of the GDP. It is estimated that 80% percent of the 800,000 jobs created in 2010 emanated from the informal sector which is dominated by SMEs (Deloitte Kenya, 2014). The study also finds that there exists a gap in financing with regards to access to capital for SMEs in Kenya, characterized by high-interest rates on capital instruments and lack of adequate presence of financial institutions in the rural regions of the country. In Kenya, instruments of capital for SMEs include non-bank finances, bank finances, and shareholding/equity investments. Most commonly, SMEs rely on the banking sector for capital (Muratha, 2015). This is despite the need for collateral from banks before availing credit facilities and high-interest rates on the loans.

Kisii County is one of the 47 counties in Kenya, located in the western part of the country. It has a population of 1,266,860 according to the Kenya National Census of 2019. The population density of Kisii County is high at 2,862 per km2. Kisii town is the main urban and commercial center of the county. It is a bustling town and home to several businesses, organizations, educational institutions, and government agencies. Kisii County Government (2019) reported that the County of Kisii is served by about 158 Health Facilities: 98 of which are private medical facilities and there is need for the reinvigoration of the Kisii health sector. The biggest hospital is the Kisii Teaching and Referral Hospital which has a bed capacity of 750 beds with the rest of the health facilities being small dispensaries and private health facilities which lack the capacity to offer an array of services to its population. Statistics ratio of facilities to the population is 1 health facility to 8018 persons which is very high and thus affects service delivery.

1.2 Problem statement

The health sector in the Kisii County Government has been plagued with various challenges ranging from inadequate facilities, lack of investments and infrastructure in the health services (Anyieni, 2014). Despite the demand for health care services, investments in the sector have been limited with only 98 private health facilities been registered to offer services (Kisii County Government, 2019). Most of these private health facilities in Kisii County are classified as SMEs due to their characteristics such as size, the average number of employees, and their annual turnovers (Momanyi and Muturi, 2017). Improving healthcare outcomes through healthcare

entrepreneurship has remained a challenge for many leaders in East Africa, and there exists a need to recognize and encourage the growing entrepreneurial healthcare ecosystem in East Africa(Odero et al., 2016). Further, the study points out that Rwanda has a strong public sector that encourages investments in health while Kenya and Uganda have strong private sectors that drive innovation in the health industry (Odero *et al.*, 2016). This points to increased potential for private ventures to invest in private health facilities.

Despite the opportunities for investment in the health services sector in Kisii county, the corresponding investment in the sector is limited. This is in line with a study by Butt & de Run (2009) that poor countries struggle in the provision of basic care as well as treatment of communicable diseases. The study pointed out that the private sector plays a crucial role in plugging the deficit in supply of health services. However, Studies have shown that SMEs experience challenges in accessing capital in other jurisdiction such as inadequate access to capital and financial illiteracy are the most common challenges cited by health SME owners in the county (Anne *et al.*, 2014). mac an Bhaird & Lucey (2010) identifies age, size of firm, levels of intangible activity, the ownership structure and adequate collateral as the challenges associated with access to capital by SMEs. Karpowicz (2016) on the other hand identified access to finance; depth of financial institutions, efficiency of financial institutions. These studies show that challenges in access to finance vary from one jurisdiction to another.

The residents of Kisii County are markedly underserved as regards the availability of adequate health facilities to serve the huge population. And the existing health SMEs have poor access to capital to scale their current business models (Momanyi and Muturi, 2017). There is lack of adequate studies to determine the factors that limit access to capital by health SMEs in Kisii County.

1.3 Research Objectives

1.3.1 General objective

To investigate the factors that influence access to finance by small and medium healthcare entrepreneurs in Kisii County, Kenya.

1.3.2 Specific objectives

1. To determine the characteristics of small and medium healthcare entrepreneurs in Kisii County.
2. To determinethe extent that depth affects financial inclusion of healthcare organizations in Kisii County.
3. To determine the extent that efficiency of financial institutions affects financial inclusion of healthcare organizations in Kisii County.
4. To determine the extent that access to finance affects financial inclusion of healthcare organizations in Kisii County.

1.4 Research questions

1. What are the characteristics of small and medium healthcare entrepreneurs in Kisii County?
2. What is the extent that depth affects financial inclusion of healthcare organizations in Kisii County?
3. What is the extent that efficiency of financial institutions affects financial inclusion of healthcare organizations in Kisii County?
4. What is the extent that access to finance affects financial inclusion of healthcare organizations in Kisii County?

1.5 Scope of the study

The study will investigate the factors that influence access to finance amongst SMEs in Kisii County as well identifying their characteristics. This study will be centered on small and medium healthcare entrepreneurs. Whereas Kisii County has 168 healthcare SMEs, the county residents are markedly underserved as regards the availability of adequate health facilities to serve the huge population. And the existing health SMEs have poor access to capital to scale their current business models (Momanyi and Muturi, 2017). There is lack of adequate studies to determine the factors that limit access to capital by health SMEs in Kisii County. Hence, this study will provide invaluable insight and information.The study will use primary data collected from the respondents using a questionnaire with both closed and open ended questions.

1.6 Significance of the study

This study will be of importance to healthcare entrepreneurs not only in Kisii County but also in Kenya as it will present the factors influencing access to capital. Moreover, the study will be important to policy makers, practitioners and academicians and researchers.

1.6.1 Significance to Policy Makers

The information provided by the study can be used by policy makers to create policies that can increase access to capital by entrepreneurs. Financial institutions can use information from this study to tailor-make their services to the financial needs of healthcare businesses or entrepreneurs in Kisii county and Kenya at large. The government can use the information from this study to enhance access to capital for SMEs and create a conducive ecosystem for business.

1.6.2 Significance to Practitioners

The study will provide insight on to medical practitioners on the challenges that affect financial inclusion in the health sector offering practical solutions on how they can overcome the challenges.

1.6.3 Significance to Researchers

The study will add to the body of knowledge focusing on financial inclusion and the factors that influence it with specific focus on Kisii county in scope. It will also be a source of reference material to academicians and researchers who intend to work on related topics.

CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

This chapter is a review of literature on factors influencing access to finance by small and medium healthcare entrepreneurs. It highlights the theoretical framework as well as the empirical base showing the factors influencing access to finance by small and medium enterprises. The chapter is divided into four sections: section one covers the theoretical framework; section two highlights the empirical review; section three gives the conceptual framework and operationalization of the variables. A summary of the literature elaborating the gaps identified will be at the tail end of the chapter.

2.1 Theoretical Review

The trade off theory will anchor this study. This theory expounds on the determinants of access to finance by SME's. This forms the foundation on which the factors will be identified and analyzed. The tradeoff theory also shows the decision making rationale adopted by most businesses when making financing decisions.

2.1.1 Trade off theory

The theory stems from the works by Modigliani & Miller (1963) which is developed on strong assumptions that perfect capital markets exists with no tax, agency costs and transaction costs. It demonstrates that the financial structure is neutral in relation to the value of the company. They relaxed the neutrality maxim and included taxation: this meant that the value of a leveraged firm is equivalent to that of an unleveraged firm, plus the present value of the tax savings from the debt minus the present value of financial distress costs. Since interest is a deductible from taxable profits of firms, firms are more inclined to use debt rather than equity to finance their activities. SMEs low tax rates that limits leverage policy based on a rebate on interest charges. However, Baumol & Malkiel (1967) argue that the existence of bankruptcy costs necessitates striking a balance between tax benefit and value of a firm. This theoretically postulates that an optimal debt is reached when marginal benefits linked with tax rebate are equivalent to the marginal costs related to bankruptcy due to leverage. In addition, taking the view that the

hypothesis that agency costs do not exist permits for the existence of a capital that is optimal for SME's in theory.

Jensen & Meckling (1976) argue that the Agency theory posits that there is existence of conflict of interest between principal (shareholders) and business agents (managers); henceforth, triggering agency costs that affect financing. Conflicts of interest between creditors and shareholders arise since the former have precedence over the former in bankruptcy proceedings. Despite SMEs facing little or no agency costs between shareholders and managers since most SME's shareholders are the managers, agency conflicts between lenders and owners arise. The Principal (lender) experiences challenges in monitoring the management of the SME and decisions of the agent (owner-manager); this is mostly due to lack of transparent information systems that leads to agency costs.

The trade-off theory is relevant to the study since it describes how business make decisions when making decision on financing of business or access to capital. The theory shows that businesses opt to seek for credit or financing from financial institutions as opposed to equity. Credit from lenders is associated with costs that limit businesses from accessing it and hence the study will focus on identifying the factors that limit the access to finance by small and medium healthcare entrepreneurs in Kisii County.

2.2 Empirical Review

The determinants of financial inclusion include access to finance; depth of financial institutions, efficiency of financial institutions. The empirical review will focus on expounding each of the determinants of financial inclusion.

2.2.1 Access to finance by SMEs

According to the data by World Bank Group (2018), approximately 60% of Kenyans have access to banks or microfinance institutions. Of these, about 30% are rural users with no access to banking services. This shows that there is a shortage in the supply of financial services compared to the demand for them. Not to mention, unfavorable conditions like corruption, high taxes, and oppressive bureaucracy have compromised the success of some lending institutions (Osano and Languitone, 2015). This among other challenges undermines the ability of the SME sector to develop, grow and contribute to the national economy, especially in Sub- Saharan Africa (SSA).

Ravishankar *et al.* (2015) defines Access to finance as the likelihood that enterprises or entrepreneurs will access financial services, payment, deposit, credit, insurance, and other risk management services. Khan *et al.,* (2017) posits that lack of or inadequate access to finance and credit facilities by entrepreneurs subjects their businesses to factors like poor performance, low levels of production as well as the loss of assets they have, unlike their entrepreneur counterparts who can easily access credits and loans to finance their businesses (Khan and Anuar, 2017). Karpowicz (2016)posits that hindrances to access usually reflect distortions associated with shortage of physical infrastructure, immeasurable rationing such as red tape and the requirement for informal guarantors as connections to access finance, High requirements for documentation during opening, maintaining and closure of bank accounts as well as when applying for loans. These impediments escalate the participation costs in the financial system.

Access to finances by SMEs is considered necessary for job creation and economic growth. Commercial bank lending services is the major source of external finance for many SMEs and entrepreneurs, which are often highly reliable on traditional debt to meet their start-up, cash flow and investment needs. This norm used by SMEs however, bank financing poses challenges to majority of SMEs, in particular to starts up businesses, innovators and rapid growing companies, with a higher risk-return profile (Kuntchev, 2012). Despite the fact that financial institutions have identified the SME sector as a fast growing sector in the country, there are several constraints serving as bottlenecks to SMEs in accessing finance from financial institutions. According to Osano *et al.* (2015) only 5 % of SMEs are financed through banking institutions. This means that many SMEs finance their projects using their funds, family, or friends due to some problems in accessing finances.

