FINANCIAL INCLUSION, BUSINESS SIZE AND PERFORMANCE OF SMALL AND MEDIUM ENTERPRISES OF FISH TRADING ALONG LAKE VICTORIA REGION, KENYA

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A Research Thesis Submitted in Partial Fulfillment for the Degree of Doctor of Philosophy in Business Administration (Finance) of Masinde Muliro University of Science and Technology

February, 2024

DECLARATION

This research thesis is my original work prepared with no other than the indicated sources and support and has not been presented elsewhere for a degree or any other award.

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Dedication

I dedicate this research thesis to my wife Pamelah Okoth, my daughters Rabecca Joy Paul, Condoliz Gloria Paul, my son Junior Shadrack Paul and the family members for financial and spiritually support during the time of my study especially Dr. Perez Onono of Kenyatta University.

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ABSTRACT

The overarching goal of financial inclusion is mostly to ensure that almost all the unbanked population is drawn into formal financial system where they can enjoy the benefit of unlimited access to appropriate and affordable financial services. However, surveys conducted have indicated that less than 50% of Kenya's populations are financially excluded. The purpose of the study was to examine the financial inclusion, business size and performance of Small and Medium Enterprises of fish trading along Lake Victoria region Kenya which had being seen to be a dominant source of fish in Kenya and contribute to approximately 94% of all the fish landing annually in the past decade. The study therefore was to find out whether fish traders were financially included. The specific objective of the study was to determine the effect of access to bank, examine the usage of financial services, establish the effect of knowledge of finance on financial performance and to investigate the moderating effect of business size on the influence of financial inclusion on performance of small and medium enterprise of fish trading along Lake Victoria region Kenya. The study was anchored on positivism philosophy while credit rationing theory was used as a guide to the study. Mixed research design was adopted in the study. Target population of 4,500 respondents with a sample size 173 of traders was selected using the Yamane formula. Questionnaire and interview schedules were used as data collection instrument. The study data were analyzed using descriptive and inferential statistics which include mean and mode. Descriptive statistics was computed to summarize and describe the demographic characteristics of the respondents. Moderated multiple regressions was used to test hypothesis on financial inclusion and performance. Data was presented using tables and graphs. The researcher found a positive correlation between financials inclusion and performance of small and medium enterprises of fish trading along Lake Victoria region, Kenya. Simple linear regression results showed that access to finance had a positive significant effect on performance of Small and Medium Enterprises of fish trading along Lake Victoria region (Coefficient of correlation 0.403, p=0.000<.005, t=5.499). Usage of finance had a positive significant effect on financial inclusion among small medium enterprises (coefficient of correlation 0.698, p=0.000<.005, t=12.166). Knowledge of finance had a positive significant effect on performance of small and medium enterprises of fish trading along Lake Victoria region Kenya (0.577, p=0.000<.005, t=8.817). Business size had a positive significant moderating effect on the relationship between financial inclusion and performance of small and medium enterprises of fish trading along Lake Victoria region, Kenya (coefficient of correlation 0.584, p=0.000<.005). Furthermore R square rise for the two models indicated significant effect. The study rejected all the null hypothesis. The study recommended that since the study findings have shown that access to finance is significant hence business owners should seek funding inclusion to enable performance. The study findings have shown that usage of finance is significant hence available funds should be utilized to enable performance maximization. The study findings have shown that financial knowledge is significant hence business owners should acquire financial skills through training and experience to improve performance. The study findings have shown that size of business was of significance hence business owners should make their business to grow so as to increase chances of financial inclusion and performance of their businesses.

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ABBREVIATION AND ACRONYMS

CBK	Central Bank of Kenya
GDP	Gross Domestic Product
KES	Kenya Shilling
KMFRI	Kenya Maritime Fishery Research Institute
KPLC	Kenya Power and lighting Company
MDGs	Development Goals
MFIs	Microfinance Institutions
MMUST	Masinde Muliro University of Science and Technology
MSE	Medium Size Enterprise
NACOST	National Commission for Science, Technology and Innovation
ROA:	Return on Assets
ROI	Return on Investment
SACCO	Saving and Credit Cooperatives
DPS	Directorate of Post Graduate Studies
SMES	Small and Medium Enterprises
UK	United Kingdom
US	United States

OPERATIONAL TERMS

Financial Inclusion	This access, usage and knowledge of finance.
Performance	Sales turnover and profits of SMEs fish trading
Access to Finance	This is the using banking facility and credit accessibility
Usage of Finance:	This is frequency of account use and the number of accounts by fish traders
Financial Knowledge	**This is personal financial knowledge, operation knowledge and investment knowledge.**
Business Size	**These are firm asset level and number of employees**
Small and Medium Enterprises	**These are business unit(s) with between 1-49 employees with an annual turnover of less than 5 million.**
Fish trading	**These are vendors who sell dry and fresh fish.**

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

Financial inclusion is the process that always or usually tries to overcome the tariffs or difficulties that are described in financial exclusion. Sarma and Pais (2018) define financial inclusion as the process that always allows ease of access, availability and usage of the formal financial system to all members of an economy in every given state. According to Rangarajan Committee (2018) financial inclusion is the process of ensuring that there is timely, adequate and affordable access of financial services by the vulnerable groups or needed people in every state such as the poor and low-income earners.

The Central Bank of Kenya (2014) defines financial inclusion as the delivery of formal financial services in a convenient, reliable, continuous, affordable and flexible manner to those without access to financial services in each state of economy. Aduda and Kalunda (2012) on the other hand define financial inclusion as an intervention that tries to overcome the market friction which hinders it from operating in favor of the poor and underprivileged persons in any state. Hence, financial inclusion in most cases always aims at incremental and commentary results to tackle poverty, promoting inclusive development and ensuring that medium term development goals (MDGs) are achieved as set out by the state within a given time frame. It also tries to draw the unbanked population to the formal financial system so that they have an opportunity to access financial

services from saving, insurance, payment and transfer credit. In the study financial inclusion is all about making financial services reliable, affordable, flexible and convenient to small and medium enterprises by all financial institutions.

In 2013, a situation of limited physical access to banking services on account of bank resulted to closures of the banks in the United Kingdom which then led to scholars attempt to describe the situation. And as a result of this process, a new concept was born, that is, financial exclusion. Originally financial exclusion was just described as lack of geographical access to banks but later, it was described as the condition of not having access to mainstream financial services Kempson & Whyley, (2019). In the long run, it has then since been defined differently and more broadly by different writers. Financial exclusion therefore in most cases refers to a process whereby people encounter difficulties in accessing and/or using financial services and products in the mainstream market that are appropriate to their needs and enable them to lead a normal life in the society to which they belong. Financial exclusion on the other hand is therefore, viewed as a confluence of multiple barriers such as lack of access, lack of physical and social infrastructure, lack of understanding and knowledge, technology, support and confidence, among others' (Rao &Gundupagi, 2015). Financial inclusion on the other hand is therefore view as the opposite of financial exclusion.

From the World Bank Global Index Database report (2016), there were about 40 percent of formal banking penetrations in the Kenyan economy in 2016. This therefore means that the rest of 60 percent were either unbanked or had access to

only private lenders. The Fin Access (2016) survey further estimates that the formal financial system was serving just over a quarter (26.4 percent) of Kenya's adult population. Savings and Credit Cooperatives (SACCOs) and commercial banks had comparable customer bases at 13 percent and 12 percent of the adult population, respectively. The Post Office Savings Bank (Postbank) therefore emerged as the single most significant financial institution, with 5.6 percent of the adult population having accounts there. Microfinance institutions were the least significant with only 1.7 percent using them. In terms of contribution to access, banks (including Postbank) contributed to 18.5 while the MFIs added 7.8 percentage points (30 percent of the access).

In the recent years, the importance of financial inclusive system has become an important policy objective in many Countries. Governments, banks and financial regulators have set up new initiatives to financial inclusion and new legislative regulations have further been initiated in economies. In the United States, for example, the community re-investment Act of 1997 "requires that banks should offer credit facilities throughout their entire geographical area of operation and further prohibits them from targeting only the rich neighborhoods as per Financial Access (2020). Further following the Maya Declaration of 2021 in Mexico (Fernando 2015), financial inclusion therefore received increased attention in national strategies and hence became more pronounced ever since. But even with the Declaration, the World Bank (2015) still affirms that around 2 billion people in the World do not make use of formal financial services and that with this still

more than half (50%) of adult populations in the Developing Countries are unbanked.

In Africa, the recent global financial inclusion Index shows that less than a quarter of bankable adult population has an account with registered formal financial institutions (Demirgue-Kunt & Klapper, 2012). This further continue to confirms that there are still high rate of financial exclusion, as Nkwede (2013) asserts that majority of African Adults in many African states appear to be financially excluded and perhaps use informal methods to save or borrow funds outside the formal financial institutions.

Kenya as a country has not been left behind in laying out strategies that enhance financial inclusion such as the enactment of Finance Act (2019) that permits the bank to use agents to deliver financial services in all parts of the Country. According to the Communication Authority of Kenya (2016), Safaricom Kenya mobile phone provider launched Kenya's first mobile phone account, M-PESA by making some effective strategies and enabling legislation that suit the culture and nature of Kenyans; CBK could promote financial inclusion and in the process Safaricom managed to secure 60 percent of the total transaction value by April 2013. This in return made international money transfer very cheaper and convenience as customers therefore could access M-PESA services at all post Bank branches around the Country, further Safaricom partnered with Kenya Power which allowed customers to use M-PESA to pay their electricity bills efficiently and Kilimo Salama (Safe Agriculture) insurance which allowed

Kenyan farmers to insure their farm inputs against drought and floods by making their payment of their insurance premium using M-PESA services.

According to CBK (2020), agency banking entails the business carried out by an agent on behalf of an institution. Agency banking in most cases aimed at achieving increased financial services outreach and promote financial inclusion for the un-banked and under-banked population without risking the safety and soundness of the banking system. The use of agents therefore is the provision of banking services by reducing the cost of financial services and fosters financial inclusion. Different market players as a result of agency banking have enter the mobile account market and competition has in the long run resulted in the reduction of the charges; Yu Mobile (Essar Telecom) launched Yu cash, Airtel money and Ikopesa by Orange, respectively.

Financial inclusion comprises of usage which includes account average savings balances, the transactions done in the account and the payment made electronically. Access to finance is the penetration of bank branches or sale point in the rural centers while knowledge financial is the understanding of key financial factors and concepts needed to function well. It is therefore worth noting that financial inclusion as a process cannot take place in isolation without the support and effort from the government intervention with both the laws and regulation (Fuhrmann, 2017). Several studies have shown that there are relationships between financial exclusion and poverty. These finding has pushed the Central Bank of Kenya to create regulations and policies with an intention of ensuring financial inclusion (Oruo, 2013). The government has understood the

fact that financial inclusion cannot happen on its own; hence there is need to formulate and enact policies that always guide this process in the economy.

Access to finance is the availability of financial services in the form of demand deposits, credit, payment or insurance. (Beck & Honohan, 2017, Aduda & Kalunda 2012, Anold & Jonhnson, 2012, Massa, 2013). The need to offer such services may be constrained by physical access, affordability and eligibility. The indicators for access may be geographic or demographic. The indicators of geographic access are numbers of bank branches per given square kilometer and number of bank ATMs per given kilometer. While the indicators of demographic access are numbers of bank branches per given number of people and number of bank ATMs per given adults (Sarma & Pias, 2021, Beck. et. al, 2016). AFI (2020) proposes it to be measured as the number of access points per given adults at the national level and segmented by type and by relevant administrative units. Larger numbers of branches and ATMs per square kilometers reflect smaller distance to the nearest physical bank outlet and thus easier geographic access. Per capita measures of branches and ATMs always reflect the average number of people being served by each physical outlet and therefore higher values imply fewer clients per branch or ATM, or in other words easier access (Beck, et. al, 2016). Access to external finance by SMEs is more costly and troublesome while accessibility has sharply declined since most businesses rely on financial institutions for credit facilities. Where there is constraint on the access to finance then this always limits the firm growth. Carpenter et al (2012) states that lack of access to finance is a major constraint to small business growth or expansion.

Survey by Fin (2020) indicates that when there is insufficient financial flow into the business, hence many businesses may not grow as a result of lack of capital to purchase raw materials and pay workers while a study by Shepherd et al (2017) indicated that access to finance is the significant obstacles to business growth and performance. Due to the risk level involved in lending funds to SMEs, high interest rates on loans from the financial institution has resulted to reluctance by financial institution to offer loans to SMEs Ramed (2020). Further, cook and Nixson (2005), observe that SMEs development is constrained by the limited availability of sources to meet a variety of operational and investment needs. It is therefore necessary to conduct the study to determine the effect of access to banks on the performance of SMEs as the study seeks to bridge the gap by determining the effect of access to banking and credit facilities to fish traders.

According to Samundengu (2014), usage is the permanence and depth of financial service and product use in terms of details about the regularity, frequency and duration of use over time. The indicators for usage of financial services can be gauged through numbers and size. The indicators of numbers are the number of loans per 1,000 people and the number of deposits per 1,000 people. The indicators of size are average size of loans to GDP per capita and average size of deposits to GDP per capita. The higher number of loans and deposits, lower ratios to GDP per capita reflect use of banking services by a greater share of the population and by smaller size client base. In comparison, higher ratios indicate the use of banking services being relatively limited and likely to be afforded primarily by wealthier individuals or larger enterprises Beck, et. al, (2016). It

may also be measured as the number of deposit accounts per 10,000 adults and number of loan accounts per 10,000 adults AFI, (2020). The other additional measures that may be use are cash deposit ratio and credit disbursement to disadvantaged social and vulnerable groups of persons Sahrawat, (2020). Chattopadhyay (2021) points out that some indicators use individually to provide only partial information on the inclusiveness of the financial system of an economy. Hannig and Jansen (2020) supported the need to have reliable and comprehensive data on financial inclusion that captures the various dimensions of financial inclusion which is a critical condition for evidence-based policy making. They stressed the need for consistent financial inclusion indicators that would provide clear direction for policy making, tracking progress and measuring outcomes of policy reforms. They identified access, usage and financial knowledge as the broad measurement dimensions for financial inclusion.

According to Sahrawat (2020), ownership of a financial product does not result in financial inclusion, but it is the usage of the financial product for economic self-reliance and growth which ultimately leads to financial inclusion. Opening of a bank account by an individual is sometimes treated as an indicator of financial inclusion. But the better indicator of financial inclusion is the intensity usage of the bank account by the individual as it is ultimately the quantum of transactions and interaction variety between the individual and the financial institutions which reflects the value derived by the individual from participating in the mainstream financial system.

Several studies have identified that limited financial inclusion is behavior. The research conducted in the field of behavioral economics has indicated that majority of people have certain reservations when it comes to using of financial services such as language barriers, lack of documentation required before opening and getting the services, the minimum balance and cost of managing the account, Agrawal (2013). Nariam (2012) cited distance from the financial institution and poor infrastructural development as the limitation to usage of finance. As a result of these it is necessary to conduct the study to examine the effect of usage of finance on performance of SMEs of fish trading along Lake Victoria region Kenya, to bridge the gap by examining the effect of frequency of account use and number of accounts opened by fish traders along Lake Victoria region Kenya.

Financial knowledge is the understanding of the key financial factors and concepts needed by the firm to function well Huston, (2017). While Potrich, Kelmara and Wesley, (2016) on the other hand define it as the kind of capital acquired in life through the ability to manage income, expenditure and savings in the right way. Financial knowledge therefore is the wisdom acquired through learning the ability to manage income, expenditure and savings in the right way. According to Lusardi and Mitchell, (2018) knowledge of finance is viewed as the best practice of financial behaviors, which includes possessing adequate emergency funding, credit monitoring, account checking overdrafts, avoiding debt revolving and having insurance protection. While on the other hand Organization of Economic Co-operation and Development OECD, (2021), define financial knowledge as an important determinant of whether an individual is

financially literate, involving questions related to concepts such as simple and compound interest, risk return and inflation. Ibrahim (2017) using financial behaviors and financial altitude as variable of knowledge of finance the study therefore recommended the use of other attributed as measure of financial knowledge. Odero (2018) in his study on bank listed in Nairobi Securities Stock Exchange found out that knowledge of finance result in better financial outcome but recommend that banks should invests in financial literacy programs through conducting workshops and seminars to ensure that their customers learn different aspect of financial management. It is therefore important and necessary to conduct a study to establish the effect of knowledge of financial on performance of SMEs of fish trading along Lake Victoria region Kenya as such study will try to bridge the gap by establishing the effect of personal finance management, operational Knowledge, knowledge of product and investment knowledge of finance on performance of fish traders along Lake Victoria Kenya

Globally, the size of a firm can be measured in several ways that is through: assets, sales, employees and value added. The technological theories of a firm always focus on economies of scale arising out of capital inputs which argue that assets or sales are the preferred measures of the firm size. According to the organizational theory of the firm, size and turnover remain not a good preferable measures of the firm size. This is because the primary concern for this theory is how transactions, agency and span of control of costs affect profitability of the firm, Mainelli and Gifford's, (2020). Costs are always primarily associated with

how well an organization controlled its income and expenditure rather than value and number of physical assets owned by it.

Schmalensee (2011) defines the firm size in terms of the total assets and used several accounting profitability measures including profit margin and return on assets. Boyd and Runkle (2013), on the other hand argue that larger firms are always more cost effective and less likely to fail because they enjoy economies of scale. It has been suggested that being large has an advantage in reducing pooled risks through many contracting parties, thereby reducing the possibility of failure. Larger firms are believed to have more profitable investment opportunities, higher efficiency, more diversification and a lower risk level. As pointed out by Mainelli and Giffords (2020) in their study, firms that are large in size always enjoy economies of scale and scope; they also pass an important criterion to enable them to compete. The OECD (2005) classification defined small and medium enterprises as firms with between 10 and 250 employees. Firms with less than 10 employees are micro firms while those with more than 250 are large firms. The OECD notes that this definition may vary from one Country to the other. In the United States of America, for example, the upper limit is set to be 500 employees instead of 250 employees. Micro-sized companies are often defined to have up to 49 employees and hence SMEs to have between 50 and 249 employees. The European Union financial data are used to define firm size. Firms with sales turnover between EUR 2 million and EUR 50 million are classified as SMEs firms. While firms with less than EUR 2 million in sales turnover are classified as micro companies and firms with more than EUR 50 million sales

turnovers are classified as large firms. Another critical element in the classification of a firm size category is the ownership structure of firm. It is necessary to treat subsidiaries of large companies that fall into the micro firm or SME categories according to their turnover or number of employees differently from independent micro firms or SMEs. Therefore, value added, or number of employees rather than assets or sales is a better measure of firm size for organizational theories. In this study on effect of financial inclusion and performance of Small and Medium Enterprise in Kenya will adopt micro sized company with employees of between 1 to 49 employees and sales turnover of between kshs1 to Ksh. 5 million.

Several studies have been conducted on firm size and performance and different results have been found out, Hall and Weiss (2017) in their study reported that size of the firm always tend to be associated with higher profit rates among the selected 500 companies between the years 1956 to 1962. The study conducted by Rajan and Zingales (2011) on relationship between size of the firm and profitability in United States manufacturing firms, confirmed that the size of the firm was a contributor to profitability. Osborn (1997) explored on the impact of firm size on profitability of small manufacturing firm in Europe. A positive correlation between smaller firms and profitability was found to exist. While Kithuka (2013) in the study on the relationship between firm size and financial innovation of firms listed at the Nairobi Securities Exchange found out that the firm size influenced financial innovation. Further Mahfoudh (2013) in the study, effect of selected firm characteristics on financial performance of firms listed in

the agricultural sector at the Nairobi Securities Exchange revealed that there was a statistically significant relationship between firm characteristics: size, firm age and financial performance. From the above studies, little focus has been laid in relation to the effect of financial inclusion and performance of Small and Medium Enterprise in Kenya. This study therefore sought to fill this gap by finding an answer to the following research question: what is the moderating effect of business size on the influences of financial inclusion on performance of Small and Medium Enterprises of fish trading along Lake Victoria region in Kenya?

According to Pierre (2014), organization performance has three specific components of the firm outcome, these are: Shareholders return (Economic value added and total shareholder return), Financial Performance (returns on investment, profit and return on assets) and Market performance (market share and sales). Even though it is said that financial measure has no predictive ability to determine the future performance, incorrect behavior or reward short-term, which provides inadequate information on root causes or result in inadequate consideration. It is difficult to quantify intangible assets like intellectual capital. Organizations have therefore supplemented financial metric with adverse set of non-financial performances measure that can provide more and better information on strategic progress and success Ittner et.al (2013). Financial performance further remains a subjective measure of the way the Firm uses its assets from its primary mode of business to earn its revenues. It is also used as a measure of firms overall financial position over a given period of time, on the other hand it

may also be used to compare similar firms with the same line of production or compare firms' sectors in aggregation.

Financial statements always tend to give the picture of financial position and financial status of a business. The financial statements include statement of income, statements of cash flow and the statement of financial position. When these are taken together, they give a picture of financial position of the business Atril and Mclaney, (2018). A statement of cash flow on the other hand shows the movements of cash in and out within a particular period. The statements of income on the other hand represent the total revenues received during a particular period less the total expenses used in generating that revenue in a given period in time. The resulting difference from total revenues and expenses will be profit or loss of that given period. The statement of financial position is the financial position of the assets and liabilities of a business within a particular moment in time. It shows the assets of a business on one hand and the claims against the business on the other hand, Ormiston (2017).

