

**FINANCIAL INCLUSION, ENTERPRISE CHARACTERISTICS AND
SUSTAINABILITY OF THE YOUTH OWNED ENTERPRISES IN WESTERN
REGION, KENYA.**

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**A Thesis Submitted in Partial Fulfillment of the Requirements for the Award of
the Degree of Doctor of Philosophy in Business Administration (Finance Option),**

Masinde Muliro University of Science and Technology

OCTOBER, 2024

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DEDICATION

This research/thesis and commitment are fully dedicated to my one and only dear wife Zilpah, my sons John Michael and Peter Abrahams, and my daughters Peace Isabelle and Victory Nicole for encouragement, motivation, and support. Further dedication is to Mr. Andrew Mbaya and Mrs. Beatrice Mbaya, my destiny helpers, for their sacrifice in educating me throughout high school and teaching me discipline and hard work values. May the Lord God grant them peace, good health, and a long life.

ACKNOWLEDGEMENTS

I express my gratitude to God the Almighty for the courage, strength, and determination to pursue this study. I also wish to acknowledge Masinde Muliro University of Science and Technology for granting me the opportunity to pursue the course.

In addition, research/thesis can never be as complete without the contributions of different people in their own unique ways. I am particularly indebted to my supervisors, Dr. Muli Maingi for his relentless professionalism during his guidance towards the process of finalizing this thesis and Dr. Oseno Ben for his pieces of advice, critical insights, commitment, and readiness to discuss my work at length. It was very inspiring indeed—Rev. Prof. Willis Otuya for laying an excellent practical research methodology foundation and guidance throughout the thesis writing process.

My sincere appreciation also goes to Prof. Charles Tibbs and Dr. Maniagi Musiega for their invaluable advice, guidance, and support. I cannot forget to thank all the lecturers in the School of Business and Economics for their excellent knowledge and skills imparted throughout the course work. They are indeed role models to many. Much appreciation also goes to my colleagues and friends for encouragement and inspiration. Finally, I thank my family for the love, understanding, and support they accorded me while undertaking the study.

ABSTRACT

This study explored the influence of financial inclusion and enterprise characteristics on the sustainability of youth-owned enterprises in the western region of Kenya. The specific objectives were to examine the influence of financial intermediation, financial deepening, financial innovation, and crowdfunding on the sustainability of youth-owned enterprises and establish the moderating influence of enterprise characteristics on the relationship between financial inclusion and the sustainability of youth-owned enterprises. The study was guided mainly by financial intermediation theory. It adopted a pragmatism approach and a descriptive survey design. A sample size of 210 respondents was selected using stratified and purposive sampling techniques. Data was collected through structured and semi-structured questionnaires, complemented by secondary financial data. Descriptive analysis was used to summarize data, whereas inferential statistics assessed the nature and the relationships' strengths using correlation and regression analysis. The study found that: financial intermediation (grand mean=3.5858, $\beta = 0.230$ (0.090) at $p < 0.05$); financial deepening (grand mean=3.3943, $\beta = 0.458$ (0.116) at $p < 0.05$); financial innovation (grand mean=3.3307, $\beta = 0.471$ (0.125) at $p < 0.05$); and crowdfunding (grand mean=3.5715, $\beta = 0.319$ (0.156) at $p < 0.05$) had significant influence on the sustainability of youth-owned enterprises and that enterprise characteristics (age, size, ownership structure) significantly moderated the relationship between financial inclusion and sustainability of these enterprises. The study concluded that financial intermediation measures, financial deepening parameters, strategic financial innovations, and timely adoption of crowd funding platforms have a significant influence on the sustainability of youth-owned enterprises and that timely and dynamic application of feasible enterprise characteristics significantly moderates the influence of financial inclusion initiatives on the sustainability of youth-owned enterprises. The study recommends that youth owned enterprises should understand dynamic feasible financial intermediation measures, access information and get financial literacy on financial deepening issues, should be conversant with dynamic and strategic financial innovations that shape financial sustainability of the enterprise, leverage on unique innovation passion, conducting thorough market research, building a strong online presence, engaging with their target audience, and seeking advice from experienced mentors or crowdfunding experts, intertwine flexible size and age characteristics coupled with feasible ownership structures in their organizations so as to harness positive attributes of age and size that can enhance the financial sustainability of the enterprise.

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LIST OF ABBREVIATIONS AND ACRONYMS

ACET	Africa Centre for Economic Transformation
ANOVA	Analysis of Variance
CRB	Credit Reference Bureau
DSE	Dhaka Stock Exchange
DV	Dependent Variable
ECM	Error Correction Modeling
EU	European Union
FD	Financial Deepening
FEP	Financial Entrepreneurship Performance
GDP	Gross Domestic Product
GoK	Government of Kenya
IA	Intangible Assets
IBM	International Business Machines Corporation
IDRC	International Development Research Centre
IMF	International Monetary Fund
IV	Independent Variable
KMO	Kaiser Meyer Olkin
LPO	Local Purchase Order
LSO	Local Service Order
MFIs	Microfinance Institutions
MoYA	Ministry of Youth Affairs
MSEs	Medium Size Enterprises
NACOSTI	National Commission for Science, Technology and Innovation
NCPD	National Council for Population and Development

OECD	Organization for Economic Cooperation and Development
OLS	Ordinary Least Square
R&D	Research and Development
ROA	Return on Assets
ROE	Return on Equity
ROSCAs	Rotating Savings Associations
SMEs	Small Medium Enterprises
SI	Sustainability Index
SPSS	Statistical Package for the Social Sciences
SSEs	Small Scale Enterprises
UN	United Nations
VIF	Variance Inflation Factor
WEF	Women Enterprise Fund
YEDF	Youth Enterprise Development Fund
YOE	Youth Owned Enterprises

OPERATIONAL AND DEFINITION OF TERMS

Crowdfunding: This is the use of small amounts of capital from a large number of individuals, social media and or funding websites to finance new business ventures.

Enterprise Characteristics: Refers to distinct features unique to the youth owned enterprises in respect to enterprise/firm size, age and ownership structure.

Financial Inclusion: Implies that individuals and businesses have access to useful and affordable financial products and services that meet their needs such as transactions, payments, savings, credit and insurance all delivered in a responsible and sustainable way. That is access and usage are considered binding constraints to inclusion of youth in financial services.

Financial Intermediation: This is the utilization of credit, business funding /financing, financial linkages/partnerships from financial lending institutions.

Financial Deepening: Refers to the increased provision of financial services and or ratio of money supply to GDP with a wider choice of services geared to all levels of society.

Financial Innovation: It is the process of creating new financial products, services, or processes, via advances in financial instruments, technology, and payment systems.

Youth Owned Enterprises: These are business enterprises owned and run by young men and women as group or individual entrepreneurs aged between eighteen and thirty-four years according to the Kenyan definition of youth.

Enterprise Characteristics: Refers to distinct features unique to the youth owned enterprises in respect to enterprise size, age and ownership structure.

Financial Sustainability: Is the ability of a youth owned enterprise to develop a financial strategy of growth that ensures sufficient funds to meet all its current and future financial obligations.

Market Share/Value: Youth owned enterprise's market share refers to the percentage of sales in a specific industry that an enterprise controls over time. It is obtained by dividing an enterprise's total sales by the industry's total sales. It indicates an enterprise's size relative to its competitors and the market. A growing market share can signify sustainability or success of youth owned enterprise while a declining market share may indicate a lack of sustainability. A Market value is a price that youth owned enterprise's products would sell in a fair open market. That is the value that customers would give for the enterprise's products.

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

Financial inclusion has a significant role in augmenting the economies of developing and undeveloped countries. Policymakers such as governments and other stakeholders have recently focused on attracting “unbanked” populations like youth-owned enterprises into existing financial inclusion systems. Lack of access to finance has been found to have adverse effects on the youth-owned enterprises’ financial sustainability, thus affecting a country’s economic growth (Abu, 2018). Additionally, most youth-owned business enterprises serve as a significant source of employment, produce considerable export and domestic earnings, add to the common wellness as well as the well-being of economies, and therefore their financial sustainability is vital for their continued existence (Bulsard, 2017). Thus, financial inclusion initiatives are well-positioned to play an important role in responding to the needs of burgeoning youth populations and guiding them out of poverty.

African Centre for Economic Transformation-ACET (2020), in line with the Alliance for Financial Inclusion’s policy paper, defined and measured financial inclusion in terms of access, usage, quality, and welfare improvements, while Grandolini (2019) defines financial inclusion as the timely delivery of financial services at an affordable cost to large sections of vulnerable and low-income groups for meaningful usage. According to the OECD (2017), supported by Tillmar (2017), financial inclusion means individuals and businesses having access to useful and affordable financial products and services that meet their needs, such as transactions, payments, savings, credit, and insurance, all delivered in a responsible and sustainable way. In this study, financial inclusion means “individuals

and businesses have access to useful and affordable financial products and services that meet their needs, such as transactions, payments, savings, credit, and insurance, all delivered in a responsible and sustainable way. That is, access and usage are considered binding constraints to the inclusion of youth in financial services. Further, financial inclusion in the lens of access, usage, and quality is critical to the achievement of the 2030 Agenda for Sustainable Development in Kenya; thus, the adoption of the study's operational definition, which adequately covers access, quality, and usage aspects of financial inclusion.

Youth-owned businesses contribute significantly to a country's economy, and their number has grown over time. For instance, after the 2008 world financial crisis, unemployment has become a significant concern to most governments around the world. The number of unemployed youths increased to over 76 million, forcing countries globally to strategise on ways of funding the youth for startup enterprises as well as strengthening those already existing; however, these enterprises are still underperforming (World Bank, 2020).

The World Bank report (2019) projected that over 73.4 million (12.6%) young people were unemployed by 2020, and the youth-development fund was perceived to be a solution to this problem, but this has not yet achieved the intended goal because most of the youth-owned enterprises lack financial sustainability. Comparative statistics across most countries revealed that a number of start-up youth-owned enterprises in developed countries could be growing at a faster pace than those in developing and undeveloped countries, which are failing at a faster rate simply because they cannot financially sustain

their business operations (OECD, 2017).

To enhance the financial sustainability of business enterprises in developing and undeveloped countries, a financial inclusion approach has been suggested by several scholars and researchers (OECD, 2017). Despite progress in the recent years, a significant gap remains between developed and developing economies (Tillmar, 2017). This means, in all countries around the world, financial inclusion has gained prominence. Studies have shown that financial inclusion not only helps individuals and enterprises grow strong economically but also helps the nation grow stronger economically. Despite various attempts over the years, the goal of achieving 100 percent financial inclusion remains unfulfilled. More effort needs to be put on solutions that promote financial inclusion because a large proportion of people are financially excluded across the globe (Grandolini, 2019).

In 2017, the YEDF survey report (2020) indicated that 94% of adults in developed economies had an account, compared to 63 percent in developing economies. The poor, less educated, youth, and women tend to be more excluded, thus suffering from financial illiteracy and exclusion. The emergence of the COVID-19 pandemic accelerated the loss of livelihoods, leading to an increased rate of unemployment among Kenyan youth. Prior to the COVID-19 pandemic, young people were adversely affected in the labour market in comparison to other age cohorts. For instance, by December 2019, the youth unemployment rate was 14.2%, a percentage double that of the general population unemployment at 4.9%. Restrictions related to COVID-19, such as business closures and stay-at-home regulations, affected the population, with youth experiencing the hardest

blow (OECD 2020).

To minimize the pandemic's impact on households and businesses, Kenya, like the rest of governments around the world, engaged in fiscal and monetary safety nets that were outlined in the presidential speech on March 25, 2020. Access to financial and social assets is a key factor in the quest to empower youth to make their own economic decisions and escape poverty due to unemployment. However, Financial Sector Deepening in Kenya estimates that 23% of 18–25-year-olds are excluded from financial services and that only a few financial service providers in developing countries target specifically the youth (YEDF survey reports, 2020), thus making youth-owned enterprises suffer financial sustainability due to financial exclusion.

Financial inclusion parameters include financial intermediation, financial innovation, financial deepening, and crowdfunding, among others (UN Survey Reports, 2020). The financial intermediation process channels funds between third parties with a surplus and those with a lack of funds. A financial intermediary does not only act as an agent for other institutional units but also places itself at risk by acquiring financial assets and incurring liabilities on its own account (for example, banks, insurance corporations, and investment funds). Unfortunately, most youths do not hold a bank account and where they do, then the same is inactive. In addition, they do not have assets of their own to act as collateral with available financial institutions or intermediaries. This makes access to financial services very difficult (UN Survey Reports, 2020).

Financial deepening as a financial inclusion dimension refers to the increased provision of

financial services with a wider choice of services geared to all levels of society. It also refers to the macro effects of financial deepening on the larger economy. Financial deepening means an increased ratio of money supply to GDP or some price index. It refers to liquid money. The more liquid money is available in an economy, the more opportunities exist for continued growth (European Commission, 2018). Financial innovation is the process of creating new financial products, services, or processes. Financial innovation has come via advances in financial instruments, technology, and payment systems. This has to be tailored to meet the needs of the youth in the current century (Cheng, Hsu, and Lo, 2017).

Crowdfunding is the use of small amounts of capital from a large number of individuals to finance a new business venture. Crowdfunding makes use of the easy accessibility of vast networks of people through social media and crowdfunding websites to bring investors and entrepreneurs together, with the potential to increase entrepreneurship by expanding the pool of investors beyond the traditional circle of owners, relatives, and venture capitalists. Depending on the type of crowdfunding, investors either donate money altruistically or get rewards such as equity in the company that raised the money.

Further, financial inclusion may not perhaps fully enhance the financial sustainability of youth-owned enterprises if enterprise characteristics (enterprise size, age, ownership structure) of such firms are not examined. For instance, the Pervan and Visic (2018) study revealed that firm size has a significant positive (although weak) influence on firm profitability. Additionally, the study showed that asset turnover and debt ratio also significantly influence firms' financial performance, while current ratio did not prove to

be an important explanatory variable of firms' profitability; Jonsson (2019) showed that firm size has no statistically significant effect on profitability, irrespective of how profitability or size is measured. However, a weak inverse relationship between size and profitability was observed for all firms under study. Therefore, this study endeavors to explore the moderating role of enterprise characteristics in the influence of financial inclusion on the financial sustainability of youth-owned enterprises in the western region of Kenya.

1.1.1 Financial Sustainability of YOE at the Global Level

The European Commission (2018) suggested financial inclusion professional information services on sources of financing, technical assistance, advisory services such as business finance planning, functional areas of business finance, financial growth mentoring, facilitating financial contacts, training on starting, managing, and growing business capital, and financial networks—clusters, supply chains, trade fairs, among other financial networks—to help sustain youth-owned enterprises financially.

A survey report by the International Labour Organization (2023) and Horne (2023) found out that most developed countries have adopted various financial inclusion models to enhance the financial sustainability of youth and/or women-owned enterprises. That is, the growth of youth-owned enterprises had been restricted by inadequate access to finance, as well as follow-up to financial training inputs and limited opportunity to avail themselves of external, formal financial capacity-building support. A study by Tillmar (2017) in the USA found that while young women business owners are just as heterogeneous a group as young male business owners, they sometimes encountered disadvantages originating from the gender system in society, and that to effectively support young women business

owners, it is necessary to fast track financial inclusion models and attributes dedicated solely towards women business owners so as to boost their financial sustainability.

In their Mongolian study of microfinance effects, Attanasio et al. (2017) state that the reason for individual and group credit was to give women access so as to fund small enterprise activities. The focus was to help in the expansion and creation of business. Credit lasted for a period of 2-3 months, and the interest rate was 2% each month, which was reduced by 0.1% after every successful loan cycle. Other incentives were the possibility to increase the credit amount and maturity for each loan cycle. Thus, microfinance presents various loan products, such as group loans, individual loans, and joint liability lending, amongst many others, to individual or group-owned enterprises, but while some grow, others fail to even repay the loans.

In Kazakhstan, 17.2% of youth-owned enterprises (including 12% of small and 27.6% of medium-sized ones) have an outstanding loan or a credit line, while in comparable economies of Europe and Central Asia, the average indicator is 37.5%. This may imply that there is a gap between the demand for and supply of financing. The number of enterprises with rejected loan applications is also high (22.5%), especially among small businesses (36.6%), whereas in Europe and Central Asia, the average rejection rate is only 9.3%. According to the data provided by the First Credit Bureau (FCB) in Kazakhstan, only 12.1% of small firms had outstanding loans in 2019, which suggests that access to finance is more difficult for smaller firms: the smaller the business, the lower the share of entrepreneurs with outstanding loans, thus the need for financial inclusion approaches (Asian Development Bank Survey Report, 2022).

Agrawal, Catalini and Goldfarb (2018) conducted a study on types of crowdfunding aspects of financial inclusion in developed countries and found that reward-based crowdfunding enables beneficiaries to access capital at a lower cost compared to traditional sources for three reasons; one, better outreach and targeting—donors are not constrained by their geographical location, and campaigns can have global reach, thus targeting interested crowds with no or limited geographical barriers; two, monetization of assets—beneficiaries can leverage assets that are difficult to trade in traditional markets and three; technological innovations—including streamlined online procedure to set up a campaign, social media marketing, increased transparency and competition.

Further, Grella (2018), while researching crowdfunding in developed countries, found that debt crowdfunding allows funders (lenders) to directly lend to fundraisers or invest in debt obligations issued through a platform. Debt crowdfunding is also known as lending-based crowdfunding, marketplace lending, or person-to-person (P2P) lending—terms that are not as broad as debt crowdfunding. Debt crowdfunding is best thought of as a new approach to lending rather than a completely new financial product. By leveraging the Internet's interconnectivity, this form of crowdfunding builds a direct relationship between the funder and the fundraiser. The study recommended empirical studies relating to crowdfunding and financial sustainability of profitmaking firms, a gap that will be addressed in this study. Bulsard (2017) studies in Canada suggested that both national and local governments must develop appropriate policies to help sustain young group enterprises, where networking facilities must be provided as well as adequate entrepreneurship awareness training should be provided using the NGOs, credit facilities

must be made available, and marketing help must be provided so as to help foster sustainability of youth-owned enterprises.

In terms of enterprise characteristics, Masira (2018) studied the relationship between company size and total debt in Chinese firms, which produced a positive result but was statistically significant in the fixed effects model. However, the coefficient of the company size to long-term debt was negative and highly significant, which suggested that company size has a negative relationship with long-term debt. The negative relationship, however, was not as a result of informational asymmetries because the market capitalization of equity in China was very high. The negative relationship between size and long-term debt may be due to the fact that large firms have better access to capital markets for equity finance because of their reputation in the markets and the attraction of capital gains in the secondary markets.

In Africa, researchers Siwadi and Mhangami (2017) have also reported that in undeveloped and developing countries in Africa, youth-owned enterprises are recognized for their low start-up capital, have a low financial growth rate, and thus face sustainability challenges partially due to the type of business activities they operate; their small businesses are also held back by stringent local policies, and most of them do not have access to collateral required by banks as a pre-requisite to securing business loans, thus the need for financial intermediation and crowdfunding initiatives.

Financial inclusion in Sub-Saharan Africa has made significant strides over the past decade, largely driven by the adoption of mobile money. As of 2021, 49% of adults in the region have an account, a rate that has more than doubled since 2011. However, there is

considerable variation among countries, with account ownership ranging from 6% in South Sudan to 91% in Mauritius (Sarpong & Nketiah-Amponsah, 2022).

ACET (2020) study on promoting women and youth financial inclusion for entrepreneurship and job creation: a comparative study of selected sub-Saharan African countries found that serious socio-economic challenges must be taken into account in realizing financial access for women and youth, such as the need to expand the banking and mobile money agent networks, plus evaluating the size of youth group enterprises as a possible determinant of their financial sustainability.