Small and medium enterprises face several constraints in accessing bank financing attributed to the awareness of funding opportunities, lack of collateral requirements, structure of the financial sector, and small business support services (Osano *et al.*, 2015). Similarly, Makena et al. (2014) in their study on challenges facing women entrepreneurs in accessing business finance in Kenya: A case of Ruiru Township, Kiambu County established that lack of fixed assets was one of the impediments of access to finance. However, the study found out that lack of tangible collaterals like land was a greater hindrance to credit accessibility by women entrepreneurs. Kihimbo et al. (2012) argue that collateral requirements are usually put in place to minimize losses that can

arise from improper utilization of the funds offered to SMEs. They posit that at times the borrowers divert the funds provided by the lenders for their own personal and private use (Kihimbo*et al.*, 2012). This means that majority of SMEs are denied and some discriminated by lenders in accessing finances due to high risk associated with them having adequate resources to pledge as collateral.

An additional barrier that has impeded access to financial resources is information asymmetry. Most small and medium firms are usually unable to prove the quality of their investments or provide evidence to the provider of finance and thus affects their credibility (Buyinza *et al.*, 2015). Access to finance is a major determinant of economic growth and therefore SMEs should be able to access finances to start and grow their businesses. Lending to small enterprises, the biggest task of lenders in reducing or avoiding credit risk is to overcome the problem of asymmetric information (Agyapong, 2010).

Financial institutions that finance SMEs are prone to accessing accurate and reliable information on the financial condition and performance of small enterprises. This leaves the banks to extend credit to SMEs based on decision derived from the strength of SMEs income statements, strength of the balance sheet, SMEs years of operation, quality of accounts received and inventory, history of company directors and transparency of firms through provision of certified financial statements most of which SMEs lack (Ackah & Vuvor, 2011)

2.2.2 Depth of financial institutions

Depth is measured or analyzed based on the collateral requirements which can be high or low depending on the rule of law especially the weakness or strength of financial institutions. These include; requirements on information disclosures; contract enforcement procedures as well as the rights of creditors among others (Karpowicz, 2016).

In Africa, small and medium-scale entrepreneurs suffer from a lack of finances to fund their businesses (Catherine, 2014). African SMEs hardly meet the conditions set by financial institutions. This is because financial institutions consider small businesses risky because of a lack of information on whether they can repay the loans and poor guarantees (Ravishankar and Lehmann, 2015). Most African countries have an underdeveloped financial system, and this offers SMEs fewer financial instruments to get finances from (Catherine, 2014). A study

conducted in Ghana revealed that high-cost borrowing, lack of collateral, and absence of audited financial statement have made it difficult for healthcare entrepreneurs to access a bank loan (Ackah and Vuvor, 2011). They observed that 75% of healthcare SMEs in Ghana require loans for expansions, but lack of tangible security takes the lead in forming the basis of most small-scale trader's loan disapproval.

In Kenya, financial institutions like commercial banks offer finances to businesses mostly in a short-term nature because they make demand deposits which can only be lent on a short-term basis (Mutai, 2016). Short-term loans are usually provided from three months to a maximum of four years and are only offered to established customers who have security. The short term loans are expensive because of the interest needed to be paid interest and also the insurance of the security (Thuku, 2017). Non-bank financial institutions like micro-credit institutions have fewer resources to follow up their customers and therefore cannot lend money to SMEs (Thuku, 2017). Long-term financing is usually unavailable for most SMEs, on the other hand, capital markets have become quite expensive and many SMEs cannot meet the set threshold to be listed.

2.2.3 Efficiency of financial institutions

Karpowicz (2016) argues that Intermediation efficiency is mostly linked with the state of competition between financial institutions and the degree of information asymmetry facing financial institutions. The number of financial institutions providing credit services to SMEs is a major constraint to the financial access by entrepreneurs. A study released by (Paravisini *et al.*, 2018) noted that less than 2% of low-income entrepreneurs across the world have access to credit facilities. The study further observed that the penetration of the banking sector in most sub-Saharan African countries is at 1% of GDP, far below advanced countries like Brazil where the banking penetration is about 25%, or industrialized countries like the U.S where the penetration is at 85% (Paravisini *et al.*, 2018). There are less than 50 commercial banks in Kenya serving a population of 34 million (Mathea, 2014). The Kenyan banking industry consists of 22 local commercial banks and 17 foreign commercial banks with Commercial bank(14.7%), Barclays (14.26%), and Standard Chartered(8.4%), are among the major commercial banks and their market share in Kenya(Central Bank of Kenya, 2019). Competition and information asymmetry is usually reflected in interest spreads and overhead costs of banks.

Faure (2014) defines interest rate as the rate at which interest is paid by a debtor for the money borrowed from a creditor. It is a percentage of the borrowed amount paid for one year. The rate of interest charged on the credit determines the cost of the credit (Bean and Fcia, 2017). The cost credit is therefore the amount of money a debtor is required to pay above the principal sum borrowed. Bean and Fcia (2017) maintain that a high-interest rate increases the cost of credit while a low-interest rate reduces the cost of credit. Interest rate is an important tool in monetary policy and is usually considered when dealing with issues like investment, unemployment and inflation (Bosire *et al.*, 2014). For instance, central banks tend to reduce interest rates whenever they want to increase consumption or investment in the economy. A high-interest rate on credit may discourage borrowing and thereby reducing the accessibility of credit among the entrepreneurs.

In Kenya, Commercial banks often charge high-interest rates on loans (Mutai, 2016). However, these factors can at times be beyond the control of the banks because the amount of interest payable on loans depends on interest rates charged, which is determined by the lending rate of interest set by the Central Bank of Kenya. According to Lugo (2016) the interest rates of a country are also influenced by interest rates in other countries and the exchange rate movements. When the interest rates in developed countries are high, interest rates on domestic currency investments will be comparably high to evade a fall in the exchange rate of the domestic currency (Bean and Fcia, 2017). Interest rates have other determinants for the amount of interest rate charged including; the nature of the business, the use for which it is borrowed, and the security of the loan (Bean and Fcia, 2017). According to Tran *et al.* (2016) the healthcare business is considered a risky venture, and healthcare entrepreneurs, therefore, suffer higher interest rates from lending institutions.

Some of these conditions force SMEs to opt for informal sources of finance. A study conducted in 14 countries in Africa, Latin America, and Asia, found that 76% of informal money lending rates go above 10% per month. The study revealed that lenders charge higher rates to debtors than they should. Although these lenders charge higher rates, their services are usually fast, flexible, and convenient. This has made them remain in business even with the presence of microfinance institutions.

Wachira and Kihiu (2012) reports that access to information among entrepreneurs is important from the perspective of both the SME and the provider of financial services. The SMEs require information to help in identifying the potential provider of the financial services and in evaluating the cost of the financial services. Ellis *et al.*, (2010) lack of awareness about the available financial assistance hinders the small and medium scale entrepreneurs from growing their businesses.

2.2.4 Characteristics of SMEs and access to finance

mac an Bhaird & Lucey (2010) in their study on capital structure in Irish firms identified that age, size of firm, levels of intangible activity, the ownership structure and adequate collateral form part of important determinants access to finance and capital structure in SMEs. In addition, study conducted in India and Indonesia indicated that financial literacy is a strong determinant of access to financial services (Buchdadi *et al.*, 2020). The study showed that access to finance is worsened by the low level of training among entrepreneurs. Lusardi (2019) defines financial literacy as the ability to understand and effectively use a variety of important financial concepts and skills..

Other studies have shown that those who are less financially literate have difficulties in managing debts, savings and credit and planning (Wachira and Kihiu, 2012). Ye and Kulathunga (2019) reports that lack of understanding of credit processes and poor understanding of financial terminologies places healthcare entrepreneurs at a disadvantage. Pieces of evidence have shown that despite the available information on available financial services from development finance institutions and available market opportunities, few entrepreneurs know about them or how to access them (Ye and Kulathunga, 2019). The level of financial literacy is, therefore, a constraining factor in the accessibility of finances among healthcare SMEs. This shows that characteristics of SMEs go beyond the entity and includes the entrepreneurs as well.

2.3 Chapter summary and Research Gaps Summary

Authors/ year	Objective of the study	Theory / Model	Main findings and Conclusions	Knowledge Gaps identified
(Karpowicz, 2016)	Test the Financial Inclusion, Growth and Inequality using a Model in Colombia	Financial Inclusion Model	Financial inclusion did not grow in tandem with credit growth in Colombia Access, Depth, Efficiency of finance institutions were the main determinants of financial inclusion	Geographical Gap. The study only focused on Colombia SMEs firms hence generalizability to Kenyan context is limited since SMEs characteristics vary considerably
(mac an Bhaird & Lucey, 2010)	Empirical examination of determinants of the capital structure	Trade off theory, Agency Theory & Pecking order theory	Age, size of firm, levels of intangible activity, the ownership structure and adequate collateral are the determinants of financial access	Geographical Gap. The study only focused on Irish SMEs firms hence generalizability to Kenyan context is limited since SMEs characteristics vary considerably
(Catherine, 2014)	Factors Affecting Credit Access Among Small and Medium	Financial Inclusion theory, Financial intermediation	It established that number of lending institutions, interest charged on loans, collateral security	Conceptual and Geographical gap. The study differs on the conceptual framework. The

	Enterprises in Murang'a County	theory, Imperfect information theory	and literacy levels are the most significant factors that affect access to credit among SMEs in Murang'a.	study on focused on four predetermined aspects; It's also domiciled in Murang'a County which differs in characteristics from Kisii County
(Ackah and Vuvor, 2011)	The Challenges faced by SMEs in Obtaining Credit in Ghana.	Financial Inclusion Theory	High interest rates, high collateral requirements, short repayment periods affect access to finance	Geographical Gap. The study only focused on Ghana SMEs firms hence generalizability to Kenyan context is limited since SMEs characteristics vary

Table 2.1. Chapter summary and research gaps summary

2.4 Conceptual Framework

The conceptual framework depicts the association between the independent and dependent variables. The determinants of financial inclusion are the independent variables while financial inclusion is the dependent variable. Financial inclusion which means that have access to beneficial and affordable financial products and services (transactions, payments, savings and credit) that meet their needs delivered in a sustainable and responsible way is the dependent variable while depth, efficiency of financial institution and access are the independent variables.Karpowicz (2016) identifies depth, efficiency and access as the main determinants of financial inclusion in Colombia. Further, the study posits that obstacles to access normally reflect distortions related to high documentation required by banks for account opening and loan application, scarcity of physical infrastructure among other forms of immeasurable rationing such as bureaucracy or need for informal guarantors as connections to access finance. Secondly, Depth is determined by collateral requirements such as creditors' rights, information disclosure and contract enforcement procedures. Lastly, Intermediation efficiency is associated with degree of asymmetric information and competition among financial institutions which is reflected in interest rate spreads and banks' overhead costs. Ackah& Vuvor (2011) identified high interest rates, high collateral requirements, short repayment periods as the determinants of access to finance which can be classified under intermediation efficiency and depth. Similarly, Catherine (2014) established that number of lending institutions, interest charged on loans, collateral security and literacy levels which also fall into the 3 broad categories.