Assets are tangible resources that a business has, and they must have the following characteristics. They must have some expected future value which can arose through sale or hire, the organization should have exclusive ownership to control the benefit, the benefit must arise from a past event or transaction and it must be capable of being measured in monetary terms. Asset can also be classified into either current or fixed assets. Current assets are those assets that are held for the short term while fixed assets are those assets held for a long term of operations, Pendrill, (2014).

The Small and Medium Enterprises (SMEs) plays an important role in an economy of a given state. Therefore, many governments have focused on promotion of SMEs to encourage broad participation in the private sectors, Kushnir (2020). The SMEs account for 60-70% of jobs in both developed and developing states and most of the new jobs created several states in Africa have prioritized their investment in SMEs, Iddris, (2012).

Financial inclusion is based on various theories which include credit rationing theory which is associated with limiting lenders of the supply of additional credit to borrowers who demand funds; even if the latter are willing to pay higher interest rates on the amount they may want to borrow. It is an example of market imperfection, or market failure, as the price mechanism fails to bring about equilibrium in the market. The aim of financial inclusion is to take financial services to the members of public regardless of the amount of interest rates they are willing to pay for the credit they required. The theory of change explains the process of change by outlining causal linkages in an initiative. With changes in technology, changes in provision of financial inclusion are inevitable. This is because the financial services providers are not left behind in embracing new technologies as they come. The other theories which are associated with the financial inclusion are knowledge spillover theory which is creating of new knowledge on an individual which result in strong performance of SMEs, bank led theory is an the effort by the banks to come up with new mode of reaching client through agents to deliver financial services by taking deposit and processing withdrawal, the institutional theory which is associated with financial

sustainability of microfinance institutions that is the business size. Therefore, this study is interested in Financial Inclusion, Business Size of Small and Medium Enterprise of Fish Trading along Lake Victoria Region, Kenya with an aim of determining whether the fish traders are financial included.

1.2 Statement of the Research Problem

The overarching goal of financial inclusion is to draw the unbanked population into formal financial system where they can enjoy unlimited access to appropriate and affordable financial services in the long run. Since 2016 Kenya has witness tremendous growth in financial services. Usage of formal financial services averaged 75.5% according to CBK, FSD, KNBS (2016) in 2015. Despite this protracted growth, there are concerns on the financial inclusion and the ability of financial system to pull the underprivileged segment of the population within the permit of the formal financial system. A survey by Otiato (2016) indicated that about 50% of Kenyans are financially excluded while the main aim of financial inclusion is to draw the unbanked population into financial system so that they can access the financial privileges, use and have knowledge on financial services, in most developed countries approximately 80% are financially included Chauvet (2015). Lake Victoria Kenya being dominant source of fish in Kenya and contributing to approximately 94% of all the fish landing annually in the past decade Bokea and Ikiara (2020) hence there is need to find out whether the fish traders are financially included.

A survey on Small and Medium Enterprises business sponsored by the Danish government in 2020 and discharged to Kenya recognized that players in the sector

were discontented with access to finance particularly from the established financial institution in Kenya. About 65% of small and medium enterprises investors in Kenya, in line with the survey, the owners of SMEs say that they failed to receive any monetary help from financial institution through tough economic times. Even though much has been done on financial inclusion, little has been done on developing countries more so in Africa. Various research has highlighted the importance of knowledge financial as developing persons towards financial stability. This study, however, was to establish the effect of knowledge of finance on performance of small and medium enterprises of fish trading along Lake Victoria region Kenya.

Financial inclusion in Kenya and the relationship between it and performances in SMEs has not been researched exhaustively, as part of Kenya still remains financially excluded and this means that there exist financing gaps when it comes to SMEs funding. It is in this context that the research will seek to examine the effect of financial inclusion on performance of SMEs, determine the effect of access to bank on performance of SMEs, examine the effect of usage of finance on performance of SMEs and investigate the moderating effect of business size on the influence of financial inclusion on performance of SMEs of fish trading along Lake Victoria region, Kenya.

1.3 Objectives of the Study

The main objective of this study was to examine the effect of financial inclusion, business size and performance of Small and Medium Enterprises of fish trading along Lake Victoria region Kenya.

1.3.1 Specific Objectives

The specific objectives of the study were to.

i. Determine the effect of access to finance on performance of small and medium enterprises of fish trading along Lake Victoria region Kenya
ii. Examine the effect of usage of finance on performance of small and medium enterprises of fish trading along Lake Victoria region Kenya
iii. Establish the effect of knowledge of finance on performance of small and medium enterprises of fish trading along Lake Victoria region Kenya
iv. Investigate the moderating effect of business size on the influence of financial inclusion on performance of small and medium enterprises of fish trading along Lake Victoria region, Kenya.

1.4 Hypothesis of the Study

The study was to be guided by the following null hypotheses

Ho_1: Access to finance has no statistically significant effect on performance of small and medium enterprises of fish trading along Lake Victoria region Kenya

Ho_2: There is no statistically significant effect of usage of financial on performance of small and medium enterprises of fish trading along Lake Victoria region Kenya

Ho_3: There is no statistically significant effect of knowledge of finance on performance of small and medium enterprises of fish trading along Lake Victoria region Kenya

Ho_4: Business size has no significant moderating effect on relationship of financial inclusion and performance of small and Medium Enterprises.

1.5 Significance of the Study

The finding of the study is expected to be of use to various stakeholders. Policy makers by guiding them on what matters to put emphasis on while formulating policies on financial inclusion as it strives to achieve long, middle and short-term goals to enhance performance of SMEs. The finding of this study is further expected to assist financial service providers with the knowledge whether and by how much they contribute to the performance of SMEs. Students may find the study useful in their quest for knowledge on financial inclusion and performance of SMEs. Financial inclusion being a relatively new topic in the field of research, it is still of interest to many scholars and researchers. This study will contribute to existing body of knowledge on financial inclusion on performance of SMEs business.

1.6 Scope of the Study

The study sought to examine the effect of financial inclusion, business size and performance of small and medium enterprises fish trading along Lake Victoria region Kenya. The study was conducted in Kisumu, Homa Bay, Migori, Siaya and Busia Counties in Kenya. Data was collected from SMEs fish trading that have been in existence for the last five years since January 2016 to January 2020.

1.7 Limitation of the Study

The researcher anticipated non-response, this was mitigated as researcher targeted a large sample size of 173 from a pool of 4,500 fish traders.

There was an anticipation of unwillingness by respondents to divulge correct information which was likely pose a serious challenge to the research study. To overcome this, the study observed ethical considerations by assuring the respondents of anonymity and confidentiality of the information was given a higher consideration on all the information collected from them.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

Financial inclusion is a topic that has turn out to be of great interest to scholars around the globe in the recent past, with both the governments and financial institutions trying to ensure that all the unbanked population are drawn into formal financial systems where they can enjoy the benefit of unlimited access to appropriate and affordable financial services. This finally would then ensure that there is access, usage and enjoying the knowledge of finance to the beneficial of the financial inclusion. The chapter focuses on the theoretical framework, empirical literature review and literature review matrix on financial inclusion and performance of small and medium enterprises.

2.2 Theoretical Framework

2.2.1 Credit Rationing Theory

Credit rationing is a situation where lenders are unwilling to give additional funds or money to borrowers at the prevailing market interest rate. It is widely recognized as a problem arising because of information and control limitations in financial markets. Credit rationing is always view as an extreme case of the more general problem of capital market resource or fund misallocation. Credit rationing in other words refers to any situation in which lenders are unwilling to advance any additional funds to any borrower even at a higher interest rate. According

Jaffee and Modigliani (1969), ‘credit rationing is a situation in which the demand for commercial loans exceeds the supply of such loans at a commercial loan rate quoted by the banks. Key to this definition is that changes in the interest rate cannot be used to clear excess demand for loans in the market. In essence, the definition treats credit rationing as a supply-side phenomenon, with the lenders’ supply function becoming perfectly price inelastic at some point in time. If the projects that are being funded by the loan are not scalable, however, then a distinction must be made between a situation in which a lender eventually restricts the size of loan it will provide to any individual borrower and one in which ‘rationed’ borrowers are denied credit altogether. This phenomenon arises in circumstances in which lending is not scalable. The credit rationing theory is therefore relevant to the study in relations to financial inclusion as it helps in determining whether fish traders access credit facilities with easy or they have some barriers on access to the finance.

2.2.2 Financial Liberalization Theory

This theory was brought into salience with the seminal work of McKinnon and Shaw (1973). They popularized the concept of financial repression as a financial system with policies that distort domestic financial markets and credit controls. The observation is that such a system interferes with the economic development of a country as the intermediaries are not well developed for mobilization of savings while allocation of financial resources among competing uses is inefficient.

The early hypothesis of McKinnon and Shaw (1973) assumed that liberalization (absence of repression) which would be associated with higher real interest rates as controls are lifted would stimulate savings which would lead to higher levels of investments and therefore to economic growth. McKinnon and Shaw (1973) further suggest that liberalization of financial markets allows penetration of financial services among the poor and less vulnerable population. These groups of people are always on the lower cadre of the social cycle. Therefore, providing them with accessible tools of finance could be considered an incredibly significant step towards achieving economic growth of any given state. This is because peasant communities could be left out mainly due to poor infrastructure, insecurity and abject poverty. Providing these people with access to credit gives them the opportunity to expand their business activities to middle class economy as time goes by.

The critics of this theory included Allen & Santomero (1997) who reviewed financial liberalization theory and attempted to reconcile it with the observed behavior of institutions in modern capital markets. They argue that current theory of financial liberalization heavily focuses on the functions of financial institutions that are no longer crucial in mature financial systems. They suggest that the emphasis on the role of intermediaries as reducing the frictions of transaction costs and asymmetric information is too strong; while these factors may once have been central to the role of intermediaries, they are increasingly less relevant. Allen & Santomero (1979) suggest a view on financial intermediaries that centers on two of their roles. First, they are the facilitators of risk transfer and deal with an increasingly complex maze of financial instruments and markets. The key area

of intermediary activity therefore has become risk management, whereas traditional intermediation theory offers little to explain why institutions should perform this function. Second, financial intermediaries reduce participation costs and the costs of learning about effectively using markets as well as participating in them on a day-to-day basis and this plays an important role in understanding the changes that have taken place. The theory is best applicable to SMEs as it assessed whether they are included or excluded.

2.2.3 Adverse Selection Theory of Financial Markets

The adverse selection theory of financial institutions originates from the work of Stilglitz and Weiss (1981). In his explanation interest charged by a credit institution are assumed to have a dual role of sorting potential borrowers (leading to adverse selection) and affecting the actions of borrowers (leading to incentive effect). Interest rates thus assumed to affect the nature of the transaction and do not necessarily clear the market. Both effects are seen as a result of the imperfect information inherent in credit markets.

Adverse selection occurs because lenders would like to identify the borrowers most likely to repay their loans since the banks' expected returns depend on the probability of repayment. In order to identify borrowers with high probability of repayment, banks are likely to use the interest rates that an individual is willing to pay. However, borrowers willing to pay high interest rates may on average be worse risky; thus, as the interest rate increases, the riskiness of those who borrow also increases, reducing the banks' profitability.

Stiglitz and Weiss (1981) further point out that higher interest rates always induce firms to undertake projects with lower probability of success but higher payoffs when they succeed leading to the problem of moral hazard. Since the bank is not able to control all actions of borrowers due to imperfect and costly information, it will formulate the terms of the loan contract to induce borrowers to take actions in the interest of the bank and to attract low risk borrowers. The result is an equilibrium rate of interests at which the demand for credit exceeds the supply. Other terms of the contract, like the amount of the loan and the amount of collateral, will also affect the behavior of borrowers and their distribution, as well as the return to banks.

Adverse selection arises because in the absence of perfect information about the borrower, an increase in interest rates encourages borrowers with the riskiest projects, and hence least likely to repay, to borrow, while those with the least risky projects cease to borrow. Interest rates will thus play the locative role of equating demand and supply for loanable funds and will also affect the average quality of lenders' loan portfolios. Lenders will fix the interest rates at a lower level and ration access to credit. Imperfect information is therefore important in explaining the existence of credit rationing for small and micro enterprises. Moral hazard occurs basically because projects have identical mean returns but different degrees of risk, and lenders are unable to discern the borrowers' actions (Stiglitz and Weiss, 1981).

Stiglitz and Weiss (1981)' theory was designed to apply quite generally, rather than in a specific context of informal credit in developing countries or states. In the latter context, the theory has often been criticized for its underlying

assumption that lenders are not always aware of borrower characteristics. The close-knit character of many traditional rural and close-knit urban societies implies that lenders possess a great deal of information about relevant borrowers' characteristics, such as business ability, business size and quality of assets, and also risk attitudes of the firm. Criticism for this theory stems from the fact that it ignores the fact that borrowers themselves can seek ways of sometimes assuring lenders that they are not "lemon" and hence have access to credit. The adverse selection theory of finance market is relevant to this study in relations to access variable as it tries to access whether the owners of the small and medium enterprises are included or excluded in the study.

2.2.4 Financial Intermediation Theories

The work of Raymond Goldsmith (1969) is the basis of the financial intermediation theory. In his point of view, Goldsmith gave wide-ranging facts related to the financial structure and the economic development at any given time. It was determined that during economic development of a nation, the financial system develops faster than the wealth of the nation. Determining of the size of the financial system in a country is the division of the role of saving and investment among the various units in the economy Goldsmith, (1969). The observation made in the 1960s remains relevant in the modern-day format of financial intermediation. The contemporary society has continued to appreciate the role played by financial intermediation in development of the economy at any given time Scholtens & Van Wensveen, (2013). Theoretical and empirical researchers have shown that financial intermediation plays an important role in

the growth of the economy of any given state. Further studies establish that one of the reasons for financial exclusion is low income and assets among some people in each society. With financial intermediation, there is an efficient allocation of capital within the economy with an aim of ensuring that economic growth. Another factor which contributes to financial exclusion is limited information related to certain financial aspects. Financial intermediation provides information to the owners of capital and the borrowers of capital. The financial intermediation process brings together the deficit and surplus units in an environment not known to them (Mandell, 2018). The banks through financial intermediation ensure that there is financial inclusion. In the process of ensuring that there is access to information, financial literacy and efficient allocation of the resources in the country, there is a risk that the banks take on behalf of the different players in the economy (Scholtens & Wensveen, 2013). The risk taken during the financial intermediation process has to cover the financial institution through the charging of the interest rate. This part is critical since it highlights the fact that institutions can earn through their role of either financial intermediation, hence improving their financial performance. The elements of financial intermediation have proven critical in ensuring financial inclusion, meaning that research of this nature would want to determine whether the financial inclusion results to profits.

Taking Kenya as an example, many initiatives, have been developed by different institutions to ensure that every Kenyan is able to access financial services which maybe using bank accounts, savings, borrowing or payments and knowledge of

finance. These are the core indicators of financial inclusion as given by the World Bank in its Global Findex and are used as the variables under financial inclusion in this study. The financial intermediation theory is relevant to this study in relations to access, usage and knowledge of finance variables as these are use as measure of financial inclusion.

2.2.5 Contemporary Banking Theory

Bhattacharya and Thakor advanced the Contemporary Banking Theory in 2013 and it is an extension of financial intermediation theory. The theory states that commercial banks together with other financial intermediaries are important when it comes to proper distribution of capital resources in the economy. The financial intermediaries always play an important role in the state of economy through reduction of the transaction costs for the services. In review of the contemporary theory of financial intermediation, the main areas of focus include the contribution it has had over the past decade, and the advancement of the understanding of the existence of the financial intermediaries. Even though the theory has helped in understanding the elements of financial intermediation, it includes the financial intermediation theory elements. The second aspect is that it has complicated regulation of financial intermediaries due to its expansion of scope of financial intermediation Bhattacharya & Thakor, (2013). The contemporary banking theory is relevant to this study in relations to access and usage variable. Financial institutions can operate in a single branch, but due to competition and the need for financial inclusion, they operate a network of branches. The operation of a network of branches is one of the roles of the

contemporary banks that seek to narrow the distance between the customer and the services rendered.

2.2.6 Bank Led Theory

The bank led theory arose under various efforts by banks to come up with new models of reaching their clients through agents. Various researchers have studied the theory Kiburi, (2016); Kendall, (2012). Under the model, a financial institution licensed to operate in a Country, in most cases a bank, uses retail agents to deliver financial services. The banks create the financial products and services and then distribute them to the retail agents who handle all the interactions with the customers. The ultimate providers of the financial services are the banks, and the customers have to maintain an account with the primary bank. Under this arrangement, the retail agent maintains a face-to-face contact with the customer in the same manner as a teller at a branch. They handle cash functions through taking deposits and processing of withdrawals. In other countries, the use of retail agents is at an advanced level where they open accounts, identify customers and service them with loans Kiburi, (2016). The outlets that provide cash services are close to the customers and at the same time perform as retail agents. The retail agent has a direct electronic communication with the bank that they serve.

The bank led theory is critical in this research as it forms the basis of agency banking which is an important element of financial inclusion. While looking at the use of agents and proliferation of ATMs and mobile banking services, what

comes to mind is the bank led theory Kendell, (2016). The analysis of the theory explains why financial institutions have continued to use the elements prescribed under the variables as modes of enhancing financial inclusion. Even though the theory forms the backbone of the element of agency banking, it has not established the outcome of the practice regarding the returns to the financial institutions and the customers. In a simple form, it has highlighted the manner in which the process of agency banking occurs within business environment. The bank led theory is relevant to this study in relations to access and usage variable.

2.2.7 The Knowledge Spillover Theory

In the theory, creation of new knowledge expands the set of technological opportunity. Performance of SMEs activity does not simply involve the arbitrage of opportunities, but also the exploitation of intra-temporal knowledge spillovers not appropriated by incumbent firms. The theory focuses on individual agents with endowments of new economic knowledge as the unit of analysis in a model of economic growth, rather than exogenously assumed firms. Agents with new knowledge endogenously pursue the exploitation of knowledge. This suggests that knowledge spillovers come from the stock of knowledge, and there is a strong relationship between such spillovers and performance of SMEs. If incumbent firms appropriated all the rents of research and development, there would be no intra-temporal knowledge spillovers (Zoltan et al 2018). The knowledge spillover theory is relevant to this study in relations to knowledge of finance variable.

2.2.8 Institutional theory

According to North (1991) Institutionists focuses mainly on financial sustainability of microfinance institutions. According to the theory, large firms are always more likely to be sustainable compared to small firms. Woller et al (2019) indicates that an institutionists views financial deepening on the main objective of microfinance institutions. Financial deepening refers to creating a sustainable financial intermediation for the poor or the lower end person in the society so that they can gain access to financial services. Large firms on the other end can gain easily access credit compared to smaller firms which may improves their chances of performing better since they stand always to benefit from tax deductions. Institutionists always assert that the financial sustainability as measured by financial self-sufficiency (profitability) should be given higher priority by all MFIs (Brau and Woller, 2014). Argument comes from the fact that in most cases donor dependence is not certain and thus, unless an MFI is able to sustain itself financially it will not be able to serve the less privilege or low-income earners in the long run. Contrary to promoting financial sustainability, there is a potential tension that over emphasis on financial self-sustainability may lead an MFI into moving away from its poverty reduction which is their main objective. A close examination of the arguments put forward by institutionists can reveal that it is due to financing issue (Brusov et al., 2013). However, large firms are more easily access finances compared to smaller firms. This is because on one hand, the institutionists would always like to see MFIs meeting all their costs from self-generated funds with a possibility of making profit without taking in

consideration any using external funds. This is what they would call a sustainable MFI. Provided the MFIs can continue with operations and thereby meet their social objectives they have attained sustainability. Their focus is on targeted depth of outreach rather than scale (breadth 13 of outreach) or financial self-sufficiency (Brau and Woller, 2014). Thus, as Woller et al (2019) have argued, what matters is how subsidies are used and not whether they are used or not. The relevance of this theory is that large firms perform better then smaller firms. This is because they take advantage of their size to enjoy privileges for example: tax deduction, discounts economies of scale to achieve financial performance. Hence, they can mitigate costs and improve financial performance. Therefore, large firms are reliable; they deliver goods and services on time since they create good relationships with their suppliers which further helps them create a good corporate reputation and thus build trust with their customers (North, 1991). The intuitional theory is relevant to this study in relations to business size variable.

2.3 Conceptual Review

2.3.1 Access to Finance and financial performance

Access to finance is the availability of financial services in the form of demand deposits, credit, payment or even insurance. Beck & Honohan, (2017), Aduda & Kalunda (2012), Anold & Jonhnson, (2012), Massa, (2013). The need to offer these services may be constrained by physical access, affordability and eligibility. The indicators for access may be through geographic or demographic while the main indicators for geographic access are number of bank branches per given

square kilo meter and number of bank ATMs per given kilo mater. On the other hand, the indicators for demographic access are number of bank branches per given number of people and number of bank ATMs per given adults person (Sarma & Pias, 2021; Beck. et. al, 2016). In the study access was measured using banking facility and credit accessibility. According to Penman (2017) financial performance is the accomplishment of a given task that is measured using predetermined standards of accuracy completeness, efficiency and effectiveness. Financial performance measures in some cases is used to evaluate how well a company is using its resources to generate or earn profits. This includes operating income, earnings before interest and taxes and net asset value. It is also worth or important to note that no one measure of financial performance can be taken as a standalone. Rather, a thorough assessment of a firms' performance should be taken into consideration to ensure that more than one measure of financial performance is taken into consideration. In the study financial performance was measured using both profitability and sale turnover.