Sullivan (2019) did a meta-analysis on financial inclusion and financial sustainability of youth groups in South Africa, Ghana, Ivory Coast, Rwanda, and Tanzania and summarily found that effective financial inclusion models can help youth groups enterprises grow and develop in their financial position by imparting specific financial tips and advice on financial outsourcing and capital development. The findings also revealed that effective financial mentorship helps to identify and develop business finance; mentors act as models for youth groups soliciting the help on financial growth/sustainability, which presents an opportunity and personal growth as well as experience; learning from the expertise (mentor) can help mentees (youth groups) avoid making financial-related errors and decisions that hamper the enterprise's financial sustainability.

Research by Omolayo (2018) in Nigeria reported that apprenticeship financial management training can prepare for new venture initiation by transferring financial management knowledge and developing relevant skills that improve the self-efficacy and

effectiveness of the potential young entrepreneur so that the youth do not fail to sustain their businesses despite securing loans from diverse financial inclusion models. Additionally, Marime and Magweva (2017) researched the influence of demographic factors on financial exclusion in Zimbabwe. The target population is comprised of marginalized populations in Masvingo District, including the youth, women, informal traders, and farm laborers. The study established that age, gender, education level, and employment status were statistically significant, while income was found not to be statistically significant in impacting the level of financial exclusion.

The African Centre for Economic Transformation (ACET, 2020), an Accra-based economic policy institute, undertook a study in 2018-2019 to assess the effectiveness of financial sector initiatives in advancing women and youth financial inclusion in Guinea, Sierra Leone, and Zambia. Supported by a grant from the Canadian International Development Research Centre (IDRC), the study evaluated the state of financial inclusion in these three countries to draw lessons for policymakers, regulators, and service providers with a view to increasing entrepreneurship. Findings showed that while financial inclusion-related laws and policies have not been explicit in their focus on issues of women and youth across the three countries, some progress has been made in laying the conditions for an inclusive financial system driven by advances in digital technology. That is, the rapid growth of digital technology in the past decade has rendered the analogue financial system largely obsolete, thus the need to embrace the financial innovation aspect of financial inclusion for youth and women-owned enterprises.

1.1.2 Financial Sustainability of YOE in Kenya

The Kenyan government, like the rest of the world economies, embraced youth-owned

enterprises' income-generating activities through the formulation of financial inclusion policies favourable for their business development in recent years. Such policy initiatives include Sessional Paper number 2 of 2005 on the development of MSEs for wealth and employment creation (Government of Kenya, 2010); Sessional Paper number 2 of 1992 for small enterprise and Juakali development in Kenya; Sector Plan for labour, youth, and human resource development 2008-2012 (GoK, 2019); Poverty Reduction Strategy Paper 1999-2015; and MSE Bill 2006, which led to the establishment of a council to facilitate the development of youth groups and the creation of a development fund for the kali sector (GoK, 2019).

In addition, the Youth Enterprise Development Fund (YEDF) was established through the Public Financial Management Act (The Youth Enterprise Development Fund) Regulations (2006), Legal Notice No. 167/2006, to champion the creation of employment for youth through enterprise development. In 2007, the Fund was transformed into a state corporation under the then Ministry of State for Youth Affairs, vide Youth Enterprise Development Fund Legal Order No. 63 of 2007. The Fund is currently domiciled at the State Department for Micro, Small, and Medium Enterprises Development in the Ministry of Cooperatives and Micro, Small, and Medium Enterprises Development. The Fund is one of the measures the government has put in place to promote employment creation for the youth. It is a flagship project of the Kenya Vision 2030 under the Social Pillar. The Youth Fund is tasked with promoting enterprise development as a critical strategy for increasing economic opportunities and youth participation in nation-building (YEDF, 2023).

The YEDF mandate is to provide loans to youth-owned enterprises, provide market

support to youth enterprises, facilitate youth enterprises to develop linkages with large enterprises, provide trading premises and worksites, and provide business development services to youth-owned enterprises. The beneficiaries are youth aged 18 to 34 years, those running businesses and wish to expand, and youth looking for markets and other business development services. The loan products include Stawi Loan, Smart Loan, Vuka Start-Up, Vuka Expansion, Vuka Asset Financing, Salaried, Savings-Based, Agri-Bizz, Talanta, LPO/LSO, and Vijana Baharia (YEDF, 2023). Most commercial banks and financial institutions have also developed tailored strategies to give loans to young entrepreneurs in groups or as individuals.

Further, to sustain female-owned enterprises in Kenya, the Women Enterprise Fund came into existence in 2007 to benefit women entrepreneurs aged 18 and above, either as individuals or in groups. Its objectives are to promote women's empowerment and reduce poverty, to attract and facilitate investment in micro-small and medium enterprises-orientated commercial infrastructure such as business markets or business incubators that will be beneficial to women enterprises, to support women-orientated enterprises to develop linkages with large enterprises, to facilitate marketing of products and services of women enterprises in both domestic and international markets, and to support capacity building of the beneficiaries of the funds (GoK, 2019).

According to the YEDF Status Report (2017), only about 40 percent of all the youth-owned enterprises in Kiambu County have accessed YEDF. Despite access, most of the funded youth-owned enterprises are still not visible and have therefore not had much impact. Further enterprise survey reports indicated that most youth have not been properly

informed on how this fund can be accessed, and at the same time, projects funded by the funds have not been properly managed, thus affecting the sustainability of the youth group enterprises in Bumula Sub County, Bungoma County (YEDF Status Report, 2017). Some (2015) revealed that many youth group enterprise projects have been implemented in Soy Sub-County, Uasin Gishu County, but some are not able to sustain their income-generating projects. Currently, 36 youth groups are active but with a lot of financial challenges to sustain themselves (YEDF Status Report (2017)).

A report on a survey conducted on the status of youth-owned enterprises in Kisii County revealed that youth groups are faced by various challenges that have hindered them from achieving their objectives. Of the 102 youth groups that had been registered, 58 groups were no longer existing, 16 were dormant, and only 28 were active. Out of 80 youth groups that registered and applied for the youth fund (Kshs 50,000–250,000) in Kangema to start income-generating activities, only 42 were still active by 2019. The 42 youth groups were found to be still active but facing a lot of challenges to sustain themselves (Nyongesa, 2014). Ngoe (2017) indicated that Mombasa County had received Kshs 8.5 million and recovered Kshs 1.03 million, representing only 12.2 percent of the funds disbursed. This is not far from the provincial figure of debt recovered, which stood at 14 percent. These low repayment levels were despite the fact that the fund has a mandatory pre-financing training program to enhance the sustainability of youth enterprises. In addition, the study revealed low entrepreneurial readiness and fund seekers who were ill-equipped to run their own businesses—facts that affect the financial sustainability of these enterprises.

The Women Enterprise Fund survey report (2020) indicates that Tushibe Mtama Women

Group, located in Nakuru, Rongai constituency, took the first loan of Kshs. 50, 000 in 2015, which they used to buy an oven, and established their business of baking cookies, buns, and cakes from sweet potato flour and tubers. It is noteworthy that they have sweet potato plantations in their homes and thus do not incur any cost on purchasing them. With the second loan of Kshs. 100, 000, in 2017 they multiplied vine plantations as the demand and market for their products had expanded. The third loan of Kshs. 200, 000 in 2018 was used to open a shop in Menengai shopping centre, just within the Rongai area. They then secured a loan of Kshs. 500,000 in 2019, which was well put into running and maintaining the business. This shows advancement in financially sustaining their businesses due to prudent utilization of the loans and financial training from Women Enterprise Fund experts.

In Kakamega County, the county government, as outlined in their administration, distributed millions of shillings to various youth-owned enterprises. However, the county administration regretted that the Ksh200,000 allocation to each youth-owned enterprise was squandered and the groups were all dissolved. Within a short time, the money had disappeared and the youth groups were no more (Kakamega County Government, enterprise survey reports, 2020). This shows that most youth-owned enterprises in Kenya are facing financial sustainability challenges, thus the need to conduct research on possible solutions to the business sustainability challenges. In this regard, the study targeted youth-owned enterprises in Kakamega, Vihiga, Busia, and Bungoma counties. This is because the collapse rate is more eminent in the western region of Kenya, particularly in the selected counties, as compared to other counties, especially in the central region of Kenya (YEDF Survey report, 2019); thus, the study sought to interrogate the influence of

financial inclusion and enterprise characteristics on the financial sustainability of youth-owned enterprises in the Western region of Kenya. Therefore, the survey reports provided valuable data on the challenges and opportunities faced by youth-owned enterprises, helping researchers identify key financial inclusion factors that could influence their financial sustainability. Survey reports can also be used to guide the formulation of targeted interventions and policies to support these businesses effectively.

1.2 Statement of the Problem

Youth-owned enterprises have an essential role in the global economy and employment generation, but they have high sustainability issues, especially in Kenya and other developing nations. The youth start-ups are growing at a very high rate in developed countries as compared to developing nations. At the same time, comparative statistics reveal that youth-owned enterprises in developing countries are closing down at a much higher rate. Despite government policies and financial inclusion that have increased access to funds in Kenya, most of these businesses fail to progress to the next level, as over 50% will fail within two to three years due to limited capital sustainability (OECD, 2017; WEF, 2017; YEDF, 2020).

In Kenya's western region, youth-owned enterprises face even more significant challenges. Failure is blamed on low knowledge in finance matters, low business acumen, lack of adequate funds, and lack of trust in partnerships, all worsened by the COVID-19 downturn impact (Gor, Kalei, & Kilonzo, 2024). Research carried out in the various counties, including Kakamega, Bungoma, Busia, and Vihiga, has revealed a host of factors, including poor management, corruption, a lack of initiative, and inadequate access

to financial training and funds. Although some researchers propose business planning and market development, these suggestions are not well grounded in theory and research, and as a result, youth enterprises do not know how to make themselves sustainable.

Moreover, the previous empirical, contextual, conceptual, and methodological research has left questions, which creates difficulty in the generalization of the results. This research seeks to fill these gaps by analyzing the effects of financial inclusion on the financial viability of youth-owned enterprises in Western Kenya with a focus on enterprise type and regional circumstance. Therefore, the current study aims at improving the knowledge of young people's financial needs and the efficiency of inclusion strategies in their economic development.

1.3 Objectives of the Study

The study was guided by a general objective and specific objectives.

1.3.1 General Objective

To examine the influence of financial inclusion and enterprise characteristics on the sustainability of youth-owned enterprises in Western Region, Kenya.

1.3.2 Specific Objectives

The study sought:

- (i)** To examine the influence of financial intermediation on the sustainability of youth-owned enterprises in the Western Region, Kenya.
- (ii)** To establish the influence of financial deepening on the sustainability of

youth-owned enterprises in the Western Region, Kenya.

(iii) To determine the influence of financial innovation on the sustainability of youth-owned enterprises in the Western Region, Kenya.

(iv) To examine the influence of crowdfunding on the sustainability of youth-owned enterprises in the Western Region, Kenya.

(v) To establish the moderating influence of enterprise characteristics on the relationship between financial inclusion and sustainability of youth-owned enterprises in Western Region, Kenya.

1.4 Research Hypothesis

H₀₁: There is no significant influence of financial intermediation on the sustainability of youth-owned enterprises in Western Region, Kenya.

H₀₂: There is no significant influence of financial deepening on the sustainability of youth-owned enterprises in Western Region, Kenya.

H₀₃: There is no significant influence of financial innovation on the sustainability of youth-owned enterprises in Western Region, Kenya.

H₀₄: There is no significant influence of crowdfunding on the sustainability of youth-owned enterprises in Western Region, Kenya.

H₀₅: Enterprise characteristics does not significantly moderate the relationship between financial inclusion and sustainability of youth-owned enterprises in Western Region, Kenya.

1.5 Significance of the Study

This study is valuable for policymakers, practitioners, investors, and researchers as it provides empirical evidence that improves the understanding of financial inclusion's effect on youth-owned enterprises' sustainability. Firstly, this research gives recommendations for addressing how supply-side market factors can be utilized to achieve financial inclusion for policymakers. Knowledge of the facilitators and inhibitors of youth ownership of enterprises can help governments formulate policies that lead to access to finance for youths to reduce financial exclusion and foster economic inclusion for youths. These insights help the policymakers to determine the structures that will be the means of increasing financial inclusion for those who are excluded while at the same time enhancing the structural framework of the country's economy.

The study provides significant information for practitioners and regulatory bodies, especially for the formulation of policies that can guide the support of youths involved in enterprise. The results of this study contribute to the creation of approaches for economic development that eliminate financial inequality and ensure sustainable youth business sustainability in the long term, promoting economic stability and equality.

This research contributes to the existing literature by providing quantitative evidence on the link between financial inclusion and the sustainability of youth-led enterprises and their characteristics. The findings of this data reveal how various approaches to financial access impact enterprise success, as well as key characteristics of enterprises that can serve as future indicators of prosperity, thus offering important reference points for further study.

The findings provide implications for investors and funders. Through identifying the effectiveness of financial inclusion strategies, it is possible to determine the prospect and

profitability of financing youth-led enterprises to achieve long-term returns. Such information assists investors and funding institutions to fund the youth enterprises that are likely to record high sales and profitability in the future.

Lastly, for scholars and researchers, the study will offer a strong empirical database on which comparative analysis can be made. It provides the basis for future studies on financial inclusion and its effects on enterprise sustainability, providing knowledge to develop more and encourage further research that will provide an improved comprehension of the factors that create financial sustainability among youth-owned enterprises.

1.6 Justification of the Study

There is evidence of declining performance of youth-owned enterprises in the Western region of Kenya; most of them experience constraints in fund access, are unable to cope with competition, have inadequate financial training, and perceive low entrepreneurial skills. There are very few studies on youth-owned enterprises in Kenya in relation to financial inclusion. The introduction of a moderator “enterprise characteristics” has not been used by many scholars.

1.7 Scope of the Study

The study was conducted between August 2023 and February 2024. The study only focused on the influence of financial intermediation, financial deepening, financial innovation, crowdfunding, and the moderating role of enterprise characteristics on the financial sustainability of youth-owned enterprises in Western Kenya (Kakamega, Busia,

Bungoma, and Vihiga counties).

The study targeted chairpersons/owners of youth-owned enterprises funded by county governments, the Youth Enterprise Development Fund, the Uwezo Fund, and the Women Enterprise Fund. Primary data was collected while secondary data collection sheet captured financial performance of youth-owned enterprises between the years 2017-2022 (pre-general election 2017, Covid-19-year 2020; post-Covid-19 and general election 2022 periods) for trend analysis of time series secondary data.

1.8 Limitation of the Study

The study was limited to the four variables, namely, financial intermediation, financial deepening, financial innovation, and crowdfunding; thus, any other financial inclusion approaches are not captured in this study. Some sampling units were located in remote areas with poor infrastructural/communication networks, prompting the researcher to engage research assistants. The study was only done in four counties (Kakameg, Busia, Bungoma, and Vihiga) targeting youth-owned enterprises that were funded by the YEDEF; thus, the study findings might not be generalized to all the 47 counties spread across Kenya and YOE not funded by the YEDEF.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This section covers theories that underpin the study, a conceptual and empirical review of related literature on financial inclusion and sustainability of firms, plus the justification for the introduction of enterprise characteristics as probable moderating variables, and finally, a summary and research gaps. A thematic approach has been adopted to guide the chapter presentations, accompanied by explanations in prose form.

2.2 Theoretical background

Thomas (2017) defines theory as a description of a phenomenon and the interactions of its variables that are used to attempt to explain or predict a phenomenon, while Ngulube and Mathipa (2015) argue that a theoretical framework is a structure that identifies and describes the major elements, variables, or constructs that are helpful in organizing a study. Theories aid researchers in understanding relationships that govern and influence or predict a given outcome. Further, according to Simon and Goes (2011), a theoretical framework guides and resonates with every aspect of the research process, from the definition of the problem to the literature survey, methodology, presentation, and discussion of the findings, as well as the conclusions that are drawn. To guide the study, the researcher has reviewed a number of relevant theories that adequately inform conceptualized independent, moderating, and dependent variables, thereby enriching the theoretical underpinnings of the study.

The financial sustainability of youth-owned enterprises is a complex issue that cuts across

different theoretical frameworks. This research is mainly guided by the Financial Intermediation Theory supplemented by the Information Asymmetry Theory, Theory of Sustainable Finance, Innovation Diffusion Theory, Financial Liberalization Theory, and Stakeholder Theory. Altogether, these theories offer an understanding of how firms' characteristics and financial inclusion affect the sustainability of youth-owned enterprises in Kenya's western region.

2.2.1 Financial Intermediation Theory

This study relies on the Financial Intermediation Theory, which was advanced by Gurley and Shaw in 1960. The theory explains how financial intermediaries such as banks, credit unions, investment funds, and insurance companies help to bring together the surplus units, that is, savers, and the deficit units, that is, borrowers. In an ideal setting with complete information and no cost of transacting, users would be free to lend and borrow from each other. However, the real-world markets entail high transaction costs and are also marked by information asymmetry; hence, the direct exchanges can be inefficient.

This theory is relevant to the study in a manner that it offers a way through which financial intermediaries can increase the flow of finance to youth-owned enterprises, as they have several challenges in accessing finance due to lack of collateral, little credit history, or are seen as higher risk. To the extent that these enterprises can effectively use borrowed funds, these ideas suggest that intermediaries can facilitate their financial sustainability by providing them with financial products and services as well as financial management training services.

This theory has been discussed in detail by various scholars. Diamond (1984) examined how financial intermediaries avoid high costs of monitoring to reduce the gap between buyers and sellers of credit. Allen and Santomero (1997) also gave a detailed analysis of the changes in the functions of financial inclusion that include the offering of cash management and risk management in the current economy. Boot and Thakor (2000) studied the new technologies and the liberalization of financial systems to show how financial intermediation has been brought closer to smaller enterprises.

However, there are still areas that are missing with regards to youth-owned enterprises, especially in the developing countries. Although the theory provides insights on the general roles of the intermediaries, it may not effectively explain the specific challenges that face these enterprises, including poor financial management, a lack of trust in financial institutions, or access to new-age financial products. Also, the perfect competition model can assume that financial markets are perfect and efficient, which is by far from being true, especially in the developing world. This research aims at trying to fill this gap by examining how financial intermediation particularly impacts the financial viability of youth-owned enterprises in the context of the western region of Kenya and taking into account the economic and cultural realities of the region.

2.2.2 Informational Asymmetry Theory

Supporting the primary theory, the Information Asymmetry Theory provided by Akerlof (1970) established limitations on the balance of information between the givers and the takers of real-life commodities. In financial markets, borrowers know more about their capacity to repay a loan than the providers of the loan have knowledge about. This can

cause adverse selection and moral hazard problems, where the lenders are unable to screen the risk of default and, in the process, offer higher rates of interest or ration credit. In the case of youths' enterprises, information gaps act as a challenge to the financing of the businesses. Such enterprises may not have records of their financial returns or credit references that financial intermediaries can take into consideration when appraising their credit standing. Thus, they are viewed as high-risk individuals, which often means that they can be denied credit when they need it most.

This theory has been used in various financial scenarios by scholars. Stiglitz and Weiss (1981) employed it to describe credit rationing decisions by banks and to show that monetary rates cannot coordinate the credit market because of information asymmetry. Similarly, in a study conducted by Bester (1985), the usage of collateral requirements was analyzed to find out how it could prevent information asymmetry and hence, adverse selection. Berger and Udell (1998) examined relationship lending within the context of information asymmetry in financing small businesses.