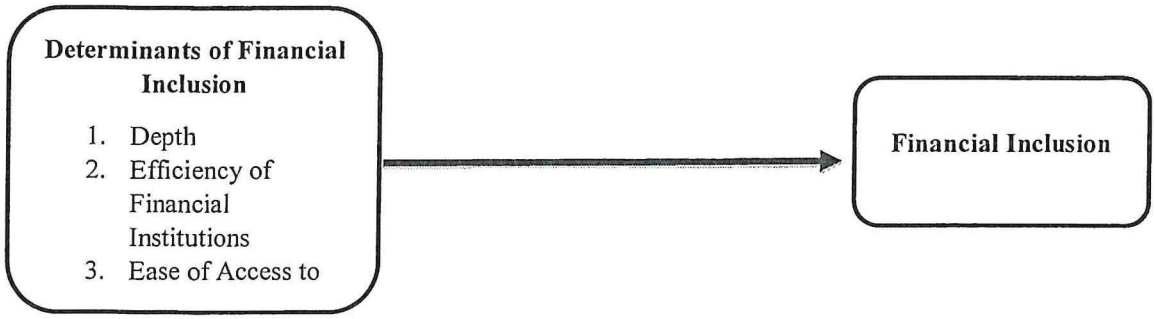

Figure 2.1. Conceptual framework

2.3.1 Operationalization of the variables

Factors influencing accessibility to finance by small and medium-scale healthcare entrepreneurs include Independent variables like small and medium healthcare characteristics, Depth of financial access, efficiency of financial institutions and access which will be measured as follows.

Variables	Indicators	Measure	Supporting Literature
Firm characteristics	• Number of years in operation • Size of the firm • The ownership structure	• Years of Operations • Turnover of firm • Nature of firm	(mac an Bhaird & Lucey, 2010)
Depth	• Collateral requirements • Rights of creditors	• Likert Scale • Strongly disagree to Strongly agree	mac an Bhaird & Lucey (2010); Karpowicz, (2016).
Efficiency of financial Institutions	• Interest rates	• Likert Scale • Strongly disagree to Strongly agree •	Faure (2014); Bean & Fcia, (2017)
Access	• Immeasurable rationing • The requirement for informal guarantors	• Likert Scale • Strongly disagree to Strongly agree •	Karpowicz (2016)
Financial Inclusion	• access to financial services • usage of financial services	• Likert Scale • Strongly disagree to Strongly agree	

	• quality of the products and the service delivery.		

Table 2.2. Operationalization of variables matrix

CHAPTER THREE

RESEARCH METHODOLOGY

3.0 Introduction

The objective of the study was to investigate the factors that influence the access to finance by small and medium healthcare entrepreneurs in Kisii County, Kenya. This chapter covers the research methodology and discusses the study research design in section one, study population in section two, sampling technique and sample size in section three, data collection methods procedures in section four, research and data quality in section five, data analysis in section six and ethical considerations in section 7.

3.1 Research philosophy

Padilla-Diaz (2015) posits that Research philosophy deals with the source, nature and development of information or knowledge. Further, Zukauskas et al. (2018), defines a research philosophy as the belief about the ways through which data around a phenomenon should be collected, analyzed and applied. The study a positivist philosophy. Dudovskiy (2018) posits that positivism as a philosophy adheres to the view that only "factual" knowledge gained through observation and measurement, is trustworthy. This means that the role of the researcher is limited to data collection and interpretation of the data in an objective manner. The findings of this type of research are usually quantifiable and observable.

The positivist philosophy has advantages; Positivism relies on quantitative data that is more reliable than qualitative research. Secondly, Positivism follows a distinct structure throughout studies and discussions i.e. due to the set laws and rules followed in this study there is minimum room for errors. Lastly, Positivist studies result in objective inferences and conclusions especially when the researcher objective and not subjective in the interpretation and inferences.

3.2 Research design

Mitchell & Jolley (2009)define research design as the overall strategy employed in integrating the different components of a research study in a logical and coherent way, thereby, ensuring that the study will effectively address the research problem. Further, the research design constitutes

the blueprint to be applied in the collection, measurement, and data analysis. This study used a descriptive survey design. This design was appropriate for this study because it attempted to investigate the factors that affect access to financing by small and medium scale healthcare entrepreneurs in Kisii County, without manipulating the variables. The approach was similar to studies by (Karpowicz, 2016;Catherine, 2014; Ravishankar & Lehmann, 2019). The study was quantitative in nature.Lambert & Lambert (2013) define a quantitative research design as a systematic investigation of phenomena by gathering quantifiable data and performing mathematical, computational or statistical techniques. Quantitative research collects information from respondents using sampling methods and applying research tools such as online surveys and questionnaires, etc., the results of which can be depicted in the form of numerical

Padilla-Diaz (2015) argues that in a research study that takes a quantitative paradigm, the researcher must reserve all preconceptions, prejudices and judgments towards a particular phenomenon in order to make an objective analysis of the information respondents or participants bring to an investigation.

3.2 Study population

Kisii County Government (2019) reported that the County of Kisii is served by about 158 Health Facilities: 98 of which are private medical facilities. Hence the study population was 98 private medical facilities. The study focused on the private medical facilities since the government funded health facilities are publicly funded from the taxes raised and fees from services rendered. Majid (2018) defines a population as complete set of elements i.e. objects or persons, that possess common characteristics of interest to the researcher as defined by the sampling criteria.

3.3 Study Sampling Technique

Determination of sample size was based on population size, purpose of study, precision level, confidence level and degree of variability of the attributes (Israel, 2013). This study applied a +5% or -5% precision level and a 95% confidence level. The less homogenous the population the higher the sample size required to cater in for the variability.

Israel (2013) proposes several methods used in determination of the sample size. These comprise of census study for small populations, replicating a sample size from similar studies, using

published tables, in addition to applying formulas to calculate a sample size. This study adopted the use of a published table to select the sample size. Since the population size is 98 facilities, the resultant sample size under the precision level of+5% or -5% is 81 health facilities.

Table 2. Sample Size for ±5%, ±7% and ±10% Precision Levels where Confidence Level Is 95% and P=.5.

Size of Population	Sample Size (n) for Precision (e) of:		
	±5%	±7%	±10%
100	81	67	51
125	96	78	56
150	110	86	61
175	122	94	64
200	134	101	67
225	144	107	70
250	154	112	72
275	163	117	74
300	172	121	76
325	180	125	77
350	187	129	78
375	194	132	80
400	201	135	81
425	207	138	82
450	212	140	82

Source Glenn D. Israel (2013) Determination of sample size

Figure 3.1 Sample size.

A random sampling was used in the selection of the 81 units that were applied in the study. Etikan & Bala (2017) defines random sampling a process that permits every single item from the population to have an equal chance of presence in the sample.

3.4 Data collection methods and procedure

The study used primary data and secondary data. The primary data was collected from respondents using structured questionnaires (Appendix 2). The questionnaires used both closed-ended and open-ended questions to gather the information from the respondents on the characteristics of firms and their views on the ease of access of finance in Kisii County. The respondents were drawn from the owners or business managers of licensed Health SME's operating Kisii County depending on their availability. These respondents bore the information that is critical for analysis as per the requirements of this study.

The questionnaires were administered by trained research assistants and the research assistants were present during data collection to assist or answer any queries that the respondent might have.

Secondary data comprised of the registration and location of details of licensed Health SME's operating Kisii County was obtained from the Kisii County Government department of Health and the Licensing department. This data provided insight on the number of licensed SMEs operating in the county and their location for ease of identifying the facilities for the study.

3.5 Data quality

3.5.1 Reliability

Reliability was ensured by developing a questionnaire and a guide for data collection. Trainings was conducted for the selected research assistants on tools that were used for the study and also, this involved supervising of research assistance during the data collection exercise. Completed questionnaires were cross-checked daily and errors corrected.

3.5.1.1 Reliability test

Cronbach coefficient: This was applied in assessing internal consistency through correlating the respondent's responses to the questionnaire against each other i.e. calculating average correlation of responses.

The internal consistency Cronbach's Alpha (α) ranges from 0 to 1,

1. The closer it is to 1: the higher the reliability
2. Zero (0): no internal consistency
3. 1: complete internal consistency

3.5.2 Validity

The validity of the questionnaire ensured that a well-designed questionnaire is appropriate and thorough. The university supervisor appraised the research instrument to ensure it covered adequate information to meet the study objectives.

Content validity was used to measure validity: Yaghmaie (2003) defines content validity as degree to which data collection instrument covers the content or data that it is intended to measure. For content validation two decisions were necessary: the measurable extent of each item in defining the traits plus the set of items that represents all aspects of the traits.

3.6 Data analysis

Data analysis refers to the process applied by a researcher in reducing the large amounts of collected data and making sense of them. It includes three steps namely organization of data, summarization and categorization, identification of patterns and themes in the data. In this study, the organization of data involved data entry which involved coding and editing of data. Step two involved summarization and categorization of data. This was done using MS Excel and SPSS. Data was keyed into a computer and coded for analysis and for adequate interpretation. Step three involved identification of patterns and themes in the data using tables and graphs analyzed using percentages. The Likert scale was coded as follows; 1 = Strongly disagree; 2 = Disagree; 3 = Neutral; 4 = Agree and 5 = Strongly agree. The final step involved data analysis using ordinal regression analysis to determine the relationship between the independent and dependent variables. This approach is similar to studies by Osano & Languitone (2015) and (Catherine (2014).The model will be as follows

$$\mathbf{Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \mu}$$

Where;

Y = Financial Inclusion

X_1 = Depth

X_2 = Access

X_3= Immeasurable rationing

$\beta_0$is the constant term while the coefficient

β_1 = 1....3 will measure the sensitivity of the dependent variable (Y) to unit change in the predictor variables.

μ is the error term

3.7 Ethical consideration

A research permit was obtained from the National Council for Science, Technology, and Innovation (NACOSTI). The respondents were given a brief on the study and why the study was being carried out. To ensure confidentiality, the names of respondents were not revealed in the study. The respondents were not coerced to respond/ fill the questionnaire. All the references used to obtain the information in this study were duly acknowledged.

CHAPTER FOUR

DATA ANALYSIS AND INTERPRETATION

4.1 Introduction

This chapter presents the research findings investigating the factors that influence the access to finance by small and medium healthcare entrepreneurs in Kisii County, Kenya. Secondary Data comprised of the registration and location of details of licensed Health SME's operating Kisii County and was obtained from the Kisii County Government department of Health and the Licensing department. The primary data was from the questionnaire distributed to the identified Health SME's operating in Kisii county and the respondents was either the owner or the manager of the establishment.

4.2 Background Information

The study focused on 81 health SME's in Kisii county representing the population of 98 licensed health care providers. 81 questionnaires were distributed to all the 81 and 80 questionnaires were duly filled and returned. This translates to a 98.7% response rate. Before analysis, the questionnaires were subjected to a reliability test.The Cronbach coefficient was applied in assessing internal consistency through correlating the respondent's responses to the questionnaire against each other i.e. calculating average correlation of responses. The responses covered 4 sections which sought to establish the financial inclusion, depth, intermediation efficiency and access of financial services and the corresponding Cronbach alpha for each of the responses was as follows;

Financial Inclusion Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.797	.787	3
Access Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.839	.865	4
Efficiency Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.656	.687	2
Depth Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.791	.783	4

Table 4.1: Cronbach Alpha Statistics

From the analysis of the data above, the study established that the financial inclusionalpha coefficient for the three items is .80 while the one for depth is 0.79suggesting that the items are highly reliable and reliable respectively. The alpha coefficient for access is .839 which suggested that the items are also highly reliable. Lastly, Efficiency alpha coefficient is the lowest at 0.656 which shows that the internal consistency between the items is minimal. However, (Goforth, 2015; Mohammed, 2018) advise that any alpha above 0.60 can be applied in a study.