2.3.2 Usage of finance and financial performance

Usage of finance is the permanence and depth of financial service and product use in terms of details about the regularity, frequency and duration of use over time Samundengu (2014). The indicators for usage of financial services can be gauged through numbers and size while on the other hand the indicators of numbers are the number of loans per 1,000 people and deposits per 1,000 people. The indicators for size are average size of loans to GDP per capita and average size of deposits to GDP per capita. The higher number of loans and deposits, the

lower ratios to GDP per capita reflect use of banking services by a greater share of the population and by smaller size client base. In comparison, higher ratios indicate the use of banking services being relatively limited and likely to be afforded primarily by wealthier individuals or larger enterprises Beck, et. al, (2016). In the study, usage was measured using frequency of account use and number of accounts operated. According to Penman (2017) financial performance is the accomplishment of a given task that is measured using predetermined standards of accuracy completeness, efficiency and effectiveness. Financial performance measures are used to evaluate how well a company takes in to use its resources to earn profits. This includes operating income, earnings before interest and taxes and net asset value. It is therefore worth to note that no one measure of financial performance should be taken on its own isolation. Rather, a thorough assessment of a firms' performance should take into consideration to ensure that more than one measure of financial performance. In the study financial performance was measured using both profitability and sale turnover.

2.3.3 Financial Knowledge and financial performance

Financial knowledge is the understanding of key financial factors and concepts needed to operate well Huston, (2017). While Potrich, Kelmara and Wesley, (2016) define financial knowledge as the capital acquired in life through the ability to manage income, expenditure and savings in the right way. Financial knowledge is therefore the wisdom acquired through learning the ability to manage income, expenditure and savings in the right way. While according to Lusardi and Mitchell (2018), knowledge of finance is the best practice of

financial behaviors, which including possessing an adequate emergency fund, credit monitoring, account checking overdrafts, avoiding debt revolving and having insurance protection. On the other hand, Organization of Economic Co-operation and Development OECD, (2021), define financial knowledge as an important determinant of whether an individual is financially literate, involving questions related to concepts such as simple and compound interest, risk, return and inflation. In this study it will be measured using personal financial knowledge, operation knowledge and investment knowledge. According to Penman (2017) financial performance is the accomplishment of a given task that is measured using predetermined standards of accuracy completeness, efficiency and effectiveness. Financial performance measures are used to evaluate how well a company is using its resources to earn profits. This includes operating income, earnings before interest and taxes and net asset value. It is important to note that no one measure of financial performance can be taken on its own as standalone. Rather, a detail assessment of a firms' performance should be taken into consideration to ensure that more than one measure of financial performance is taken in consideration. In the study financial performance was measured using profitability and sale turnover.

2.3.4 Business size and financial performance

According to Schmalensee (2011) the business size (firm size) can be defined in terms of total assets and used several accounting profitability measures including profit margin and return on assets. While Boyd and Runkle (2013) argue that larger firms mostly are more cost efficient and less likely to fail. According to the

institutional theory a firm being bigger proffers an advantage in reducing pooled risks through many contracting parties, hence reducing the possibility of failure. Larger firms are believed to have more profitable investment opportunities; more diversification and high efficiency hence have low risk level. As pointed out by Mainelli and Giffords (2020), large firms always enjoy economies of scale and scope; these also pass an important criterion which enables them to compete globally. The size of a firm can be measured in several ways: assets, sales, employees and value added are some of the commonly used measures. Technological theories of the firm which focus on economies of scale always arise out of capital inputs which argue that assets or sales are the preferred measures of size.

According to the organizational theory of the firm sales is always view not to be preferable measures of firm size. This is because the three primary concerns for this theory is always on how the transactions, agency and span of control costs affect profitability Mainelli and Giffords, (2020). The costs which are always associated primarily with how the organization is controlled through a hierarchy rather than with the value and number of physical assets. Therefore, value added, or number of employees rather than assets or sales always rather remain the better measure of firm size for organizational theories.

Penmen (2017) define financial performance as the accomplishment of a given task that is measured using predetermined standards of accuracy completeness, efficiency and effectiveness. Financial performance measures are therefore used to evaluate how well a company is using its resources to earn profits. This

includes operating income, earnings before interest and taxes and net asset value. It is important therefore to note that no one measure of financial performance can be taken on its own. Rather, an in depth assessment of a firms' performance should be taken into consideration to ensure that more than one measure of financial performance is taken in consideration. In the study therefore financial performance was measured using both profitability and sale turnover.

2.4 Empirical Literature Review

2.4.1 Bank Access and Financial Performance

A well-developed financial institution always contributes to improved financial performance of small and micro enterprises. Access to financial services always provides the firm with an opportunity to manage its risks broaden their menu of choices and further smoothen its consumption patterns. These always result in promoting development, thereby contributing to poverty reduction. Credit is an important instrument for improving the performance of firms directly and for enhancing productive capacity through financing investment Nwanna (1995). Some of the factors which have been fronted as determinants of improved access include financial innovations like introduction of microfinance units in mainstream financial institutions, technological improvement, improved standards of living and less regulations of the banking sector. However, it has also been observed that the innovations in the formal financial sectors do not result to decrease in the reliance on the informal and semiformal financial institution of an economy Udell, (1992).

Oshora, Betgilu, Desalegn, Hegyes, Farkas, and Zeman (2021) established the determinants of Financial Inclusion in Small and Medium Enterprises in Ethiopia. The study used a mixed research approach with both primary and secondary sources of data. More specifically, the study adopts a multiple linear regression model. The finding of the study reveals that; supply-side factors, demand-side factors, market opportunity, and collateral requirements have a positive effect on the firm's access to finance. On the other hand, institutional framework factors, and the costs of borrowing negatively affect the firm's access to finance. This study suggests concerned bodies sustain rapid and inclusive economic growth and hence eradicate extreme poverty and hunger, the policymakers must build an efficient, strong, and well-functioning financial market system that provides affordable and sustainable financial service to SMEs.

Marus, Mwosi , Okello, Turyehebwa and Uwonda (2021) examined the financial inclusion and the growth of small medium enterprises in Uganda: empirical evidence from selected districts in Lango sub-region. The growth and failure of small and medium enterprises has been a topic of discussions world over among policymakers and researchers. This study was guided by the following objectives: to examine the contributions of small medium enterprises (SMEs), to determine the challenges affecting small medium enterprises, to examine how financial inclusiveness supports the growth of small medium enterprises, and to establish the relationship between financial inclusion and growth of small medium enterprises. The study used a cross-sectional research design. Descriptive design was used and supplemented by inferential statistics. Correlation and regression

analysis were adopted. The study revealed that financial inclusion is significant in supporting SME growth. The study further also revealed that the cost of acquiring and servicing financial services is high; there is also difficulty in using some of the financial services, and the way financial providers treat financial users, some lacked some degree of respect and dignity. The study recommends that financial providers should continue sensitizing the public on the available financial services beyond credit services, which are common and known. Digital financial service providers should encourage their clientele to use digitalized financial services which are cheap, secure, and risk averse. The cost of capital should also be reduced to encourage borrowing while SMEs should innovatively produce goods that can be competitive at both domestic and international markets.

Access to financial services by small and medium enterprises is normally seen as some of the constraints limiting their benefits from credit facilities, in most cases are access problem, especially among formal financial institutions created by the institutions through their strong lending policies. This is displayed in the form of the prescribed minimum loan amounts, complicated application procedure and restrictions on credit for specific purposes. Small businesses lack access to capital and money markets. Investors are unwilling to invest in proprietorships, partnerships or unlisted companies. As risk perception about small businesses is high. So is the cost of capital, institution credit when available requires collateral which in turn makes owner of the business unable to access finances Kamweru, (2021). Accesses to financial services enable people to pursue activities that would not only sustain their business. The concepts that relate to the functioning

of microfinance institution can also relate to small and medium enterprises through use of financial services. Savings is the complement to credit; as it enables people to accumulate capital and smooth their operations during times of need such as drought and unemployment Must and Ludewig, (2020). With credit, SMEs can acquire loans on savings and spread their loan repayments over time. It is worth to note that savings is a form of capital accumulation which over time allows small and medium enterprises to expand their business potential and capacity. It is further worth to note that availability of finance always determines the capacity of a firm in a number of ways; this is especially in choice of technology, access to markets, and access to essential resources which in turn always greatly influence the viability and success of a business. Further to securing capital for business start-up or business operation one of the major obstacles that entrepreneur always faces particularly those in the small and medium enterprises sector is lack of access to credit which is a major factor accounting as a hindering to emergence and growth of their business. Naturally, these firms began to borrow under this favored program, but instead of simply substituting subsidized credit for more costly finance, they expanded their sales proportionately to the additional loan sources which suggest that these firms must have previously been credit constrained. According to the CBS/ICEG/K-Rep (2019), the two key challenges facing small and medium enterprises are poor access to markets and limited access to financial services. Lack of tangible security, the procedural bureaucracies of credit borrowing remain to be some of the factors that always constrain small-scale entrepreneurs from accessing credit from formal credit institutions. The impact of these challenges in most cases lead

to majority of small and medium enterprise operators confining themselves to a small market where profit margins are always extremely low due to high competition. Consequently, most of the small and medium enterprises always tend to stagnate and operate as a micro status or close after few years in operation. Therefore, in most cases few manage to graduate to medium and large-scale enterprises (Ministry of Labour and Human Resource Development, GOK, 2014).

The ability of small and medium enterprises in most cases to grow always depends highly on their potential to invest in restructuring and innovation. All these investments always require capital and therefore access to finance. It is on this background that consistently repeated conception of small and medium enterprises problems regarding access to finance is a priority area of concern, which if not properly addressed, can endanger the survival and growth of such small and medium enterprises. An Investment Climate Survey conducted by the IBRD/World Bank (2018) showed that one of the major impediments of nurturing firms is lack of access to financial services which would expand economic growth and employment generation as well as reducing poverty in many developing states.

Lack of access to credit in most cases has led to poor maintenance or replacement of machinery, inability to purchase required materials and services, or to expand. Large firms always benefit from established capital markets whereas small firms in most cases cannot raise funds. Owing to lack of well-developed finance information systems, the financial sectors therefore remain to be the main source

external funds to small and medium enterprises. Small and medium enterprises, therefore, cannot raise funds from other alternative financial sources. Lack of credit for small and medium enterprises development is a cardinal problem to their development in developing states. Owing to the problems associated with accessing alternative credit facilities, a large proportion of Kenyan small and medium enterprises rely more on self-financing in terms of retained earnings.

Small and medium enterprises in Kenya therefore have difficulties in growth due to lack of finance. They hardly grow beyond start-up stage; others go out of business at very early stage since they have few alternatives of accessing finance other than relying on their retained earnings to finance their investment. The implication therefore is that SMEs do not have adequate credit to meet the needs at different levels of growth. Therefore, a finance gap exists for firms starting or wishing to expand. The Microfinance Institutions provide in most case seed capital to small and medium enterprises by lending them money and capacity equipment purchase. This requires the Microfinance Institution to have effective management of credit risk. It is therefore important to note that small and medium enterprises should organize themselves to be able to meet the credit terms set by microfinance institutions. These credit terms can affect the profitability of small and medium enterprises as failure to repay their loans could results in fines and other penalty related costs.

Forster, Greene and Pytkowska (2016) studied the state of microfinance in Central and Eastern Europe and found that outreach to the region is was very low with the organizations mainly focusing on providing loans to already established

small and medium enterprises. The study further highlights that Micro finance institutions based their operations around the delivery of simple, short-term, relatively high-interest, working-capital loan products. “Microfinance lending requires a genuine ability to repay the loans and diverse income sources” Shreiner and Colombet (2011). The study by Forster, Greene and Pytkowska indicates that Microfinance Institutions do not provide seed capital to SMEs in the European regions that were sampled however it does not investigate the effect of lack of the provision of seed capital on small and medium enterprises growth. In contrast there exists an argument by Peters (2020) that equity financing in developed states has been successful and can also be replicated in developing countries by providing business start-up grants. Evidence of the success of equity and grant start-up capital financing given by the study is not conclusive. It is important therefore to investigate lack of seed capital for business as it could prevent an entrepreneur from starting a business.

The study by Okurut, Banga and Mukungu (2014), small and medium enterprises in Malawi acquired their start-up capital from money lenders however the money lenders did not lend to the poorest members of the community as they did not have ability to provide collateral. Commercial banks may not be able to provide seed capital due to their stringent loan requirements and in ability to penetrate rural areas but In South Africa, the banking system as written by FNB (2020) remains the main source of capital to start and grow businesses. Financial services groups like First Rand have an entrepreneurial tradition and have spurred successful entrepreneurial ventures.

The study by First National Bank (2020) also highlights that capital is not the only catalyst for business success and the entrepreneur plays the most important role by identifying the array of factors that dictate the conditions and circumstances under which a business should thrive which involves skill and aptitude. Similarly, Heide (2016) in his study indicates that finance is a necessary but not a sufficient condition for success of innovative start-ups, entrepreneurial and management skills are as vital therefore financing should be made conditional, only to be provided when the start-up accepts adequate managerial skills coaching to ensure successful business models. Another study however indicates that "75 percent of applications for credit by new businesses in South Africa are rejected and only two percent of new small and medium enterprises are able to access loans, whilst only 2% of businesses seeking private equity are successful" Dalberg and Morgan (2012,). In Ireland, the second most significant source of funding for small and medium enterprises as highlighted by Inter Trade Ireland (2013,) is that external equity finance as represented by seed capital, venture capital and business angel finance however it is mainly targeted at a small number of business sectors, mainly Information and Communications Technology, Professional, Scientific and Technical Services, Manufacturing and Medical Devices.

In Kenya however lack of access to credit has been identified as one of the most serious constraints facing small and medium enterprises hindering their development. Mwobobia (2012) argues that loans from Kenyan microfinance institutions tend to be limited in amount, have no grace period, are short term in

design and carry extremely high interest rates. These studies may be important in highlighting the providers of capital in these African countries, but they have not discussed the effect of capital on the performance of small and medium enterprises. A study by Kehinde and Ashamu (2014) on the effect on growth and earning of small and medium enterprises in Nigeria revealed that granting pioneering status for tax purpose will go a long way to create a strong earnings base for the small and medium enterprises. It was also revealed that personal saving is mostly used by the small and medium enterprises owner to start the business, but it is not better than debt financing (government financing and leasing) at growth stage of the SMEs' life. The study further highlighted the pecking order theory that stated companies prioritize on using internal sources of finance than taking on debt this involve issuing equity to enable companies access capital at the initial stage of their development. "Government should reduce tax and social security compliance burdens therefore securing fair tax and social security treatment for new firms" (OECD, 2020). Small and medium enterprises also are disadvantaged when accessing capital through debt as the costs (risk assessment, legal and administrative costs, supervision) of providing a small amount of finance are practically identical to the costs of providing a large amount Heide, (2016).

These studies provide an important base for assessing the impact of capital on growth of small and medium enterprises however it does not give a detailed analysis of the role of seed capital on the growth of SMEs. Ahiawodzi and Adede (2012) in a study of Ho-Municipality of Ghana indicate that access to credit

exerts a significant positive effect on growth of SMEs, the result from the regression model shows that there is positive relationship between the growth of the SMEs and access to credit while this study addresses effect of access to credit on growth of small and medium it does not specifically mention seed capital. It is in this context that the study seeks to determine the effect if access to bank on the performance of SMEs with an aim of bridge gap by determining the effect of access to banking and credit facilities by fish traders.

2.4.2 Bank Usage and Financial Performance

According to Beck et al. (2016), a mere ownership to a bank account does not mean that one is actively using the financial service. This causes the need to measure the extent of usage. The measures of usage include demographic loan penetration, loan-income ratio, demographic deposit penetration, deposit-income ratio, deposit-GDP ratio and cash deposit ratio (Beck et al., 2013).

Mwangi (2021) studied the role of bank usage on performance of commercial banks in Kenya on the four banks that were offering agency banking services using questionnaires distributed to the banks‟ branch managers. The study found that infrastructure cost and security influenced the performance of commercial banks attributable to agency banking to a very great extent. The study recommended that bank usage to be given more attention on security measures including risk-based approach and that the banks should find better ways of screening their agents to ensure that the large cash transactions handling is effectively carried out on their behalf; secure operating systems capable of

carrying out real time transactions, generating an audit trail, and protecting data confidentiality and integrity.

Kamau (2017) studied the relationship between bank usage and financial performance of the banks in Kenya. Through review of secondary data, the study found that bank usage had 9,748 active agents in 2021 from 8,809 in 2020 facilitating a total volume of 8.7 million transactions valued at KSh 43.6 billion. Using regression analysis, the study found negative weak correlation between number of agents, deposit and withdrawals transactions undertaken through agents and financial performance of banks as measured by return on equity.

Sarma and Pias (2021) stressed that merely having a bank account does not ensure that the bank holders are using the banks‟ services and that the bank is inclusive. This necessitates the formulation of a measure of the use of bank services. The study used two basic services of the banks: outstanding credit and deposit. The volume of outstanding deposit and credit as a proportion of the GDP expressed as a percentage was used to measure this dimension for each bank under study. Amatus and Alireza (2015) empirically analyzed the effect of financial inclusion on bank stability in sub-Saharan Africa. The study hypothesized bank Z-score as a measure of stability. Financial inclusion was measured by the usage dimension of total outstanding deposits and loans, while GDP per capita and inflation were control variables.

From the results, bank usage had a negative effect on stability of banks. Greater GDP per capita was found to improve stability while inflation had an adverse

effect on bank stability. The study employed only one measure of stability that is insolvency risk. The current study included credit risk and liquidity risk to enhance the tests of stability. Ghassan and Fachin (2014) carried out an analysis on financial stability of Islamic banks in Saudi Arabia by utilizing a time series model. It involved six banks which were listed on the Saudi stock market for the period between 2018 and 2013.

Belita (2013) on his study sought to establish the effect of Agency Banking on the financial performance of commercial banks in Kenya. The research used descriptive survey on the study that covered 16 banks. The research concluded that there exists a positive relationship between the volume of deposits, cash deposits and volume of withdrawals and the financial performance of banks. The study also found out that agents were important part of the assets of the banks, meaning that the increase in the size of the bank asset had a positive impact on financial performance of banks. The study further concluded that there is a positive relationship between the increase in the number of banking agents and the financial performance of banks.

Monica (2015) study determines the impact of Agency Banking on the financial performance of commercial banks in Kenya. The study adopted descriptive survey methodology and study focused on 17 commercial banks. The study established that there is a strong positive relationship between return on assets of the commercial banks and the volume of transactions as well as the size of the bank and financial performance of the banks. The study then concluded that an increase in the number of agents of commercial banks always result into

increased financial performance, meaning that there exists a positive correlation between the agent outlets and financial performance of banks.

Ndirangu (2021) conducted a study that sought to determine the effect of Agency Banking on the financial performance of commercial banks, but on his study, he used census method to study all the population of banks licensed to operate in the country. The study covered ten banks and concluded that the number of agents of a commercial bank and the volume of transactions did not have a positive correlation with the financial performance of banks as measured using the return on equity of the banks. The study further looked at the number of agents and deposits, loan repayment transactions and withdrawals undertaken through the agents. It concluded that other factors apart from those highlighted could contribute to the financial performance of banks that conduct agency banking.

Asia (2015) also conducted a study to determine the contribution of E-Banking on the performance of banking financial institutions in Rwanda. The research adopted a descriptive research methodology using qualitative and quantitative approach. His findings indicated that there was a positive relationship between electronic banking and performance of banks in Kigali. With a significance level was 0.01. The research concluded that electronic banking methods such as Pay Direct, electronic check conversion, e-transact, use of ATM and mobile banking have a great impact on the performance of the banks regarding reduction in the cost of operations, increase in assets of the bank and efficiency and the increase in the level of profitability.

Jegede (2014) investigated the effect of ATMs on the performance of banks in Nigeria. In his study he used descriptive survey methodology where questionnaires were use in data collection from a sample size of 125 employees of five selected banks in the Lagos state. The study concluded that there was less than benefit in use of ATMs to offer financial services as the use of ATM terminals has been average regarding the improvement of performance of banks in Nigeria. This was a contradiction to Asia (2015), which stated that, there was a relationship between use of ATMs and improved financial performance of banks. These disparity in outcome occurred out of the difference in the research environments provided between Rwanda and Nigeria. It is prudent to conduct similar research probably in Kenya to establish the relationship between the variables.

In Kenyan a number of researches have been conducted to determine the relationship between use of ATMs and Mobile Banking and financial performance of banks. Munyoki (2013) used a descriptive study to determine the impact of online banking on the financial performance on commercial banks. The study concluded that generally, the element of online banking has a weak and positive relationship on the financial performance of commercial banks in Kenya. The effect was attributed to the fact that use of online banking cut costs, reduces the staffing levels, and makes banking convenient to customers.