However, the theory is rather limited in terms of considering borrower's circumstances, such as low level of financial literacy or absence of proper financial documentation. Furthermore, it fails to go further into the possible approaches to addressing information asymmetry in relation to the youth entrepreneurs in the developing nations. This study seeks to fill this gap by exploring the ways of promoting transparency and trust with a view to increasing the available financing for youth-owned businesses.

2.2.3 Theory of Sustainable Finance

Crockett (1996) proposed the Theory of Sustainable Finance, which acknowledges the incorporation of ESG factors into financial decision-making to enhance sustainable economic growth. While the development of sustainable finance principles started with financial institutions and markets, it is applicable to any enterprise. Financial sustainability is not only the ability of youth enterprises to generate positive financial returns on investment but also their ability to manage available funds, resources, and risks for growth and development. This theory justifies the relationship that exists between the financial management strategies and sustainable development goals. Morduch (1999) elaborated this theory on microfinance institutions, asserting that sustainable microfinance practices of institutions can eradicate poverty and bring qualitative changes in the economy.

However, the theory is found to relate more to some significant financial institutions or markets and may not adequately capture the requirements of a youth-owned enterprise in developing economies. However, it can obscure other factors that such enterprises may encounter on the outside world, be it fluctuations in the market prices or restrictions of the legal systems. This research uses the micro-level of sustainable finance to explore what sustainable financial practices are achievable by youth-owned enterprises and how these could improve their stability and future viability.

2.2.4 Innovation Diffusion theory

The Innovation Diffusion Theory was developed by Rogers (1983) to describe the process of how new ideas and technology are disseminated in a society. These are the relative

advantages, compatibility, complexity, trialability, and observability, which define the extent to which an innovation will be accepted in an organization. They influence the pace and degree to which an innovation is taken up by one or more persons or companies. Innovation remains one of the key factors that define the availability of financial services among people. Young individuals should embrace the use of financial innovations such as mobile banking technology, digital payment technology, and crowdfunding. Siwadi & Mhangami (2011) used this theory in their research of women entrepreneurs in Zimbabwe and urged the adoption of new financial instruments to improve financial performance.

However, the theory may not fully explain external constraints that youth enterprises encounter, such as poor access to technology, poor infrastructure, or restrictive policies. Cultural factors and low financial literacy, in turn, may become the reasons for not adopting financial innovations. This research aims at establishing these barriers and recommending ways of overcoming them for increased diffusion of financial innovations among the youth-owned enterprises in Kenya for improved financial inclusion and sustainability.

2.2.5 Financial Liberalization Theory

This theory, as advanced by McKinnon (1973) and Shaw (1973), asserts that financial repression, that is, distortions of financial prices such as interest rates, reduces the real size of the financial system relative to the non-financial, which leads to a slow real rate of economic growth. The theory rests on the assumptions that saving is an increasing function of the real rate of interest on deposits and the real rate of growth in output and that investment is a decreasing function of the real loan rate of interest and an increasing

function of the growth rate. According to this theory, in an environment where investment opportunities are plentiful but the financial system is repressed, the key to higher and more efficient investment is to raise the return to savers, which is the real interest rate. The theory concluded that alleviating financial restrictions in developing countries (mainly by allowing market forces to determine real interest rates) can exert a positive effect on growth rates as interest rates rise toward their competitive market equilibrium. According to this tradition, artificial ceilings on interest rates reduce savings and capital accumulation and discourage the efficient allocation of resources. Additionally, McKinnon pointed out that financial repression can lead to dualism, where firms that have access to subsidized funding will tend to choose relatively capital-intensive technologies, whereas those not favored by policy will only be able to implement high-yield projects with short maturity.

This theory addresses the financial deepening variable in the sense that increased provision of financial services and/or ratio of money supply to GDP with a wider choice of services geared to youth-owned enterprises can have an effect on their sustainability. While financial liberalization is theoretically effective in opening up access to finance, it may not be easily implemented in providing finance to youth-owned enterprises. Possible drawbacks of liberalization are higher fluctuations, financial crises, and the exclusion of disadvantaged groups if the liberalization process results in the mergers and acquisitions of financial institutions. This study seeks to understand the impact of financial liberalization on youth-owned enterprises in Kenya as well as provide recommendations on how to avoid potential risks that may be associated with liberalization policies, while at the same time enhancing liberalization policies' impact on growth.

2.2.6 Stakeholder Theory

Stakeholder Theory, introduced by Freeman (1984), suggests that an organization's primary responsibility is not only to generate profits for its shareholders but to ensure all stakeholders benefit from the enterprise. Stakeholders are employees, customers, suppliers, communities, and every individual or group who cares about what the organization is doing. The theory postulates that stakeholder relations are more effective for decision-making and company success than only shareholders. The structure of an enterprise, including its size, ownership, and stakeholder relations, defines it and its performance as well as sustainability. Jensen (2001) and Abrams (1951) dealt with issues around stakeholder management and firm value and stated that managing stakeholder claims can improve firm value. Donaldson and Preston (1995) made an extensive discussion of the implications of the theory for management practices.

However, the theory has normally considered large organizations, and it may not capture the complexities of young and small enterprises. Youth enterprises in developing countries may have various constraints, including limited resources, information, and technical knowledge. This study extends stakeholder principles to these enterprises by analyzing how their characteristics shape the link between financial inclusion and sustainability. Youth-owned enterprises can improve the efficiency of their activities, attract more resources, and become more sustainable when stakeholders' interests and impacts are taken into account.

2.3 Conceptual Review

This is a conceptual explanation of all the study's independent variables (financial intermediation, financial deepening, financial innovation, crowdfunding), moderator variable (enterprise characteristics), and dependent variable (financial sustainability). A thematic approach has been adopted to guide explanations of the conceptualized study variables.

2.3.1 Financial Intermediation

Financial intermediation is the utilization of credit, business funding/financing, and financial linkages/partnerships from financial lending institutions (Sharma, 2017). That is, the role of financial intermediary is played by the financial sector. Financial intermediation involves mitigating costs associated with information acquisition and the conduct of financial transactions. It also makes provision for insurance and risk sharing, stimulates the funding of liquidity needs through credit lines, and aids the creation of specialized products. In most studies, emphasis will be given to financial intermediation and performance of SMEs (which is believed to stimulate growth) by examining the influence of key macroeconomic financial indicators like financial intermediation, commercial bank credits, bank lending rate, exchange rate, monetary policy rate, and bank interest rate on the performance of SMEs. However, in this study, financial intermediation measures such as funding/financing policies, financial linkages/partnerships, and financial investment trainings have been used to examine the influence of financial intermediation on the financial sustainability of youth-owned enterprises. This is because youth-owned enterprises require access to finance for effective implementation of their business plans and budgetary needs.

2.3.2. Financial Deepening

Financial deepening refers to the increased provision of financial services and or ratio of money supply to GDP with a wider choice of services geared to all levels of society (European Commission, 2018). The concept of financial deepening is usually employed to explain a state of an atomized financial system, that is, a financial system which is largely free from financial repression (Nanna and Dogo, 1998). Financial deepening results from the adoption of appropriate real finance policy, namely relating real rates of returns to real stock of finance. Conversely shallow financial system is partly the consequence distortions in the relative process of finance. Financial intermediation of growth allows for financial deepening. That is increased provision of financial services and or ratio of money supply to GDP with a wider choice of services geared to availability and ease of access by youth owned enterprises.

European Commission report (2018) thus contends that an increase in the real size of the monetary system will generate opportunities for the profitable operations of other institutions as well, from bill dealers to industrial banks and insurance companies. In its own right, financial depth contributes to growth by improving the productivity of investment. This linkage corroborates further the positive role played by financial liberalization on growth. Thus financial deepening implies the ability of financial institutions to effectively mobilize savings for investment purposes.

The growth of domestic savings provides the real structure for the creation of diversified financial claims. It also presupposes active operation of financial institution in the financial markets, which in turn entails the supply of quality (financial) instruments and

financial services. Financial deepening generally entails an increased ratio of money supply to gross domestic product. That is, the more liquid money is available to an economy, the more opportunities exist for continued growth of the economy (European Commission, 2018).

Financial deepening can also be defined as the ratio of money supply to GDP, is a function of domestic credit provided by banking sector as a percentage of GDP, Financial savings to GDP, rate of inflation, real lending rates, deposit money bank assets to GDP, currency outside banks to money supply (European Commission, 2018). In this study, financial deepening has been measured in terms of ratio of money supply to GDP, price indices and scope of financial services provision and examine their influence on financial sustainability of youth owned enterprises.

2.3.3. Financial Innovation

Financial innovation is the process of creating new financial products, services, or processes via advances in financial instruments, technology, and payment systems (Cheng, Hsu, and Lo, 2017). According to the OECD (2020) report on global partnership for financial inclusion, government agencies must support an enabling and resilient environment for responsible digital financial services, including trustworthy and secure digital identity systems, to facilitate youth financial inclusion. However, empirical studies are minimal, a gap that will be addressed by this study, which has included financial innovation in the study's conceptual framework. This study measures financial innovation in terms of e-payments, e-financial accounting/auditing, table banking, and financial innovation literacy and examines their influence on the financial sustainability of youth-

owned enterprises.

2.3.4. Crowdfunding

Crowdfunding is the use of small amounts of capital from a large number of individuals, social media, or funding websites to finance new business ventures (Abu, 2018). Crowdfunding is a relatively new banking innovation idea arising from the financial inclusion concept, and European Commission (2018) studies in its application in EU capital markets reported that some banks were using crowdfunding as an open call to the public and business-orientated firms to raise funds for a specific project. Crowdfunding platforms are websites that enable interaction between fundraisers and the crowd. Financial pledges can be made and collected through the platform. In this study, crowdfunding has been measured in terms of collaborative financing, equity/asset-based financing, peer-to-peer (P2P) lending, and assessing their influence on the financial sustainability of youth-owned enterprises.

2.3.5 Enterprise Characteristics

Enterprise characteristics are distinct features unique to a business firm, like firm size, age, and ownership structure, among others (UN survey reports, 2020). According to UN survey reports (2020), most youth group enterprises are not able to financially sustain their businesses due to several barriers; thus, overcoming these barriers and achieving successful youth financial inclusion requires a multi-stakeholder approach that engages government (including policymakers, regulators, and line ministries), financial service providers, youth serving organizations, innovators, crowd funders, and the need to address issues related to the firm size of existing youth group enterprises, thus the need to include

enterprise characteristics in this study conceptual model as a moderator. For instance, the age of a firm is its accumulated experience and is reflective of learning (Karaye et al., 2015). It is the continuous length of time, often in years, that a firm has been in its current business from when it was incorporated or listed (for listed companies).

Gunu & Adamade (2015) found an inverse relationship between firm age and financial performance. Age is an element of organizational resources and capability. Some studies found that firms grow at rates that decrease with age at a diminishing pace and that profitability and market-to-book ratios decline with firm age, related to investors learning and decline in uncertainty (Karaye et al., 2015). Secondly, firm size is commonly used as an important fundamental firm characteristic. Total assets, number of employees, and number of branches have been used as firm size indicators by several scholars (Dang et al., 2018). In this research work, the study also considered firm size indicators such as total assets, number of employees, and number of branches where possible.

2.3.6. Financial Sustainability of Youth Owned Enterprises.

According to the UN Capital Development Fund survey reports (2020), 2.5 billion—more than half of the world’s working adults—are excluded from financial services, thus affecting the sustainability of their enterprises. This is most acute among low-income populations in emerging and developing economies, where approximately 80% of poor people are excluded. Secondly, financial sustainability-related problems emerge from financial illiteracy issues, whereby some youth are 33% less likely to have a savings account than adults and 44% less likely to save in a formal institution. Thirdly, saving-account penetration rates for youth vary by geographical region, ranging from 12% in

Africa to 50% in East Asia and the Pacific.

Lastly, youth are often excluded from access to formal financial services. Reasons include legal restrictions, high transaction costs, and negative stereotypes about youth. Regulatory frameworks and financial inclusive policies that are both youth friendly and protective of youth rights are thus needed to increase youth financial inclusion as a proxy for their financial sustainability of their enterprises. In this study, financial sustainability of youth-owned enterprises was measured in terms of market share, revenue growth, savings, solvency [total assets to liabilities], the number of years in operation, profit margin, and their sales volumes.

In a study conducted by Atiti (2018), which sampled 278 youth from a target population of 908 youth involved in entrepreneurship and aged between 18 and 35 years from the Kakamega Central Sub-County in Kakamega County. Information on the number of registered youths' entrepreneurs in Kakamega Central Sub-County was obtained from the county offices. Findings showed that innovativeness and creativity, education level and government policies, in particular strict business regulations/labour laws/ regulatory red tape, entrepreneurship training, funding and formal employment opportunities influence youths' participation in entrepreneurship, but, markets and marketing do not, thus emphasized that youth entrepreneurship programs in Kakamega County should focus on imparting knowledge and skills on small business management, use of computers as a business tool, how to attract business financing and general success/employability skills to encourage their participation in business; consider establishing new businesses from innovative ideas based on the market needs and not replicate local established businesses due to lack of adequate capital to compete with them; and that the national and county the

governments should regulate interest rates and support youths to acquire loans to start businesses.

Additionally, Barasa and Kithae (2015) studied the effects of lending conditions on accessibility of funds for youth entrepreneurs in Matungu constituency, Kakamega County, where a sample size of 66 respondents was selected from registered youth groups in Matungu constituency. The study recommended that YEDF develop a financial literacy program and educate the youth on services and products, loan requirements, and making the products readily available. Financial intermediaries need the capacity to develop youth-friendly financial products and additionally relax lending conditions to accommodate youth needs. Bureaucratic procedures for those seeking loans need to be shortened to reduce time to access loans. YEDF should be innovative and introduce mobile banking and loan services that can reach the youth and rural areas to increase access to the Youth Fund.

In a separate study, Waswa, Tibbs, and Ondiek (2018) analysed the effect of youth enterprise development funds on the performance of youth enterprises in Bungoma County using a sample of 380 respondents from a target of 67117 youth population in Kabuchai, Kanduyi, Webuye East, and Kimilili constituencies. Whereas the study found that the fund had created employment on average and little empowerment of youths who have managed to access them, there were challenges like poor management and discrimination, lack of awareness, little training, and poor follow-up activities, which has further encouraged poor cooperation among benefiting members. Long procedures in acquiring the funds, which the government should address to ensure transparency. In

regards to women and the Youth Empowerment Fund in Bungoma, Office of Auditor reports (2019) revealed that from a total loan portfolio of 413 million from 2013 to the 2019/2020 financial year, only 75.4 million had been received by the youth since inception, representing 18.3% of total funds allocated, thus showing seepage of funds by fund managers.

Similarly, Matoke and Oteki (2019) studied the effect of entrepreneurial education and training on youth economic empowerment in Matayos Sub-County, Busia. The sample size for the study comprised 186 youth groups, from which a sample size of 122 was derived. Systematic random sampling was used to identify respondents who accessed the Youth Enterprise Development Fund, while snowball sampling was used to identify control group respondents. The findings showed that the majority of the groups had not been given entrepreneurship training. The study concluded that there was a need for business skills training before disbursement of funds in Matayos Sub County, which was an essential item in the youth business growth and high turnover in the Sub County.

NCPD (2017) conducted an enterprise survey covering its four sub-counties in Vihiga (Hamisi, Emuhaya, Sabatia, and Vihiga). The survey revealed that the main employment and income-generating opportunities that young people are engaged in included farming, business, and employment. When executing these opportunities, the youth encounter some challenges like lack of capital, corruption, and high taxation of goods and services. While a number of youth try to access loans from YEDF, Uwezo Fund, and Women Enterprise Fund, among others, the greatest challenges still included corruption while issuing loans, fear of loans, and lack of funding information. Thus, youths suggested that corruption

should be addressed and youth sensitized on the existing interventions, and that there should be a fair allocation of the funds and the loan repayment period should be increased.

2.4 Empirical Review

This is an empirical review of previous studies on the relationship between independent variables (financial intermediation, financial deepening, financial innovation, and crowdfunding), moderator variables (enterprise characteristics), and the dependent variable (financial sustainability). A thematic approach has been used to guide the discussions that shows both points of convergence and divergence in empirical findings.

2.4.1 Financial Intermediation and Sustainability of the YOE

Niskanen and Niskanen (2017) examined the determinants of growth in a sample of small and selected developing countries. In the study, firm growth was examined on a number of firm-specific and relationship-lending characteristics. The data set provided an excellent opportunity for investigating the effects that firm-specific factors have on firm growth. The results on relationship lending effects suggest that an increase in the number of lending banks decreases growth rates in the larger firms and that an increase in the number of financial lending institutions operating in the county where the firm is located enhances growth of the larger firms and decreases growth rates of the smaller firms. It could, therefore, be argued that close lending relationships enhance growth for all firms, but that only the larger firms in the sample benefit from more competitive banking markets; recommended enforcement of financial inclusion frameworks like financial intermediation, a gap that has been addressed in this study.

Ukamaka, Ikechukwu, and Nkiru (2019) researched financial intermediation and small and medium enterprises performance in Nigeria using an econometric model of the Ordinary Least Square (OLS). The findings revealed that with the exception of bank interest rate to SMEs, all other variables—financial intermediation, commercial bank loans and advances to SMEs, bank lending rate to SMEs, exchange rate, and monetary policy—have a positive and significant influence on small and medium enterprises performance in Nigeria. The study recommends that the Nigerian government should design an accessible and well-supervised SMEs credit scheme for the development of the sector. An appropriate environment and infrastructural facilities for SMEs development should be provided by the government so as to facilitate commercial bank loans and advances with good bank lending and interest rates to SMEs. The sample used was too small (43); in this study, the sample population is 210.

Imoughele and Ismaila (2019) employed Co-integration and Error Correction Modelling (ECM) techniques to empirically investigate the impact of commercial bank credit on Nigeria's small and medium-scale enterprises (SMEs) between 1986 and 2012. The results revealed that SMEs and selected macroeconomic variables included in the model have a long-run relationship with SMEs output. The study also revealed that savings time deposits and exchange rates have a significant impact on SMEs output in Nigeria. Furthermore, commercial bank credit to SMEs, total government expenditure, and bank density have a direct but insignificant impact on the country's SMEs output. The study also showed that interest rates have an adverse effect on SMEs financial growth. Akinruwa, Awolusi, and Ibojo (2019) carried out a similar study in Ekiti State using regression analysis. Their findings showed that funds, managerial skills, government policy,

education, and facilities were significantly related to performance. By ranking, funds were considered most significant, followed by education, government policy, managerial skills, and facilities. Macroeconomics affects all SMEs equally; this study adopted firm size and age, which affect firms differently.

Additionally, a survey was conducted on 225 respondents in Tanzania to different micro enterprises to test whether there is a difference in growth performance by making comparisons between enterprises owned by recipients of training against those owned by people without training. In assessing the performance of enterprises, three different measures—that is, sales revenue, number of employees, and asset level—were used for comparison. From findings, enterprises owned by clients who had received business and entrepreneurship training demonstrated a different growth level in terms of assets owned and revenues obtained compared to enterprises whose owners had never been exposed to any form of business and entrepreneurship training. On the other hand, training had a minimum influence on the growth of enterprises when it was measured in terms of the number of employees (Diaz, Lillian, and Tran, 2017). The study focused on trainings only and no other financial intermediation dimensions like financial linkages/partnerships, a gap addressed in this study.

Maja, Ivica, and Marijana (2017) did research on sources of finance available to small-scale enterprises (SSEs) in Nairobi. The aims of the study were to identify which types of credit are easily obtainable by SSEs and to evaluate the credit policies. The research found that most entrepreneurs view borrowing as both important and necessary for business pursuits. The majority indicated that the effect of credit on the business was positive and

would, when possible, borrow to save business from collapsing. On access to credit, the majority of entrepreneurs relied on limited personal and family savings for start-ups and additional capital. For this reason, these enterprises have poor access to credit.