	Low	Minimal	Reliable	Highly Reliable	Very Highly Reliable
Alpha	< 0.60	0.60-0.69	0.70-0.79	0.80-0.90	> 0.90

Table 4. 2: Cronbach Alpha Interpretation Matrix

Source: (Mohammed, 2018)

4.3 Characteristics of small and medium healthcare entrepreneurs

The first objective of the study was to determine characteristics of health SME's in Kisii County. The study sought to analyze the characteristics of the small and medium health care entrepreneurs from two perspectives. The first perspective analyzed the firm and the second perspective focused on the individual entrepreneur or the owner of the business. On the first perspective the study sought to identify the nature of the businesses, the years the SME had been in operations, theno of employees engaged, the qualification of the management and the monthly turnover of the entity. The second perspective covered the characteristics of the owners of the business.

4.3.1 Firm Characteristics

The study established that Kisii County health SME's is predominantly sole proprietorships which comprise 63% of the businesses in the study. The nature of the other businesses was 26% limited liability companies, 10% are partnerships and a paltry 1% are limited Liability Partnerships.

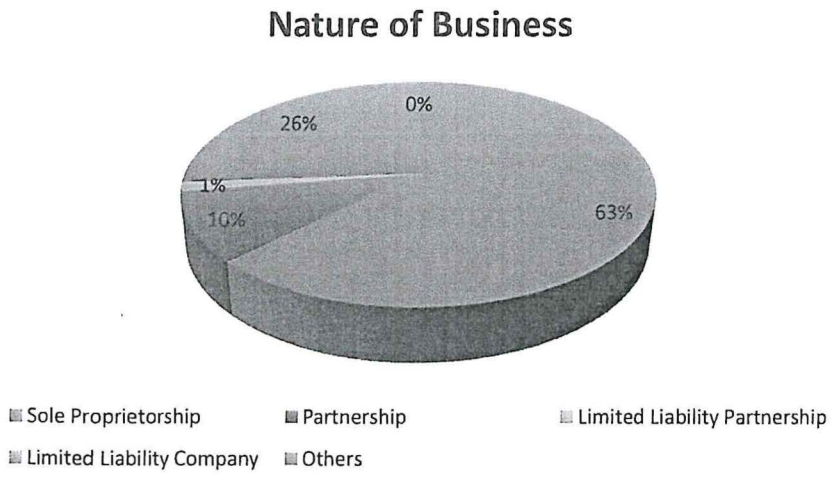

Chart 4.1 Nature of business

The Majority of the SME's have been in operations for between five to ten years at 49% with 37% having been in operations for less than five years. Only 14% of the businesses have been in operations for over 10years.

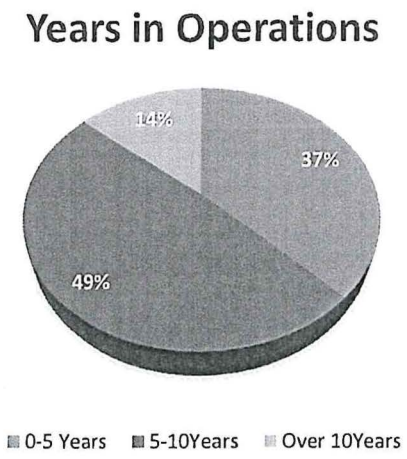

Chart 4.2Years in operations

In addition, 89% of the SME's have less than 10 employees with 49% of the SME's having zero to five employees and 40% of them having between six to ten employees. Only 9% of the SME's have between eleven and twenty employees and 2% of the SME's having more than twenty employees.

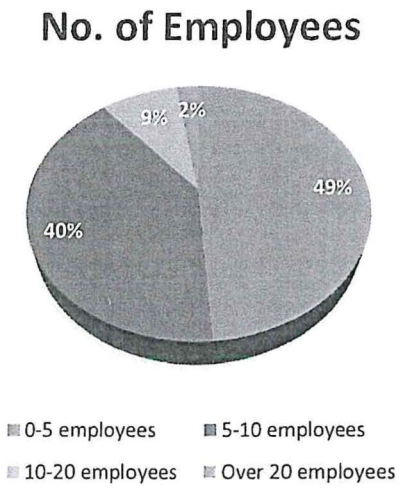

Chart 4.3Number of employees

The management of the SME's is mainly carried out by non-professional managers while 46% of the SME's are managed by professionals.

Chart 4.4Qualifications of Management staff

In addition, Majority of the firms at 46% have the owners doubling up as the managers as well, while 29% of the firms have a manager who is not a manager. 25% are just owners of the firms and are not involved in the day to day management of the businesses.

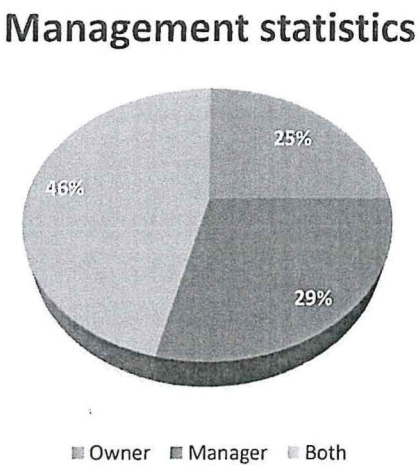

Chart 4.5Management statistics

Majority of the firms at 41% have a monthly turnover of between Kshs 30,000 and Kshs 50,000; 34% of the firms have a monthly turnover of less than Kshs 30,000. Only 15% of the firms have a monthly turnover of between Kshs 50,000 and 70,000 and 10% have a turnover of over Kshs 70,000.

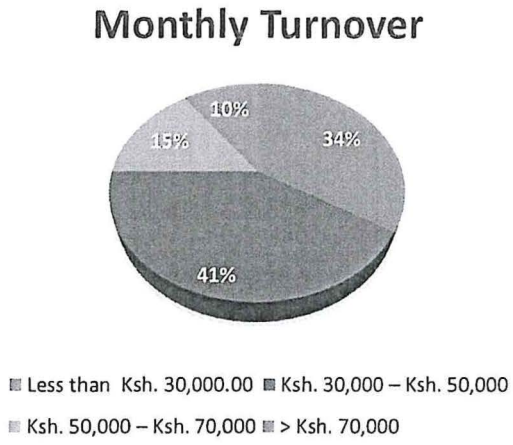

Chart 4.6Monthly turnover of SME's in Kisii County health sector

4.3.2 Owner Characteristics

The study sought to establish the characteristics of entrepreneurs in the health industry in Kisii County. The study established that 55% of the business owners were holders of a College Diploma and 29% were holders of undergraduate degrees; 15% were post graduate degree holders; 1% had post graduate qualifications.

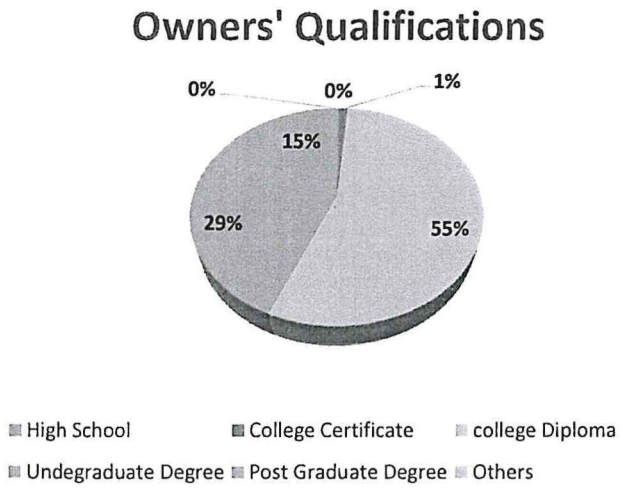

Chart 4.7Qualification of business owners

Majority of the business owners started their business with funds from personal savings representing 45% of the sample. 30% sourced for funds to establish their business from finance institutions while 25% relied on family and friends for the startup capital. The interesting finding is that none of the respondents sought funds from other sources such as government loans.

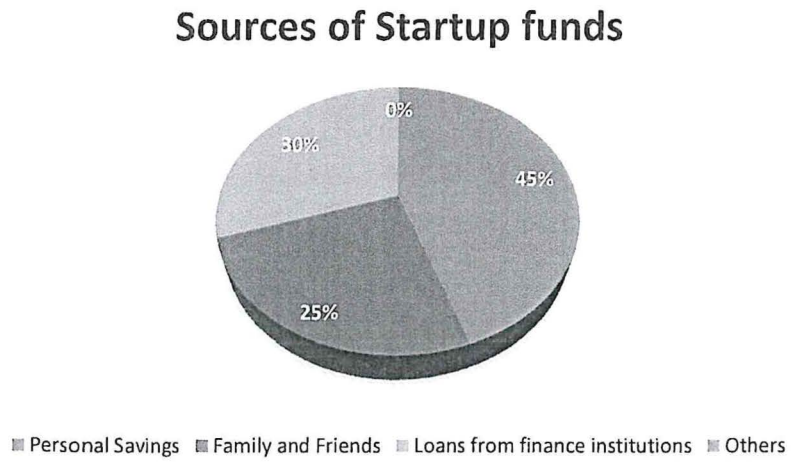

Chart 4.8Sources of Startup capital

Finally, 74% of the respondents have sought funds to expand their businesses while 26% had not sought funds for expansion. This is an indication that the demand for finances is high in Kisii County's health SME's.

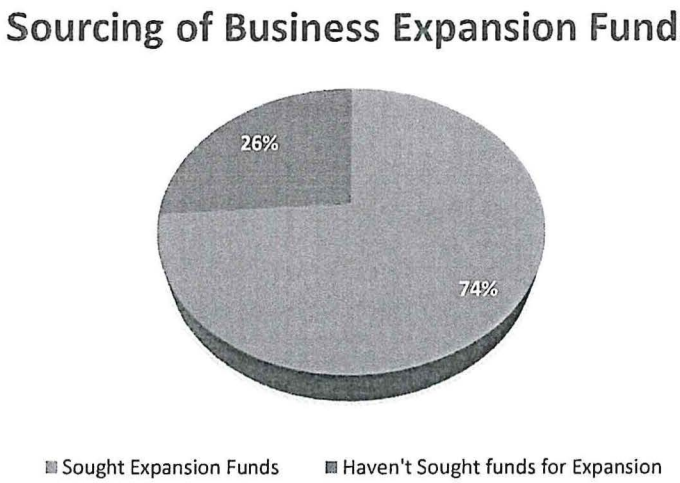

Chart 4.9 Sourcing of Business Expansion Funds

The interest rates charged on the loans that the SME's sought for is majorly between 13% and 20%. This interest rate is considered prohibitive on the entrepreneurs. In addition, the study established that 100% of the respondents who sought the loans only required the loans for a period of up to 1 year or short term loans.