Vekya (2017) sought to establish the impact of electronic banking on the profitability of commercial banks Kenya. Descriptive research design was use in conducting the study to all banks in Kenya. Multiple regression results of the

study indicated that there was a significant positive relationship between ATM transactions and the profitability of the banks. The study also indicated that there was a positive significant relationship between the profitability of the bank and the point-of-sale transaction. The study further established that ATM transactions had a positive trend over time, which was reflected in the profitability of the banks.

Musyoka (2021) conducted a study that was aimed to establish the relationship between branch network spread and the financial performance of banks in Kenya. The study was used descriptive research design to collect qualitative and quantitative data. The research population included all the banks licensed and operating in Kenya under the Banking Act. The study also collected secondary data through a review of bank financial statements between the year 2020 and 2020. The study determined that there is a positive relationship between branch network and financial performance of banks. Even though the study was conducted using some of the best research models, the fact that it was conducted between 2020 and 2020 means that other dynamics might have changed between 2020 and now there is need to conduct a new research in the same area.

Chelangat and Muturi (2016) in their study sought to establish effect of branch network on financial performance in private colleges in Kenya. The specific objectives of the study included the impact of spread of branches on financial performance, the relationship between number of branches and financial performance and relationship between sizes of branches to financial performance. All the three variables are important part of this study. The study adopted a

descriptive research design approach. It was concluded that number of branches and their geographical spread had an impact on the revenues and cost. It was also established that as organizations grew the revenues and costs increased significantly. As a result of all these the current study examined the effect of usage of finance on performance of SMEs of fish trading along Lake Victoria region Kenya, to bridge the gap by examining the effect of frequency of account use by fish traders along Lake Victoria region Kenya as most of the study have focus mainly on banks.

2.4.3 Financial Knowledge and Financial Performance

Financial knowledge is an extremely critical aspect of any decision making regardless of the subject matter, result into a more effective decision Robb, (2014). It impacts key outcomes including borrowing, savings, investment and even future in terms of retirement income Lusardi & Mitchell, (2014). Lusardi and Michell (2014) proposed that knowledge of financial is needed to create a measure of financial competence in terms of participation in financial market and ability to manage financial matters. A few researchers have attempted to show the relationship between financial knowledge and growth in terms of profitability and size of businesses.

Lusardi and Mitchell, (2014) conducted survey on knowledge of financial and came up with set of questions that were commonly used to measure financial knowledge. They performed an examination on the impacts of knowledge of financial on economic decision making in the United States. From their study, it was concluded that less financed businesses incur high transaction costs and pay

higher fee. Knowledge of financial is an investment in human capital that promotes wealth accumulation Lusardi & Mitchell, (2014). Research by Clark, Lusardi, & Mitchell (2014) on investment performance and knowledge of financial using a unique and new set of data found out that financially knowledgeable employees have more volatile and diversified portfolios. They recommended that efforts to enhance financial knowledge should be exerted as it helps people invest more profitably. Guliman, (2015) evaluated financial literacy of MSE owners with focus on financial knowledge and skills. He found out that most owners of the enterprises have low financial knowledge on taxation, time value of money and investing in securities. In a paper on financial literacy and high-cost borrowing, Lusardi & Bassa (2013) noted that lack of financial concepts affects performance level in the business.

Kithinji (2017) conducted a study on effects of financial knowledge on financial inclusion among commercial banks in Kenya. A descriptive survey research design was used where all the 42 commercial banks in Kenya were involved. The target population was the registered 42 commercial banks in Kenya as at 31st December 2016. The study used quantitative secondary data from CBK annual reports for 2012 – 2016. In analyzing the quantitative data, 67 the study used descriptive statistics and regression analysis while qualitative data was analyzed using content analysis. From the findings, it was concluded that commercial banks in Kenya had adopted diverse financial knowledge not only ensure their sustainability but also to reach the unbaked people in Kenya. The financial knowledge had a significant effect on financial inclusion among commercial banks in Kenya. There was a significant positive change in financial inclusion as

proxies by the number of accounts, deposits value, number of outlets and customer base, over the 5-year period.

Study by Morara and Mureithi (2019) conducted on the challenges facing small and medium enterprises in Nairobi. The study employed stratified random sampling to collect data from 198 businesses using interviews and questionnaires during the study. The data was then analyzed descriptively and presented through the use of figures, tables and percentages. The study findings concluded that the challenges facing SMEs were in ability to manage financial systems, competition among themselves and from large firms, lack of access to credit, cheap imports, insecurity and debt collection.

Barte (2012), on the study conducted on financial literacy in small and medium enterprises, also concluded that financial literacy was linked to performance. The study was conducted using descriptive research survey design and the data analyzed using descriptive statics and simple regression analysis. The study result concluded that Entrepreneurs had low levels of financial literacy as demonstrated by lack of financial records, lack of monitoring of profit and losses and lack of cash management practices. Further the vendors were also confined to high interest loan. The study finding did not however show to what exact influence of financial literacy performances have on SMEs.

Some studies however have in their study fail to establish the relationship between financial literacy and performance of small and medium enterprises. This is showed by a study conducted by Hoseini et al, (2012) on transaction costs of obtaining credit in rural Iran. In the study the data was collected using

observations, questionnaires and survey design. The study used simple linear regression to analyze the data. The study established that the transaction costs of receiving a loan are an equivalent to nine percent of the total loan size. The study also revealed that the contractual form, loan size, distances and borrower peculiarities are the important determinants of transaction costs and not financial literacy.

Mengich et al (2012), in the study challenges of equity financed by small and medium enterprises in Kenya. The study aimed at evaluating the challenges faced by SMEs during equity financing. The study used descriptive research survey design and data analysis through correlation analysis. The study concluded that equity financing was constrained by low financial literacy, information asymmetries and transaction costs. The study however fails to examine the relationship between financial literacy, equity financing and performance of the SMEs.

Further Njoroge (2013) conducted a study on the relationship between financial literacy and business success among small and medium enterprises in Nairobi County. The study was conducted using a qualitative survey design and data collected using questionnaires. The data was then analyzed using descriptive statistics and simple regression analysis. The study concluded that most of the entrepreneurs in Nairobi had some financial literacy and therefore in most cases those in formal small and medium enterprises were highly financially literate.

Hieltjes et al. (2013) conducted a study on the impact of financial literacy on transaction costs on banks account uptake and uses the direct linkage between the two variables. The aim of the study was to evaluate the exact influence of financial literacy on savings of individuals and small and medium enterprise owners in Ghana. The study used randomized controlled experimental study design and simple regression analysis was used to analyze the data. The study concluded that financial literacy and transaction costs influence demand for and the use of financial services and subsequent performance of the small and medium enterprises.

Sagana (2014) conducted a study on entrepreneur financial literacy, financial access, transaction costs and performance of micro enterprises in Nairobi County, Kenya. A cross-section design was adopted for the study. The study population comprised of all microenterprises in Nairobi County, from which a representative sample of 396 microenterprises was drawn. The main study instrument was a questionnaire which comprised of liker-type scale questions on the main variables of the study. The data was analyzed using both descriptive and inferential statistics. The findings of the study concluded that entrepreneur financial literacy had a statistically significant influence on enterprise performance; therefore, the hypothesis that financial literacy influences enterprise performance was supported.

Mwambia, (2014) conducted a study on the effect of financial literacy on financial returns of miraa farmers in Meru County. Descriptive research design was adopted by the study. The target population constituted the Miraa farmers in

Igembe, the main Miraa growing area. The study adopted descriptive survey technique and the data collected was analyzed using SPSS version 21 and the significance of the results tested at 95% using ANOVA, and other statistical inference techniques like Z-tests, T-test and F-tests. The study found that financial literacy levels remained low among the Miraa farmers and this resulted to low returns.

Financial knowledge, therefore, despite being important in the financial performance of both individuals and businesses is argued by various researchers to be insufficient in contributing to performance. Tang et al., (2015) researched variables that could contribute to responsible financial behavior concluded that responsible financial behavior is not just attained from financial knowledge, but also parental influence and self-discipline otherwise known as psychological characteristics. The result on the study by Monticone (2020) on how much wealth matters on acquisition of financial knowledge showed that there is a positive but small relationship between wealth and financial knowledge**.** It was therefore necessary in this context to conduct the study to establish the effect of knowledge of financial on performance of SMEs as the study would seek to bridge the gap by establishing the effect of personal finance management, operational Knowledge, knowledge of product and investment knowledge of finance on performance of fish traders along Lake Victoria Kenya

2.4.4 Financial Inclusion and Financial Performance

Faruk and Noman (2013) studied on financial inclusion in Bangladesh. The study was a census of the 64 districts in Bangladesh and used secondary data from the Schedule Bank Statistics. Panel data was collected for the time period between 2017 and 2020. The limitation for their work is that they considered data from commercial banks excluding micro finance institutions and insurance companies. They also did not have theories but instead referred to theories quotes by Levine (2005).

Joseph and Varghese (2014) studied on the role of financial inclusion in the development of Indian Economy and used the concept that a well-functioning and inclusive financial system is linked to a faster and equitable economic growth. Secondary data from the Reserve Bank of India was used for the period between June to December 2013. The parameters used for the study were the number of functioning branches of scheduled commercial banks and bank group-wise. Just like majority of previous works reviewed, the study ignores other players in financial inclusion and studies on banks only.

Mutsune (2015) explored the nature and role of economic dynamism dispensed through branchless banking innovation in Kenya with the aim of shedding morelight and developing a useful model framework for empirical investigation among other things. The study focused on M-pesa and assumed that the frequency of use of M-pesa stimulates and disperses economic activity via a velocity mechanism. The researcher therefore used a methodology like the velocity of money rooted in Fisher's Quantity Theory of Money.

Agrawal (2018) studied the financial inclusion from the behavioral perspective based on both factors supply and demand end. The study result revealed that evaluation from the behavioral perspective provided the scope for the policymakers to strategically align their approach with the behavioral aspect without confining their thoughts to the economical evaluations.

Joseph and Varghese (2014) analyzed the effect of financial inclusion on the development of Indian economy by bank growth rate in terms of number of bank growth rate in terms of number of bank branches, usage of debit card and credit cards. The study observe that the usage of debit card increased tremendously throughout the study period and decreased the number of people with access to the products and service offered by the banking system continues to be very limited every years after introduction of inclusive banking initiatives in the county.

Paramasivan and Ganeshkumar (2013) discussed the overview of financial inclusion in India and concluded that branch density has a significant impact on financial inclusion. While Julie (2013) analyzed the relationship between financial inclusion and economic growth in Kenya the study concluded that financial inclusion and economic growth have a strong positive relationship. It was also found that economic growth has a strong positive relationship with branch networks and a weak positive relationship with the number of mobile money user's accounts. Further the study also concluded that there a weak negative relationship with the number of automated teller machines in the country and a strong negative relationship with the bank lending interest rates.

Kamboj (2014) in the study conducted in India found out that there was a positive relationship between number of bank branch networks and number of ATMs in the country with the GDP growth rate of the country. Financial inclusion is an important step towards inclusive growth. It helps in the overall economic development of the underprivileged population. In Kenya effective financial inclusion is needed to ensure that the poor and disadvantaged people are financial included with the modified financial products and services. This therefore leads to inclusive growth encompassing the deprived and marginalized sections. A number of studies have been done and have come out with mixed results. It is with this backdrop that this research attempt to examine the present scenario of the effect of financial inclusion, business size and performance of SMEs with an aim of bridge the gap thought examining the effect of financial inclusion, business size and performance of SMEs fish trading along Lake Victoria region Kenya.

2.4.5 Business size and Financial Performance

A number of the studies concerning the influence of business size on profitability performance of the firm have found results agreeing that there is positive relationship between firm size and its profitability performance Vijayakumar et al., (2020); Serrasqueiro et al., (2018). On the other hand, some of the studies have concluded that the relationship between firm size and its profitability performance are negative. Becker et al., (2020). Niresh et al (2014) on their studied the effects of firm size on profitability in listed manufacturing companies in Sri Lanka and using the data collected between the years 2018 to 2012. In their

finding on the study concluded that there is no indicative relationship between firm size and its profitability performance. Velnampy et al (2020) further investigated the relationship between firm size and profitability performance of all the branches of Bank of Ceylon and Commercial Bank in Sri Lanka over the period of 10 years from 1997 to 2016. There finding observed that there was a positive relationship between firm size and profitability in Commercial Bank, but there was no relationship between firm size and profitability in Bank of Ceylon their study concluded.

Study by Symeou (2012) on the examination of the relationship between the firm size and financial performance. The study was conducted using descriptive survey to establish the relationship of 17 between firm size and performance. The study used secondary data for a period of five years. Data was analyzed using a regression model and the results found out that there was a statistically significant relationship between firm size and financial performance.

Pouraghajan and Bagheri (2012) in their study on the investigating on the impact of capital structure on the financial performance of companies listed in the Tehran Stock Exchange. The study tested a sample of 40 firms among the companies listed in the Tehran Stock Exchange. The results suggest that there is a significant negative relationship between debt ratio and financial performance of companies, and a significant positive relationship between asset turnover, firm size, asset tangibility ratio, and growth opportunities with financial performance measures.

Further, study by Memon, Bhutto and Abbas (2012) investigated the impact of capital structure on firm financial performance in textile sector of Pakistan. A longitudinal study was conducted in 141 textile firms from 2014-2013. A regression model was used for analysis. The results of the analysis concluded that there was a positive relationship between the determinants of capital structure (size, tangibility, debt to equity ratio) and financial performance of firms in the textile sector.

While the study by Chandrapala and Knapkova (2013) on the impact of specific factors on company financial performance of 974 firms in the Czech Republic. The study covered the period from 2005 to 2018, using data in the Albertina database. The results of the study concluded that there was a significant relationship between the firm size, sales growth and financial performance of firms.

On the local studies Kithuka (2013) on his study on the relationship between firm size and financial innovation of firms listed at the Nairobi Securities Exchange. The study used a descriptive survey research design. The study was on a sample of 40 firms which were chosen using stratified random sampling. A regression model was used for analysis and the study concluded that there was a positive relationship between the firm size and financial innovation of firms listed at the Nairobi Stock Exchange.

Mahfoudh (2013) on the study, effect of selected firm characteristics on financial performance of firms listed in the agricultural sector at the Nairobi securities

exchange. The study used a descriptive design survey to find out the relationship between the variables. The study used sampled firms and a regression model was adopted for data analysis. The study concluded after the analysis that there was a positive relationship between firm characteristics: size, age and growth with financial performance.

Mwangi (2014) on the other hand investigated effect of capital expenditure on financial performance of firms listed at the Nairobi securities exchange. The study did a census study comprising of a total of 53 listed companies. A five-year period was used (2019-2013) by way of a desk review of published company annual financial statements. A linear regression model was used to establish the relationship between capital expenditure and financial performance. The study concluded after the analysis that capital expenditure, leverage and size of the firm positively and significantly affect financial performance.

Njoroge (2014) studied the effect of firm size on financial performance of pension schemes in Kenya. The study did a descriptive survey between the variables under investigation. The target population for this study was 30 occupational pension schemes in Kenya. The research was carried out using secondary data. The data was collected from annual reports and financial statements. The analysis showed that there was a positive relationship between the firm size and financial performance. The results further indicated that there was significant market volatility as evident from the NSE index, Treasury bill rate movement and offshore indices.

While a study by Tale (2014) investigated the relationship between capital structure and financial performance of non-financial firms listed at the Nairobi securities exchange in Kenya. The study used a descriptive survey. The population of the study consisted of all the 40 nonfinancial firms listed and duly registered with capital market authority of Kenya. Secondary data used was obtained mainly from the annual audited and published books of accounts, financial statements and the NSE. Data analysis was done by use of regression analysis model. However, the results concluded that there was a negative relationship between financial performance and the size and growth of the firm.

According to these reviews, it is clear that the studies on the impact of firm size on profitability have brought out different results and there is no common agreement on how the firm size is related to firm profitability. The results are not having consistency and therefore more empirical work is required. So, this study has been instigated to the moderating effect of business size on the influence of financial inclusion on performance of small and medium enterprises of fish trading along Lake Victoria region Kenya.

2.5 Research Gap

Table 2.1 : Literature Review Matrix

Author	Topic	Methodology	Key Findings	Knowledge Gaps
Barte (2012)	Financial literacy in small and medium enterprises performance	Descriptive research survey design	Entrepreneurs with low level of finance literacy lack finance record, monitoring profit and loses and cash management practices	* The study used descriptive research survey design while the current study used mix research design which involves casual and explanatory researcher design *The study focuses on financial literacy a lone while the current study focuses on access to finance, usage of finance and financial knowledge *The study has no moderating variable as it only looks at financial literacy on small and medium enterprises while the current study use business size as a moderating variable *The finding of the is based on record keeping, monitoring profit and loses and cash management practices while the current study id base on whether the owner of the small and medium size enterprises are financial included or not.
Otiato (2016)	Determinant of financial inclusion and performance of small and medium enterprises in Nairobi City County	Descriptive research design	*The determinant of financial inclusion among small and medium enterprises in Nairobi City County include access, quality and usage of various financial services *Determinant of performance	*The study had a target population of 236 small and medium enterprises with a sample size of 30 respondents while the current study had a target population of 4,500 with a sample size of 173 small and medium enterprises from fish traders * The study used descriptive research survey design while the current study used mix research design which involves casual and

			among the small and medium enterprises in Nairobi City County include product/ services, cost volume level of trade, profit margin, human resource level and efficiency level *Technology such as mobile money transfer, ATMs and agency banking eased and ensured inclusion	explanatory researcher design *The study has no moderating variable as it only looks at financial literacy on small and medium enterprises while the current study use business size as a moderating variable * The study focus area was on small and medium enterprises in Nairobi city county whereas this study focuses on small and medium enterprises in five counties along lake victoria region which are fish traders.
Sagana (2014)	Entrepreneur financial literacy, financial access, transaction cost and performance of Micro enterprises in Nairobi County	Cross sectional design	Financial literacy influence enterprises performance	* The study used cross sectional design while the current study used mix research design which involves casual and explanatory researcher design * The study has no moderating variable as it only looks at financial literacy on small and medium enterprises while the current study use business size as a moderating variable *The study focuses on financial literacy and performance while the current study focuses on access to finance, usage of finance and financial knowledge as well as business size * The study focus area was on small and medium enterprises in Nairobi city county whereas this study focuses on small and medium enterprises in five counties along lake victoria region which are fish traders.
Njoroge	Relationsh	Survey design	Most	* The study used survey design

(2013)	ip between literacy and business success among small and medium enterprises in Nairobi County		entrepreneurs in Nairobi had some financial literacy hence some formal small and medium enterprises were highly financial literate	while the current study used mix research design which involves casual and explanatory researcher design *The study focuses on financial literacy and business success among the small and medium enterprises while the current study focus on access to finance, usage of finance and financial knowledge * The study has no moderating variable as it only looks at financial literacy on small and medium enterprises while the current study use business size as a moderating variable * The study focus area was on small and medium enterprises in Nairobi city county whereas this study focuses on small and medium enterprises in five counties along lake victoria region which are fish traders.
Mengich et al, (2012)	Challenges of equity financing by small and medium enterprises in Kenya	Descriptive research survey design	Equity financing is constrained by low financial asymmetries and transaction cost	* The study used descriptive research survey design while the current study used mix research design which involves casual and explanatory researcher design. *the study fail to examine the relationship between financial literacy, equity finance and performance of the small and medium enterprises while the current study will determine the effect of financial inclusion, business size and performance of small and medium enterprises of fish traders *The study has no moderating variable as it only looks at financial literacy on small and medium enterprises while the current study

				use business size as a moderating variable * The study focuses on the Challenges of equity financing by small and medium enterprises in Kenya while the current study focus on the financial inclusion, business size and performance if fish traders
Mwambia (2014)	Effect of financial return of miraa farmers in Meru county	Descriptive research design	Financial literacy levels remain low among miraa farmers resulting in low return	* The study used descriptive research survey design while the current study used mix research design which involves casual and explanatory researcher design. *The study targets the miraa farmers while this study targeted fish traders *The study focuses on financial literacy alone while the current study looked at financial knowledge, financial access and financial usage. * The study focus area was on miraa farmers in Meru county whereas the current study focuses on small and medium enterprises in five counties along lake victoria region which are fish traders.
Kithuka (2013)	Relationship between firm size and financial innovation of firm listed at the Nairobi Security Exchange Kenya	Descriptive survey research deigns	There was a positive relationship between the firm size and financial innovation of firm listed at the Nairobi Security Exchange Kenya	*The study uses a sample size of 40 firms listed I the Nairobi Security Exchange while the current used small and medium size of fish traders a long lake victoria Kenya *The study targeted listed firm while this study targets the non-listed individuals which are fish traders. *The study was based on the firm innovation while the current study is based on financial inclusion of small and medium enterprises of fish

				traders *The study has no moderating variable while the current study looks at the financial inclusion, firm size and performance as separate variables * The study used descriptive research survey design while the current study used mix research design which involves casual and explanatory researcher design.
Mahfoudh (2013)	Effect of selected firm characteristics on financial performance of firms listed in the agricultural sector at Nairobi Security Exchange Kenya	Descriptive research survey	There was a positive relationship between firm characteristics size, age and growth with financial performance	*The study used descriptive research survey design while the current study used mix research design which involves casual and explanatory researcher design. * The study targets the agricultural sector while the current study focuses of the fish traders *The study looks at the characteristics on financial performance while the current study looks at the financial inclusion, business size and performance of fish traders *The study focuses on firm financial characteristic performance with no moderating variable while the current study looks at financial inclusion, business size and financial performance with a moderating variable as business size.
Mwangi (2014)	Effect of capital expenditure on financial performance of firm listed at Nairobi	Censure study	There was relationship between capital expenditure and financial performance and a conclusion made that capital expenditure,	*The study used censure research design while the current study used mix research design which involves casual and explanatory researcher design. * The study focuses on 53 listed companies in Nairobi Securities Exchange while the current focus on 4,500 small and medium size of fish