The research also showed that formal financial actors, such as banks, provide relatively large credit volumes for a long time at moderate interest rates, but the procedures take too long and that formal collateral and guarantors are required. In addition, the supply of short-term credit was noted to be restricted because transaction costs are too high. It further states that informal financial actors include money lenders and Rotating Savings Associations (ROSCAs), who provide quick and easily accessible credit for short periods, and that these suppliers are flexible as regards collateral requirements, though conditions are insecure and interest rates are high. The study did not relate documented credit sources and credit policies with the firms' financial sustainability, a gap that has been addressed by this study.

Sumon and Abu (2019) studied the effects of firm size and firm characteristics such as age and independent director on profitability of banking companies listed on Dhaka Stock Exchange (DSE) in Bangladesh. Fifty (50) annual reports of 10 banking companies that were active in DSE between the years 2011 and 2015 have been analyzed. As indicators of firm profitability, return on assets (ROA) and return on equity (ROE) have been used, whereas total assets, the number of employees, and the number of branches have been utilized as indicators of firm size. Multiple regression analysis (ordinary least squares) was developed to identify the factors that affect firms' profitability. The results of empirical analyses show that firm size (total assets, number of employees, and number of branches) positively affects firms' profitability. Besides firm size, other firm-specific factors such as

age and independent director on board are negatively influencing firms' profitability in the Bangladesh banking industry.

Attanasio et al. (2017) studied the impacts of microfinance in Mongolia; the reason for individual and group credit was to give women access so as to fund small enterprise activities. The focus was to help in the expansion and creation of business. Credit lasted for a period of 2-3 months, and the interest rate was 2% each month and reduced by 0.1% after every successful loan cycle. Other incentives are the possibility to increase the credit amount and maturity each loan cycle. Thus, microfinance presents various loan products, such as group loans, individual loans, and joint liability lending, amongst many others, to individual or group-owned enterprises, but while some grow, others fail to even repay the loans.

Maja, Pervan, and Marijana (2019) did research on sources of finance available to small-scale enterprises in Nairobi. The aims of the study were to identify which types of credit are easily obtainable by small-scale enterprises and to evaluate the credit policies of small-scale enterprises. The research found out that most entrepreneurs view borrowing as both important and necessary for business pursuits. The majority indicated that the effect of credit on the business was positive and would, when possible, borrow to save business from collapsing. The study only documented credit sources as intermediation dimensions but did not relate with the firms' financial sustainability, a gap addressed by this study.

In Kenya, Kimathi (2016) assessed the effect of microfinance on youth enterprises longevity and found that shareholders from both the private and public sectors are

empowering youth-owned businesses in Kenya, like youth enterprise funds, the building of youth empowerment centres, informal and formal financial support, and well-wishers initiatives that have been put in place. All these aspects make the microfinance institutions ability to create services better available to people. For example, the guarantee required in a commercial bank means a lack of financial services for most of the poor. However, there are different ways of guaranteeing in various microfinance institutions. Mostly there are no guarantees required, usually just the fact that the client can get arrested while defaulting. The study recommended adoption of financial inclusion models like financial intermediation to enhance the performance of youth-owned enterprises.

Mairura, Namusonge, and Karanja (2018) studied the role of financial intermediation in the growth of small and medium manufacturing enterprises in Kenya: a survey of small and medium enterprises in Nairobi. Primary data was collected through structured questionnaires containing both closed-ended and open-ended questions. The data was analyzed using descriptive statistics such as frequency, percentages, means, and standard deviation, as well as inferential statistics such as ANOVA, multiple linear regression, and correlation analysis. The findings showed that most of the respondents agreed with the fact that they received a lot of support from the financial intermediaries. Support received enhanced business growth. Growth of business is attributed to the nature of support received, as accounted by 49.2 percent, who agreed that they received a lot of support, 73.5 percent said that support received enhanced business growth, and 55.6 percent strongly agree and agree cumulative responses. The findings of the study showed the role played by financial intermediaries in promoting SMEs' growth in Kenya. The study did not clearly show types of financial support received by the firms, a gap addressed by this study.

Bruno and Gichana (2023) studied the influence of capital accessibility on the performance of government-funded youth enterprises in Kakamega County, Kenya. The theories that supported the study included empowerment theory and resource dependency theory. The target population of the study comprised of 1270 government-funded youth enterprises in the county and were distributed across six subcounties (Matungu, Kakamega south, Mumias, Lugari, Butere, and Kakamega central subcounties). The Fishers sampling formula was adopted to derive a sample of 295 respondents. The study adopted a stratified random sampling method in distributing the sample across the sub-counties. The unit of analysis was chairpersons, treasurers, or secretaries of the youth enterprises. The study used quantitative data that was collected from respondents using questionnaires with closed-ended questions. The study findings, supported by beta coefficients, underscore the significant impact of capital accessibility on the performance of government-funded youth enterprises in Kakamega County ($\beta = 0.409$, $p < 0.05$).

The Adoli and Koori (2023) study was to establish the effect of the YEDF loans and the growth of youth-owned enterprises in Mumias West sub-county, Kenya. Specifically, the study focused on the effect of the provision of bid bond financing, local service order/local purchase order (LSO/LPO) financing, business expansion loans and agribusiness loans provided by the YEDF, and the growth of youth-owned enterprises in Mumias West Sub County. The target population were the 612 youth enterprises in Mumias West Sub County. The sample size was 242 youth enterprises obtained using simple random sampling through the Yamane formula.

The study relied on the imperfect information theory and the pecking order theory. Primary data was collected using questionnaires. Secondary data was obtained by analysing government records, public records, and business journals. Qualitative and quantitative data analysis was accomplished by inferential and descriptive statistics. From the analysis of findings, the coefficient of determination as measured by the adjusted R-square showed that the predictor variables explain sixty-nine point six percent of the total variation in the growth of youth-owned enterprises in Mumias West Sub County. The study concluded that bid bond financing, LPO/LSO financing, business expansion loans, and agribusiness loans have a significant effect on the growth of youth-owned enterprises in Mumias West Sub County. Access to credit is a major obstacle to young entrepreneurs who lack collateral; thus, YEDF lending has an influence on the performance of youth-run businesses.

Koima (2023) studied the effects of microfinance products on the financial performance of women and youth-owned enterprises in Trans Nzoia County, Kenya. The target population was therefore a total of 1513 registered women and youth-owned enterprises operating within 5 sub-counties in Trans-Nzoia County. From 1513 women and youth-owned enterprises who borrow from microfinance in the county. A sample of 94 respondents was designated to be part of the investigation, which was selected using stratified sampling technique. Validity and reliability of the instruments were achieved. Data was assessed using SPSS. Results showed that the microinsurance product had an affordable premium, and claims were processed on time within the stipulated period. This assisted the business to continue with the core task with minimum risk. The study concluded that microcredit, financial training, microsavings, and microinsurance products

had a significant positive impact on the performance of women and youth businesses. Therefore, it is recommended that microfinancial institutions should improve training programs, differentiate microsavings and microinsurance products, and consider short-term loans with low interest for the business.

2.4.2. Financial Deepening and Sustainability of the YOE

Maina (2018) studied the influence of youth enterprise development fund efficacy on the financial performance of youth-owned enterprises in Kirinyaga County and found that access to credit, loan repayment conditions, financial literacy, and financial planning relate to the profitability of youth-initiated enterprises. The study recommended further studies in the use of financial deepening, a gap that is addressed by this study.

IMF (2020) trend analysis of financial deepening (FD) in Asian countries with respect to growth of business enterprises showed the weakening effect on growth at higher levels of financial sustainability of small enterprises can be attributed to financial deepening rather than to higher access or greater efficiency. The bell-shaped relationship between SMEs' financial growth and the FD index pertains only to the depth components of the index for both markets and institutions. Specifically, access has a positive linear relationship with SMEs' growth, while efficiency on its own does not have a robust positive association with long-term SMEs' growth. This implies that countries that may have reached the maximum benefits in terms of growth from deepening financial institutions and markets may still reap further growth benefits from better access. As an example, Chile stands out as a country with an above-average FD index, with deep and efficient financial institutions, but could gain from greater access to both institutions and markets. Morocco's FD index is at the

emerging market average, with room for developing both markets and institutions. Malaysia's FD index is about twice the emerging market average, reflecting a great increase in depth since the Asian crisis, but the financial sustainability of its small business enterprises lags behind those in European countries. The study did not relate financial deepening with the financial sustainability of small business enterprises.

Comparatively, OECD (2020) enterprise surveys revealed that financial deepening, among other factors, contributed to the sequencing of financial market development of small business enterprises. For instance, arising from financial deepening, the creation of a fully funded pension system contributed to the early development of a domestic institutional investor base. The establishment of a sovereign bond market early on facilitated the development of other markets as well. An improvement in contract enforcement, the creation of institutions that reduced information asymmetries, and the increased availability of collateral helped deepen the markets. Total bank credit to the private sector currently stands at 75 percent of GDP, below the OECD (Organization for Economic Co-operation and Development) average but well above the average for Latin America.

OECD (2020) enterprise surveys also indicate that Morocco has implemented substantial financial reforms during the past three decades as part of an agenda to promote growth and financial stability of upcoming small business enterprises. That is, financial deepening reforms were followed by efforts to deepen financial markets by introducing new instruments and reforming the SMES. As liberalization and deregulation of financial activities allowed SME owners to assume greater risks, prudential regulations and bank supervision were strengthened. Reforms had a significant impact on financial

intermediation and financial sector structure, but more is still needed to further strengthen financial supervision of SMEs to ensure their financial sustainability.

IMF (2020) enterprise surveys in Chile indicated that lack of access to finance is still a significant constraint. For example, only 13 percent of firms use banks to finance investment (about half of the world average). Recognizing this constraint, in 2017 and 2019, Bank Al-Maghrib set up special refinancing mechanisms in favour of SMEs. Developing microfinance and Islamic finance, with an emphasis on the improvement of the financial infrastructure, could help move the financial inclusion agenda forward and thus assist SMEs in financial sustainability. Further IMF (2020) enterprise surveys in Malaysia showed that development of deep and liquid domestic currency equity and bond markets has been a hallmark of financial deepening in Malaysia and helps buffer the economy against external shocks. The bond market has doubled over the past 10 years, and there is significant foreign participation. About 40 percent of bonds are issued by the private sector (including government-linked companies). While companies invest most of their portfolios in the domestic bond market, the share of assets invested abroad has grown, reflecting the gradual liberalization of portfolio restrictions on SMEs and residents. Deep-pocketed domestic investors tend to buy significant amounts of domestic equities and bonds during turbulent periods of capital flow volatility because the selling by foreign investors means profit opportunities. Deep financial markets have also enabled Malaysia to borrow in its own currency for infrastructure investment, promoting SMEs growth.

Loayza and Roman (2019) studies on financial deepening in Asia showed that financial

deepening has non-linear effects on both economic growth and stability. That is, a useful way to summarize the implications of these results for economic policy is to first define the marginal effect on growth as the marginal social benefits of financial deepening and then group together the marginal impacts on stability—both macroeconomic and financial—into the marginal social costs of financial deepening. One can then define a socially optimal level of financial deepening as one where marginal costs and benefits are equalized. However, the analysis did not relate financial deepening effects on SMEs financial sustainability, a gap that is filled by this study.

Eugster (2019), in an examination of the relationship between the pace of financial deepening and SMEs growth, yielded inconclusive results. However, the relationship between the pace of financial deepening in institutions and the volatility of both GDP growth and inflation is significant and positive. In a similar direction, financial instability also rises with the pace of deepening. A plausible reason is that faster growth of institutions is accompanied by greater risk-taking and high leverage, particularly when the financial system is poorly regulated and supervised. The study did not correlate financial deepening with the financial sustainability of small business enterprises.

2.4.3. Financial Innovation and Sustainability of the YOE

Hamdallah and Srouji (2022) studied the influence of sustainable innovation on financial entrepreneurship performance (FEP). Jordanian banks are tested based on a multiple regression analysis for the periods 2008 and 2018 and a time series forecasting webinar analysis for the period from 2019 to 2029 based on data ranging from 2008 to 2018. Innovation is indicated through disclosed intangible assets (IA) and items related to

research and development (R&D) costs. As organizations anticipate stability by concentrating on technological awareness to influence higher innovative performance (Guo, Guo, Zhou, & Wu, 2020), this study came to converse the relationships between previous literature variables; Lassala, Apetrei, and Sapena (2017) also revealed through the regression models that there is a relationship between FEP and SI. Meanwhile, bank FEP is directed by return on assets (ROA) and return on equity (ROE). Results reveal that bank FEP affects SI disclosure in a positive manner for the period 2008 and at a higher significant level than 2018. The growth prediction analyses divulge that both ROA and ROE are expected to decrease rapidly within a coming couple of years and then increase promptly. The study was done in banks and not SMEs, a gap that is addressed by this study.

Mihai, Alexandra, and Liliana (2020) examined the impact of investments and innovation on territorial economic growth, as measured by turnover, for Romanian active enterprises, especially SMEs in Bucharest, over the period 2009–2017. By estimating several log-log linear regressions, the quantitative outcomes provide support for a positive influence of investments on turnover. The association was confirmed both for all active enterprises at the national level as well as for micro, small, middle-sized, and big companies. As regards expenditures on innovation, a positive impact on turnover was acknowledged for all enterprises and particularly for big companies, but there was an absence of any statistically significant relation in the case of SMEs. The impact of firm size on turnover was positive for all active enterprises at the national level, along with active micro-units. Also, the estimation results show a positive impact of the number of active micro-units on territorial economic growth. The empirical findings are relevant to managers and policymakers in

order to stimulate, encourage, and offer support to SMEs' financial sustainability through their financial innovation strategies. The sample size of SMEs was small, thus the need for a bigger sample size—a gap that is addressed by this study.

Thabiso and Odunayo (2021) studied factors affecting small and medium enterprises' financial sustainability in South Africa. Using purposive sampling, data were collected from 310 respondents; however, six were incorrectly completed. The analysis was based on data collected from 304 respondents, which cut across owners and/or managers from small and medium construction, manufacturing, retail, and agricultural enterprises. A quantitative research design that falls under the positivist paradigm was used. Specifically, through a descriptive and multivariate regression analysis, it was found that financial awareness, budgeting, accounting skills, and financial innovation training have positive and significant effects on the financial sustainability of SMEs, with all the variables having 0.005 probability values, respectively. Out of all the variables examined, access to finance and financial innovation training had the largest absolute values of 0.425 and 0.37, respectively. Thus, it was concluded that workshops, financial innovation training, and seminars to improve the financial innovativeness of small and medium enterprises should be organized. This will improve the owner's ability to deploy the accounting and budgeting skills, and they will be exposed to meeting loan criteria and conditions from financial institutions. Also, adequate funds should be allocated to cater for the regular financial innovation training and development of small business owners using the services of financial experts. However, the study did not intensively focus on financial innovation dimensions.

Mugambe (2024) studied financial innovation for survival among microenterprises with declining profit margins in Uganda. A case study approach was initially used, focusing on five microenterprises within Kampala City selected from the five divisions of the city. However, after analyzing the collected data, a cross-sectional design was found appropriate and accordingly adopted. Key findings reveal that microenterprises succeed through product variation, efficient supply chain management, competitive pricing for standard products, and premium pricing for nonstandard products. These strategies enable them to stay relevant and profitable amidst intense competition and declining profit margins. The findings from the study indicate that there is a significant relationship between product innovation, cost-saving innovation, and the survival of microenterprises. However, the study did not focus on significant financial innovation, a gap that was filled by this study.

Hakizimana, Muathe, and Kavinda (2023) studied the role of networking and financial services on the performance of youth-owned enterprises in Kigali City, Rwanda. The study was informed by resource-based theory, dynamic capacity theory, Schumpeter's theory of innovation, stages of development theory, and contingency theory. The research philosophy adopted in this investigation was positivism. An explanatory study design was used on a sample size of 154 enterprises chosen from a target population of 256 enterprises in Kigali, Rwanda. The research suggested that executives of youth-owned businesses boost their networking and financial services so that firms can learn more and gain vital prospective, allowing them to more effectively handle their businesses and improve their future success and profitability.

Zerenler (2018) did research in the Turkish automotive supplier industry in order to examine the influence of innovativeness upon the SMEs performance. 117 questionnaires were sent to managers of the marketing department, R&D department, and production department. The response rate of this study was high (78%, or 92 respondents). The main conclusion from this study was that SMEs financial growth had significantly positive relationships with financial innovation performance. The study was based on non-financial innovation measures, a gap that is addressed by this study.

In his study, Wu (2018) attempted to explore the mediating effect of financial innovation on SMEs growth. The research was conducted in Taiwanese manufacturing and non-manufacturing industries. Seven hundred survey questionnaires were mailed to the firms under study. The response rate of the study was 22.71%. The study found that the effects of innovation exist at significant levels, suggesting a perfect mediating effect of financial innovation on growth. Similarly, Abouzar (2019) carried out a study on the role of financial innovation in Iran, and the study found that operational, organizational, or managerial processes are significantly related to attaining innovation.

Lafourcade (2019) carried out a study on an overview of the innovations and financial performance of microfinance institutions in Africa and concluded that there is a strong relationship between the two variables. The authors collected information about MFIs primarily through country-level networks and contracted consultants. All the data were self-reported from MFIs and then reclassified according to international accounting standards and cross-referenced if audited financial statements were available. Of the 163 MFIs analyzed, 77 earned positive returns in 2003. According to their findings, MFIs in

Africa tend to report lower levels of profitability, as measured by return on assets, than MFIs in other global regions. Among the African MFIs that provided information for this study, 47 percent post positive unadjusted returns attributed to high operating costs and a lack of enough financial innovation to counter it.

A separate study by Ignazio (2019) also revealed that financial innovation has not only opened up new opportunities for SMEs but also increased new market players arising from new products in the financial market. These developments have increased the range of financing and investment opportunities available to economic agents, besides changing the role of SMEs with expanded diversification choices in terms of portfolio size and sources of financing. Such developments affect the speed and strength of the channels of monetary policy transmission mechanisms in the economy. In this case, as financial markets become more liquid and complete, changes in official interest rates are more readily transmitted to the whole term structure and more generally to financial asset prices.

Ngugi (2020) did a study on the influence of innovativeness on the growth of SMEs in Kenya. The study targeted 4560 SMEs in Nairobi County. Regression models were used to examine the influence of innovativeness skills on the growth of SMEs in Kenya. Questionnaires were used as the main data collection. The descriptive statistics and inferential data analysis method was to analyse the gathered data. Data analysis was done with the help of the software program SPSS version 23, which is the most current version on the market, and Microsoft Excel to generate quantitative reports. The findings indicated that innovativeness influences the growth of SMEs in Kenya. The tendency of the owner/manager to engage in and support new ideas, novelty, experimentation, and

creative processes results in new products, services, or technological processes, which has a great influence on the performance of SMEs. The study was based on non-financial innovation measures, a gap that is addressed by this study.

Obuya (2017), in the study on debt financing options and financial performance of micro and small enterprises, found that trade credit was linked with firms' liquidation and default payments, hence having a negative effect on financial performance. There was a negative relationship between short-term loans and enterprise financial performance measured by return on assets. If enterprises depend more on long-term debt, they are likely to increase their cost of capital and finally collapse.

In the study conducted by Mukulu et al. (2019) on the Influence of Access to Enterprise Finance and Performance of Coffee Smallholders, Micro and Small Agribusinesses in Murang'a County, Kenya. The study established that access to enterprise finance had a positive and significant determination on the performance of micro and small agribusinesses owned by coffee smallholder agribusinesses in Kenya. The study concluded that since the majority of the coffee smallholder agribusinesses in Kenya do not access enterprise finance, they opted for their own savings as a means of financing their micro and small agribusiness enterprises. The study recommended further studies in the use of financial innovations, a gap that is addressed in this study.