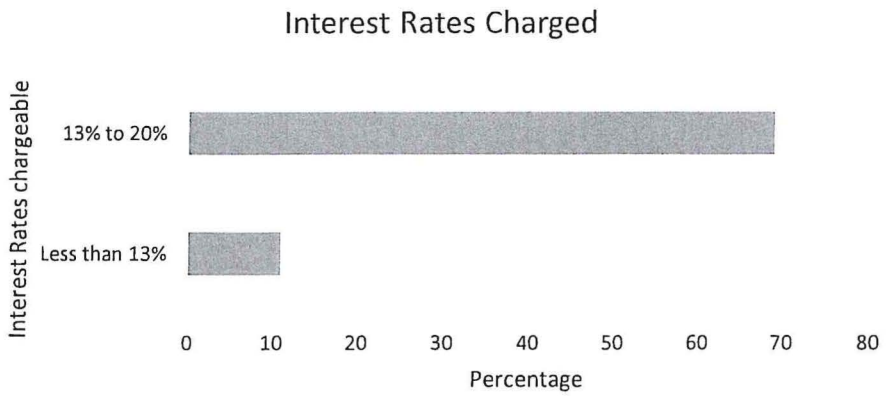

Chart 4.10 Interest rates chargeable

The study also established that only 19% of the respondents have had challenges with repayment of loans. The major causes of the loan default were attributed to low turnover of the business at 50%, High interest rates at 28%, high monthly repayment amounts and short duration were equal at 11% each. This finding is in line with the earlier finding that the annual turnover for majority of the health SME firms in Kisii County have a turnover of 30,000 to 50,000 per month.

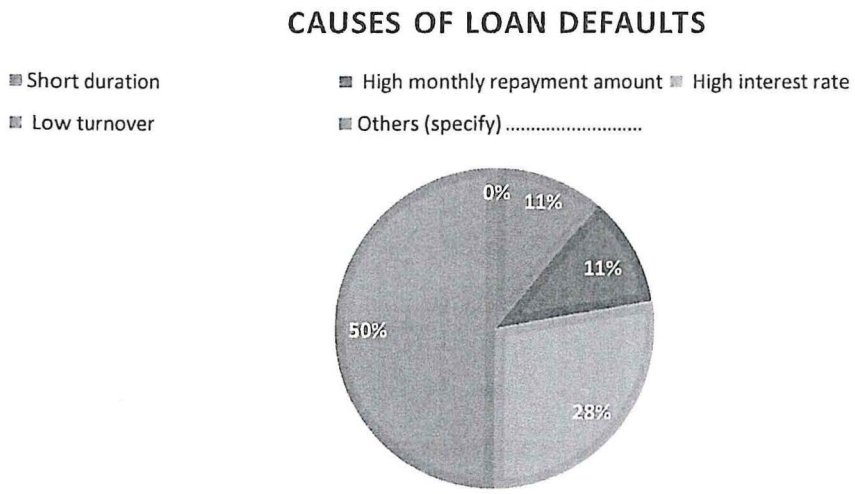

Chart 4.11Causes of loan defaults

4.4 Determinants of Financial Inclusion Affect Access to Capital

The second objective of the study was to determine the determinants of financial inclusion and how they affect access to capital by SME's in Kisii County. The analysis was carried out in two parts. The first section analyses the questionnaires and responses from the respondents and the second part analyzes the relationship between the variables on financial inclusion.

4.4.1 Relationship between determinants of financial inclusion

The primary data collected was quantitative in nature and based on a Likert scale system of five-point agreement scale. To aid in regression analysis, the Likert scale will be coded as follows; 1 = Strongly disagree; 2 = Disagree; 3 = Neutral; 4 = Agree and 5 = Strongly agree. All the questionnaires had all the questions answered and there were no cases of missing data on the items as in table 3 below;

Table 4. 3: Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
INCLUSION	80	100.0%	0	0.0%	80	100.0%
ACCESS	80	100.0%	0	0.0%	80	100.0%
EFFICIENCY	80	100.0%	0	0.0%	80	100.0%
DEPTH	80	100.0%	0	0.0%	80	100.0%

The Frequency and percentage of respondents answers to each of the Likert scale questions and statements was as follows;

Financial inclusion which is the dependent variable was measured based on 3 aspects; (i) access to financial services; (ii) use of financial services; and (iii) the quality of the products and the service delivery of financial institution. Under the statement "there was ease of Access to financial services in Kisii County" coded as Inclusion1, Majority of the respondents 45% agreed while 32 strongly agreed. 18% of the respondents were neutral and only 3.8% disagreed or strongly disagreed; Secondly, under the statement "There is increased usage of financial services by SME's in Kisii County" coded as inclusion2, majority of the respondents at 57.5% agreed with the statement, 37.5 strongly agreed while only 3.8% were neutral and only 1.3% strongly disagreed. Finally, on the third aspect of financial inclusion "The quality of financial products and service delivery of financing institutions attracts entrepreneurs to utilize financial products" 38.8% and 38.8% strongly agreed and agreed respectively with the statement while 20% being neutral on the same. Only 2.5 of the respondents disagreed or strongly disagreed with the statement as shown in the tables below.

INCLUSION1: there was ease of Access to financial services in Kisii County

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	2	2.5	2.5	2.5
	2.00	1	1.3	1.3	3.8
	3.00	15	18.8	18.8	22.5
	4.00	36	45.0	45.0	67.5
	5.00	26	32.5	32.5	100.0
	Total	80	100.0	100.0	

INCLUSION2: There is increased usage of financial services by SME's in Kisii County

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	1	1.3	1.3	1.3
	3.00	3	3.8	3.8	5.0
	4.00	46	57.5	57.5	62.5
	5.00	30	37.5	37.5	100.0
	Total	80	100.0	100.0	

INCLUSION3: The quality of financial products and service delivery of financing institutions attracts entrepreneurs to utilize financial products

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	1	1.3	1.3	1.3
	2.00	1	1.3	1.3	2.5
	3.00	16	20.0	20.0	22.5
	4.00	31	38.8	38.8	61.3
	5.00	31	38.8	38.8	100.0
	Total	80	100.0	100.0	

Access which is one of the independent variable was measured based on four aspects; (i) No of lending institutions in Kisii County; (ii) Banking requirements for loan application; (iii) guarantor requirements by financial institution and (iv) Lack of interest in finance for expansion or operations. Under the statement "There are no sufficient lending institutions in my county that can give loans to Small businesses" coded as access1, Majority of the respondents 46.3% agreed while 28.7 strongly agreed. 21.3% of the respondents were neutral and only 3.8% disagreed or strongly disagreed; Under the statement "Bank requirements for application for a loan discourage me from seeking financing from banks" coded as access2, majority of the respondents at 60% agreed with the statement, 32.5% strongly agreed while only 5% were neutral and only 2.5% strongly disagreed. thirdly, on the third aspect of access coded as access3 "The bank/Financing institution requested for a guarantor for my loan" 35% and 57.5% strongly agreed and agreed respectively with the statement while 6.3% being neutral on the same. Only 2.5 of the respondents strongly disagreed with the statement. On the fourth aspect coded as access4 "I have no interest in seeking external financing for expansion or operating my business" 33.8% and 60% strongly agreed and agreed respectively with the statement while 6.3% being neutral on the same. Only 1.3% of the respondents strongly disagreed with the statement. The summary is as shown in tables below;

ACCESS1; There are no sufficient lending institutions in my county that can give loans to Small businesses

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	2	2.5	2.5	2.5
	2.00	1	1.3	1.3	3.8
	3.00	17	21.3	21.3	25.0
	4.00	37	46.3	46.3	71.3
	5.00	23	28.7	28.7	100.0
	Total	80	100.0	100.0	

ACCESS2: Bank requirements for application for a loan discourage me from seeking financing from banks

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	1	1.3	1.3	1.3
	2.00	1	1.3	1.3	2.5
	3.00	4	5.0	5.0	7.5
	4.00	48	60.0	60.0	67.5
	5.00	26	32.5	32.5	100.0
	Total	80	100.0	100.0	

ACCESS3: The bank/Financing institution requested for a guarantor for my loan

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	1	1.3	1.3	1.3
	3.00	5	6.3	6.3	7.5
	4.00	46	57.5	57.5	65.0
	5.00	28	35.0	35.0	100.0
	Total	80	100.0	100.0	

ACCESS4: I have no interest in seeking external financing for expansion or operating my business

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	1	1.3	1.3	1.3
	3.00	4	5.0	5.0	6.3
	4.00	48	60.0	60.0	66.3
	5.00	27	33.8	33.8	100.0
	Total	80	100.0	100.0	

Intermediation Efficiency which is the second independent variable was measured based on two aspects; (i) Interest rates charged; (ii) the costs associated with loan application. Under the statement "The interest rates charged by financial institutions for loans is highly prohibitive for my business" coded as efficiency1, Majority of the respondents 51.2% agreed while 42.5 strongly agreed. 6.3% of the respondents were neutral and none of the respondents disagreed or strongly disagreed; Under the statement "The costs associated with the application for a loan are high and hence deter my efforts in seeking a loan" coded as efficiency2, majority of the respondents at 41.3% strongly agreed with the statement, 36.3% agreed while 20% were neutral and 1.3% and 1.3% strongly disagreed and agreed respectively as shown in the tables below;

EFFICIENCY1: The interest rates charged by financial institutions for loans is highly prohibitive for my business

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	3.00	5	6.3	6.3	6.3
	4.00	41	51.2	51.2	57.5
	5.00	34	42.5	42.5	100.0
	Total	80	100.0	100.0	

EFFICIENCY2: The costs associated with the application for a loan are high and hence deter my efforts in seeking a loan

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	1	1.3	1.3	1.3
	2.00	1	1.3	1.3	2.5
	3.00	16	20.0	20.0	22.5
	4.00	29	36.3	36.3	58.8
	5.00	33	41.3	41.3	100.0
	Total	80	100.0	100.0	

Depth which is the third independent variable was measured based on four aspects; (i) Bank requirements for collateral for loans; (ii) Banking enforcements of terms and conditions of loans; (iii) Relationship with the banker (iv) Value of creditor rights and needs. Under the statement "The Banks requirements for collateral/Security for the loan are high and beyond my capacity" coded as depth1, Majority of the respondents 50% agreed while 21.3 strongly agreed. 27.5% of the respondents were neutral and only 1.3% strongly disagreed; Under the statement "The Banks enforcement of terms and conditions of the loans discourage my need for a corporate loan" coded as depth2, majority of the respondents at 41.3% strongly agreed with the statement, 36.3% agreed while 20% were neutral and only 1.3% and 1.3% strongly disagreed and disagreed. Thirdly, on the third aspect of access coded as depth3 "My business relationship with the banker is the best and I enjoy the support that they accord me" 28.7% and 55% strongly agreed and agreed respectively with the statement while 16.3% being neutral on the same. Only 2.5 of the respondents disagreed with the statement. On the fourth aspect coded as depth4 "I feel that the bank does not value the rights of creditors and my needs come second to the bank requirements" 41.3% and 35% strongly agreed and agreed respectively with the statement while 21.3% being neutral on the same. Only 1.3% and 1.3% of the respondents strongly disagreed and disagreed with the statement respectively. The summary is as shown in tables below;

DEPTH1 The Banks requirements for collateral/Security for the loan are high and beyond my capacity

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	2.00	1	1.3	1.3	1.3
	3.00	22	27.5	27.5	28.7
	4.00	40	50.0	50.0	78.8
	5.00	17	21.3	21.3	100.0
	Total	80	100.0	100.0	

DEPTH2 The Banks enforcement of terms and conditions of the loans discourage my need for a corporate loan

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	1	1.3	1.3	1.3
	2.00	1	1.3	1.3	2.5
	3.00	16	20.0	20.0	22.5
	4.00	29	36.3	36.3	58.8
	5.00	33	41.3	41.3	100.0
	Total	80	100.0	100.0	

DEPTH3: My business relationship with the banker is the best and I enjoy the support that they accord me

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	2.00	2	2.5	2.5	2.5
	3.00	11	13.8	13.8	16.3
	4.00	44	55.0	55.0	71.3
	5.00	23	28.7	28.7	100.0
	Total	80	100.0	100.0	

DEPTH4: I feel that the bank does not value the rights of creditors and my needs come second to the bank requirements

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	1	1.3	1.3	1.3
	2.00	1	1.3	1.3	2.5
	3.00	17	21.3	21.3	23.8
	4.00	28	35.0	35.0	58.8
	5.00	33	41.3	41.3	100.0
	Total	80	100.0	100.0	

4.4.2 Descriptive statistics

Under the descriptive statistics of the Likert Scale data, the study focused on measures of dispersions and measures of central tendency.