	Securities Exchange		leverage ad size of the firm positively and significantly affects financial performance	traders * The study looks at the capital expenditure on financial performance on the firm listed at Nairobi Security Exchange while the current study looks at the financial inclusion, business size and performance of fish traders *The study look at capital expenditure on financial performance on firm listed at the Nairobi Security Exchange with no moderating variable while the current study look at financial inclusion, business size and financial performance with a moderating variable as business size.
Njoroge (2014)	Effect of firm size on financial performance of pension scheme in Kenya	Descriptive survey research design	*There was positive relationship between the firm size and financial performance *There was significant market volatility as evident from the Nairobi Security Exchange index, treasury bill rate movement and offshore indices	*The study focuses on 30 occupation pension schemes in Kenya while the current focus on 4,500 small and medium sizes of fish traders. * The study used descriptive survey research design while the current study used mix research design which involves casual and explanatory researcher design. * The study used the secondary data from the financial statement while the current study used primary data collected from the fish trader themselves * The study focuses on the pension scheme while the current study focuses on the small and medium size fish traders *The study focuses on the firm size on financial performance of pension schemes in Kenya while the current study focuses on financial inclusion, business size and financial

				performance small and medium of fish traders
Tele (2014)	Relationship between capital structure and financial performance of non-financial firm listed at the Nairobi Securities exchange	Descriptive research survey design	There was a negative relationship between financial performance and the size and growth of the firm	*The study used censure research design while the current study used mix research design which involves casual and explanatory researcher design. * The study focuses on 40 non-financial firms listed and duly relisted with capital market authority while the current focus on 4,500 small and medium size of fish traders * The study looks at the capital structure and financial performance of non-financial firm listed at the Nairobi Securities exchange while the current study focus on financial inclusion, business size and performance of fish traders * The study used the secondary data from the financial statement while the current study used primary data collected from the fish trader themselves
Velnampy &Nimalathasan (2020)	Effect of firm size and profitability of Bank of Ceylon (BOC) and Commercial Bank of Ceylon Ltd (CBC).	longitudinal research design study	There was a positive relationship between firm size and performance of commercial banks.	*The study used longitudinal research design while the current study used mix research design which involves casual and explanatory researcher design. *The study was on the effect of firm size and profitability of the bank while the current study focuses on financial inclusion, business size and performance of fish traders *The study focus on the effect of firm size and profitability with no moderating variable while the

				current study look at financial inclusion, business size and financial performance with business size use as a moderating variable * The study used the secondary data while the current study used primary data
Symeou (2012)	Relationship between the firm size and financial performance	Descriptive survey	There was a statistically significant relationship between firm size and financial performance.	*The study used the secondary data while the current study used primary data *The study used descriptive research design while the current study used mix research design which involves casual and explanatory researcher design. * The study used sample size of 17 firms while the current study used a sample size of 173 fish traders
Pouraghajan & Bagheri (2012)	The impact of capital structure on the financial performance of companies listed in the Tehran Stock Exchange.	Descriptive research survey design	There is a significant negative relationship between debt ratio and financial performance of companies, and a significant positive relationship between asset turnover, firm size, asset tangibility ratio, and growth opportunities with financial performance measures.	*The study used descriptive research design while the current study used mix research design which involves casual and explanatory researcher design. * The study used sample size of 40 firms while the current study used a sample size of 173 fish traders * The study focuses on capital structure on the financial performance of companies listed in the Tehran Stock Exchange while the current study focus on the financial inclusion business size and performance of small and medium enterprises of fish traders a long Lake Victoria Region Kenya
Memon, Bhutto & Abbas (2012)	The impact of capital structure on firm financial	longitudinal study	There was a positive relationship between the determinants of capital structure	*The study used longitudinal research design while the current study used mix research design which involves casual and explanatory researcher design.

	performance in textile sector of Pakistan.		(size, tangibility, debt to equity ratio) and financial performance of firms in the textile sector.	* The study used sample size of 141 textile firms while the current study used a sample size of 173 fish traders * The study focus on capital structure on firm financial performance of textile sector in Pakistan while the current study focus on financial inclusion business size and performance of small and medium enterprises of fish traders in Kenya
Chandrapala &Knapkova (2013)	The impact of specific factors on company financial performance of 974 firms in the Czech Republic.	Descriptive research design	There was a significant relationship between the firm size, sales growth and financial performance of firms.	*The study used descriptive research survey design while the current study used mix research design which involves casual and explanatory researcher design. * The study used a target population of 974 firms while the current study used a target population of 4,500 fish traders *The study conducted in Czech Republic while the current study conducted in Kenya *The study used the data from Albertina data base while the current study used the primary data collected from fish traders *The study focuses on specific factors on company financial performance while the current study focuses on financial inclusion business and performance of small and medium enterprises fish traders
Belita (2013)	The effect of agency banking on the financial performance of	Descriptive research survey design	*There was a positive relationship between the volume of deposit, cash deposit and volume of	*The study used descriptive research survey design while the current study used mix research design which involves casual and explanatory researcher design. *The study was on agency banking and financial performance on

	commercial banks in Kenya		withdrawal and financial performance of banks * Agent were important part of the assets of the bank that is increase in the size of the bank asset has a positive impact on financial performance of the bank * There is a positive relationship between the increase in the number of bank assets and the financial performance of banks	industry while the current study focuses on financial inclusion, business size and performance of small and medium enterprises of fish traders along lake victoria region Kenya
Monica (2015)	The impact of agency banking on the financial performance of commercial Bank in Kenya	Descriptive research survey design	*There is a strong positive relationship between return on asset of the commercial bank and the volume of transaction as well as the size of the bank and financial performance of the banks * Increase in the number of agents of commercial bank always result into increased financial performance that is there is a positive	*The study used descriptive research survey design while the current study used mix research design which involves casual and explanatory researcher design. *The study was on agency banking and financial performance on industry while the current study focuses on financial inclusion, business size and performance of small and medium enterprises of fish traders along lake victoria region Kenya *The study population is 17 commercial banks while the current study is on 4,500 fish traders

			correlation between the gent outlets and financial performance of the bank	
Asia (2015)	Contribution of E-banking on the performance of banking institution in Rwanda	Descriptive survey research design	* There was positive relationship between electronic banking and performance of banks in Kigali * With significant level of 0.01 electronic banking methods such as Pay Direct, electronic Check conversion, e-transact, use of ATM and mobile banking have great impact on the performance of the banks regarding reduction in the cost of operation, increase in assets of the bank and efficiency and the increase in the level of profitability	*The study used descriptive research survey design while the current study used mix research design which involves casual and explanatory researcher design. *The study was on E-banking and financial performance on industry in Rwanda while the current study focuses on financial inclusion, business size and performance of small and medium enterprises of fish traders along lake victoria region Kenya
Ndirangu (2021)	The effect of agency banking on financial performance of commercial banks	Census method	*The number of agents of commercial bank and the volume of transaction do not have a positive correlation with the financial performance of banks as measured	*The study used census method on all the population of bank licensed to operate in the country while the current study used mix research design which involves casual and explanatory researcher design on fish traders. *The study was on agency banking and financial performance on banking sector industry while the

			using the return on equity of the bank *Banks that use agency to do deposit, loan repayment and withdrawal contribute to the financial performance of the bank	current study focus on financial inclusion, business size and performance of small and medium enterprises of fish traders along lake victoria region Kenya
Jegede (2014)	Effect of ATM on the performance of banks in Nigeria	descriptive research survey design	There was less benefit in use of ATMs to offer financial service as the use of ATMs terminals has been average regarding the improvement of performance of banks in Nigeria	*The study used descriptive research survey design while the current study used mix research design which involves casual and explanatory researcher design. *The study was on effect of ATM on financial performance on banking sector industry in Lagos Nigeria while the current study focus on financial inclusion, business size and performance of small and medium enterprises of fish traders along lake victoria region Kenya *The study sample size is 125enployees of five selected banks in Lagos sate commercial banks while the current study is on 4,500 fish traders
Munyoki (2013)	The impact of online banking on the financial performance on commercial bank	descriptive research survey design	*The element of online banking has weak and positive relationship on financial performance of commercial banks in Kenya * The effect was attributed to the fact that use of online banking cut cost, reduces the	*The study used descriptive research survey design while the current study will use mix research design which involves casual and explanatory researcher design. *The study was on online banking and financial performance on banking industry while the current study focuses on financial inclusion, business size and performance of small and medium enterprises of fish traders along lake victoria region

			staff levels and make bank convenient to customers	Kenya
Vekya (2017)	The impact of electronic banking on the profitability of commercial banks Kenya	Descriptive research survey design	* There was significant positive relationship between ATM transaction and profitability of the bank and the point-of-sale transaction *ATM transaction had a positive trend over time which was reflected in the profitability of the bank	*The study used descriptive research survey design while the current study used mix research design which involves casual and explanatory researcher design. *The study was on electronic banking and financial on profitability of the bank while the current study focus on financial inclusion, business size and performance of small and medium enterprises of fish traders along lake victoria region Kenya
Chelangat & Muturi (2016)	Effect of branch network on financial performance in private colleges in Kenya.	Descriptive research survey design	*The number of branches and their geographical spread has impact on the revenue and cost * Organization grew revenue and cost increased significantly	*The study used descriptive research survey design while the current study used mix research design which involves casual and explanatory researcher design. * The study specific variable is spread of branches, number of branches and size of the branches to financial performance while the current study specific variable are access to finance, usage of finance and knowledge of finance and financial performance * The study is on branches network on financial performance of private colleges in Kenya while the current study is on financial inclusion business size and performance of small and medium enterprises of fish traders along lake victoria region Kenya
Musyoka	Relationsh	Descriptive	There was a	*The study used descriptive research

(2021)	ip between branch network spread and financial performance of banks in Kenya	research survey design	positive relationship between branch network and financial performance of banks	survey design while the current study used mix research design which involves casual and explanatory researcher design. *The study was on branch network spread and financial performance on banking sector industry while the current study focuses on financial inclusion, business size and performance of small and medium enterprises of fish traders along lake victoria region Kenya * The study used secondary data from financial statement between 2020-2020 while the current study uses the primary data collected from the fish traders
Walkenya (2012)	Relationship between agent banking and financial inclusion in Kenya	Descriptive survey research design	Agent banking is continuously improving and as it grows the level of financial inclusion also grow	* The study used descriptive research survey design while the current study used mix research design which involves casual and explanatory researcher design *The study focuses on agent banking while the current study focuses financial knowledge, financial access and financial usage.
Onyiego (2017)	Effect of access to finance of financial performance of SMEs in Mombasa County Kenya	Cross sectional survey design	*Access to finance is influence by the firm size collateral requirement and source of capital *There is id positive relationship between access to finance and financial performance of SMEs	*The study uses a target population of 1881 while the current study will use a target population of 4,500 fish traders *The study uses the cross sectional survey while the current study used mix research design which involves casual and explanatory researcher design
Bugua	The effect of	The study adopted survey	Access has positive effect on	* The study focuses on a sample 100 SMEs which comprise of 49 trade

(2014)	financial access on the financial performance of SMEs in Mukuru Slums Kenya	method	financial performance of SMEs in Mukuru slum	industry, 33 manufacturing and 18 service industry while the current study used 173 fish traders *The study used descriptive research survey design while the current study used mix research design which involves casual and explanatory researcher design
Odero (2018)	Effect of financial inclusion on financial performance of bank listed at Nairobi Stock Securities Exchange in Kenya	Descriptive research survey design	*Financial literacy programs have positive and strong effect on performance of banks *Proliferation of ATM and mobile banking services has positive but weak effects on financial performance of banks *Bank branch spread has positive but weak effects on financial performance of banks *Financial inclusion element has positive and strong impact on the financial performance of bank in terms of return on equity.	*The study focuses on 11 banks list at Nairobi Stock Securities Exchange. While the current study focused on a sample of 173 fish traders *The study used descriptive research survey design while the current study used mix research design which involves casual and explanatory researcher design
Lusimbo (2016)	Relationship between financial literacy	Descriptive cross sectional survey design	*Micro and small enterprise manager have fair knowledge of debt management	*The study used descriptive cross sectional survey design while the current study used mix research design which involves casual and

	and the growth of micro and small enterprise in Kenya Kakamega central Sub County		*Micro and small enterprise owner have low level of budget and bookkeeping literacy since they do not engage in formal financial planning and budget control	explanatory researcher design. *The study used 1300 MSEs target population which include Retail/Wholesale, Manufacturing and Agribusiness while the current study used a target population of 4,500 from fish traders

Source: Review of Empirical Studies

2.6 Conceptual Framework

Financial inclusion is a measure of inclusiveness of the financial sector of a Country. The main constructs of financial inclusion are banking penetration, availability of banking credit facilities and usage of the banking system Sarma and Pais, (2018). Knowledge of finance is basically the understanding of key financial factors such as investment, financial management and product mix knowledge Huston, (2017). Financial inclusion in the study was therefore measured using access to finance, usage of finance and knowledge financial while financial performance on the other hand was measured using profitability and turnover. The relationship between financial inclusion and financial performance was moderated using business size which was measure using assets level and number of employees

Independent Variable

Financial Inclusion

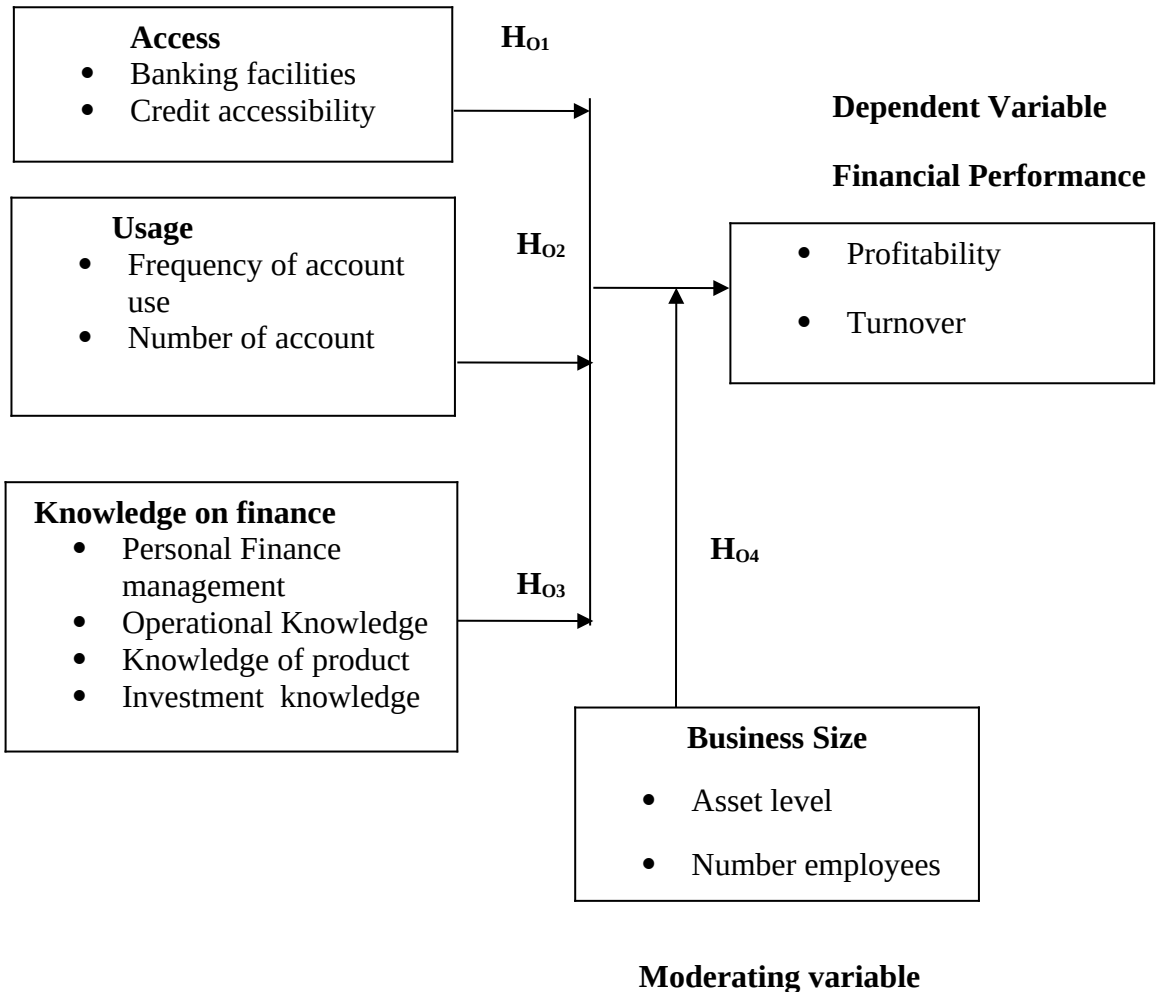


Figure 2.1: Conceptual Framework on Financial Inclusion, Business Size and financial performance.

Source: Author (2024)

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

The chapter presents research philosophy, research design, area of the study, target population, sampling design and technique, data collection procedure, validity and reliability, data analysis Diagnostic tests, summary of Hypotheses testing and ethical consideration.

3.2 Area of the Study

The study was conducted in five counties namely, Kisumu, Homa Bay, Migori, Siaya and Busia. The five counties are selected because fishing remains the major economic activities in these areas. The counties also have access to Lake Victoria which is freshwater lake which also has fishing activities

3.3 Research Design

Kerlinger (1973) defines research design as an arrangement of conditions for collecting and analyzing of data in a manner that aims to combine relevance to the research purpose with economy in procedure. It is the conceptual structure within which research is conducted; it constitutes the blueprint for the collection, measurement and analysis of data. Orodho (2013) defines research design as the scheme, outline or a plan used to generate answers to research problems.

The study used mixed research design involving casual and explanatory research designs. According to Kothari (2020), in causal research studies, the case and

effect relationship is determined in that a change in independent variable can lead to a change in dependent variable. The design helped in looking at the effect of financial inclusion on performance of SMEs. According to Saunders and Thornhill (2013), explanatory studies are used when trying to explain the relationship between numbers of variables. Since this study intends to establish the existence of causal relationship between financial inclusion, business size and performance of SMEs, there are several variables under test making an explanatory study the ideal.

3.4 Research Philosophy

This study was anchored on a positivism philosophy. According to Kombo and Tromp (2020), the positivism school of thought is grounded on the philosophy that only one reality exist which can only be known imperfectly due to human limitations and researchers can only discover this reality within the realm of probability. The rationale of using positivist philosophy is because it is characterized by the testing of hypothesis developed from existing theory through measurement of observable social realities. Positivism is based upon values of reason, truth and validity and there is a focus purely on facts, gathered through direct observation and experience and measured empirically using quantitative methods surveys and experiments and statistical analysis (Eriksson & Kovalainen, 2021).

Positivists further believe that reality is stable and can always be observed and described from the objective without always interfering with the phenomena being studied view (Levin, 1988). They contend that phenomena should always

be isolated and the observations should be repeatable. It's often involves manipulation of reality with variations in only a single independent variable so as to identify regularities in, and to form relationships between, some of the constituent elements of the social world. Predictions are always made on the basis of the previously observed and explained realities and their inter-relationships. Positivism always has long and rich historical tradition. It's so embedded in our society that knowledge claims not grounded in positivist thought are simply dismissed as a scientific and therefore invalid (Hirschheim, 2015). The view is indirectly supported by Alavi and Carlson (2012) who in review of research articles on research paradigms and their dynamics, found that all the empirical studies were positivist in approach. Positivism on the other hand has also had a particularly successful association with the physical and natural sciences (Carlson, 2012).

3.5 Target Population

According to Ngechu (2014), a population is defined as a set of events, people, element, services, household or group of things being investigated. The target population was fish traders along Lake Victoria Region. The fish trading was classified into two categories, dry fish sellers and fresh fish sellers. The total numbers of fish trading SMEs being 4,500 and unit of analysis being the owners of SMEs, Table 3.1 explains the target population.

Table 3.1: Target Population

County	Dry fish sellers target population	Fresh fish sellers target population
Kisumu	254	379
Siaya	454	512
Homa Bay	579	640
Migori	391	517
Busia	322	452
Total	**2020**	**2500**

(Source: Department of Trade and Fishery Kisumu, Homa Bay, Siaya, Migori and Busia Counties 2022)

3.6 Sampling Design aand Techniques

Sampling is a procedure of using a small number of items or part of the whole population to make conclusions regarding the population. It enables the researcher to estimate some unknown characteristics of the population and make generalization, (Zikmund, 2013). In selecting a sample, probability methods was used. Probability sampling method is where every item in the population has a known chance, or probability, of being chosen for the sample. The method

provides unbiased estimates having measurable precision. This study employed Simple random sampling method which was used to select the owners of SMES who were given equal chance of being selected for the study.