ACET (2020) study on promoting women and youth financial inclusion for entrepreneurship and job creation: a comparative study of selected sub-Saharan African countries found that serious socio-economic challenges must be taken into account in

realizing financial access for women and youth, such as the need to expand the banking and mobile money agent networks, plus evaluating the size of youth group enterprises as a possible determinant of their financial sustainability. However, Karabulut (2019) found that financial innovation has negative impacts on firm growth. It has also been suggested that failure to consider the potential negative effects of innovation given the heavy investment costs on innovation. In spite of reservations like these about potential negative impacts, there is a strong positive effect of financial innovation on firm performance and sustainability. This study establishes the reason for the negative relationship.

2.4.4. Crowdfunding and Sustainability of the YOE

Agrawal, Catalini, and Goldfarb (2018) studied the types of crowdfunding and found out that reward-based crowdfunding enables beneficiaries to access capital at a lower cost compared to traditional sources for three reasons; one, better outreach and targeting—donors are not constrained by their geographical location, and campaigns can have global reach, thus targeting interested crowds with no or limited geographical barriers; two, monetization of assets—beneficiaries can leverage assets that are difficult to trade in traditional markets and three; technological innovations—including streamlined online procedure to set up a campaign, social media marketing, increased transparency and competition. The study only focused on types of crowd funding and did not relate it to financial sustainability.

Grella (2018) further found that debt crowd funding allows funders (lenders) to directly lend to fundraisers or invest in debt obligations issued through a platform. Debt crowdfunding is also known as lending-based crowdfunding, marketplace lending, or

person-to-person (P2P) lending—terms that are not as broad as debt crowdfunding. Debt crowdfunding is best thought of as a new approach to lending rather than a completely new financial product. By leveraging the Internet’s interconnectivity, this form of crowdfunding builds a direct relationship between the funder and the fundraiser. The study recommended empirical studies relating crowdfunding and the financial sustainability of profit-making firms, a gap that is addressed in this study.

Gudata Abara Tadele Banti (2019) studied the role of financial institutions in the growth of micro and small enterprises in Assosa Zone. The study carried out a descriptive design in which a stratified random sampling method was used to collect data from the selected woredas from 140 populations, and 57 respondents were selected from financial institutions and micro and small enterprises employees. Questionnaires and interview tools for data collection were used in the study. The data was analyzed using descriptive statistics and regression analysis. The empirical study elicited four major measuring scales that seem to assess the role of financial institutions in the growth of micro and small enterprises in the Assosa zone, and these are external financing, size of firms, firm age, and current capital. The result shows that financial institutions were contributing to micro- and small-enterprise growth. Consequently, the relationship between loans from financial institutions and micro and small enterprises growth is positive and statistically significant. However, the extents of contribution were very low. Further, it identified ways of addressing the problems that micro and small enterprises face in accessing and settling loans, including flexing terms and conditions, using alternative collateral and credit facilities, refinancing, postponing the maturity period, and crowdfunding—a gap that is addressed in this study.

Gebrehiwot and Wolday (2019) studied Micro and Small Enterprises (MSEs) Finance in Ethiopia. The balanced panel data of 12 micro and small enterprises in Ethiopia were taken for the study from 2011 to 2017. The research deployed the Ordinary Least Squares (OLS) Regression Model. The proxies of financial sustainability were return on assets, return on equity, financial stability index, and bank soundness. The findings reveal that the absolute liquidity risk and net income growth are found to be positive and significant and the solvency risk is negative and significant in relation to return on assets. Crowdfunding was found insignificant with respect to return on equity and thus recommended further studies on the crowdfunding-financial sustainability relationship, a gap that this study sought to address.

Tiyeze (2021) studied the factors affecting small and medium enterprises' access to finance; it was done in order to further understand the constraints facing SMEs in accessing finance in Lusaka. The study used a mixed-methods approach (qualitative and quantitative research methods) in order to come up with the study findings. The study findings showed a positive correlation between lack of collateral assets ($r = 0.727$); a negative correlation between crowdfunding ($r = 0.202$) and financial performance. Therefore, this study examined further study on the relationship between crowdfunding and financial sustainability.

In Kenya, Nderitu (2022) studied selected factors influencing financial sustainability of women-owned manufacturing small and medium enterprises in Westlands Sub County, Nairobi, Kenya. A descriptive research design utilizing a quantitative approach was

adopted for this study. The target population was 195 women-owned enterprises, from which a sample size of 131 was reached. Using simple random sampling, the final sample size was 111 respondents, indicating a response rate of 84.7%. The study found that access to credit, competition, technology, and level of education significantly affected the financial sustainability of these firms but recommended a further study on the use of crowd funding, a gap that this study sought to fill.

2.4.5 Enterprise Characteristics and Financial Sustainability of the YOE

Several studies show points of divergence, particularly on the correlation between firm age and its performance. Nonetheless, most researchers concur that there is a desirable or positive relationship between these two factors. For example, the Coad et al. (2019) analysis of Spanish manufacturing firms for 18 years showed that performance improved with age due to steady growth of productivity rates, larger size, higher profits, lower debt, and superior equity ratios. Surprisingly, the same study also found deterioration in performance to be significantly related to firm age for some firms. However, other researchers hold a contrary opinion concerning such a relationship. For instance, Legesse's (2018) analysis of a developing economy, specifically Ethiopia, fails to establish a substantial effect of age on financial performance. Moreover, firm age for family-owned enterprises negatively influences performance, whereas such ownership has a statistically significant effect Lwango et al. (2017). Age is also a critical determinant of firm survival based on the industry (sector) life cycle (Esteve-Pérez et al., 2018).

Ploypailin and Pongsutti (2020) examined the moderating effect of firm size on the

relationship between innovation and firm performance of small and medium enterprises in 29 countries in Eastern Europe and Central Asia. The study also investigates whether the impact of innovation in products and processes on firm performance is affected by financial capital. The method applied is partial least squares structural equation modelling. The findings indicated that firm size and the financial capital both moderate and mediate the impact of innovation on firm performance, positively or negatively. The findings have implications for decision-makers by highlighting the significance of firm size and financial sources when planning to introduce innovations to enhance firm performance. Innovation was the only independent variable; however, this study examined crowd funding, financial intermediation, and deepening.

Hande Karadag (2019) studied the impact of industry, firm age, and education level on financial management performance in small and medium-sized enterprises in Turkey. The data used in the study was collected from 188 small and medium-sized enterprises through structured questionnaires, and three hypotheses regarding the associations were tested by using structural equation modeling. Findings of one-way ANOVA tests indicated that performance in financial management practices has a strong and positive correlation with the education level of small business owners and managers, whereas no significant difference is found regarding SMEs operating in different industries. For the impact of company age, an independent sample T-test was conducted, and a meaningful difference between small and medium-sized companies that are five years or older and younger was found. The study was only based on firm age, but this study included firms' size and ownership structure.

In terms of ownership structure, Esteve-Pérez (2018) studied the impact that ownership structure and board composition have on financial performance in a sample of Finnish small to medium-sized enterprises (SMEs). Design/methodology/approach. The data for this study were collected through a private survey. The financial data were collected from the Voitto+ register, and observations were made from 2012 to 2017. The authors employed panel data estimation and 2SLS methods in their analyses. Findings Results suggest that the ownership structure affects both the growth and the profitability of small private firms. Firms with high managerial ownership levels exhibit higher profitability ratios but have lower growth rates. Firms with high venture capital firm ownership ratios are found to grow faster and are less profitable. The results on board structure suggest that board structure has little impact on the performance of small firms. The only significant result in this context is that firms with outside board members have lower growth rates and are less profitable. The results of this study can be interpreted to indicate that owner-managers are risk-averse and that venture capital firms seek investments with high growth potential. The results could also imply that outsiders are taken on as board members in badly performing firms on financiers' requests or because it is thought that they can enhance performance. The study findings shed light on how ownership structures affect the performance of small private firms.

Zahid, Christian, and Bernhard (2018) also studied the effects of ownership concentration on sustainability: a case of listed firms from the USA, UK, and Germany. Concentrated ownership has been speculated to play a direct role in leading firms to focus more on long-term sustainability. Concentrated ownership, however, can take many different forms, with some forms more common in certain countries, and thus they posit that the specific

form of ownership mediates the impact on sustainability. Additionally, they posit that firms operating at different scales have fundamentally different characteristics, which can further impact this relationship. Analyzing a sample of firms from the USA, UK, and Germany using Arellano-Bond GMM, they explored the relationship between ownership concentration, firm growth, and sustainability measures comparatively. The results showed that these relationships are not linear but are rather dependent on the prevalent form of ownership concentration (determined by country) and the scale (small, medium, or large) of the firm. Approaches to sustainability appear to be influenced by not just the owners or investors but also by the type of control and broader contexts, explaining differing national trends.

Masira (2018) did a study on the relationship between company size and total debt in Chinese firms, which produced a positive result, but this cannot be statistically significant in the fixed effects model. However, the coefficient of the company size to long-term debt was negative and highly significant, which suggests that company size has a negative relationship with long-term debt. The negative relationship, however, will not be a result of informational asymmetries because the market capitalization of equity in China will be very high. The negative relationship between size and long-term debt was said to be due to the fact that large firms have better access to capital markets for equity finance because of their reputation in the markets and the attraction of the capital gains in the secondary markets.

Further conflicting results are shown by Pervan and Visic (2018), who revealed that firm size has a significant positive (although weak) influence on firm profitability.

Additionally, they showed that assets turnover and debt ratio also significantly influence firms' performance while current ratio did not prove to be an important explanatory variable of firms' profitability; while Jonsson (2019) showed that size has no statistically significant effect on profitability, irrespective of how profitability or size is measured. However, a weak inverse relationship between size and profitability was observed for all firms under study. The study did not link firm size and financial sustainability, a gap that is addressed in this study.

Mallingu, Wasike, and Zeman (2020) explored the business sector and firm age effects on firm performance mediated by foreign ownership levels in domestic firms and financial leverage by examining 146 medium enterprises. The results show that except for ownership, the business sector, firm age, foreign ownership level, and financial leverage significantly influence performance. Foreign ownership substantially mediates the correlation between firm age and performance but not leverage. Both foreign ownership and leverage have no substantial mediating effect on the relationship between the business sector and financial performance. Moreover, the findings reveal business sectors whose performance is statistically different from zero based on the referent group.

Further, Banchuenvijit (2019) studied factors affecting the performances of the firms operating in Vietnam. A positive relation was found between total sales and profitability of the firms, but on the contrary, a negative relation was found between profitability and total assets. Additionally, the study showed statistically insignificant results between the number of employees and profitability. Thus, the need for further studies on firm financial sustainability relationships, a gap that is addressed by this study.

Omenyo and Muturi (2019) examined the effect of firm size on the financial performance of manufacturing firms listed on the Nairobi Securities Exchange due to the decreasing trend of capital base over the years. The secondary data was obtained from the annual financial statements of all manufacturing firms prequalified in Kenya and operated between the years 2012 and 2018. Data was analyzed by use of panel descriptive statistics. The study concluded that firm size was characterized in carbacid investments. Firm size as per each manufacturing firm, which depicted that Carbacid investments had the highest firm size. The firm's size was characterized by the financial position being the highest mean. The firm's size was not highly characterized by the number of employees. This recommended most manufacturing firms to use the number of employees to measure firm size. Thus, the need to carry out the same study to other profit-orientated enterprises is a gap that is addressed in this study.

Chemutai (2021) studied the influence of financial inclusion on the performance of micro and small enterprises in Kericho County, Kenya. Findings indicated that there exists a statistically significant positive causal relationship between financial access, financial transparency, financial credit products, and financial literacy and performance among micro and small enterprises , thus emphasizing the need for financial intermediation in business enterprise sustainability but recommending further studies to include firm size as a probable determinant for success or failure of youth group enterprises, a gap that is addressed in this study.

Njue and Mbogo (2017), in their study on improving access to financial products and

services for small and medium enterprises in Kenya, found that there was a need for financial institutions to develop financial products and services for small and medium enterprises, but there is a need for further studies to establish whether firm size of youth group enterprises has an impact on their business sustainability, a gap that is addressed in this study. Therefore, whereas research suggests that the business's financial performance declines with age, it still shows that older firms outperform younger ones in specific sectors of the economy. Kücheret al. (2018) confirm this assertion through their study, which focuses on the Italian wine industry. They conclude that the older wines have superior performance than the younger wines, with the longevity factor significantly explaining the difference in performance. Moreover, financial performance is a significant determinant of the firm's going-concern assumption. Small and medium enterprises often fail due to poor performance. For instance, young and adolescent enterprises fail mainly due to internal shortcomings, whereas mature firms struggle more with economic slowdowns and increased competition. Kücher et al. (2018). Nevertheless, not all researchers establish the predominant relationship between age and firm performance. For instance, Legesse's (2018) study of the Ethiopian economy established no correlation between firm age and financial performance (sales).

2.5 Summary of Literature Review and Research Gaps

There is inadequate empirical evidence on the role of financial inclusion dimensions on, specifically, sustainability of youth-owned enterprises. Empirical studies have not exhaustively examined the influence of crowdfunding on the financial sustainability of small profit-making firms. In addition, most researchers and business practitioners have also recommended firm size and age as possible factors that could probably determine the

relationship between financial inclusion and financial sustainability of youth-owned enterprises in developing economies like Kenya, gaps that the study sought to address. Table 2.1 below presents a summary of the empirical literature review and the research gaps.

Table 2.1: Summary of Empirical Literature Review

Author & year	Title	Methodology	Study Findings	Research Gaps
1. Financial intermediation and sustainability				
Niskanen & Niskan (2017)	Determinants of growth in a sample of SMEs in selected developing countries	Firm growth was examined on a number of firm specific and relationship lending characteristics	Results showed that close lending relationships enhance growth for all firms, but that only the larger firms in the sample benefit from more competitive banking Markets	Financial inclusion frameworks like financial intermediation were not included, a gap that has been addressed in this study
Ukamaka, Ikechukwu & Nkiru (2019)	Financial intermediation and SMEs' performance in Nigeria	Adopted econometric model of the Ordinary Least Square (OLS).	Findings revealed that with the exception of bank interest rate to SMEs, financial intermediation, commercial bank loans and advances to SMEs, bank lending rate, exchange rate and monetary policy - have a positive and significant influence on SMEs' performance in Nigeria.	The sample was too small (43) as to generalize study findings to a wider population, in this study the sample population is 210
Imoughele & Ismaila (2019)	Impact of commercial bank credit on Nigeria's Small and Medium Scale enterprises (SMEs)	Employed Co- integration and Error Correction Modelling (ECM) techniques	The results revealed that SMEs and selected macroeconomic variables included in the model have a long run relationship with SMEs output.	Macroeconomics affect all SMEs equally thus this study adopted firm size and age which affects firms differently

Diaz, Lillian and (2017).	Difference on growth performance of micro enterprises in Tanzania	Used 225 respondents to compare enterprises owned by recipients of training against those owned by people without training.	Firms owned by clients with business and entrepreneurship training demonstrated a different growth level in terms of assets owned and revenues compared to firms that owners had never been exposed to any form of training. Further, training had a minimum influence on the growth of enterprises when it is measured in terms of number of employees	The study focused on trainings only and no other financial intermediation dimensions like Financial linkages/partnerships, a gap that has been addressed in this study.
Maja, Ivica and Marijana (2017)	Identify types of credit easily obtainable by SSEs and to evaluate the credit policies.	A descriptive survey of sources of finance available to small scale enterprises (SSEs) in Nairobi.	Study found out that most entrepreneurs view borrowing as both important and necessary for business pursuits. The majority indicated that the effect of credit on the business as positive, and would, when possible, borrow to save business from collapsing. On access to credit, majority of entrepreneurs relied on limited own and family savings for start-up and additional capital.	The study only documented credit source and credit policies as intermediation dimensions but did not relate with the firms' financial sustainability, a gap that has been addressed by this study
Maja, Pervan and Marijana (2019)	Sources of finance available to small scale enterprises in Nairobi	Described types of credit as easily obtainable by small scale enterprises and to evaluate the credit policies	Most respondents viewed borrowing as both important and necessary for business pursuits. The majority indicated that the effect of credit on the business as positive, and would, when possible, borrow to save business from collapsing.	The study only documented credit sources as intermediation dimensions but did not relate with the firms' financial sustainability, a gap that is addressed by this study

Mairura, Namusonge and Karanja (2018)	The role of financial intermediation in the growth of small and medium manufacturing enterprises in Kenya	Surveyed small and medium enterprises in Nairobi. Primary data was collected through structured questionnaires	The findings show that most of the respondents agreed with the fact that, they received a lot of support from the financial intermediaries, and that the support received enhanced business growth.	The study did not clearly shows types of financial support received by the firms, a gap that is addressed by this study
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2. Financial deepening and sustainability

Maina (2018)	Influence of youth enterprise development fund efficacy on the financial performance of youth-owned enterprises in Kirinyaga County	Used descriptive survey design and collected primary data on access to credit, loan repayments conditions, and financial literacy, financial planning	Results showed that access to credit, loan repayments conditions, and financial literacy, financial planning relates to profitability of youth-initiated enterprises.	The study recommended further studies in the use of financial deepening, a gap that is addressed in this study.
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IMF (2020)	Trend analysis of financial deepening (FD) in Asian countries with respect to growth of business enterprises	Panel data- time series data analysis	Findings showed the weakening effect on growth at higher levels of financial sustainability of small enterprises can be attributed to financial deepening, rather than to higher access or greater efficiency. The bell-shaped relationship between SMEs' financial growth and the FD index pertains only to the depth components of the index, for both markets and institutions. The survey revealed that financial deepening (Total bank credit to the private sector currently stands at 75 percent of GDP,) among other factors contributed to the sequencing of financial market development of small business enterprises.	The study did not relate financial deepening with financial sustainability of small business enterprises, a gap that is addressed in this study
OECD (2020)	OECD enterprise surveys of small business enterprises	Annual business enterprise surveys		The study did not correlate financial deepening with financial sustainability of small business enterprises, a gap that is addressed in this study
IMF (2020)	IMF enterprise surveys in Malaysia	Annual business enterprise surveys	Results showed that development of deep and liquid domestic currency equity and bond markets has been a hallmark of financial deepening in Malaysia; and that, deep financial markets have also enabled Malaysia to borrow in its own currency for infrastructure investment and promoting SMEs growth.	The study did not directly correlate financial deepening with financial sustainability of small business enterprises, a gap that is addressed in this study
Loayza and Roman (2019)	Financial deepening in Asia	Descriptive survey of marginal effect on growth	Results showed that financial deepening has non-linear effects on	The analysis did not relate financial deepening effects

	as the marginal social benefits of financial deepening;	both economic growth and stability; on SMEs financial defined a socially optimal level of financial deepening as one where marginal costs and benefits are equalized	sustainability, a gap that is filled by this study
Eugster (2019)	An examination of the relationship between the pace of financial deepening and SMEs growth	Correlation research design based on primary data of SMEs	Results showed that the relationship between the pace of financial deepening in institutions and the volatility of both GDP growth and inflation is significant and positive. In a similar direction, financial instability also rises with the pace of deepening
			The analysis did not relate financial deepening effects on SMEs financial sustainability, a gap that is filled by this study