Table 4.4: Descriptive Statistics for Variables

			Statistic	Std. Error
INCLUSION	Mean		4.1542	.07662
	95% Confidence Interval for Mean	Lower Bound	4.0017	
		Upper Bound	4.3067	
	5% Trimmed Mean		4.2037	
	Median		4.0000	
	Variance		.470	
	Std. Deviation		.68528	
	Minimum		2.00	
	Maximum		5.00	
	Range		3.00	
	Interquartile Range		.92	
	Skewness		-.765	.269
	Kurtosis		.875	.532

ACCESS	Mean		4.1719	.06797
	95% Confidence Interval for Mean	Lower Bound	4.0366	
		Upper Bound	4.3072	
	5% Trimmed Mean		4.2118	
	Median		4.0000	
	Variance		.370	
	Std. Deviation		.60796	
	Minimum		1.00	
	Maximum		5.00	
	Range		4.00	
	Interquartile Range		.75	
	Skewness		-1.640	.269
	Kurtosis		8.118	.532
EFFICIENCY	Mean		4.2563	.07226
	95% Confidence Interval for Mean	Lower Bound	4.1124	
		Upper Bound	4.4001	
	5% Trimmed Mean		4.2917	
	Median		4.0000	
	Variance		.418	
	Std. Deviation		.64628	
	Minimum		2.50	
	Maximum		5.00	
	Range		2.50	
	Interquartile Range		1.00	
	Skewness		-.461	.269
	Kurtosis		-.531	.532
DEPTH	Mean		4.0750	.07065
	95% Confidence Interval for Mean	Lower Bound	3.9344	
		Upper Bound	4.2156	

5% Trimmed Mean	4.1007	
Median	4.0000	
Variance	.399	
Std. Deviation	.63195	
Minimum	2.50	
Maximum	5.00	
Range	2.50	
Interquartile Range	1.00	
Skewness	-.463	.269
Kurtosis	-.478	.532

Of particular interest to the study is the Skewness and Kurtosis statistic and Standard error. These statistics were used in the measurement of normally. When the Skewness statistic is divided by its standard error and the result lies between -1.96 and +1.96, then the variable is normally distributed. This test is critical as it determines the regression and correlation method that was to be applied in Likert Scale Data analysis.

Variable	Skewness Test Statistic	Std. error	Result	Interpretation
Financial Inclusion	-0.765	0.269	-2.84386617	Not Normally Distributed
Depth	-0.463	0.269	-1.72118959	Normally Distributed
Access	-1.64	0.269	-6.09665428	Not Normally Distributed
Intermediation Efficiency	-0.461	0.269	-1.71375465	Normally Distributed

Variable	Kurtosis Test Statistic	Std. error	Result	Interpretation
Financial Inclusion	0.875	0.269	3.252788104	Not Normally Distributed
Depth	-0.478	0.269	-1.77695167	Normally Distributed
Access	8.118	0.269	30.17843866	Not Normally Distributed
Intermediation Efficiency	-0.531	0.532	-0.9981203	Normally Distributed

Table 4.5 Likert Scale Data analysis

Due to the inconsistency in the findings, the more reliable test for normality for data of less than 100 was applied. To test for normality of the data the Shapiro-Wilk test was applied to the data since the data is less than 100 entries. The Shapiro-Wilk test for normality is applied using the distribution platform to study a continuous variable. According to Ghasemi & Zahediasl (2012), the disadvantages of the Shapiro-Wilk test are: the test is not sensitive to outliers; the test is not reliable for data sets with more than one hundred entries.

The null hypothesis for this test is that the data are normally distributed

H_0: The sample is taken from a normal distribution.

H_a: The sample is not taken from a normal distribution.

This hypothesis is rejected if the critical value P for the test statistic W is **less than 0.05**.

Tests of Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
INCLUSION	.161	80	<.001	.904	80	<.001
ACCESS	.176	80	<.001	.834	80	<.001
EFFICIENCY	.188	80	<.001	.884	80	<.001
DEPTH	.145	80	<.001	.940	80	<.001

a. Lilliefors Significance Correction

Table 4.6 Test of Normality

Critical value for the test statistics is less than 0.05 and hence it is statistically significant. This means that the data is not normally distributed. Since the data is not normally distributed we shall use the ordinal regression analysis (Non-parametric) method as per the table below (Liang et al., 2020; LaValley, 2008).

Type of Data	Normally Distributed Likert Scale Data (Parametric)	Non-Normally Distributed Likert Scale Data (Non-Parametric)
Regression Method	Linear Regression	Ordinal Regression
Correlation Method	Pearson Correlation	Spearman Rank Correlation

Table 4.7 Regression analysis matrix

4.4.3 Ordinal Regression Analysis

Ordinal regression, as a predictive analysis, it describes data and explains the relationship between one dependent variable and two or more independent variables. In ordinal regression analysis, the dependent variable is ordinaland the independent variables are continuous-level or ordinal (interval or ratio).

Model Fitting Information

Model	-2 Log Likelihood	Chi-Square	df	Sig.
Intercept Only	288.358			
Final	173.324	115.034	3	<.001

Link function: Logit.

Table 4.8 Model Fitting Information

The model fitting information is statistically significant. It tells us how well the model fits the data very well.

The goodness of fit

Goodness-of-Fit

	Chi-Square	df	Sig.
Pearson	2109.114	245	<.001
Deviance	165.921	245	1.000

Link function: Logit.

Table 4.9 Goodness of fit

It contains the Pearson and Deviance chi-square which elaborates the goodness of fit. The Pearson is statistically significant since its less than 0.05 which shows that the model is not a good fit while the Deviance Chi-Square is Highly Statistically Insignificant which supports the earlier finding of Model fitting information that the model fits the data well.

The Pseudo R-square

Pseudo R-Square	
Cox and Snell	.763
Nagelkerke	.782
McFadden	.387

Link function: Logit.

Table 4.10Pseudo R-Square results

The study focused on the Nagelkerke'sR^2which is an adjusted version of the Cox & Snell *R*-square. It adjusts the scale of the statistic to cover the full range from 0 to 1. Generally, it summarizes the proportion of variance in the dependent variable associated with the predictor (independent) variables, with larger R^2 values indicating that more of the variation is explained by the model, to a maximum of 1. The ordinal regression results show that the Nagelkerke's R^2 is 0.782. This is interpreted that 78.2% of the changes in financial inclusion are as a result of depth, efficiency and access of finances.

Parameter Estimates

							95% Confidence Interval	
		Estimate	Std. Error	Wald	df	Sig.	Lower Bound	Upper Bound
Threshold	[INCLUSION = 2.00]	17.691	2.760	41.084	1	<.001	12.282	23.101
	[INCLUSION = 2.67]	18.966	2.818	45.302	1	<.001	13.443	24.490
	[INCLUSION = 3.00]	19.927	2.879	47.918	1	<.001	14.285	25.569
	[INCLUSION = 3.33]	23.343	3.143	55.149	1	<.001	17.182	29.504
	[INCLUSION = 3.67]	24.356	3.218	57.281	1	<.001	18.048	30.663

	[INCLUSION = 4.00]	27.276	3.479	61.460	1	<.001	20.457	34.095
	[INCLUSION = 4.33]	28.869	3.642	62.814	1	<.001	21.729	36.008
	[INCLUSION = 4.67]	30.150	3.755	64.485	1	<.001	22.791	37.508
Location	ACCESS	1.857	.572	10.542	1	.001	.736	2.978
	EFFICIENCY	3.571	1.540	5.376	1	.020	.552	6.590
	DEPTH	.950	1.581	.361	1	.548	-2.149	4.049

Link function: Logit.

Table 4.11 Ordinal regression parameter estimates

From the parameter estimates, the coefficients for the model applied in the study was as follows;

$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \mu$ Where;

Y = Financial Inclusion β_0 is the constant term while the coefficient

X_1 = Depth $\beta_1 = 0.95$

X_2 = Access $\beta_2 = 1.857$

X_3= Immeasurable rationing $\beta_3 = 3.571$

The resultant model is $Y = 30.15 + 0.95X_1 + 1.857X_2 + 3.571X_3$

The ordinal regression coefficients are interpreted as the predicted or estimated change in log odds of being in a higher category or group (as opposed to a lower) on the dependent variable per unit increase in the independent variable. From this we can interpret the positive coefficients for depth, access and intermediation efficiency as follows;

Analysis of Depth Variable:

The regression coefficient for depth is positive 0.95 which means that for every one-unit increase in the independent variable (Depth of financial inclusion) there is a predicted increase of 0.95 in the log odds of falling at a higher level on the dependent variable. However, the significance

coefficient is 0.548 which is higher than the 0.05 level of significance for the study which means that the depth variable is statistically insignificant

Analysis of Efficiency Variable:

The regression coefficient for efficiency is positive 3.571 which means that for every one-unit increase in the independent variable (intermediation efficiency) there is a predicted increase of 3.571 in the log odds of falling at a higher level on the dependent variable (Financial Inclusion). In addition, the significance coefficient is 0.02 which is less than the 0.05 level of significance for the study which means that the efficiencyvariable is statistically significant.

Analysis of Access Variable:

The regression coefficient for access is positive 1.857 which means that for every one-unit increase in the independent variable (access) there is a predicted increase of 1.857 in the log odds of falling at a higher level on the dependent variable (Financial Inclusion). In addition, the significance coefficient is 0.01 which is less than the 0.05 level of significance for the study which means that the access variable is statistically significant.