A sample of 173 fish trading SMES were selected using Yamane' (2017) formulae as shown in equation 1.

$$n = \frac{N}{1 + Ne^2} \quad \text{.....1}$$

Where

n = optimum sample size

N = number of SMEs

e = probability error

The Neyman (1956) formula was then be used to distribute the sample in each stratum. The purpose is to maximize survey precision, given a fixed sample size. With Neyman allocation, the best sample size for stratum is as shown in equation 2.

$$n_h = \left(\frac{N_h}{N} \right) n \quad \text{.....2}$$

Where,

n_h= the sample size for stratum h,

n = total sample size,

N_h = the population size for stratum h,

N = the total population

Table 3.2: Sample Size Distributions

Strata	Target population	Sample Population
Dry fish sellers	2020	77
fresh fish sellers	2500	96
Total	**4500**	**173**

Source: Department of Trade and fishery Kisumu, Homa Bay, Siaya, Migori and Busia County 2022)

In the study, N = 4,500, e = 5 % (at 95% confidence level). The sample size was 173 traders.

3.7 Data Collection Method

The study used questionnaires and interview schedules to collect data from the fish traders. Questionnaires was used to obtain information and to provide an opportunity for the researcher to capture respondents' views on a whole range of issues. The questionnaire is made up of structured and unstructured questions and was administered to the respondents sampled.

This tool was used to collect the primary data for the study. The purpose of structured questions is to get information that facilitated data analysis and classification in a specific way, while unstructured questions seek an in-depth response. Questionnaires in general are needed to ensure uniformity, cost savings

and time savings. The questionnaire schedule comprises of questions on personal data and questions relating to financial inclusion. The instrument also contains unstructured items that capture opinion, feeling and suggestions of the respondents in the space provided. All the questions in the questionnaire related to the objectives of the study (Mugenda and Mugenda 2018). The study used schedule to collect secondary data which is obtained from the fish trading SMEs final accounts. Profitability and turnover was used to measure the financial performance of SMEs.

3.7.1 Data Collection Procedure

A list from 4,500 fish trading Small and Medium enterprises from Kisumu, Migori, Homa Bay, Siaya and Busia Counties was first established. The researcher and research assistants delivered the questionnaires to the informants. The respondents were informed of the confidentiality of their responses and the academic purpose of the research. Informants received a summary report of the survey. A total of 173 Questionnaires were delivered to the SMEs selected in the sample with cover letters explaining the purpose of the study.

3.8 Validity and Reliability of Data Collection Instruments

3.7.1 Validity of Data Collection Instruments

According to Fraenkel and Wallen (2020) validity refers to the appropriateness, meaningfulness and usefulness of any inferences as a researcher draws based on data obtained using the instrument. The study determined three main types of validity of the instruments, that is, face, content and construct validity. The

researcher determined face validity of the instruments by ensuring that questionnaires were prepared in line with the conceptual framework in Figure 1.1 so as to capture all the study variables.

Content validity measures the magnitude to which the data collection instrument yields reasonably expected statistical outcomes of the study Anastasiadou, (2021). The researcher consulted supervisors and lecturers from the School of Business and Economics of Masinde Muliro University of Science and Technology for expert advice on the content validity of the study instruments. Their views and advice were used to improve the relevance, clarity, and wording of the items or questions in the study instrument. Construct validity is an assessment of how well the theories or ideas have been translated into actual measures. The researcher established construct validity of the instruments by review of theoretical and empirical literature.

3.7.2 Reliability of Data Collection Instruments

Reliability refers to the accuracy and precision of a measurement procedure (Copper and Kuder-Richardson approaches was used by adopting equation 3.

$$KR_{21} = \frac{K}{K - 1}\left[1 - \frac{M(K - M)}{K(SD)^2}\right] \quad \text{.....3}$$

Where

K = number of items on the test

M = mean of the set of test scores

SD = standard deviation of the set of test scores results. The author states that reliability is concerned with estimates of the degree to which a measurement is free of random or unstable error (Kombo and Tromp, 2020). A high reliability for the questionnaire is necessary but not sufficient criterion for the adequacy of an instrument, it must be valid too. Reliability was checked by piloting the questionnaires and a test-retest process was done for the purpose of confirming consistency in answering the questions.

The reliability coefficient value was also tested for significance at $\alpha = 0.05$ using the following *t* test formula as shown in equation 4.

$$t_{0b} = \frac{r\sqrt{n-2}}{\sqrt{1-r^2}} \quad \text{.....4}$$

Where

$n = k$ = number of items in the questionnaire

r = reliability coefficient.

d.f= degrees of freedom

3.8 Reliability and validity tests

Reliability of an instrument being the consistency of an instrument in measuring what it is intended to measure was established by first ensuring internal constancy approach followed by carrying out a pilot study. A questionnaire is considered reliable if the Cronbach's Alpha coefficient is greater than 0.70 (Mutai, 2020). During the pilot the funding was as in table 3.3

Table 3.3: Reliability test

Variable	Cronbach alpha
Access to finance	.923
Usage of finance	.817
Knowledge of finance	.883
Business size	.789
Performance	.882

Source: (Researcher, 2024)

The results indicated that all the variables obtained had Cronbach's Alpha greater than 0.7 thereby achieving the recommended 0.7 for internal consistence of data (Mugenda & Mugenda, 2018).

Data validity is the degree to which a test measures that which it is supposed to measure (Porter, 2020). Chinedu (2015) defines validity as the degree to which the research results obtained from the analysis of the data represent the phenomenon under study. Bartlett's test sphericity which tested the null hypothesis "item to item correlation matrix based on the responses received from respondents for all the effective variables was an identity matrix". The Bartlett's test was evaluated through chi-square test as shown in Table 3.3 for the entire variables and was all significant at ($p=0.000<0.05$) level of significance, indicating that null hypothesis is rejected.

Table 3.4: Test for Validity

Factors	KMO test	Barlett's test of sphericity

		Chi-Square	Df	Sig.
Access to finance	0.871	221.45	4	0.018
Usage of finance	0.958	176.65	4	0.034
Knowledge of finance	0.932	167.34	4	0.005
Business size	0.929	188.72	4	0.021
Performance	0.872	194.51	4	0.006

Extraction Method: Principal Component Analysis.

Source: (Researcher, 2024)

According to Table 3.4 Kaiser –Meyer-Olkin measure of sampling was conducted to ascertain the validity. It adequately indicated KMO value of greater than 0.5 meaning thereby that the sample size was good enough to treat the sampling data as normally distributed.

3.8 Pilot Study

For the purpose of the study, the data collection instruments were piloted using thirty (30) SMEs fish trading along Lake Naivasha in Nakuru County. The pilot results were analyzed, and the information obtained were used to adjust questionnaire. The pilot and analyses of the information obtained were to ensure validity of the study instruments and the study objectives.

3.9 Data Analysis

Data responses were first coded, entered, and checked for errors. Data were analyzed using both quantitative and qualitative analysis. Qualitative were used to

views for in depth investigation and were analyzed by aid of Nvivo software seek the, while quantitative data analysis was done through inferential and descriptive statistics which include frequencies and percentages. Multiple regression analysis was used to test the hypotheses on the effect of financial inclusion on the performance of SMEs where t- statics was used to test the significance of the association. Coefficient of determination, R^2 was used to determine the degree of association between financial inclusion and performance of SMEs, regression test was done at 5% significance level. Data was presented by use of tables and charts.

3.11 Diagnostic Tests

Blackwell (2005) observed that as a prerequisite of conducting multiple regression, the researcher has to test for normality, homoscedasticity, auto-correlation and multi-collinearity.

3.11.1 Test For Normality

Saunders et al., (2016) explain that normal data is an important underlying assumption in parametric statistical analysis. As such, an evaluation of the normality of data is essential for many statistical tests in a research study. For the purposes of this study, data symmetry was measured through skewness and kurtosis. Kothari (2018) points out that a skewed distribution of a data set was when the mean, mode and median are not the same. Kurtosis is when the distribution curve is flat or peaked. This study used symmetry to measure skew-

ness. Cooper and Schindler (2014) emphasize that lack of symmetry was seen when the score is equal to or greater than +/-1.

3.11.2 Test for Homoscedasticity

The rationale for testing for homoscedasticity is to ensure that the final results are not influenced by modeling errors. It helps in ensuring that modeling errors are uncorrelated and uniform (Femi, 2014). Homoscedasticity occurs when the variance in scores on one variable is somewhat like all the values of the other variables. Breusch Pagan test for homoscedasticity (homogeneity of covariance) was conducted. The guidance for rejecting the null hypothesis was based on $p<.05$, implying that data was homoscedastic in distribution. When the graph has a random array of dots, it shows that the variance of the residual is constant which means that the data is fit for regression.

3.11.3 Test of Autocorrelation

According to Wooldridge (2012), failure to identify and account for serial correlation in the idiosyncratic error term in a panel model would result into biased standard errors and inefficient parameter estimates. Durbin-Watson statistic was used to test the assumption that our residuals are independent (or uncorrelated). If the value is below 1 or above 3 is a cause for concern and may render analysis invalid because the variables are correlated (Hoe, 2018, and Blackwell, 2005).

3.11.4 Multi-collinearity

The rationale for testing for linearity assumptions in regression is because multiple linear regressions are sensitive to outlier effects. Thus, in order to test the linear relationship between the independent and dependent variables, variance inflation factors (VIF) was used. That was, as long as the VIF values was below 10, then the relationship was deemed linear (Green, 2012). The study used SPSS software to generate the VIF which should fall below a value of 10.

3.12 Hypotheses Tests

The statistic model(s) used were as shown below:

Model I $y=\beta_{01}+\beta_1X_1+\beta_2X_2+\beta_3X_3+\varepsilon_i$ **for Direct Relationship**

Where:

Y= value of the dependent variable (**financial performance**)

β_{1234}= coefficient of independent variables

X_1= first independent variable (**access to bank**)

X_2 = second independent variable (**usage of finance**)

X_3 = third independent variable (**knowledge of finance**)

ε_i = error term, 0.05, which captures any other variable that may not have been included in the equation.

Model II $y = \beta_{02}+\beta_1X_1M+\beta_2X_2M+\beta_3X_3M+\varepsilon_i$ **for Moderated Relationship**

Where:

y = financial performance

β_{02} = Constant

β_{1234} = coefficients of the moderated independent variables

M = moderating factor (**business size**)

ε_{i} = error term

3.13 Summary of Hypotheses Testing

Table 3.5: Details of Hypothesis Testing

Hypothesis	**Test Statistic**	**Accept/ Reject Criteria**
$H0_1$There is no access to finance on financial performance of SMEs	Regression analysis $y=\beta_{01}+\beta_1X_1+\varepsilon_{i,}$	Accept $H0_1$ if $p \geq 0.05$ or reject if $p \leq 0.05$
$H0_2$There is no effect of usage of finance on financial performance of SMEs	Regression analysis $y=\beta_{01}+\beta_2X_2+\varepsilon_{i,}$	Accept $H0_2$ if $p \geq 0.05$ or reject if $p \leq 0.05$
$H0_3$There is no effect of knowledge of finance on financial performance.	Regression analysis $y=\beta_{01}+\beta_3X_3+\varepsilon_{i,}$	Accept $H0_3$ if $p \geq 0.05$ or reject if $p \leq 0.05$
$H0_4$There is no moderating effect of business size on the relationship between financial inclusion and financial performance	$y=\beta_{02}+\beta_1X_1M_1+\beta_2X_2M_2+\beta_3X_3M_3+\beta_4X_4M_4+\varepsilon_i$	Accept $H0_5$ if $p \geq 0.05$ or reject if $p \leq 0.05$

Source: Research study (2022)

3.10 Ethical Considerations

Ethics has been defined as that branch of philosophy which deals with one's conduct and serves as a guide to one's behavior (Mugenda & Mugenda 2013). In research, it refers to the appropriateness of the researcher's behavior in relation to the rights of those who become the respondents of the study or are affected by it (Saunders, Lewis & Thornhill, 2019). Basic ethical principles underlie all

scholarly research and writing and are designed to ensure the accuracy of scientific knowledge, protect the rights and welfare of research participants and protect intellectual property rights (APA, 2020).

Ethical issues that this study emphasized were to include the privacy of possible or actual respondents, voluntary nature of participation, seeking informed consent of the respondents, maintaining confidentiality of information provided by respondents, issues of plagiarism and fraud that erode the integrity of research and ensuring the anonymity of respondents. For this study therefore, the researcher sought consent of the respondents and assure them of confidentiality of information to be provided. The researcher also explained to them that the information was purely for academic purposes. This was done through an introduction letter from the School of Graduate Studies (DPS-MMUST) as well as a research permit from NACOSTI to carry out research. The researcher also acknowledged all data sources to avoid plagiarism.

CHAPTER FOUR

DATA PRESENTATION, INTERPERETATION AND DISCUSSION

4.1 Introduction

The study examined the effect of financial inclusion, business size and performance of Small and Medium Enterprises of fish trading along Lake Victoria region Kenya. Specifically, the study determined the effect of access to finance on performance of small and medium enterprises of fish trading along Lake Victoria region Kenya; further it also examined the effect of usage of finance on performance of small and medium enterprises of fish trading along Lake Victoria region Kenya; the study also established the effect of knowledge of finance on performance of small and medium enterprises of fish trading along Lake Victoria region Kenya, and it later investigated the moderating effect of business size on the influence of financial inclusion on performance of small and medium enterprises of fish trading along Lake Victoria region, Kenya. The study used both descriptive and inferential statistics to analyze the data. The findings were as detailed in the chapter.

4.2 Descriptive Statistics

4.2.1 Response Rate

A total of one hundred and seventy-three (173) respondents participated in the study, for which 158 respondents effectively filled and returned the questionnaires thus giving an overall response rate of 91.32%. The summary of the questionnaire return rate is as shown in Table 4.1 below.

Table 4.1: Questionnaire Return Rate

		Frequency	Percent
Valid	Returned	158	91.32
	Not Returned	15	8.68
	Total	173	100.00

Source: (Researcher, 2024)

This represented a questionnaire return rate of 91.32% of the sample size and falls within the confines of a large sample size (Mugenda & Mugenda, 2013). We therefore concluded that our sample was within acceptable range and therefore representative of the study population.

4.2.2 Demographic Characteristics of the Respondents

The study sought to establish general information regarding the following aspects of the respondents: Highest level of education, length of time the business has been in operation, form of business, and position held in the business.

Statistics for overall demographic profile of the respondents were as presented in Table 4.2

Table 4.2 General information of the respondents

		Frequency	Percent
Highest level of education	Post graduate degree	1	.6
	Bachelor's degree	14	8.9
	Secondary	60	38.0
	Primary	83	52.5
Length of time in operating business	less than 5 years	54	34.2
	between 6-10 years	50	31.6
	over 10 years	54	34.2
Form of business	Sole trade	146	92.4
	Partnership	7	4.4
	cooperative society	5	3.2
Position held in the business	Owner	143	90.5
	Manager	10	6.3
	Accountant	3	1.9
	Marketer	2	1.3

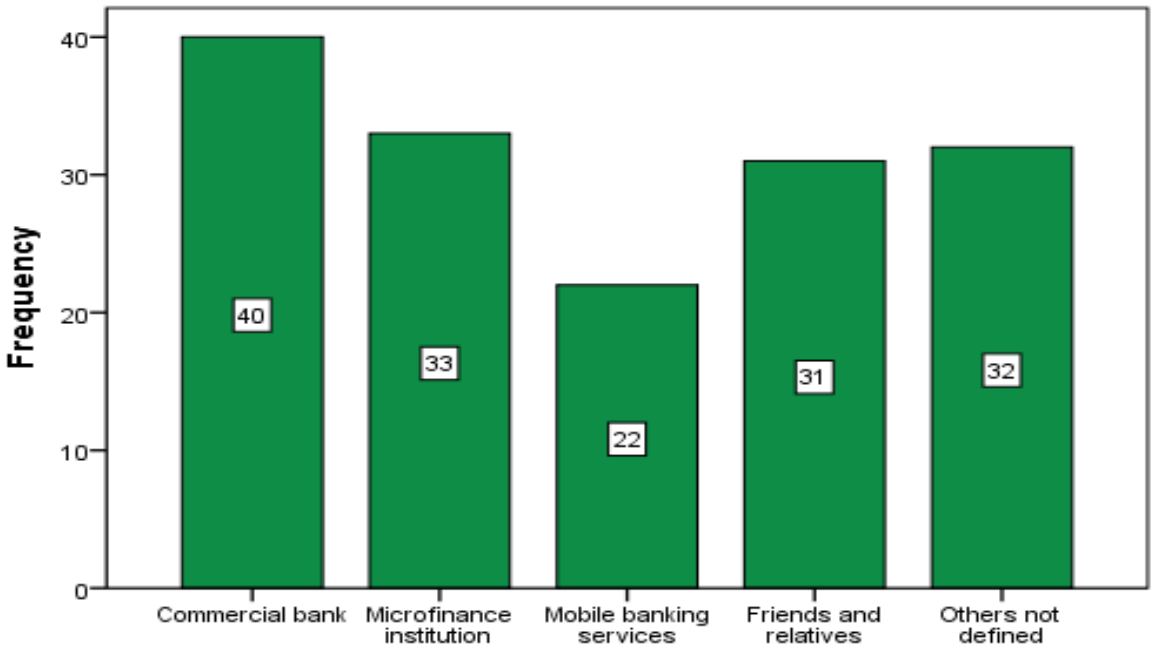
Source: (Researcher, 2024)

The study collected information on highest level of education of the respondents. The results in Table 4.2 indicates that 60 (38.0%) of the respondents had attained secondary education as their highest qualification, 83 (52.5%) of the respondents had primary education, 14 (8.9%) and 1(0.6) had attained bachelor's and postgraduate degree respectively. In terms of length time in operating the business, 54(34.2%) of the respondents have been in operation for less than 5 years and over 10 years respectively. While 50(31.6%) of the respondents have been operating the business between 6 to 10 years. Sole trade is the common form of business in the study area (146 (92.4%)). Partnership 7 (4.4%) and cooperative society 5 (3.2%) are less practiced forms of

businesses. Most of traders are sole owners 143 (90.5%) of their business, 10 (6.3%) were managers, 3 (1.9%) were accountants, and 2 (1.3%) were marketers.

4.2.3 Effect of access to finance on performance of small and medium enterprises of fish trading along Lake Victoria region Kenya

Access to finance is the availability of financial services in the form of demand deposits, credit, payment or even insurance. The need to offer these services may be constrained by physical access, affordability and eligibility. The indicators for access may be through geographic or demographic while the main indicators for geographic access are number of bank branches per given square kilo meter and number of bank ATMs per given kilo mater.



Source: (Researcher, 2024)

Figure 4.1 : Source of credit facility

From Figure 4.1, results showed that 40 (25.3%) of the respondents obtained their credit from commercial banks, 33 (20.9%) accessed their credit from microfinance institution, 32 (20.3%) obtained their credit from different sources,

31 (19.6%) obtained from friends, and 22 (13.9%) obtained their credit from mobile banking services. Though commercial banks led in provision of credit the percentage was low at 40%. This indicated that financial access a challenge hence need for financial inclusion means. This findings agrees with Maruset al, (2021) who examined the financial inclusion and the growth of small medium fish enterprises in Uganda. The study found financial inclusion low.

Table 4.3: Accessibility to finance

		Frequency	Percent
Is there any banking facility within your area of operation	Yes	100	63.3
	No	58	36.7
Is the facility easily accessible	Yes	95	60.1
	No	63	39.9
Number of financial service providers available around the business premise	One	13	8.2
	Two	25	15.8
	Three	49	31.0
	four and above	71	44.9

Source: (Researcher, 2024)

From Table 4.3, 100(63.3%) of the respondents agreed that there are banking facilities within their area of operation. In terms of the accessibility of the banking facilities, 95 (60.1%) of the facilities agreed that the facility was easily accessible. The number of financial service providers available around the business premise were mentioned by 71 (44.9%) to be four and above, while 49 (31.0%) mentioned to be above three. This shows that there is more accessibility of the credit facilities within the study area. Though bank facilities were available it was not a guarantee for access of credit. Oshora et al (2021) while establishing financial inclusion among Small and Medium Enterprises in Ethiopia reported that presence of a credit facility does not imply access to credit.