3. Financial Innovation and Sustainability

Hamdallah and Srouji (2022)	The influence of sustainable innovation on financial entrepreneurship performance (FEP) Jordanian banks	Multiple regression analysis for the periods 2008 and 2018 and a time series forecasting webinar analysis for the period from 2019 to 2029 based on data ranging from 2008 to 2018.	Result showed a significant relationship between FEP and SI; and that bank FEP is directed by return on assets (ROA) and return on equity (ROE).	The study was done in banks and not SMEs, a gap that is addressed by this study
Mihai, Alexandra and Liliana (2020)	The impact of investments and innovation on territorial economic growth	Quantitative method was adopted and growth measured by turnover, for Romanian active enterprises- 45 SMEs in Bucharest, over the period 2009–2017	Results showed a positive impact on turnover was acknowledged for all enterprises and particularly for big companies, but there was an absence of any statistically significant relation in the case of SMEs.	The sample size of SMEs was small (45) thus the need for a bigger sample size; a gap that is addressed by this study
Thabiso Odunayo (2021)	Factors affecting Small and Medium Enterprises' financial sustainability in South Africa.	Using purposive sampling, data were collected from 310 respondents, adopted descriptive and multivariate regression analysis	Results showed that financial awareness, budgeting, accounting skills, and financial innovation training have positive and significant effects on the financial sustainability of SMEs with all the variables,	The study did not intensively focus on financial innovation dimensions; a gap that is addressed by this study

Zerenler (2018)	Influence of innovativeness on SMEs performance of Turkish automotive supplier industry	Descriptive survey design was adopted and 117 questionnaires were sent to managers of marketing department, R&D and production department.	Study findings showed that SMEs financial growth had significantly positive relationships with financial innovation performance	The study was based on non-financial innovation measures; a gap that is addressed by this study
Ngugi (2020)	influence of innovativeness on the growth of SMEs in Kenya	Study targeted 4560 SMEs in Nairobi County and used Regression models	Findings indicated that innovativeness (tendency of owner/manager to engage in and support new ideas, novelty, experimentation and creative processes) influences the growth of SMEs in Kenya.	The study was based on non-financial innovation measures only; a gap that is addressed by this study
Karabulut (2019)	financial innovation and firm growth	Descriptive survey design	Correlation study design and Regression models were adopted	Results showed that financial innovation has negative impacts on firm growth. A further study was suggested to establish why negative relationship, a gap that is addressed by this Study

4. Crowdfunding and sustainability

Agrawal, Catalini, Goldfarb (2018)	A Meta-analysis of and types of crowd funding	Meta-analysis	Results showed that types of crowdfunding found that reward-based crowd funding enables beneficiaries to access capital at a lower cost compared to traditional sources	The study only focused on types of crowd funding and did not relate it to financial sustainability, a gap that is addressed by this study
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Grella (2018)	Debt crowd funding	Descriptive survey design and descriptive statistics	Result showed that debt crowd funding allows funders (lenders) to directly lend to fundraisers or invest in debt obligations issued through a platform	The study did not link crowdfunding and financial sustainability of firms, a gap that is addressed in this Study
Gudata Tadele (2019)	AbaraBantiRole of financial institutions in the growth of Micro and Small Enterprises in Assosa Zone	Descriptive design was used. stratified random sampling method was used to collect data from the selected woredas from 140 populations	The result shows that financial institutions through crowd funding initiatives were contributing to Micro and small enterprises growth	The study only identified crowd funding initiatives from financial institutions but did not link to financial sustainability of receiving firms, a gap that is addressed in this study

5. Enterprise Characteristics and Sustainability

Ploypailin Pongsutti (2020)	andModerating effect of firm size on the relationship between innovation and firm performance of SMEs	Partial least square structural equation modelling was used to analyze SMEs in 29 countries in Eastern European and Central Asia.	The findings indicated that firm size and the financial capital both significantly moderate and mediate the impact of innovation on firm performance	Innovation was the only independent variable, however, this study examined crowd funding, financial intermediation and deepening
Hande Karadag (2019)	Impact of industry, firm age and education level on financial management performance in small and medium-sized enterprises in Turkey	Data collected from 188 small and medium- sized enterprises through structured questionnaires and hypotheses were tested by using structural equation modeling	Findings of one-way ANOVA tests indicated that performance in financial management practices has a strong and positive correlation with education level of small business. Owner/ managers, whereas no significant difference is	The study was only based on firm age, but this study also included firms size and ownership structure

			found regarding SMEs operating in different industries. For the impact of company age, independent samples T-test showed a meaningful difference between small and medium sized companies which are five years or older and younger was found.	
Masira (2018)	R.,The relationship between company size and total debt in Chinese firms	Correlational research design and regression analysis were adopted	The coefficient of the company size to long-term debt was negative and highly significant, which suggests that company size has a negative relationship with long-term debt. The negative relationship however, could not be as a result of informational asymmetries because the market capitalization of equity in China is very high	The study did not link firm size and financial sustainability, a gap that is addressed in this study
Banchuenvijit (2019)	Factors affecting performances of the firms operating in Vietnam	Correlation research design and OLS method adopted	A positive relation was found between total sales and profitability of the firms but on the contrary a negative relation was found between profitability and total assets.Additionally, the study showed statistically insignificant results between number of employees and profitability	The study recommended further studies to establish reasons for the insignificant relationship, a gap that is addressed by this study

Masira (2018)	The relationship between company size and total debt in Chinese firms	Correlation research design and OLS method adopted	The coefficient of the company size to long-term debt was negative and highly significant, which suggested that company size has a negative relationship with long-term debt.	A further study is required to establish reasons for the negative relationship, a gap that is addressed by this study
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Source; Researcher (2023)

2.6 Conceptual Framework

This is a diagrammed representation of the direct relationship between conceptualized independent variables (financial intermediation, financial deepening, financial innovation, and crowdfunding) and the competitiveness of youth-owned enterprises in Kenya as moderated by enterprise characteristics. This is shown in figure 2.1. Further, principles of path analysis in moderation models, as summarized by Hayes (2013), require that all variable relationships in moderation models must be conceptually and empirically reviewed to ascertain consistencies or inconsistencies in prior research or scholars' views.

Financial inclusion means individuals and businesses have access to useful and affordable financial products and services that meet their needs, such as transactions, payments, savings, credit, and insurance, all delivered in a responsible and sustainable way. That is, access and usage are considered binding constraints to the inclusion of youth in financial services. Further, financial inclusion in the lens of access, usage, and quality is critical to the achievement of the 2030 Agenda for Sustainable Development in Kenya, thus the adoption of the study's operational definition, which adequately covers access, quality, and usage aspects of financial inclusion. In this study, financial inclusion is conceptualized to mean financial intermediation, financial deepening, financial innovation, and crowdfunding.

Financial intermediation is the utilization of credit, business funding /financing, financial linkages/partnerships from financial lending institutions (Sharma, 2017). In this study it is measured in terms of funding/financing policies, financial linkages/partnerships, and

financial investment trainings. Financial deepening refers to the increased provision of financial services and or ratio of money supply to GDP with a wider choice of services geared to all levels of society (European Commission, 2018). In this study it is conceptualized in terms of the ratio of money supply to GDP, price indices, and scope of financial services provision.

Financial innovation is the process of creating new financial products, services, or processes via advances in financial instruments, technology, and payment systems (Cheng, Hsu, and Lo, 2017). In this study, it is conceptualized in terms of e-payments, E-financial accounting/auditing, table banking, and financial innovation literacy.

Crowdfunding is the use of small amounts of capital from a large number of individuals, social media, or funding websites to finance new business ventures (Abu, 2018). In this study, it is measured in terms of collaborative financing, equity/asset-based financing, and peer-to-peer (P2P) lending. Enterprise characteristics are distinct features unique to a business firm, like firm size, age, and ownership structure, among others (UN survey reports, 2020). In this study, they are measured in terms of enterprise size [assets base], enterprise age, and ownership structure

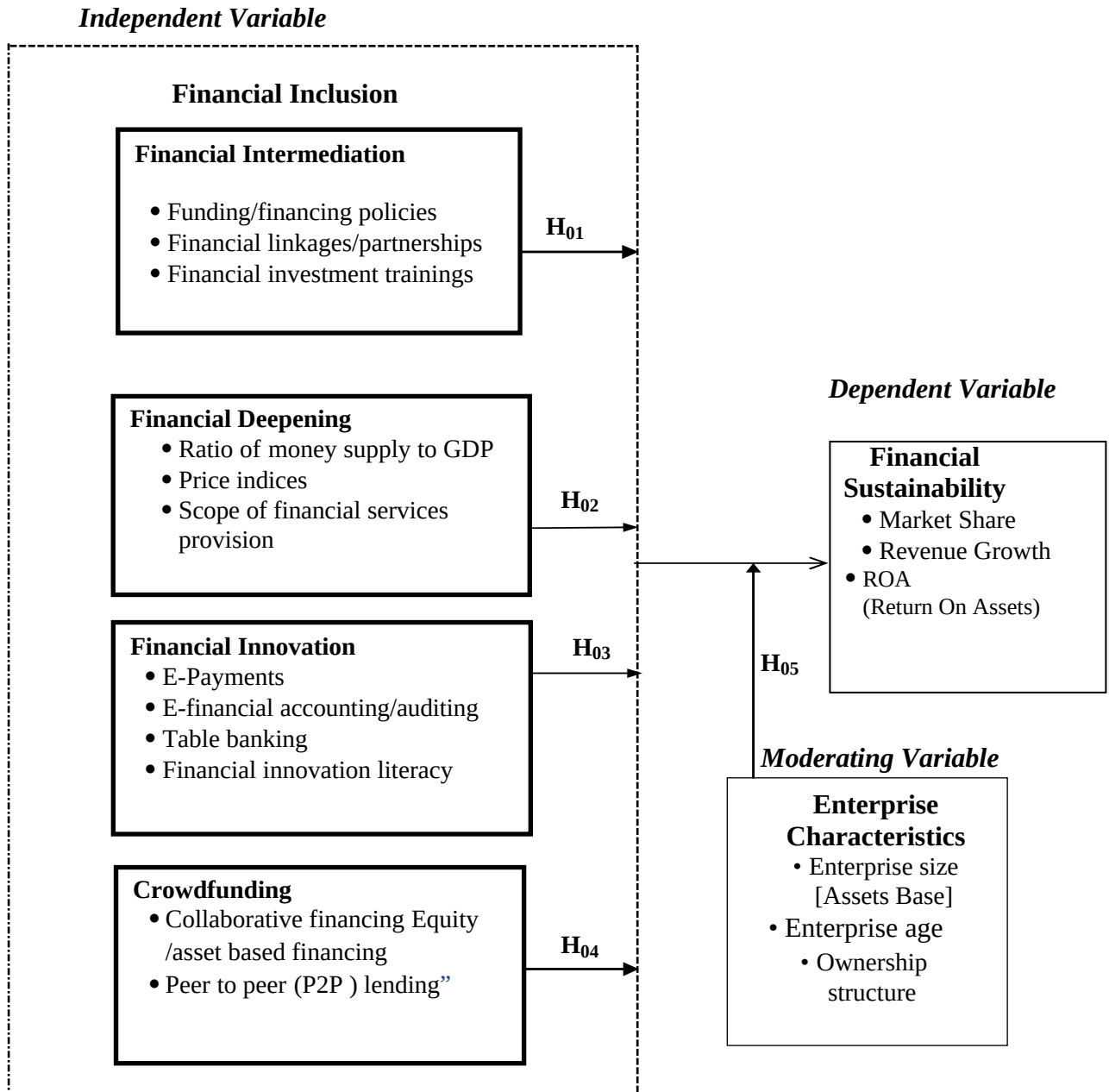


Figure 2.1: Conceptual Framework

Source: Developed from the Reviewed Literature by Researcher (2023)

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This section describes the research methodology that was used to collect and analyze data. It covers the study area, research philosophy, research design, target population, sampling procedure, data collection instruments, data analysis, hypothesis testing, and ethical considerations.

3.2 Study Area

The study was on youth-owned enterprises operating in Bungoma, Kakamega, Vihiga, and Busia counties. These counties were selected as study areas as they form what was formerly known as the western province of Kenya, currently with a regional office in Kakamega County. The number of registered youth-owned enterprises in these counties is as follows: Kakamega-161, Vihiga-87, Busia-83, and Bungoma-112.

3.3 Research Philosophy

A research paradigm, also referred to as research philosophy, is a set of fundamental beliefs and principles that influence how researchers view their world and construct their behaviours as a way of thinking (Bryman & Bell, 2007). There are three types, namely, positivism, constructivism, and pragmatism. Positivism depends on quantifiable observations that lead to statistical analysis and usually adopts a deductive approach, while constructivism relies on qualitative data collection methods. Pragmatism, on the other hand, is the use of mixed methods, that is, both qualitative (constructivism) and quantitative (positivism) research approaches (Bryman & Bell, 2007).

This study applied a pragmatism approach because the researcher collected both qualitative data (Using key informant interviews) and quantitative data (using closed-ended questionnaires). That is, a recent argument by Ippoliti (2022) emphasizes the use of pragmatism philosophy in finance because pragmatism research philosophy is an approach that emphasizes practical outcomes and real-world applications of research findings. It prioritizes the use of multiple methods and perspectives to address research questions, focusing on what works best in practice rather than adhering to any single theoretical framework (Rutherford (2017). This philosophy values both qualitative and quantitative data and seeks to combine them in a way that provides a comprehensive understanding of the research problem (Baker and Schaltegger, 2015).

In this regard, pragmatism research philosophy was suitable for collecting both qualitative and quantitative data in research on financial sustainability of youth-owned enterprises because it emphasizes practical solutions, allowing researchers to use multiple methods to gather comprehensive data (both qualitative and quantitative) that address the complexities and nuances of financial sustainability of youth-owned enterprises.

3.4 Research Design

A research design indicates what the researcher does, from writing the hypothesis and its operational implications/guidance to the final analysis of data. Kothari (2007) defines a research design as the arrangement of conditions for data collection and analysis in a manner that aims to combine relevance to research purpose with economy in research procedure. The researcher adopted a descriptive survey design, which uses surveys to

gather data about varying subjects, characteristics, and relationships, which are conducted in order to explain any behaviour or reactions of people to a given phenomenon in society and to also discover how these characteristics may be related to certain behaviour patterns or attitudes (Peshkin, 1990). Further, descriptive survey design helps a researcher to describe incidences of events or provide an explanation of factors related to an organization or industry, and it allows an in-depth analysis of the phenomenon under focus (Kothari, 2007). In this regard, descriptive research design was suitable for research on financial inclusion and sustainability of youth-owned enterprises because it allows researchers to systematically collect and present data about the current state of these enterprises. This design helps in identifying patterns, trends, and relationships within the data, providing a comprehensive understanding of the factors affecting financial inclusion and sustainability.

3.5 Target Population

Cooper and Schinder (2014) define a study's target population as the entire group of people, cases, or events that a researcher intends to examine, while a population element is the individual item on which measurement is taken (Kothari 2007). The study's organizational population comprised of 443 youth-owned enterprises (in Bungoma, Kakamega, Vihiga, and Busia) as a unit of analysis. Secondary data collection sheets were used to extract firms' financial records, and a backup of primary data measured their competitiveness. By definition, a unit of analysis is the basic entity that is being analyzed in a study, about which generalizations are to be made and for which data is collected based on the key research problem. It can be clustered as individuals, groups, or organizations (Cole, 2018). In this study therefore, the unit of analysis was established youth groups that were funded by the Youth Enterprise Development Fund (organizations), whereby their financial

sustainability forms the key research problem; study findings were generalized on them, and for which primary and secondary data on their financial sustainability were collected.

Further, a unit of observation, also referred to as a unit of inquiry, is the entity in primary research that is observed; that is, the ‘who or what’ about which data is collected in a survey as defined by data collection methods (Cole, 2018). In this study, the unit observation comprised of chairpersons/owners of youth-owned enterprises. Therefore, in summary, the study targeted chairpersons of 443 registered and established youth-owned enterprises (groups) that were funded by the Youth Enterprise Development Fund (YEDF) between 2016 and 2020 (YEDF, 2021) in Kakamega-161, Vihiga-87, Busia-83, and Bungoma-112. The unit of analysis was 443 youth-owned enterprises obtained from authentic records of county/subcounty youth offices, while the unit of observation was chairpersons/owners of 443 youth-owned enterprises.

Table 3.1: Target Population

Respondents	Target Population
Kakamega	161
Vihiga	87
Busia	83
Bungoma	112
Total	443

Source; YEDF reports (2021)

3.6 Sampling Size and Sampling Procedure

Kothari (2007) defines sampling as guidelines and methodology through which a few components in a population are incorporated into the sample (a proportion of the target population), and the sample size is the final number of elements or subjects that the researcher has selected to participate in the study, which must be proportionate to the target population. The study applied a stratified sampling technique, which ensured that the selected group contained elements representative of the characteristics found in the sampling frame (Kothari, 2007). The researcher stratified the respondents into several strata based on county and sub-county. The study also applied purposive sampling to select chairpersons/owners of the youth-owned enterprises.

The sample size was calculated as per Taro Yamane's (1967) proportional sampling technique formula shown below;

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

Where:

n = Sample size

N = population under study e = margin error (0.05)

1 = constant

Using Taro Yamane's formula:

$$n = \frac{443}{1 + 443(0.05)^2} = 210$$

$$\{[n=443 / (1+443 (0.05)^2)], [n=443 / (1+443 (0.0025))], [n=443 / (1+1.1075)], [n=443/2.1075]; [n=210.2 \approx 210] \}.$$

Thus, a sample size of 210 was used for this study. Respondents were drawn randomly

from each stratum. A stratified sampling technique was adopted based on the county, sub-county, and business type of the youth group enterprise strata.

Table 3.2: Sample Size

Respondents	Target Population	Sample size
Kakamega	161	77
Vihiga	87	41
Busia	83	39
Bungoma	112	53
Total	443	210

Source; YEDF reports (2021)

3.7 Data Collection Instruments

The study used both structured and unstructured questionnaires to collect primary and secondary data. Secondary data collection sheets were used to collect secondary data on ROA for the 2017-2022 period, extracted from disclosed annual financial reports of all targeted youth-owned enterprises. This is because secondary data is assumed to be a more powerful objective measure of financial performance (Kothari, 2007). Primary data was collected by use of structured questionnaires and key informant interviews on how financial inclusion variables influence the financial sustainability of the youth-owned enterprises.

3.8 Pilot Study

A pilot study is an activity that assists the researcher in determining if there are flaws, limitations, or weaknesses within the questionnaire and interview design. It allows the researcher to make necessary revisions prior to the implementation of the data collection, and the rule of thumb is that 10% of the sample should constitute the pilot study (Kothari, 2007). A pilot study is thus done on selected youth-owned enterprises using 10% ($10\% * 210 = 21$) of the sample size. However, the respondents that are selected to participate in the pilot study do not participate in the final study to avoid response bias. In this study, piloting was conducted in Tran-zoia County.

3.9 Reliability and Validity of Research Instruments

Reliability refers to the extent to which the instrument yields the same outcome or results over multiple trials. Validity refers to the extent that the instrument measures what it was designed to measure.

3.9.1 Validity of Research Instruments

Babbie and Mouton (2001) define the validity of a research instrument as the accuracy and meaningfulness of inferences based on the research results. In this study, validity of data collection instruments was done using content validity, where questions were checked for clarity of words, content, meaning to eliminate ambiguity, and ensuring that the statements are accurate and adequately measure key items of financial inclusion variables. Secondly, construct validity (using principal component analysis) was also utilized to measure the validity of research instruments.