4.4.4 Spearman's Rank Correlation

The study further applied the Spearman's Rank Correlation Coefficient to establish the strength of the link between two sets of data. The results were as follows;

Correlations

			INCLUSION	ACCESS	EFFICIENCY	DEPTH
Spearman's rho	INCLUSION	Correlation Coefficient	1.000	.736**	.816**	.810**
		Sig. (2-tailed)	.	<.001	<.001	<.001
		N	80	80	80	80
	ACCESS	Correlation Coefficient	.736**	1.000	.623**	.630**
		Sig. (2-tailed)	<.001	.	<.001	<.001
		N	80	80	80	80

	EFFICIENCY	Correlation Coefficient	.816**	.623**	1.000	.968**
		Sig. (2-tailed)	<.001	<.001	.	<.001
		N	80	80	80	80
	DEPTH	Correlation Coefficient	.810**	.630**	.968**	1.000
		Sig. (2-tailed)	<.001	<.001	<.001	.
		N	80	80	80	80

**. Correlation is significant at the 0.01 level (2-tailed).

Table 4.12 Spearman's Rank correlation coefficient

The correlation between access, efficiency, depth and financial inclusion is 0.736,0.816 and 0.81 respectively which shows a strong positive association between the variables. The positive sign on the correlation coefficient shows thedirection of the relationship which is increasing in nature. This means that that when the value of depth, efficiency and access increases, the value of the financial inclusion tends to increase. The P-value for each of the variables is less than 0.01 which is less than the 0.05 significance level which means that the association between the variables is statistically significant.

The correlation between inclusion, efficiency, depth and access is 0.736, 0.623 and 0.63 respectively which shows a positive association between the variables. Similarly, the correlation coefficient sign is positive and shows the direction of the relationship which is increasing in nature. This means that that when the value of depth, efficiency and financial inclusion increases, the value of the access tends to increase. The P-value for each of the variables is less than 0.01 which is less than the 0.05 significance level which means that the association between the variables is statistically significant.

The correlation between variablesfinancial inclusion, access, depth and the efficiency variable is 0.816, 0.623 and 9.68 respectively which shows a strong positive association between efficiency and financial inclusion and depth while exhibiting a mild association with the variable access. Similarly, the correlation coefficient sign is positive and shows the direction of the relationship

which is increasing in nature. This means that that when the value of depth, access, financial inclusion increases, the value of the efficiency tends to increase. The P-value for each of the variables is less than 0.01 which is less than the 0.05 significance level which means that the association between the variables is statistically significant.

Finally, the correlation between variables financial inclusion, access, efficiency and the depth variable is 0.810, 0.630 and 0.968 respectively which shows a strong positive association between efficiency and financial inclusion and depth while exhibiting a mild association with the variable access. Similarly, the correlation coefficient sign is positive and shows the direction of the relationship which is increasing in nature. This means that that when the value of depth, access, financial inclusion increases, the value of the efficiency tends to increase. The P-value for each of the variables is less than 0.01 which is less than the 0.05 significance level which means that the association between the variables is statistically significant.

4.5 Other factors contributing to access to finance

4.5.1 Funding sources

In this section the researcher further dwelt in determining major funding sources of the businesses. As it is shown in figure 4.6 and table below 4.13, majority 77 (25%) of the respondents sought for bank loans while a few 2 (1%) sought from private institutions.

No.	Funding sources for the business	Frequency (n)	Percentage (%)
1.	Bank loans	77	25%
2.	Personal savings	76	24%
3.	Retained profits	69	22%
4.	Trade credit	53	17%
5	Family/friends	37	12%
6.	Private institution	2	1%

Total	314	100

Table 4.13: Funding sources for the business

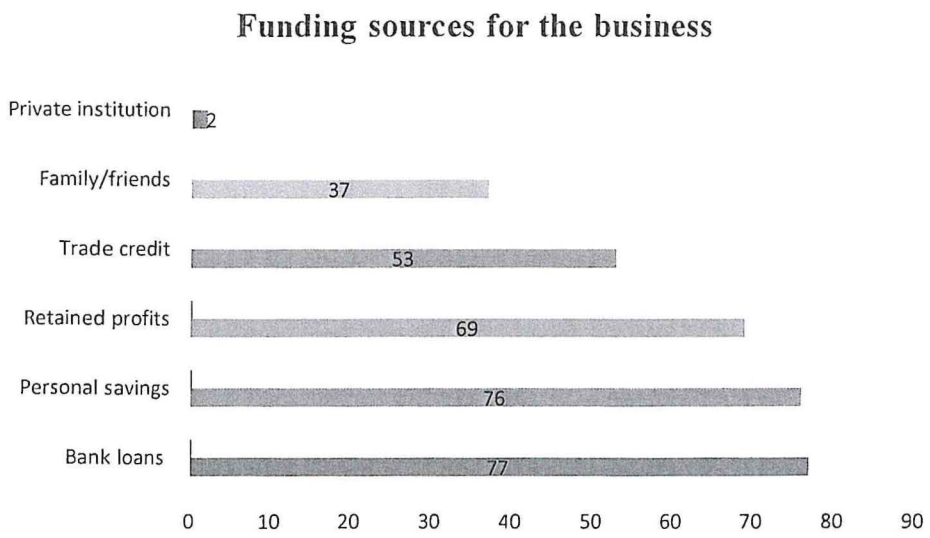

Figure 4.6: Funding sources for the business

4.5.2 Major constraints to business growth

The table below 4.9, illustrates various major constraints to business growth. Of all respondents that participated in this study, 34% considered competition as the major constraints for their business growth, 30% high interest on bank loans, 19% taxes and 17% lack of finances.

No.	Constraints	Frequency (n)	Percentage (%)
1.	Competition	80	34%
2.	High interest on bank loans	70	30%
3.	Taxes	46	19%
4.	Lack of finance	41	17%
	Total	237	100%

Table 4.14: Major constraints to business growth

4.5.3 Other sources accessed other than banks for loans

The figure 4.7 below displays those that sought for other lending institutions for loans other than the banks. Out of the 80 study participants 68% did not access any other lending institution while 32% sought for other lending institutions for loan services.

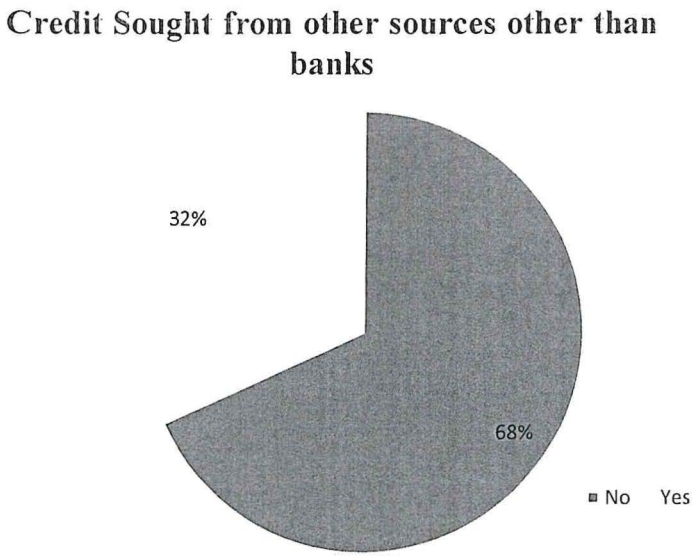

Figure 4.7: Other sources accessed other than banks for loans

4.5.4 Other sources of finance

The figure 4.8 below shows other sources of business financing that some of the respondents sought to fund their businesses other than banks. Out of the 26 respondents that sought for other sources 96% sought for financing from microfinancing institutions and 4% from government lending institutions.

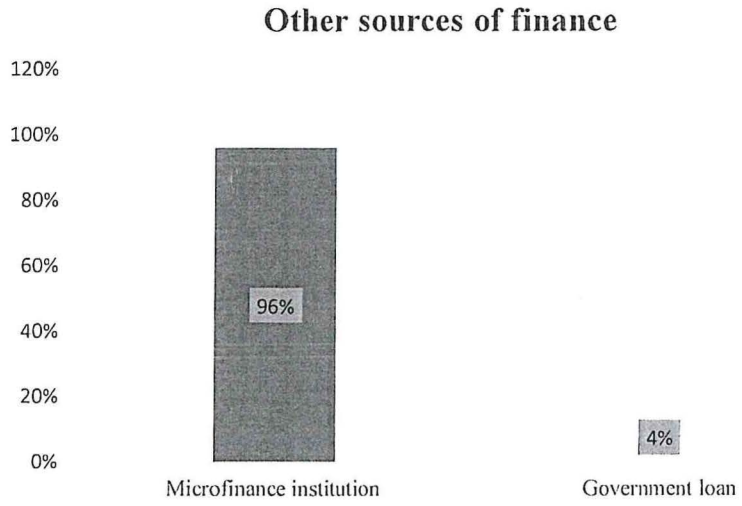

Figure 4.8: Other source of finance

4.6 Challenges affecting access to finance

The study researcher sought to elaborate key challenges affecting access to finance. The table below shows various challenges affecting the small and medium healthcare entrepreneurs in accessing finances. Majority of the respondents (28%) complained of government policies as a major challenges affecting access to finance, 25% felt like bank polices were major hurdle in accessing finances, 21% faced challenges on few loan products offered by lending institutions, 11% experienced challenges on the collateral requirements requested by lending institutions, while cost of drugs and bank enforcement were the least challenges stated by study respondents.

No.	Challengesaffecting access to finance	Frequency (n)	Percentage (%)
1.	Government policies	17	28%
2.	Few loan products	13	21%
3.	Collateral requirement	7	11%
4.	Cost of drugs	1	2%
5.	Bank enforcement	1	2%
7.	Banks terms and conditions	3	5%
8.	Bank policies	15	25%
9.	Lack of SMES & Banks engagement	1	2%

10.	Government taxes	1	2%
11.	Bank interest charges	2	3%
		61	100%

Table 4.15: Challenges affecting access to financing

4.7 Chapter Summary

This section investigated the factors that limit the access to finance by small and medium healthcare entrepreneurs in Kisii County, Kenya. The study established that most of the SME's in the health sector in Kisii county are predominantly sole proprietorships that have operated for 0-10 Years and have less than 10 employees. The study also established that there is a statistically significant relationship between dependent variable financial inclusion and the independent variables access and efficiency. In addition, the relationship between depth and financial inclusion was established as statistically insignificant. However, the correlation between each of the variables with one another was identified as statistically significant amongst all the variables.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This chapter presents the summary of the key findings of the study as well as the conclusions and recommendations for further research. The general objective was to investigate the factors that limit the access to finance by small and medium healthcare entrepreneurs in Kisii County, Kenya.

5.2 Summary of the Findings

5.2.1 To determine characteristics of small and medium healthcare entrepreneurs in Kisii County

The study established that Kisii County health SME's is predominantly sole proprietorships followed by limited liability companies most of which have been in operations for between 0 to 10 years. These SME's have less than 10 employees and the management of the SME's is mainly carried out by non-professional managers with Majority of the firms having the owners doubling up as the managers as well. Majority of the firms have a monthly turnover of between Kshs 30,000 and Kshs 50,000.

The study also sought to establish the characteristics of entrepreneurs in the health industry in Kisii County and The study established that majority of the business owners were holders of a College Diploma followed by holders of undergraduate degrees. Majority of the business owners primarily rely on three sources of funds as startup capital for their businesses; Personal savings, loans from finance institutionsand funds from family and friends. An interesting finding is that none of the respondents sought funds from other sources such as government loans.

The study also established that majority of respondents sought funds to expand their businesses and the indicative rate for the loans was majorly between 13% and 20% and the duration of the loan was for up to a year in repayment period.