Table 4.4: Responses on accessibility

	N	SA	A	U	D	SD	Mean	Std Dv
Have a bank account with financial institution	158	57 (36.1)	82 (51.9)	5 (3.2)	7 (4.4)	7 (4.4)	1.892	.981
Have bank located at convenient distance from your reach	158	48 (30.4)	90 (57.0)	8 (5.1)	9 (5.7)	3 (1.9)	1.918	.867
Take loan regularly from my financial source with relative ease	158	53 (33.5)	80 (50.6)	4 (2.5)	10 (6.3)	11 (7.0)	2.025	1.117
Collateral is required on loans	158	32 (20.3)	93 (58.9)	11 (7.0)	10 (6.3)	12 (7.6)	2.221	1.081
Make remittance and transfer of cash digitally i.e using mobile or internet	158	43 (27.2)	93 (58.9)	7 (4.4)	6 (3.8)	9 (5.7)	2.019	.9934
Credit terms is not tight	158	18 (11.4)	64 (40.5)	54 (34.2)	14 (8.9)	8 (5.1)	2.557	.9807
Access credit with financial institution with no hidden charges that effect the business	158	37 (23.4)	85 (53.8)	7 (4.4)	20 (12.7)	9 (5.7)	2.234	1.118

Source: Researcher (2024)

The summary of the findings in table 4.4 shows responses on accessibility, 82 (51.9%) of the respondents agreed that they had a bank account with financial institution, while 90 (57.0%) agreed that their bank is located at convenient distance from their reach. In terms of frequency of uptake of loans, 80 (50.6%) opined that they regularly took loans from their financial sources with ease. To be given the loans, 98 (58.9%) of the respondents agreed that collateral is required on the loans. Though 64 (40.5%) of the respondents agreed that credit terms are not tight, 93 (58.9%) agreed that they should make remittance and transfer of cash digitally (using mobile or internet). Lastly, 85

(53.8%) of the respondents agreed that they accessed credit with financial institutions with no hidden charges that affect the business. This findings agrees with Marus et al (2021) who examined the financial inclusion and the growth of small medium enterprises in Uganda and found access to finance as significant on performance. It disagrees with Oshora, (2021) who established the determinants of financial inclusion in Small and Medium Enterprises in Ethiopia reporting access to finance as insignificant on performance.

4.2.4 Effect of usage of finance on performance of small and medium enterprises of fish trading along Lake Victoria region Kenya

The indicators for usage of financial services can be gauged through numbers and size. In the study, usage was measured using frequency of account use and number of accounts operated.

Table 4.5: Responses on usage

		Frequency	Percent
Have a bank account	Yes	110	69.6
	No	48	30.4
How many accounts do you operate	One	72	45.6
	Two	56	35.4
	Three	26	16.5
	more than three	4	2.5
How often do you use your bank accounts	Daily	14	8.9
	Weekly	85	53.8
	Monthly	57	36.1
	Annually	2	1.3
How many times do you make deposits per week	once a week	82	51.9
	twice a week	50	31.6
	thrice a week	15	9.5
	four times	6	3.8
	more than four times	5	3.2
Have you taken loans with	Yes	100	63.3

a financial institution	No	58	36.7
Do you have outstanding	Yes	72	45.6
loans	No	86	54.4
Do you have loan from	Yes	116	73.4
informal loan providers	No	42	26.6
Have you ever borrowed	Yes	70	44.3
loans for business startups	No	88	55.7

Source: (Researcher, 2024)

From the study findings, 110 (69.6%) of the respondents have a bank account and 72 (45.6%) operates at least one account. In terms of how they frequently they use their bank accounts, 85 (53.8%) responded that they weekly use their bank accounts while a small proportion 2(1.3%) used their accounts annually. In relation to deposits, 82 (51.9%) of the respondents makes deposits once per week while 5 (3.2%) makes more than four deposits per week. Most of the respondents 100 (63.3%) have taken loans with a financial institution with 72 (45.6%) having outstanding loans. On the other hand, 116 (73.4%) of the respondents have obtained loans from informal loan providers. This shows that great usage of financial institutions within the study area with 70 (44.3%) responding to have ever borrowed loans for business startups.

Table 4.6: Responses on usage of finance

	N	SA	A	U	D	SD	Mean	Std Dv
Use of agent has increased frequency on account usage	158	49 (31.0)	85 (53.8)	15 (9.5)	6 (3.8)	3 (1.9)	1.972	.8519
Use of agent has increased the number of accounts opening	158	38 (24.1)	95 (60.1)	17 (10.8)	6 (3.8)	2 (1.3)	1.981	.7858
Increase in number of accounts has resulted to frequency in account use	158	50 (31.6)	82 (51.9)	17 (10.8)	7 (4.4)	2 (1.3)	1.918	.8443
Account usage has resulted more saving and withdrawal	158	42 (26.6)	90 (57.0)	18 (11.4)	6 (3.8)	2 (1.3)	1.962	.8051
Agency banking has resulted to use of accounts regularly	158	35 (22.2)	99 (62.7)	15 (9.5)	7 (4.4)	2 (1.3)	2.001	.7819

Source: (Researcher, 2024)

A summary of responses on usage of finance as shown in Table 4.6, showed that 85 (53.8%) of the respondents agreed that use of agent has increased frequency on account usage. Likewise, 95 (60.1%) of the respondents agreed that use of agent has increased the number of accounts opening. This has thus resulted in increased frequency of account usage as agreed by 82 (51.9%) of the respondents. The increase in the number of accounts has thus resulted in more usage of the accounts which has translated to more saving and withdrawal as agreed by 90 (57.0%) of the respondents. Lastly, 99 (62.7%) of the respondents agreed that the introduction of agency banking has resulted to use of accounts regularly.

This findings agrees with Kamau (2017) who studied the relationship between bank usage and financial performance of the banks in Kenya and Ndirangu (2021)

who established usage had a positive significant effect on financial performance of commercial banks in Kenya. The study disagrees with Vekya (2017) who found electronic usage on banking as insignificant on performance of SMEs in Kenya.

4.2.5 Effect of knowledge of finance on performance of small and medium enterprises of fish trading along Lake Victoria region Kenya

The summary of their responses is as shown in Table 4.7

Table 4.7: Knowledge on finance

		Frequency	Percent
Do you have a loan	Yes	118	74.7
	No	40	25.3
Do you know the type of loan offered by the financial institution	Yes	105	66.5
	No	52	33.5
what factors did you consider before taking the loan	amount to be advanced	32	20.3
	repayment period	47	29.7
	the rate of interest	60	38.0
	amount repaid per month	19	12.0
Do you compute the amount of income to your business	Yes	149	94.3
	No	9	5.7
Do you invest	Yes	108	68.4
	No	50	31.6

Source: (Researcher, 2024)

On assessment of knowledge on finance, 118 (74.7%) of the respondents agreed to have a loan and 105 (66.5%) opined that they knew the type of loan offered by the financial institution. In relation to factors considered before taking the loan, 60 (38.0%) considered the rate of interest on the loans of which 47 (29.7%) of the

respondents considered the repayment period. Before taking up the loans, 149 (94.3%) of the respondents agreed to having computed the amount of income from their business, of which 108 (68.4%) agreed to invest in their businesses.

Table 4.8: Responses on Knowledge of finance

	N	SA	A	U	D	SD	Mean	Std Dv
Knowledge of finance has improved as a result of creating finance awareness	158	52 (32.9)	87 (55.1)	10 (6.3)	6 (3.8)	3 (1.9)	1.867	.8378
The understanding of risk aversion has led to increase in saving and investment	158	33 (20.9)	102 (64.6)	11 (7.0)	9 (5.7)	3 (1.9)	2.032	.8249
Increase of saving is as a result of financial choices	158	34 (21.5)	102 (64.6)	11 (7.0)	8 (5.1)	3 (1.9)	2.013	.8138
Increase in financial knowledge has resulted in increased number of people seeking formal banking services	158	45 (28.5)	87 (55.1)	14 (8.9)	9 (5.7)	3 (1.9)	1.975	.8812
Knowledge of finance has led to understanding of the minimum amount that can be borrow that is sufficient for business	158	44 (27.8)	94 (59.5)	10 (6.3)	7 (4.4)	3 (1.9)	1.930	.8304
Knowledge of finance has led to understanding of the required type of business loan to be taken	158	31 (19.6)	106 (67.1)	9 (5.7)	7 (4.4)	5 (3.1)	2.089	1.1364

Source: (Researcher, 2024)

According to the results (Table 4.8), 87(55.1%) of the responses agreed that knowledge of finance has improved as a result of creating finance awareness, while 102 (64.6%) agreed that the understanding of risk aversion has led to increase in saving and investment. With reference to savings, 102 (64.6%) of the respondents agreed that increase of saving is as a result of financial choices. This has resulted to 87 (55.1%) of the respondents agreeing that increase in financial knowledge has resulted in increased number of people seeking formal banking

services. Knowledge of finance has led to understanding of the minimum amount that can be borrowed by the respondents as agreed by 94 (59.5%), this has led to increase in financial base that is sufficient for respondents' business. Lastly, 106 (67.1%) of the respondents agreed that knowledge of finance has led to them understanding of the required type of business loan to be take. This findings agrees with Kithinji (2017) who found financial knowledge as positive and significant on financial inclusion among commercial banks in Kenya. The study further agrees with Morara and Mureithi (2019) who found financial knowledge as essential therefore significant on performance of small and medium enterprises in Nairobi. However this findings disagrees with that of Monticone (2020) who found acquisition of financial knowledge as positive but insignificant on financial performance SMEs.

4.2.6 Moderating effect of business size on the influence of financial inclusion on performance of small and medium enterprises of fish trading along Lake Victoria region, Kenya.

Table 4.9: Responses on business size

	N	SA	A	U	D	SD	Mean	Std Dv
Access to loan regularly can improve business asset level	158	70 (44.3)	88 (55.7)	0 (0.0)	0 (0.0)	0 (0.0)	1.557	.4983
High number of employees in the business can results to increase number of account opening	158	107 (67.7)	51 (32.3)	0 (0.0)	0 (0.0)	0 (0.0)	1.323	.4690
Business asset level has made us meet the requirement of collateral for loan	158	90 (57.0)	68 (43.0)	0 (0.0)	0 (0.0)	0 (0.0)	1.633	.4836
Frequency in saving and withdrawals have been as a result of increased number of employees	158	68 (43.0)	90 (57.0)	0 (0.0)	0 (0.0)	0 (0.0)	1.430	.4872
Understanding of risk aversion has led to business expansion	158	79 (50.0)	79 (50.0)	0 (0.0)	0 (0.0)	0 (0.0)	1.569	.4967
The understanding of the type of loan required has led to business expansion	158	65 (41.1)	93 (58.9)	0 (0.0)	0 (0.0)	0 (0.0)	1.500	.5016
Business expansion can improve business profitability	158	67 (42.4)	91 (57.6)	0 (0.0)	0 (0.0)	0 (0.0)	1.576	.4958
High economy of scale by the business has led to high business turnover	158	53 (33.5)	105 (66.5)	0 (0.0)	0 (0.0)	0 (0.0)	1.665	.4737

Source: Researcher (2024)

According to the study findings in Table 4.11, 88 (55.7%) of the respondents agreed that access to loan regularly can improve business asset level. The respondents strongly agreed 107 (67.7%) that high number of employees in the business can result to increase number of account opening, while 90 (57.0%) strongly agreed that business asset level has made us meet the requirement of collateral for loan. Respondents agreed that a frequency in saving and withdrawals have been as a result of increased number of employees as depicted by 90 (57.0%) while 79 (50.0%) strongly agreed that understanding of risk aversion has led to business expansion. Additionally, 93 (58.9%) of the respondents agreed that the understanding of the type of loan required has led to business expansion while 91 (57.6%) of the respondents agreed that business expansion can improve business profitability. Lastly, 105 (66.5%) agreed that high economy of scale by the business has led to high business turnover. Agrawal (2018) studied the financial inclusion on SMEs the study found that access, knowledge and usage of finance had a positive and significant effect on performance of SMEs.

4.2.7 Financial performance

In this section responses on financial performance measures are used to evaluate how well a company is using its resources to earn profits.

Table 4.10: Responses on performance

	N	SA	A	U	D	SD	Mean	Std Dv
Business sales turnover has increased as a result of mobile and internet banking	158	0 (0.0)	0 (0.0)	0 (0.0)	91 (57.6)	67 (42.4)	4.424	.4957
Low bank charges can improve business profitability	158	65 (41.1)	93 (58.9)	0 (0.0)	0 (0.0)	0 (0.0)	1.589	.4937
Agency banking can result to increase in business profitability	158	0 (0.0)	0 (0.0)	0 (0.0)	84 (53.2)	74 (46.8)	4.468	.5001
Improve sales turnover in the business has been as a result of increased in the number of accounts	158	0 (0.0)	0 (0.0)	16 (10.1)	77 (48.7)	65 (41.1)	4.310	.6474
Financial awareness can improve business sales turnover	158	81 (51.3)	77 (48.7)	0 (0.0)	0 (0.0)	0 (0.0)	1.487	.5014
The understanding of risk aversion can result to business profitability	158	81 (51.3)	77 (48.7)	0 (0.0)	0 (0.0)	0 (0.0)	1.489	.5013

Source: (Researcher, 2024)

The respondents 91 (57.6%) disagreed that business sales turnover has increased as a result of mobile and internet banking as depicted by a mean of 4.424 and standard deviation of .4957. Respondents agreed 93 (58.9%) that low bank charges can improve business profitability; they disagreed 84 (53.2%) that agency banking can result to increase in business profitability (mean of 4.468 and standard deviation of 0.5001). The respondents disagreed 77 (48.7%) that improvement on sales turnover in the business has been as a result of increased in the number of accounts; 81 (51.3%) of the respondents agreed that financial awareness can improve business sales turnover, additionally 81 (51.3%) of the respondents agreed that the understanding of risk aversion can result to business profitability. This findings agrees with Vijayakumar et al., (2020) and Serrasqueiro et al., (2018) who found size of business moderation on financial inclusion and performance as positive and significant on MSEs performance. However it disagrees with Becker et al., (2020) and Niresh et al (2014) who found firm size moderation on inclusion and profitability in listed manufacturing companies as insignificant.

4.3 Tests for Regression Assumptions

The research sought to test the linear regression assumptions used to model the relationship between financial inclusion and financial performance of small and medium enterprises of fish trading along Lake Victoria region, Kenya. The tests included normality, Homoscedasticity, Autocorrelation, and multicollinearity.

4.3.1 Test for Normality

The research examined the standard distribution of scores for all variables. The analysis was carried out using the Shapiro-Wilk Test and the results shown in Table 4.12 for this purpose.

Table 4.12: Test for Normality

Variables		Shapiro-Wilk test		
		Statistic (W)	df	p-value
Dependent variable	Performance	.959	157	.072
Independent variables	Access to finance	.927	157	.063
	Usage of finance	.834	157	.059
	Knowledge of finance	.965	157	.061
Moderator variable	Business size	.974	157	.058

Source: (Researcher, 2024)

From the results in Table 4.12, the p-values for all the variables were greater than 0.05 level of significance; performance (W= 0.959, p-value = 0.072 > 0.05), access to finance (W= 0.927, p-value = 0.063 > 0.05), usage of finance (W= 0.834, p-value = 0.059 > 0.05), knowledge of finance (W=0.967, p-value=0.061 > 0.05), and business size (W= 0.974, p-value = 0.058 > 0.05). We therefore reject the null hypothesis and conclude that the scores for all the variables were normally distributed.

4.3.2 Testing for Homogeneity

Homogeneity of variances applies to multiple regressions as noted by Tabachnick and Fidell, (2013). It assumes a uniform variability in the scores for the dependent variable in relation to the independent variables and it was tested using Levene's test of equality of variance. The test assumed that variance in financial performance was independent of financial inclusion, and therefore remained constant.

Table 4.13: Test of Homogeneity of Variances

Variables	**Levene Statistic**	**df 1**	**df2**	**Sig.**
Access to finance	3.272	1	157	.073
Usage of finance	.185	1	157	.668
Knowledge of finance	3.233	1	157	.074
Performance	.276	1	157	.601

Source: Researcher (2024)

Results shown in Table 4.13 indicate that at 5% level of significance, none of Levene statistic for financial inclusion (Access, usage and Knowledge) and financial performance was significant all probabilities associated with Levene statistics were above 5%. Homoscedasticity assumption was therefore satisfied.

4.3.3 Collinearity Tests

Collinearity is the measure of the degree of association between the variables. Serial correlation was performed using the Durbin Watson test statistic. The summary of the findings was as shown in Table 4.14

Table 4.14: Summary table on Collinearity tests

Strategy	Collinearity statistics
Access to finance	1.547
Usage of finance	1.914
Knowledge of finance	1.718
Durbin Watson (D-W) statistic=1.791	
Performance	1.628

Source: Researcher (2024)

The values from 0 to less than 2 point to positive autocorrelation which as per this study there was a positive autocorrelation for independent variables access, usage and knowledge to performance.

4.3.4 Testing for Multicollinearity

Multicollinearity relates to a situation where variables or predictors are highly correlated among themselves (Vatcheva, *et al*, 2016). Multicollinearity was tested using variance inflation factors (VIF) which are used to assess the increase in the variance of estimated regression coefficients when predictors are correlated (Tabachnick & Fidell, 2013).

Table 4.15: Results of Multicollinearity Tests

Model		Collinearity Statistics	
		Tolerance	VIF
1	(Constant)		
	Access to finance	.467	2.241
	Usage of finance	.331	3.021
	Knowledge of finance	.367	2.725
	Business size	.405	2.469
	Performance	.451	2.217

Source: Researcher (2024)

Table 4.15 shows that all the VIF values were below the threshold value (10), equally tolerance values were less than threshold value (1) indicating that multicollinearity was not an issue. The results in Table 4.15 show VIF below 4, thus confirming absence of multicollinearity.

4.4 Inferential Statistics

The inferential statistics used comprised of Pearson correlation and regression analysis

4.4.1 Correlation Analysis

The correlation coefficient (r) results are presented as shown in Table 4.16 using Pearson correlation analysis, which computes the direction (Positive/negative) and the strength (Ranges from -1 to +1) of the relationship between two continues or ratio/scale variables.

Table 4.16: Correlation Analysis

Correlations						
		Access	**Usage**	**Knowledge of finance**	**Business size**	**Financial performance**
Access	Pearson Correlation	1	.352**	.330**	.505**	.403**
	Sig. (2-tailed)		.000	.000	.000	.000
	N	158	158	158	158	158
Usage	Pearson Correlation	.352**	1	.574**	.413**	.698**
	Sig. (2-tailed)	.000		.000	.000	.000
	N	158	158	158	158	158
Knowledge of finance	Pearson Correlation	.330**	.574**	1	.505**	.577**
	Sig. (2-tailed)	.000	.000		.000	.000
	N	158	158	158	158	158
Business size	Pearson Correlation	.505**	.413**	.505**	1	.584**
	Sig. (2-tailed)	.000	.000	.000		.000
	N	158	158	158	158	158
Financial performance	Pearson Correlation	.403**	.698**	.577**	.584**	1
	Sig. (2-tailed)	.000	.000	.000	.000	
	N	158	158	158	158	158

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

Source: Researcher (2024)

From the correlation Table 4.16, access to finance is positively correlated to performance the coefficient is 0.403* (p value .000< 0.05) this is significant at

95% confidence level. Thus, increase in access to finance would make Performance of small and medium enterprises of fish trading along Lake Victoria region Kenya. Similarly, a correlation coefficient of 0.698* implied that there is significant positive relationship between usage of finance and performance of small and medium enterprises of fish trading along Lake Victoria region Kenya. A correlation coefficient of 0.577* implied that there is significant positive relationship between knowledge of finance and performance of small and medium enterprises of fish trading along Lake Victoria region Kenya. Lastly, the correlation coefficient for business size charged was 0.584*, P=0.000, suggesting it had a significant positive relationship.

4.4.2 Inferential Statistics: Regression Analysis

Ho$_1$: *Access to finance has no statistically significant effect on performance of small and medium enterprises of fish trading along Lake Victoria region Kenya*

Table 4.17 Regression Analysis: Access to Finance

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.403[a]	.162	.157	.67645

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	13.835	1	13.835	30.234	.000[b]
	Residual	71.384	156	.458		
	Total	85.218	157			

a. Dependent Variable: Financial performance
b. Predictors: (Constant), Access

Coefficients

Model	Unstandardized Coefficients	Standardized Coefficients	t	Sig.

		B	Std. Error	Beta		
1	(Constant)	1.766	.339		5.201	.000
	Access	.485	.088	.403	5.499	.000

Source: Researcher (2024)

Results in table 4.16 showed that R-square was 0.162 implying that, variation of 16.2% of performance of small and medium enterprises of fish trading along Lake Victoria region Kenya was explained by access to finance.

Access to finance was important in predicting performance of small and medium enterprises of fish trading along Lake Victoria region ($p=0.000< 0.05$). Access to finance significantly affected performance of small and medium enterprises of fish trading along Lake Victoria region (t-statistic=5.499, p-value=$0.000< 0.05$). This shows that for every unit increase in access to finance there was a corresponding increase in financial performance among small and medium enterprises of fish trading along Lake Victoria. The regression model equation:

Y= 1.766+0.485Access to finance

Therefore at 5% level of significance the null hypothesis was rejected, indicating that access to finance has statistically significant effect on performance of small and medium enterprises of fish trading along Lake Victoria region Kenya. This findings agrees with Marus et al (2021) who examined the financial inclusion and the growth of small medium enterprises in Uganda and found access to finance as significant on performance. It disagrees with Oshora, (2021) who established the determinants of financial inclusion in Small and Medium Enterprises in Ethiopia reporting access to finance as insignificant on performance.