3.9.2 Reliability of Research Instruments

Babbie and Mouton (2001) define reliability as the degree to which a research instrument yields consistent results after recurring trials. To ensure the reliability of research instruments in this study, piloting of the questionnaire was done during the pilot study, and Cronbach's alpha was calculated for the study variables. Cronbach's alpha reliability coefficient is described as an arithmetical coefficient of reliability and is also typically equated with internal consistency. The Cronbach's alpha (α) ranges between 0 and 1. A reliability coefficient of zero indicates that the test scores are unreliable. On the other hand, the higher the reliability coefficient (above 0.7), the more reliable or accurate the test scores (Cooper and Schindler, 2014).

3.10 Data Analysis

This entails quantitative and qualitative data analysis, multiple regression analysis, and moderation analysis. A topical approach has been adopted to guide the discussion.

3.10.1 Qualitative Data Analysis

A qualitative research approach helps explore and understand the participants' perceptions and beliefs concerning phenomena. Compared to a quantitative study, in which statistics are used as a data measurement method to identify the relationships between variables, a qualitative approach uses words as the approach to data analysis. The qualitative research approach further allows researchers to explain the attitudes, beliefs, and experiences of research subjects in a more thorough manner (Altinay & Paraskevas, 2008). In this study, qualitative data analysis (interviews) was done using mixed approach analysis, that is, conceptualization of responses based on content/sub-variables, categorizing matching responses and summarizing them in prose form.

3.10.2 Multiple Regression Analysis

This was done to compute multiple linear relationships based on the multiple correlation principle and sought to explain the variance of the dependent variable (financial sustainability) based on the study's independent variables (X_1, X_2, X_3, X_4). The ordinary least squares (OLS) method was used appropriately because it is most suitable for multiple linear regression analysis since it minimizes the sum of the squared differences between the observed and predicted values, resulting in the best possible fit for the data. OLS provides unbiased, efficient, and consistent estimates of the regression coefficients, assuming that the underlying multiple regression assumptions such as linearity, homoscedasticity, and normality tests are met (Hayes, 2013).

Multiple linear regression model:

$$3.10.2.1 \quad y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \epsilon_{yi}$$

Where;

y = Financial sustainability of youth owned enterprises

β_0 = constant (regression intercept)

β_1 - β_4 = Beta (regression) coefficients

X_1 = Financial intermediation

X_2 = Financial deepening X_3 = Financial innovation

X_4 = Crowdfunding

ϵ_{yi} = error term (errors in the estimation of X_{1-4} ; and y)

3.9.3 Moderation Analysis

This tested hypothesis five of the study; that is, evaluate the moderating (full or partial) effect of transformed scores of enterprise characteristics (moderators) on financial inclusion (IV) and financial sustainability of youth owned enterprises (DV). That is, since the conceptualized moderator (enterprise characteristics) contain categorical variables, they were transformed to continuous data and a product term calculated through data transformation process. This is because use of categorical variables may lead to a reduction in the power to detect the interaction effects that indicate whether moderation is present or not (Hayes, 2013).

Moderation analysis was computed by use of hierarchical regression, whereby the compounded scores of financial inclusion and financial sustainability relationship were computed first, followed by enterprise characteristics (Z), then lastly, interaction term, subsequently. The product term sometimes referred to as the interaction term (Hayes, 2013), was created by multiplying the summated-weighted scores of financial inclusion (IV) and transformed scores of enterprise characteristics (Z). Statistically, moderation analysis was computed by testing for the moderation of enterprise characteristics (Z), in a model of financial inclusion (IV) and financial sustainability (DV); so as to determine whether enterprise characteristics (Z), will fully moderate, partially moderate or play insignificant role on the relationship between financial inclusion (IV) and financial sustainability of youth owned enterprises (DV). The model used was as indicated below:

3.9.4 Moderation analytical equation model: based on hierarchical regression

$$3.10.2.2 \quad y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 z + \beta_6 X_1 \cdot z + \beta_7 X_2 \cdot z + \beta_8 X_3 \cdot z + \beta_9 X_4 \cdot z + \varepsilon_{yii}$$

Where;

y = financial sustainability

β_0 = constant (regression intercept)

$\beta_5 - \beta_7$ = Beta coefficients

X_{1-4} = transformed & standardized scores of financial inclusion variables

z = transformed & standardized scores of enterprise characteristics

$X_{1-4} \cdot z$ = product terms

ε_{yii} = error term (errors in the estimation of Z and y)

NB: (i) X_5 should have significantly predicted y in linear regression computations

(ii) z should have significantly predicted y in linear regression computations

3.11 Operationalization of Study Variables

Table 3.3: Operationalization and Measurement of Study Variables

Type of variable	Variable	Indicator	Measures	Measurement scale
Dependent	Financial sustainability	Profitability Market growth	ROA Market share/Value	Ratio interval
Independent 1	Financial Intermediation	Level of Funding/financing	- Funding/financing policies - Financial linkages/partnerships - Financial investment trainings	interval
Independent 2	Financial deepening	Provision of financial services money supply to GDP	- Ratio of money supply to GDP - Price indices - Scope of financial services provision	interval
Independent 3	Financial innovation	Dynamic financial products, services, and processes	- E-Payments - E-financial accounting/ auditing - Table banking - Financial innovation literacy	interval
Independent 4	Fund crowding	Amounts of capital from individuals, social media and or funding websites	- Collaborative financing - Equity /asset based financing - Peer to peer (P2P) lending	interval
Moderating	Enterprise Characteristics	Firm size, age and ownership structure	- Natural log of total assets - Years in operation - shareholding	interval

Source; Researcher, (2023)

3.12 Hypotheses Test

The study tested a total of five hypotheses (H01, H02, H03, H04, and H05) stated in null

form and tested at $p \leq 0.05$ using regression analysis after the summated scores of categorical data were statistically transformed into continuous data using SPSS version 23 so as to allow running correlations and multiple linear regression analyses. Therefore, in testing hypotheses, the following procedure was adopted: testing of null hypothesis one was performed in the following aspects:

H01: There is no significant effect of financial intermediation on the sustainability of youth-owned enterprises. Ha1: There is a significant effect of financial intermediation on the sustainability of youth-owned enterprises. H01: $\beta_1=0$; and Ha: $\beta_1 \neq 0$ and test statistic set at $p \leq 0.05$ significance level. For instance, the results indicate $\beta_1 \neq 0$ and p-value = 0.03; then this is significant at $p \leq 0.05$.

Verdict: reject the null hypothesis (H01) and fail to reject the alternative hypothesis (HA1) that there is a significant effect of financial intermediation on the sustainability of youth-owned enterprises. Therefore, this hypothesis testing procedure was applied in procedurally testing all the study's null hypotheses (H01, H02, H03, H04, and H05).

3.13 Multiple Regression Analysis

The following conditions for multiple regressions, as summarized by Hayes (2013), will be taken into consideration:

Number of cases: The number of cases of the independent variable ought to be at least 20. But in hierarchical regression as applied in this study, 40 cases per independent variable are required. This study has four; therefore, the minimum cases ought to be $4 \times 40 = 160$. The study sample size is over 160, hence meets the threshold.

Accuracy of data: In regards to the accuracy of data, the scales of measurement were tested for instrument validity and reliability to ensure this assumption is not violated.

Outliers: The values with at least 3 standard deviations below or above the mean were removed to avoid statistical errors.

Normality: In order to test whether data is normally distributed, the Kolmogorov-Smirnov test of normality was used to meet this assumption.

Linearity: The independent and dependent variables must have a linear relationship because regression tests linear relationships. This was tested by correlation analysis.

Multicollinearity: This is checking to confirm whether two or more predictors in the model are correlated. Tolerance and VIF values were used to check this assumption.

Homoscedasticity: This tests whether the dependent variable exhibits equal variance across the range of the independent variable, which has been tested by Breusch-Pagan test.

3.14 Ethical Considerations

The researcher drafted research introductory and research participation consent letters; then a letter of introduction was obtained from Masinde Muliro University of Science and Technology to authorize the researcher to carry out the study. The research authorization letter from the university facilitated the researcher to apply for a research permit from the National Commission for Science, Technology, and Innovation (NACOSTI) to give authority to the researcher to carry out the research in the selected youth-owned enterprises. Further, the researcher assured respondents of the confidentiality of the information given, since collected data will be used for academic purposes only. The researcher finally sought the respondents' permission on how to respond to the research questionnaire, whether manually administered by the researcher, research assistants, or online using email.

CHAPTER FOUR

RESEARCH FINDINGS AND DISCUSSIONS

4.1 Introduction

This chapter entails the response rate and descriptive statistics (measures of central tendency and dispersion) model diagnostic test, and inferential statistics. A topical presentation has been adopted to guide the discussion. Summarized and analyzed data has been presented in the form of tables.

4.2 Response Rate

A total of 210 questionnaires were sent to the owners of youth-owned enterprises in Kakamega, Busia, Bungoma, and Vihiga counties, out of which 187 questionnaires were returned completely filled, depicting a response rate of 89.047 percent, which is good for the generalizability of research findings to a wider population (Cooper and Schindler, 2014). This is also in agreement with Schindler, as cited by Mulei (2016), that a response rate of between 40 and 80% is appropriate for a study with more than 160 respondents to make conclusions and recommendations, an indication that this study met and surpassed the threshold. The good response rate was achieved because the researcher patiently waited for the respondents to completely fill questionnaires before picking them; secondly, the researcher trained and effectively used research assistants that could access the respondents operating in all sub-counties of the targeted counties.

4.3 Pilot Test Results

There are several methods of carrying out a pilot study, such as a small-scale trial: Conducting a small-scale version of the main study that involves a limited number of participants or a smaller sample size. This allows researchers to test the feasibility of the study design, data collection methods, and procedures. Pre-testing instruments involve administering the research instruments (questionnaires, surveys, interviews, etc.) to a small group of participants to assess their clarity, validity, and reliability. This helps identify any potential issues or limitations before the main study. The expert consultation is concerned with seeking input and feedback from experts in the field to review the study design, methodology, and research instruments. This helps ensure that the study is well-designed and addresses relevant research questions; conducting a focus group entails bringing together a small group of individuals who represent the target population and discussing the research topic or intervention (Cooper and Schindler, 2014). This allows researchers to gather qualitative feedback, identify potential challenges, and refine the study design.

This study used a pre-testing instrument approach to allow for the validity and reliability of the research tools. According to Kothari (2014), 10% of the study population is appropriate for a pilot test. In this study, a pilot test was done on twenty-one selected youth-owned enterprises using 10% ($10\% * 210 = 21$) of the sample size. The respondents purposefully selected were owners of the youth-owned enterprises in Tran-zoia County. This county selection was done in order to prevent duplication of information or biasness resulting from the use of the same respondents for both the pilot and the main study. The feedback received was used to fine-tune the questionnaire before embarking on the actual

data collection exercise (Lê & Schmid, 2022). That is, pretesting of the research instrument during the pilot study was done to permit its refinement before the final test. This involved checking whether the questions are clear and fully capture items in the study variables. It also helped to find out whether the questions were validly and reliably measuring what was expected.

4.3.1 Reliability of Research Instrument

To ensure the reliability of research instruments in this study, piloting of the questionnaire was done, and Cronbach's alpha was calculated for the study variables. Cronbach's alpha reliability coefficient is described as an arithmetical coefficient of reliability and is also typically equated with internal consistency. The Cronbach's alpha (α) ranges between 0 and 1. A reliability coefficient of zero indicates that the test scores are unreliable. On the other hand, the higher the reliability coefficient (above 0.7), the more reliable or accurate the test scores (Cooper and Schindler, 2014). That is, a threshold Cronbach's alpha coefficient of at least 0.70 is deemed reliable; from the reliability table below, Cronbach's alpha coefficient values were above 0.7, thus confirming instrument reliability. The SPSS reliability output is shown in the appendix.

From the values in the table below: financial intermediation $\alpha = 0.855$; financial deepening $\alpha = 0.834$; financial innovation $\alpha = 0.831$; crowdfunding $\alpha = 0.843$; enterprise characteristics $\alpha = 0.791$; financial sustainability $\alpha = 0.827$, confirms the reliability of the research instrument.

Table 4.1: Reliability Test Summary

Variable	No. of items	Cronbach's coefficient	alpha
Financial intermediation	8	0.855	
Financial deepening	7	0.834	
Financial innovation	6	0.831	
Crowdfunding	6	0.843	
Enterprise characteristics	8	0.791	
Financial sustainability	6	0.827	

Source: Research Data (2023)

In conclusion, the test produced a Cronbach's alpha of above 0.70, which was within and above the acceptability criteria. Therefore, the data collection instrument was deemed reliable as it was assumed to demonstrate its consistency and ability to yield or replicate the same results in the final study.

4.3.2 Validity of Research Instruments

The content and construct validity were used to test instrument validity. Content validity was tested by ensuring that all components of the research questionnaire were cross-checked by the researcher and the supervisors to ensure clarity of words, the accuracy of each statement, meaningfulness, and adequate content as per independent variables (financial intermediation, financial deepening, financial innovation, crowdfunding), moderating variables (enterprise characteristics), and dependent variables. Construct validity was also used in testing instrument validity. That is, construct validity is

considered more scientific than face validity and content validity. Construct validity assesses the extent to which a particular question or questions relate to other questions, given a theoretically specified set of hypotheses relating to the underlying constructs being measured. The hypotheses specify the relationship we should find between the constructs (Cooper and Schindler 2014).

Using pilot data entered in SPSS 23, principal component analysis was computed to examine a group of items that constitute a scale (set of questions) to determine whether they correlate in forming one cluster that constitutes the construct under study. From observed values in the component matrix (AppendixIII), indicate significant correlations are at $p < .01$ and Pearson's product-moment correlation coefficient- r is above 0.3, implying that the items in the tables all converge to the same construct under study, thus confirming construct validity. This is supported by Kline (2002), who asserted that factors that load near 1 are clearly important in the interpretation of the factor, factors that load near 0 are clearly unimportant; and factor loadings of 0.30 or higher can be considered significant, or at least salient.

The results show that all loadings are above 0.3, meaning that the items in the tables converge to the same component measuring the construct being studied. The computed data extracted six components depicting six study variables. The SPSS construct validity output is shown in the appendix attached hereon. That is, first, the 8 items (questions 1-8) measuring financial intermediation as an aspect of financial inclusion distinctively loaded on component 1 extracted, indicating that they significantly cluster to the financial intermediation construct being measured.

The 7 items (questions 9–15) measuring financial deepening as an aspect of financial inclusion are distinctively loaded on component 2 extracted, indicating that they significantly cluster to the financial deepening construct being measured. the 6 items (questions 16-21) measuring financial innovation as an aspect of financial inclusion are distinctively loaded on component 3 extracted, indicating that they significantly cluster to the financial innovation construct being measured.

The 6 items (questions 22-27) measuring crowdfunding as an aspect of financial inclusion distinctively loaded on component 4 extracted, indicating that they significantly cluster to the crowdfunding construct being measured.

The 8 items (questions 28-35) measuring enterprise characteristics are distinctively loaded on component 5 extracted, indicating that they significantly cluster to the enterprise characteristics construct being measured. Lastly, the 6 items (questions 36-41) measuring financial sustainability are distinctively loaded on component 6 extracted, indicating that they significantly cluster to the financial sustainability construct being measured.

In conclusion, observed values in the component matrix table indicate significant correlations are at $p < .01$ and Pearson's product-moment correlation coefficient- r is above 0.3, implying that the items in the table all converge to the same construct under study (financial intermediation, financial deepening, financial innovation, crowdfunding, enterprise characteristics, and financial sustainability), thus confirming the construct validity of the research instrument.

4.3.3 Factor Analysis

There was a test for sampling adequacy. Kaiser-Meyer-Olkin (KMO) was used as a measure of sampling adequacy and Bartlett's test of sphericity. The Kaiser-Meyer-Olkin Measure of Sampling Adequacy is a statistic that indicates the proportion of variance in the study variables that might be caused by underlying factors. The KMO values between 0.8 and 1.0 indicate the sampling is adequate. KMO values between 0.7 and 0.79 are middling, and values between 0.6 and 0.69 are mediocre. KMO values less than 0.6 indicate the sampling is not adequate (Hair et al., 2016).

Table 4.2: KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.788
Bartlett's Test of Sphericity	Approx. Chi-Square	998.277
	Sig.	.000

Source: Research Data (2023)

In this study, the KMO value is 0.788, which is a strong indicator of sampling adequacy, and factor analysis can be done because the degree of information among variables overlaps greatly, which was also confirmed by construct validity, where all items (questions) that were closely related loaded to a single factor (variable). Further, Bartlett's test of sphericity was used to test the null hypothesis that the correlation matrix is an identity matrix (the variables in the population correlation matrix are uncorrelated). An identity correlation matrix means your variables are unrelated and not ideal for factor analysis (Noora, 2021). A significant statistical test (usually less than 0.05) shows that the correlation matrix is indeed not an identity matrix (rejection of the null hypothesis), thus shows that the correlation matrix has significant correlations among at least some of the variables and the data set was appropriate for factor analysis.

Table 4.3: Eigenvalues and Variance Explained

Component	Initial Eigenvalues			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	1.994	22.154	22.154	1.66	18.445	18.445
2	1.385	15.385	37.539	1.358	15.088	33.533
3	1.182	13.134	50.673	1.324	14.712	48.245
4	1.042	11.579	62.252	1.261	14.007	62.252

Source: Research Data (2023)

Financial inclusion principal components that had Eigen values greater than 1 were extracted and less than 1 discarded. Analysis of the eigenvalues and variance indicated that “financial intermediation aspects” had an eigenvalue of 1.994 and a variance of 22.154. “Financial deepening aspects” had an eigenvalue of 1.385 with a variance value of 15.385. “Financial innovation aspects” had an eigenvalue of 1.182 and a variance of 13.134, and the “crowdfunding aspects” had an eigenvalue of 1.042 and a variance of 11.579. The four factors accounted for 62.252% of the total variance, which was more than the 50% threshold. Therefore, the pattern fits well with financial inclusion (financial intermediation, financial deepening, financial innovation, and crowdfunding), which affects financial sustainability.

4.4 Demographic Characteristics of the Respondents

Background information regarding the respondents in a study is essential in establishing a rapport and good discussion platform between the researcher and the respondents, Rudestam and Newton (2015). Thus, creating an environment of trust and willingness on the part of the respondents to volunteer information on research questions. The study

employed a similar strategy in targeting 443 youth-owned enterprises, and since the population was heterogeneous, the researcher adopted stratified sampling techniques based on each county, which ensures that the selected group contains elements representative of the characteristics found in the sampling frame (Kothari, 2007). The researcher stratified the respondents into several strata based on each county. Given available valid records, she classified the firms on county and sub-county levels. The study therefore examined the demographic aspects in four distribution categories: enterprise operation experience, level of education, marital status, and cost of establishing an enterprise.

4.4.1 Enterprise Operating Experience

The study examined the experience level of the respondents in operating their enterprises, and it was discovered that the majority of respondents had experience ranging between five and fifteen years, as Table 4.4 demonstrates;

Table 4.4: Distribution of Respondents According to Number of Years in The Operation of The Business

Years	Frequency	Percentage (%)
Under 5 yrs	11	5.9
Between 5--10 yrs	79	42.2
Between 10-15yrs	67	35.8
Between 15-20yrs	25	13.4
Over 20 yrs	5	2.7
Total	187	100

Source: Research Data (2023)

From the distribution shown in table 4.4, most respondents (42.2%) have operated for

between 5-10 years, closely followed by those who had operated for between 10-15 years (35.8%), implying that most respondents across the sampled counties had experience (5-15 years) in running their businesses and hence have requisite information on financial inclusion initiatives. Those with over 15 years followed (13.4 percent for those between 15-20 years and 2.7 percent for those with over 20 years in operation), implying they have adequate information on challenges facing sustainability of youth-owned enterprises. Those operating under 5 years were 5.9%, confirming that some collapsed under very few months or less than 5 years of operation, as backed by WEF (2017) and GoK (2019) survey reports.