5.2.2 To determine the extent do determinants of financial inclusion influence access to capital by healthcare organizations in Kisii County

The study established that the relationship between financial inclusion (dependent variable) and depth, access and intermediation efficiency (independent variables) can be explained linearly through the model $Y = 30.15 + 0.95X_1 + 1.857X_2 + 3.571X_3$where theregression coefficient for efficiency is positive 3.571 which means that for every one-unit increase in the independent variable (intermediation efficiency) there is a predicted increase of 3.571 in the log odds of falling at a higher level on the dependent variable (Financial Inclusion). The regression coefficient for access is positive 1.857 which means that for every one-unit increase in the independent variable (access) there is a predicted increase of 1.857 in the log odds of falling at a higher level on the dependent variable (Financial Inclusion). The regression coefficient for depth is positive 0.95 which means that for every one-unit increase in the independent variable (Depth of financial inclusion) there is a predicted increase of 0.95 in the log odds of falling at a higher level on the dependent variable.

In addition, the significance coefficient is 0.02 for intermediation efficiency which is less than the 0.05 level of significance for the study which means that the intermediation variable is statistically significant. Secondly, the significance coefficient for access is 0.01 which is less than the 0.05 level of significance for the study which means that the access variable is statistically significant. Lastly, the significance coefficient for depth is 0.548 which is higher than the 0.05 level of significance for the study which means that the depth variable is statistically insignificant.

Of significance is that the findings of this study are moderated by the firm characteristics and hence the inference is that the relationship established in the study is primary for Sole proprietorship SME's in Kisii Country that have been in operations for less than 10 years.

5.3 Conclusion

From the above findings we can conclude there is a statistically significant relationship between financial inclusion and intermediation efficiency and access while depth is statistically insignificant. In addition, there is a positive correlation between all the variables which is

statistically significant which means that any increases in the variables depth, access and intermediation efficiency will lead to an increase in financial inclusion in SME's in Kisii County.

5.4 Recommendations

From the findings of this research, the study recommends that financial institution should relook at the lending models they apply in appraising SME's as some of the requirements associated with access to finance and intermediation efficiency in financial inclusion are deemed prohibitive by SME's. This could increase the coverage of SME's by creating products that are suited for the sector to promote further investments in the health sector.

The study also recommends the need for government to create awareness of the various government loan facilities and other policies on taxation of SME's that will promote the growth of SME's in the health sector as taxes were identified as a major constraint together with the lack of knowledge on the financing opportunities that the government accords to its population.

5.5 Limitations of the Study

The study is limited in scope as it sought to acquire a deeper understanding of a phenomenon and its complexity in its unique context of Kisii County as opposed to generalization of the base of understanding for the whole population in Kenya or across the world.

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APPENDICES

Appendix I: Informed Consent to participate in Survey

This is purely an academic questionnaire aimed at collecting crucial data and information regarding challenges faced by small and medium healthcare enterprenuers in Kisii County. Your participation into this study shall assist in highlighting these key challenges and contribute immesely in finding practical solutions to various challenges facing the sectors.

Potential benefits and risks

There is no material gift or direct benefit for participating in this study. However, information generated from this study will be beneficial in developing interventions that will help improve the quality of care for management of dog bites in Kenya. There is no anticipated harm or risk to you or your family by participating in this study. As stated earlier, the interview will take about 20 minutes and this may inconvenience you due to loss of time. In this regard, the interview will be kept brief. Some questions may also cause discomfort and you can decline to answer the questions.

Care and protection of research participants

Participation in this study is voluntary and you may decline to respond to any question that you feel unsuitable to you. Also, you may withdraw from the interview at any time you wish without fear of victimization. You also have the right to ask any questions that you may have regarding this study and be answered in full. You will not be required to bear any financial cost in this research. Similarly, we will not pay you money for participating in the study and as stated earlier, there is no anticipated harm or risk to you or your family by participating in this study. Information collected will only be used for academic purposes. However, in case of any publications made from findings of this research, organizations will be acknowledged.

Privacy, anonymity and confidentiality

I will not require you to write your name, address or phone number on any part of the questionnaire. Any findings of this research will never be traced back to you. No name will appear or be mentioned during presentations made on the findings regarding this research.

Participant`s Statement

The above statement regarding my involvement in the study is clear to me. I have been given a chance to ask questions and my questions have been answered to my satisfaction. My participation in this study is entirely voluntary. I understand that the information will be kept in privacy and I can withdraw from the study at any time. I understand the benefits of the study and that no incentives will be given.

Name Participants signature/thumbprint ..... Date .....

Investigators statement

I, the undersigned, have explained to the participant in the language s/he understands the procedures to be followed in the study and the risks and the benefits involved.

Name

Interviewer.....

Signature or Thumbprint..... Date.....

QUESTIONNAIRE

QUESTIONNAIRE

KISII COUNTY, KENYA

SUBCOUNTY _____

AREA CODE -

No.	Section A: FIRM CHARACTERISTICS	Tick As Appropriate	If Ticked Go to Section
1	**What is the Nature of your business?**		
	Sole Proprietorship	☐	B
	Partnership	☐	C
	Limited Liability Partnership	☐	D
	Limited Liability Company	☐	E
	Others. Specify.....	☐	F
2	**How Many years have you been in Operations?**		
	0-5 Years	☐	
	5-10Years	☐	
	Over 10Years	☐	
3	**No of employees in the organization**		
	0-5 employees	☐	
	5-10 employees	☐	
	10-20 employees	☐	
	Over 20 employees	☐	
		Yes	No
4	**Are your employees in management positions**	☐	☐

professionally trained?

5 **What is the average monthly turnover of the business?**

Less than Ksh. 30,000.00

Ksh. 30,000 – Ksh. 50,000

Ksh. 50,000 – Ksh. 70,000

> Ksh. 70,000

If Ticked Go to Section

6 **Are you the Owner or Manager of the Business**

Owner		B
Manager		C
Both		B&C

SECTION B: OWNER CHARACTERISTICS

7 **Highest Level of Education**

High School

College Certificate

college Diploma

Undergraduate Degree

Post Graduate Degree

Other. Please Specify

8 **How did you access the funds to start the business**

Personal Savings

Family and Friends

Loans from finance institutions

Others

Yes No

9	**Have you ever sought for a bank loan to start or expand your business** If Yes, go to Section C	

	Section C: ACCESS TO FINANCING **Kindly tick on the option that describes your position on the following**	**Strongly Disagree**	**Disagree**	**Neutral**	**Agree**	**Strongly Agree**
10	There are no sufficient lending institutions in my county that can give loans to Small businesses					
11	Bank requirements for application for a loan discourage me from seeking financing from banks					
12	The bank/Financing institution requested for a guarantor for my loan					
13	I have no interest in seeking external financing for expansion or operating my business					

	Section D: INTERMEDIATION EFFICIENCY					
	Kindly tick on the option that describes your position on the following	**Strongly Disagree**	**Disagree**	**Neutral**	**Agree**	**Strongly Agree**
14	The interest rates charged by financial institutions for loans is highly prohibitive for my business					
15	The costs associated with the application for a loan are high and hence deter my efforts in seeking a loan					

16	**What was the interest rate charges on loans applied applied/Intended to apply for?**	Tick As Appropriate
	Less than 13%	
	13% to 20%	
	Above 20%	
17	**What was the maturity period of the loan?**	Tick As Appropriate
	Up to 1 year	
	Up to 2 years	
	Up to 3 years	
	Above 3 years	
		Yes / No
18	**Have you ever had problem repaying a Bank loan?**	
	If yes, what created the problem?	Tick As Appropriate
	Short duration	

High monthly repayment amount	
High interest rate	
Low turnover	
Others (specify)	

	Section E: DEPTH OF FINANCIAL INSTITUTIONS					
	Kindly tick on the option that describes your position on the following	**Strongly Disagree**	**Disagree**	**Neutral**	**Agree**	**Strongly Agree**
19	The Banks requirements for collateral/Security for the loan are high and beyond my capacity					
20	The Banks enforcement of terms and conditions of the loans discourage my need for a corporate loan					
21	My business relationship with the banker is the best and I enjoy the support that they accord me					
22	I feel that the bank does not value the rights of creditors and my needs come second to the bank requirements					

23	**When you applied for a loan, what information did your bank ask for?**	Tick all that apply
	Collateral	
	Cash flow statement	

	Total Assets	
	Audited financial statement (account)	
	Business plan	
	Others (Please specify).....	

		Yes	No
24	**Have you ever been refused or denied credit from a bank?**		

		Tick As Appropriate
25	**What was the main reason your Bankers refused offering you loan?**	
	Default on previous loan	
	No Security to pledge	
	Too small equity base	
	Lack of experienced Management	
	Others (Please specify).....	

	Section E: FINANCIAL INCLUSION					
	Kindly tick on the option that describes your position on the following	**Strongly Disagree**	**Disagree**	**Neutral**	**Agree**	**Strongly Agree**
26	There is ease of Access to financial services in Kisii County					
27	There is increased usage of financial services by SME's in Kisii County					
28	The quality of financial products and service delivery of financing institutions attracts entrepreneurs to utilize financial products					

Section F: OTHERS

		Tick As Appropriate
29	What are your sources of funding for the business?	
	Bank loan	
	Personal savings	
	Retained profits	
	Private institutions	
	Trade credit	
	Family/friends	
	Other (specify).....	

		Tick As Appropriate
30	In your opinion, what are the major constraint to the growth of your company?	
	Lack of finance	
	Competition	
	High interest on bank loans	
	Taxes	
	Other (specify).....	

		Yes	No
31	Other than Banks, Have you accessed credit from other sources?		

		Tick As Appropriate
	If Yes, Where	
	Microfinance institution	
	Government Loan	
	Others (Specify).....	

		Yes	No
32	Would you say the nature of requirements demanded by these institutions is less stringent?		

33	In your own opinion, what are the challenges affecting access to finance? ....
34	Any other comments on the ease of financial access for your business? 1 2 3 4

Strathmore UNIVERSITY

13th July 2021

Dr Omari Nyabera,
nyaberaomari@gmail.com

Dear Dr Omari,

RE: A Cross-Sectional Analysis of Factors Limiting Access to Finance by Small and Medium Healthcare Entrepreneurs in Kisii County

This is to inform you that SU-IERC has reviewed and **approved** your above **master's** research proposal. Your application reference number is **SU-IERC1084/21.** The approval period is **13th July 2021 to 12th July 2022.**

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 SU-IERC.
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 SU-IERC within 48 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 SU-IERC within 48 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 an executive summary report within 90 days upon completion of the study to SU-IERC.

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 also obtain other clearances needed

Yours sincerely,

for: Dr Virginia Gichuru,
Secretary; SU-IERC

STRATHMORE UNIVERSITY INSTITUTIONAL ETHICS REVIEW COMMITTEE
(SU-IERC)
13 Jul 2021
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REPUBLIC OF KENYA

NATIONAL COMMISSION FOR
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Date of Issue: **21/June/2021**

RESEARCH LICENSE

This is to Certify that Mr.. NYABERA nyabera OMARI of Strathmore University, has been licensed to conduct research in Kisii on the topic: A CROSS SECTIONAL ANALYSIS OF FACTORS LIMITING ACCESS TO FINANCE BY SMALL AND MEDIUM HEALTHCARE ENTREPRENUERS IN KISII COUNTY for the period ending : 21/June/2022.

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