Table 4.18 Regression Analysis: Usage to Finance

Ho_2: *There is no statistically significant effect of usage of finance on performance of small and medium enterprises of fish trading along Lake Victoria region Kenya.*

Table 4.18 Regression Analysis: Usage of Finance

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.698[a]	.487	.484	.52944

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	41.490	1	41.490	148.015	.000[b]
	Residual	43.728	156	.280		
	Total	85.218	157			

a. Dependent Variable: Financial performance
b. Predictors: (Constant), Usage

Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.825	.233		3.548	.001
	Usage	.781	.064	.698	12.166	.000

Source: Researcher (2024)

Results in table 4.18 indicates that the change in R^2 was 0.487. This indicated that usage of finance accounted for up to 48.7% of the variance in financial performance.

Usage of finance was important in predicting performance of small and medium enterprises of fish trading along Lake Victoria region (P=0.000 < 0.05). Usage of finance significantly affected performance of small and medium enterprises of fish trading along Lake Victoria region (t-statistics =12.166, p-value = 0.000<

0.05). This shows that for every unit increase in usage of finance there was a corresponding increase in financial performance. The regression model equation:

Y= 0.825+0.781 Usage of finance

Therefore at 5% level of significance the null hypothesis was rejected, indicating that usage of finance has statistically significant effect on performance of small and medium enterprises of fish trading along Lake Victoria region Kenya. This findings agrees with Kamau (2017) who studied the relationship between bank usage and financial performance of the banks in Kenya and Ndirangu (2021) who established usage had a positive significant effect on financial performance of commercial banks in Kenya. The study disagrees with Vekya (2017) who found electronic usage on banking as insignificant on performance of SMEs in Kenya.

Table 4.19 Regression Analysis: Knowledge of Finance

Ho_3: *There is no statistically significant effect of knowledge of finance on performance of small and medium enterprises of fish trading along Lake Victoria region Kenya*

Model summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.577[a]	.333	.328	.60381

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	28.342	1	28.342	77.738	.000[b]
	Residual	56.876	156	.365		
	Total	85.218	157			

a. Dependent Variable: Financial performance
b. Predictors: (Constant), Knowledge of finance

Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		

1	(Constant)	.439	.363		1.211	.228
	Knowledge of finance	.882	.100	.577	8.817	.000

Source: Researcher (2024)

Results in table 4.19 indicate that the change in R^2 was 0.333. This indicated that knowledge of finance accounted for up to 33.3% of the variance in financial performance.

Knowledge was important in predicting performance of small and medium enterprises of fish trading along Lake Victoria region (P=0.000<0.05). Knowledge significantly affected performance of small and medium enterprises of fish trading along Lake Victoria region (t-statistics =8.817, p-value = 0.000< 0.05). This shows that for every unit increase in Knowledge there was a corresponding increase in financial performance. The regression model equation:

Y= 0.439+0.882 Knowledge of finance

Therefore at 5% level of significance the null hypothesis was rejected, indicating that Knowledge in finance has statistically significant effect on performance of small and medium enterprises of fish trading along Lake Victoria region Kenya. This findings agrees with Kithinji (2017) who found financial knowledge as positive and significant on financial inclusion among commercial banks in Kenya. The study further agrees with Morara and Mureithi (2019) who found financial knowledge as essential therefore significant on performance of small and medium enterprises in Nairobi. However this findings disagrees with that of Monticone (2020) who found acquisition of financial knowledge as positive but insignificant on financial performance SMEs.

4.4.1 Multiple Linear Regressions

Table 4.20: Model Summary

Model summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.742[a]	.551	.542	.49838

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	46.967	3	15.656	63.03	.000[b]
	Residual	38.251	154	.248		
	Total	85.218	157			

a. Dependent Variable: Financial performance

b. Predictors: (Constant), Access, Usage, Knowledge

Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	-.389	.339		-1.147	.253
Access	.175	.070	.145	2.487	.014
Usage	.572	.075	.512	7.586	.000
Knowledge of finance	.359	.102	.235	3.513	.001

Source: Researcher (2024)

From findings in Table 4.20, the value of R-Square is 0.551. This implies that, 55.1% of variation of financial performance was explained by financial inclusion. At 0.05 level of significance the ANOVA test indicated that in this model financial inclusion variables namely; access to finance, usage to finance, and knowledge to of finance variables were predictors of financial performance as indicated by significance value=0.000 which is less than 0.05 level of

significance (p=0.000<0.05).

At 5% level of significance, access to finance is a significant predictor of financial performance of small and medium enterprises of fish trading along Lake Victoria region, Kenya where (p=0.014<0.05). Usage of finance was a significant predictor of financial performance of small and medium enterprises of fish trading along Lake Victoria region, Kenya where (p=0.016 < 0.05). Knowledge of finance was a significant predictor of financial performance of small and medium enterprises of fish trading along Lake Victoria region, Kenya where (p=0.001<0.05). Regression equation:

Performance=-.389+0.175 X_1 +0.572 X_2+0.359 X_3

Therefore financial inclusion had a significant relationship on financial performance of small and medium enterprises of fish trading along Lake Victoria region, Kenya hence rejecting the null hypothesis. Agrawal (2018) studied the financial inclusion on SMEs the study found that access, knowledge and usage of finance had a positive and significant effect on performance of SMEs.

Table 4.21 Regression Analysis: Business size Moderation

Ho_4: *Business size has no significant moderating effect on the relationship between financial inclusion and performance of small and Medium Enterprises.*

The study tested the interaction between financial inclusion, performance and business size.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.531[a]	.282	.277	.62648
2	.770[b]	.593	.588	.47284
3	.777[c]	.604	.596	.46815

a. Predictors: (Constant), Access to finance & Business size
b. Predictors: (Constant), Access & Business size, Usage of finance & Business size
c. Predictors: (Constant), Access & size, Usage & Business size, Knowledge & size

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	23.991	1	23.991	61.126	.000[b]
	Residual	61.227	156	.392		
	Total	85.218	157			
2	Regression	50.564	2	25.282	113.079	.000[c]
	Residual	34.654	155	.224		
	Total	85.218	157			
3	Regression	51.466	3	17.155	78.276	.000[d]
	Residual	33.752	154	.219		
	Total	85.218	157			

a. Dependent Variable: Financial performance
b. Predictors: (Constant), Access to finance & Business size
c. Predictors: (Constant), Access & Business size, Usage of finance & Business size
d. Predictors: (Constant), Access & size, Usage & Business size, Knowledge & size

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.085	.453		.186	.852
	Access to finance & Business size	.940	.120	.531	7.818	.000
2	(Constant)	-1.424	.369		-3.857	.000
	Access to finance & Business size	.138	.117	.078	1.182	.239
	Usage of finance & Business size	1.244	.114	.719	10.902	.000
3	(Constant)	-1.757	.401		-4.385	.000
	Access to finance & Business size	.371	.175	.169	2.120	.043

Usage of finance & Business size	1.071	.141	.619	7.575	.000
Knowledge of finance & Business size	.357	.176	.172	2.030	.044

a. Dependent Variable: Financial performance

Source: Researcher (2024)

From the study the R^2 for combined model was 0.596 from 0.551(multiple regression) which is an increase from the before an addition of business size. The ANOVA shows variables remained significant. Coefficient of correlation shows that business size had a moderating significant effect on the relationship between access to finance and financial performance (t=2.120, p=0.043<0.05). Furthermore business size had a moderating significant effect on the relationship between usage of finance and financial performance (t=7.575, p=0.000<0.05). Lastly business size had a moderating significant effect on the relationship between knowledge of finance and financial performance (t=2.030, p=0.044<0.05). However on coefficients, the addition of business size on each variable maintained the significance on all the variables, for instance access to finance moved. This implies that business size had a significant moderating effect on the relationship between financial inclusion and financial performance of small and medium enterprises of fish trading along Lake Victoria region. The hypothesized moderation model was confirmed to be:

$$Y = -7.957+0.407X_1M +1.071X_2M +0.357X_3M$$

Therefore at 5% level of significance the null hypothesis was rejected, indicating that business size has statistically significant effect on relationship between financial inclusion and performance of small and Medium Enterprises. This

finding agrees with Vijayakumar et al., (2020) and Serrasqueiro et al., (2018) who found size of business moderation on financial inclusion and performance as positive and significant on MSEs performance. However it disagrees with Becker et al., (2020) and Niresh et al (2014) who found firm size moderation on inclusion and profitability in listed manufacturing companies as insignificant.

CHAPTER FIVE

SUMMARY, CONCLUSSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter provides a summary of the findings, conclusions and recommendations of the study based on the relationship between the variables of the study that is financial inclusion, business size and performance of Small and Medium Enterprises of fish trading along Lake Victoria region Kenya.

5.2 Summary of the findings

Objective one was to determined the effect of access to finance on performance of small and medium enterprises of fish trading along Lake Victoria region Kenya. Simple linear regression results showed that access to finance had a positive significant effect on performance of Small and Medium Enterprises of fish trading along Lake Victoria region Kenya. Therefore, hypothesis one (H_{01}) was hence rejected (coefficient of correlation 0.403, p=0.000<.005), t=5.499) since access to finance had a positive significant effect on performance of Small and Medium Enterprises of fish trading along Lake Victoria region Kenya.

Objective two was to examine the effect of examined the effect of usage of finance on performance of small and medium enterprises of fish trading along Lake Victoria region Kenya. Simple linear regression results showed that usage of finance had a positive significant effect on financial inclusion among small medium enterprises. Therefore, hypothesis one (H_{02}) was rejected (coefficient of correlation 0.698, p=0.000<.005), t=12.166) since usage of finance had a positive

significant effect on financial inclusion among small medium enterprises of fish trading along Lake Victoria region Kenya.

Objective three was to establish the effect of knowledge of finance on performance of small and medium enterprises of fish trading along Lake Victoria region Kenya. Simple linear regression results showed that knowledge of finance had a positive significant effect on performance of small and medium enterprises of fish trading along Lake Victoria region Kenya. Therefore, hypothesis one (H_{03}) was rejected (coefficient of correlation 0.577, p=0.000<.005), t=8.817) since knowledge of finance had a positive significant effect on performance of small and medium enterprises of fish trading along Lake Victoria region Kenya.

Objective four was investigate the moderating effect of business size on the relationship between financial inclusion and performance of small and medium enterprises of fish trading along Lake Victoria region, Kenya. Simple linear regression results showed that business size had a positive significant moderating effect on the relationship between financial inclusion and performance of small and medium enterprises of fish trading along Lake Victoria region, Kenya. Therefore, hypothesis four (H_{04}) was rejected (coefficient of correlation 0.584, p=0.000<.005). Furthermore business size had a moderating significant effect on the relationship between financial inclusion and financial performance.

5.3 Conclusions

Firstly, access to finance had a significant effect on performance. This implied that conclusively a unit increase in access to finance led to increase in

performance of small and medium enterprises of fish trading along Lake Victoria region, Kenya.

Secondly, usage of finance had a significant effect on performance. This implied that conclusively a unit increase in usage of finance led to increase in performance of small and medium enterprises of fish trading along Lake Victoria region, Kenya.

Thirdly, knowledge in finance had a significant effect on performance. This implied that conclusively a unit increase in knowledge in finance led to increase in performance of small and medium enterprises of fish trading along Lake Victoria region, Kenya.

Lastly, business size had significant positive effect on performance. This implied that conclusively a unit increase in business size led to increase in the relationship between financial inclusion and performance of small and medium enterprises of fish trading along Lake Victoria region, Kenya.

5.4 Recommendations

The study findings have shown that access to finance is significant hence business owners should seek funding inclusion to enable performance.

The study findings have shown that usage of finance is significant hence available funds should be utilized to enable performance maximization.

The study findings have shown that financial knowledge is significant hence business owners should acquire financial skills through training and experience to improve performance.

The study findings have shown that size of business was of significance hence business owners should make their business to grow so as to increase chances of financial inclusion and performance of their businesses.

5.5 Suggestion for Further Research

The study recommends a similar study of financial inclusion and performance but on Commercial banks and agricultural firms since current study was on SMEs. Furthermore the effect of financial innovation on financial inclusion of SMEs can be studied. The study recommends other moderator for other studies such as age of the business to establish its moderation on financial inclusion and performance of SMEs.

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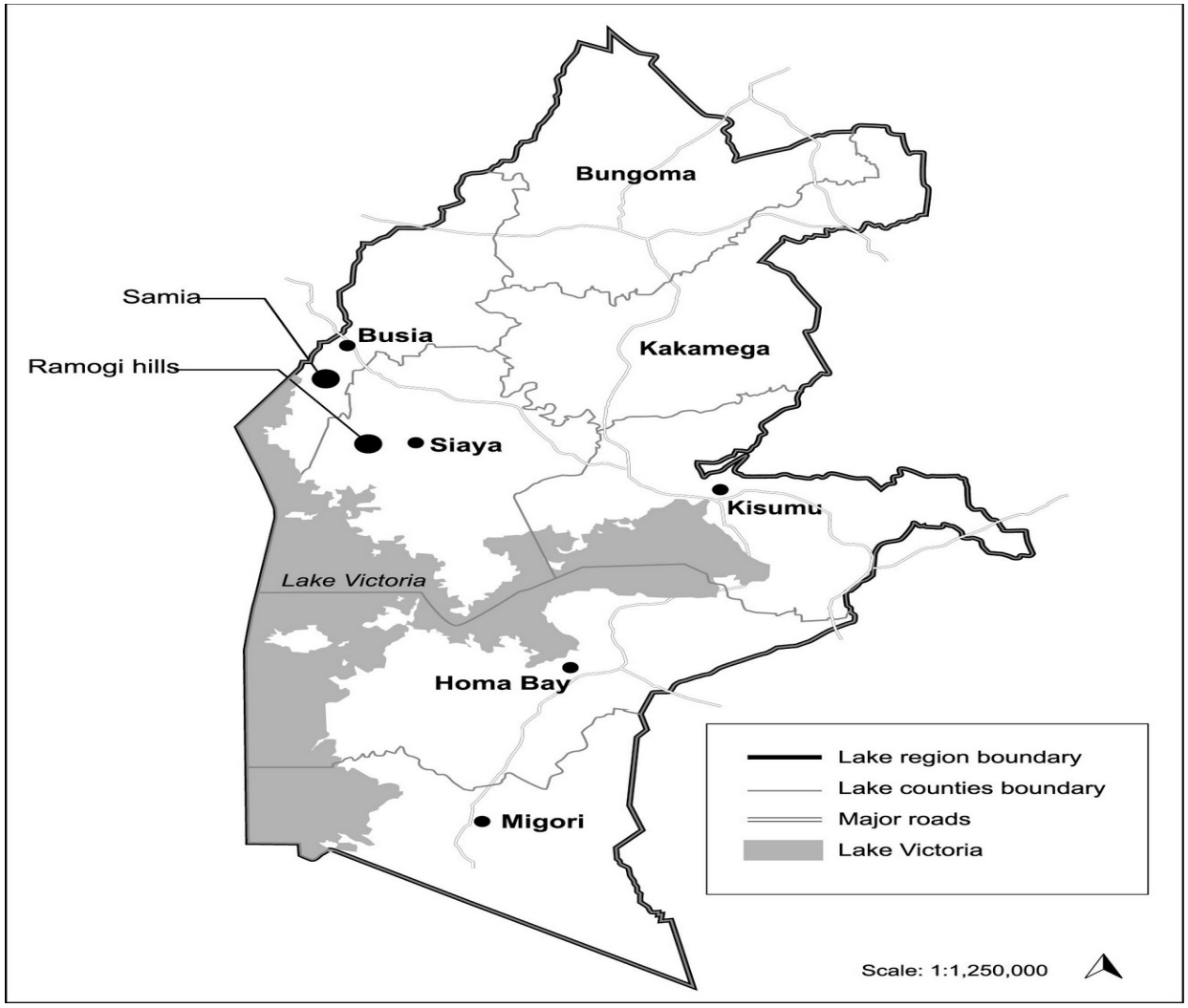
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APPENDICES

Appendix 1 : Map Showing Counties a long Lake Victoria Region



Source: Kenya National Bureau of Statistics (2017)

Appendix II: Introduction Letter

I am a student undertaking Degree of Doctor of Philosophy in Business Administration (Finance) of Masinde Muliro University of Science and Technology. In order to complete this program, I am required to carry out a research, write and present a research on financial inclusion, business size and performance of fish trading small and medium enterprises along Lake Victoria region, Kenya. The research is purely for academic purpose and the information you give will be held in strict confidentiality. Please do not indicate your name anywhere on this questionnaire. Please tick in the box / bracket to the right response where applicable

Appendix II (a): Questionnaire

Questionnaire: Part 1: General information
What is your highest level of education? Post graduate degree { } Bachelor degree { } Secondary { } primary { }
How long has your business been in operation? Less than 5 years { } Between 6 -10 years { } Over 10 years { }
Form of Business What form of business do you operate?

Sole trade { }

Partnership { }

Cooperative society { }

What position do you hold in the business?

Owner { }

Manager { }

Accountant { }

Marketer { }

Part 2: Access to Finance

What is your main source of credit facility?

Commercial bank { }

Microfinance institution { }

Mobile banking services { }

Friends and relatives { }

Others not defined { }

Why do you prefer that source of credit facility? …….

Is there any banking facility within your area of operation?

Yes { } No { }

Is it easily accessible?

Yes { } No { }

If no why?.....

Level of agreement on access to banking and credit facility Choose whether you; 1. Strongly agree. 2. Agree 3. Neutral 4. Disagree 5. Strongly Disagree.

	1	2	3	4	5
Have a bank account with financial institution					

	Have bank located at convenient distance from your reach						
	Take loan regularly from my financial source with relative ease						
	Collateral is required on loans						
	Make remittance and transfer of cash digitally thus using mobile or internet						
	Credit terms is not tight						
	Access credit with financial institution with no hidden charges that effect the business						

	How many financial service providers are available around your business? One { } Two { } Three { } Four and above { }
	Part 3: Usage
	Do you have a bank account? Yes { } No { }
	If yes where……..
	How many accounts do you operate? One { } Two { } Three { } More than three { }
	How often do you use your bank accounts? Daily { } Weekly { } Monthly { }

Quarterly { }

Semiannually { }

Annually { }

How many times do you make deposits per week?

Once a week { }

Twice a week { }

Thrice a week { }

Four times { }

More than four times { }

Have you taken loans with a financial institution?

Yes { } No { }

If yes do you have outstanding loans?

Yes { } No { }

How many outstanding loans do you have? Kindly indicate……

Do you have loan from informal loan providers?

Yes { } No { }

Have you ever borrowed loans for business startups? Yes { } No { }

Use of bank account through agent and representative Choose whether you; 1. Strongly agree. 2. Agree 3. Neutral 4. Disagree 5. Strongly Disagree (tick)

	1	2	3	4	5
Use of agent has increased frequency on account usage					
Use of agent has increased the number of accounts opening					
Increase in number of accounts has resulted to frequency in account use					
Account usage has resulted more saving and withdrawal					

	Agency banking has resulted to use of accounts regularly						
	Part 4: Financial Knowledge						
	Do you have a loan? Yes { } No { }						
	If yes, what do you use the loan for?..... …….. Do you know any type of loan offered by the financial institution? Yes { } No { } If yes state, the types you know? a)……. b)…… c)……. Which type of loan do you have?.....						
	What did you consider important before taking the loan? Amount to be advance { } Repayment period { } The rate of interest { } Amount repaid per month { }						
	Do you compute the amount of income to your business? Yes { } No { }						

	If no, why?..... ……
	If yes how often?.....
	Do you invest? Yes { } No { }
	If yes on what?..... …….. If no, why?..... …… How do you invest?.....
	Knowledge of finance Choose whether you; 1. Strongly agree. 2. Agree 3. Neutral Strongly Disagree 4. Disagree 5. Strongly Disagree (tick)

	1	2	3	4	5
Knowledge of finance has improved as a result of creating finance awareness					
The understanding of risk aversion has led to increase in saving and investment					
Increase of saving is as a result of financial choices					
Increase in financial knowledge has resulted in increased number of people seeking formal banking services					
Knowledge of finance has led to understanding of the minimum amount that can be borrow that is sufficient for business					
Knowledge of finance has led to understanding of the required type of business loan to be take					

Financial performance Choose whether you; 1. Strongly agree. 2. Agree 3. Neutral Strongly Disagree 4. Disagree 5. Strongly Disagree (tick)

	1	2	3	4	5
Business sales turnover has increased as a result of mobile and internet banking					
Low bank charges can improve business profitability					
Agency banking can result to increase in business profitability					
Improve sales turnover in the business has been as a result of increased in the number of accounts					
Financial awareness can improve business sales turnover					
The understanding of risk aversion can result to business profitability					

Business Size: Choose whether you; 1. Strongly agree. 2. Agree 3. Neutral Strongly Disagree 4. Disagree 5. Strongly Disagree (tick)

	1	2	3	4	5
Access to loan regularly can improve business asset level					
High number of employees in the business can results to increase number of account opening					
Business asset level has made us meet the requirement of collateral for loan					
Frequency in saving and withdrawals have been as a result of increased number of employees					
Understanding of risk aversion has led to business expansion					
The understanding of the type of loan required has led to business expansion					
Business expansion can improve business profitability					
High economy of scale by the business has led to high business turnover					

Appendix III: NACOSTI