4.4.2 Level of Education

The education levels of the respondents were examined to determine their ability on basic record maintenance concerns, which form an important role in determining enterprise performance through record keeping. Table 4.5 shows the educational level distribution, with the respondents having tertiary/college level of education constituting the majority.

Table 4.5: Distribution of Respondents According to Level of Education

Level of education	Frequency	Percentage (%)
Primary level	4	2.1
Secondary level	39	20.9
Tertiary/College level	81	43.3
University level	63	33.7
Total	187	100

Source: Research Data (2023)

From Table 4.5 on the distribution of respondents according to the level of education, most respondents had a tertiary/college level of education (43.3%) closely followed by those with a university education level (33.7%), implying that most respondents with post-secondary education level suffer lack of jobs after training, thus come together with like-minded business ideas to begin profit-making business. Further, those with primary (2.1%) and secondary (20.9%) levels of education comprised respondents who had dropped out of school due to varied reasons but had craftsmanship skills and thus began their own business enterprises to earn a living.

4.4.3 Enterprise Type

The respondents were further asked about the type of enterprise they operate, and the results were compiled in percentages according to the enterprise lines as shown in Table 4.6 below;

Table 4.6: Percentage Distribution According to The Type of Enterprise

Type of enterprise	No. of enterprises	Percentage (%)
Construction	18	10
Agriculture	31	17
Manufacturing	9	5
Transport	11	6
Health and Beauty	17	9
Hotel/Tourism	22	12
Poultry	10	5
Trade	21	11
Retail	16	9
Production	12	6
Service	6	3
Hardware	14	7
Grand total	187	100

Source: Research Data (2023)

The results in Table 4.6 show agriculture to be the leading at 17%. This could be mainly attributed to the region under study being predominantly an agricultural zone with diverse related activities. There are possibilities of a ready market for farm produce both locally and in the surrounding regions. Thus, most youths find it worthwhile and more profitable to invest in this sector. Hotel and tourism comes in second at 12%, followed by trade at 11%, construction at 10%, and retail, health, and beauty at 9% each, respectively, while the rest of the enterprise lines have a share total of 32%.

4.4.4 Source of Capital

The study also sought to establish where respondents got funding for their enterprise activities. These were grouped according to the sources of capital expressed in percentage proportions as indicated in Table 4.7 below;

Table:4.7: Percentage Distribution According to Funding Source

Source of funds	Percentage (%)
Youth Enterprise Fund	23
Banks/MFIs	20
Merry Go Rounds/Chamas/Table Banking	18
NGOs	15
Family & Friends	10
County Government	06
Women Enterprise Fund	05
Other sources	03
Total	100

Source: Research Data (2023)

Table 4.7 above shows a summary of findings from which it was discovered that 86% of youth-owned enterprises source their capital mainly from the Youth Enterprise Fund, banks/MFIs, Merry Go Rounds/Chamas/Table Banking, NGOs, and family and friends, with the Youth Enterprise Fund leading the perk at 23% while family and friends were the least at 10% in this category. The rest of the enterprises (14%) cumulatively raised their capital from the county governments, the Women Enterprise Fund, and other sources.

4.4.5 Enterprise Startup Cost

The study also sought to know the initial cost (capital) of starting respective business enterprises. Enterprise startup cost, as the literature reveals, is one of the key parameters of examining financial inclusion in YOE. The study evaluated funding sources as well as the proportion of funds availed for establishing an enterprise by the youth. It was discovered that most of the youth-owned enterprises startup costs ranged between Kshs. 50,000 and Kshs. 100,000, as Table 4.8 demonstrates.

Table 4.8: Distribution of Respondents According to Cost of Starting Business

Amount in Kshs	Frequency	Percentage (%)
1000-5000	3	1.6
5000-10,000	11	5.9
10,000-20,000	26	13.9
20,000-50,000	43	22.9
50,000-100,000	81	43.4
Over100,000	23	12.3
Total	187	100

Source: Research Data (2023)

From Table 4.8, most respondents (43.4%) started their businesses with a capital of

between kshs. 50,000-100,000. The respondents asserted that these amounts were mostly sourced from table banking, chamas, and microfinance institutions. Those who started with between Kshs 1000-5000 majorly sourced from family savings, while generally those who began with Kshs 5000 to Kshs 50,000 mostly sourced their funds from families, merry-go-round, and community-based organizations. Those who started with over Kshs 100,000.00 sourced funds from NGOs, the Youth Enterprise Fund, the Women Enterprise Fund, and banks, mainly because they had relevant collateral to secure business loans.

4.4.6 Enterprise Levels of Annual Sales

The respondents were asked about the annual sales of their respective enterprises. The findings are as illustrated in Figure 4.1 below. A majority of them were discovered to have annual sales above Kshs 100,000, constituting 59% of respondents. They were followed closely by those between Kshs. 50,000 and 100,000 at 36%. While those with annual sales between Kshs. 10, 000-50,000 and below Kshs. 10, 000 were ranked last at 3% and 2%, respectively.

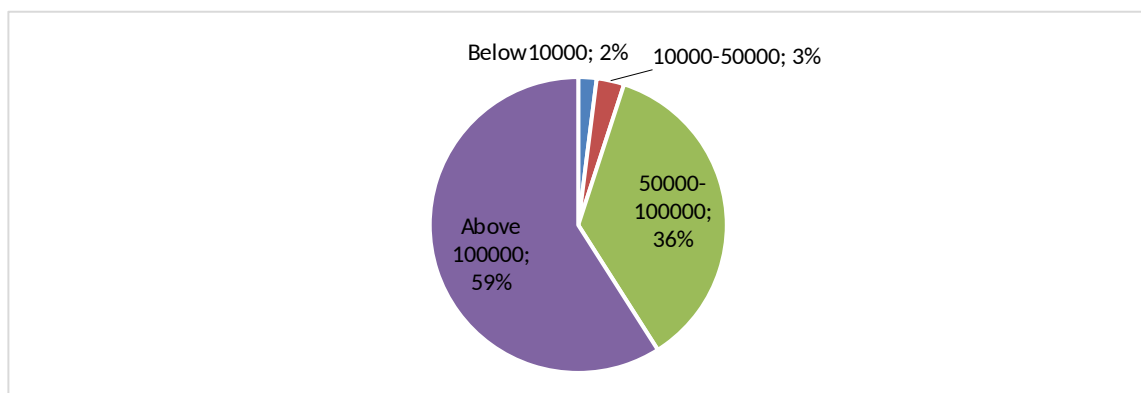


Figure 4.1: Enterprise Levels of Annual Sales

Source: Research Data (2023)

4.4.7 Enterprise Levels of Annual Profits

The study also sought to establish the levels of annual profits of enterprises. The findings

are shown in Figure 4.2. The respondents with profits above Kshs. 50,000 were 59%, those with Kshs. 10,000-50,000 were 31%, while those below Kshs. 10,000 came last at 10%.

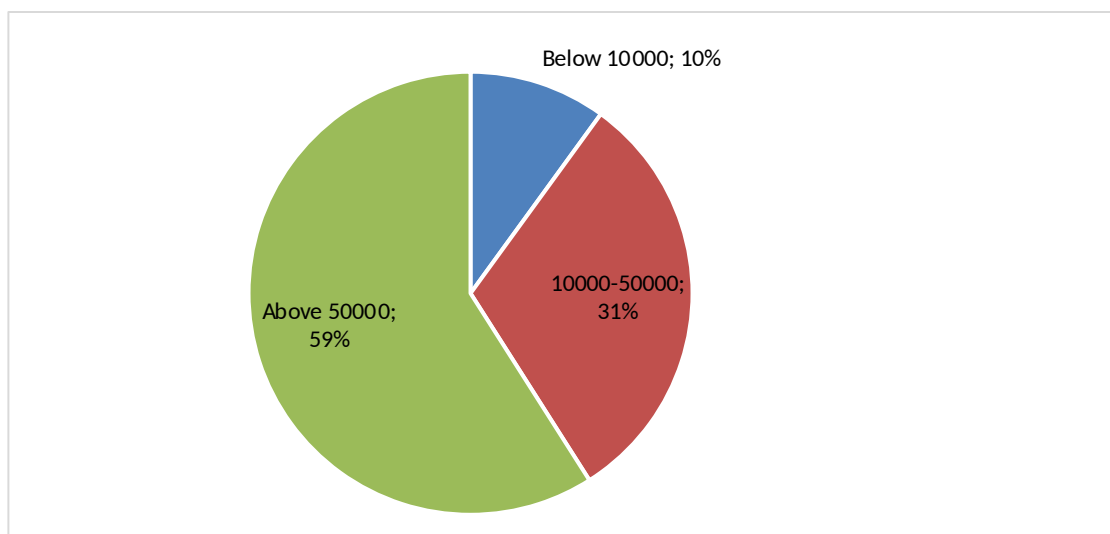


Figure 4.2: Enterprise Levels of Annual Profits in Kshs

Source: Research Data (2023)

4.4.8 Total Assets Levels of the Enterprise

The respondents were again asked about the asset levels of their enterprises. The findings indicated that those with asset levels above Kshs. 500,000-1000,000 recorded the highest percentage of 53%, followed by those between Kshs. 100,000-500,000 at 27%, above Kshs. 1000,000 at 13%, and those below Kshs. 100,000 closed at 7%. The findings are shown in the figure below.

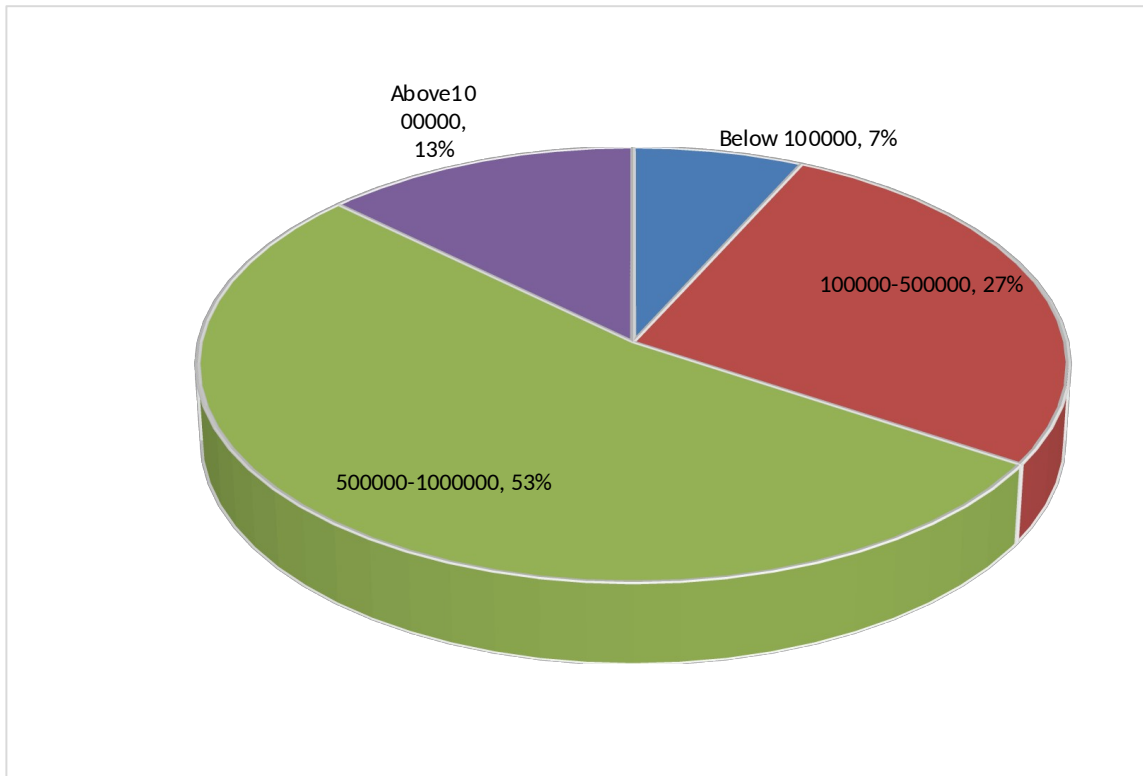


Figure 4.3: Total Asset Levels of the Enterprise in Kshs

Source: Research Data (2023)

4.4.9 Enterprise Total Liabilities

Most respondents attributed huge liabilities to market competition due to some cartels in the industry that command the largest market share, huge pending bills that had not been cleared, especially from government tenders, Difficulty in attracting and retaining skilled employees, Legal and regulatory compliance issues resulting in huge penalties and fines.

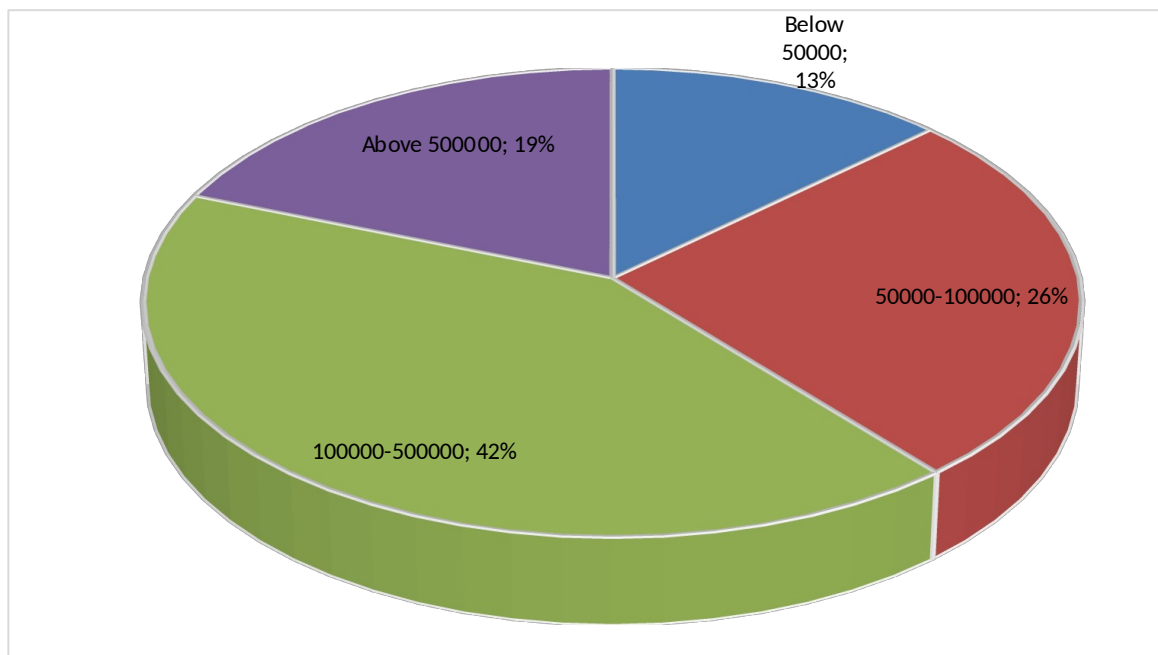


Figure 4.5: Enterprise Total Liabilities in Kshs

Source: Research Data (2023)

4.5 Descriptive Statistics

These are summarized descriptive statistics (measures of central tendency and measures of dispersion) based on the study variables. The results are shown in tables with subsequent interpretations in prose form.

4.5.1 Measures of Central Tendency

Central tendency is the value that describes the entire set of data as a single measurement.

The three primary measures of central tendency are the mean, median, and mode, but in this study, the mean is the most significant value that summarizes the responses according to the study's independent variables (financial intermediation, financial deepening, financial innovation, crowdfunding), moderator variable (enterprise characteristics), and dependent variable (sustainability of youth-owned enterprises). They are summarized

responses measured by a Likert scale of measurement showing the grand mean as a significant measure of central tendency.

Table 4.9: Descriptive Statistics

	N	Mean	Std. Deviation	Std. Error	Skewness	Kurtosis
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic
	c	Statistic	Error	Statistic	c	Error
Financial Intermediation	187	3.5858	.07392	1.01081	1.022	-1.001
Financial Deepening	187	3.3943	.06298	.86130	.742	-1.120
Financial Innovation	187	3.3307	.06873	.93987	.883	-.996
Crowd Funding	187	3.5715	.06709	.91740	.842	-1.121
Enterprise characteristics	187	3.5404	.02869	.39233	.154	.907
Financial Sustainability	187	3.2864	.06619	.90511	.819	-.651
Valid (listwise)	N ₁₈₇					

Source: Research Data 2023

The table 4.9 above shows the grand mean of responses for financial intermediation to be 3.5858 which when rounded off to a whole number of 4, is agreed on the Likert scale of measurement used in the study. This implies that generally, most respondents agreed that various financial intermediation measures (funding/financing policies, financial linkages/partnerships, financial investment trainings) adopted by owners of the enterprise enhanced the financial sustainability of the enterprise. The results are supported by Maja, Ivica and Marijana (2017), Maja, Pervan and Marijana (2019) whose studies found out that most entrepreneurs view borrowing as both important and necessary for business

pursuits. The majority indicated that the effect of credit on the business as positive, and would, when possible, borrow to save a business from collapsing. Mairura, Namusonge and Karanja (2018) findings also showed most of the respondents to have agreed with the fact that, they received a lot of support from the financial intermediaries, and that the support received enhanced business growth. In regards to training, Diaz, Lillian and Tran, (2017) found out that firms owned by clients with business and entrepreneurship training demonstrated a different growth level in terms of assets owned and revenues compared to firms that owners had never been exposed to any form of training.

The grand mean response of financial deepening is 3.3943 which is uncertain on the Likert scale of measurement used in the study. This means that respondents were divided on how financial deepening influences the sustainability of their enterprises. That is those who were mostly uncertain could imply that they did not fully understand financial deepening issues. However, by providing accessible information and promoting financial literacy, more people can develop a better understanding of financial deepening as could be explained during interviews with respondents by discussing the complexity and technical jargon of financial deepening.

The findings are supported by the IMF (2020) study which concluded that the weakening effect on growth at higher levels of financial sustainability of small enterprises can be attributed to financial deepening, rather than to higher access or greater efficiency. The bell-shaped relationship between SMEs' financial growth and the FD index pertains only to the depth components of the index, for both markets and institutions.

The study by Eugster (2019) also showed the relationship between the pace of financial deepening in institutions and the volatility of both GDP growth and inflation as significant and positive and that is in a similar direction; financial instability also rises with the pace of deepening. An annual business enterprise survey by the IMF (2020) further discovered that the development of deep and liquid domestic currency equity and bond markets has been a hallmark of financial deepening in Malaysia and that deep financial markets have also enabled Malaysia to borrow in its own currency for infrastructure investment and promoting SMEs growth.

The financial innovation has a grand mean of 3.3307, which is a 'moderate extent' on the Likert scale of measurement. That is, most respondents were in agreement that financial innovation has an influence on the sustainability of the enterprise to a moderate extent. This generally implies that financial innovation can play a crucial role in influencing the financial sustainability of youth-owned enterprises by improving access to funding through e-payments, e-financial accounting/auditing, table banking, and financial innovation literacy. According to Ngugi (2020), innovativeness (the tendency of the owner/manager to engage in and support new ideas, novelty, experimentation, and creative processes) influences the growth of SMEs in Kenya.

The study by Zerenler (2018) found SMEs' financial growth has significantly positive relationships with financial innovation performance. Thabiso and Odunayo's (2021) results also showed that financial awareness, budgeting, accounting skills, and financial innovation training all have positive and significant effects on the financial sustainability of SMEs.

The grand mean of crowdfunding is 3.5715, rounded off to a whole number of 4, which is a great extent on the Likert scale of measurement. This implies that most respondents indicated that crowdfunding influences the financial sustainability of the enterprise to a great extent. This also means that those who did not indicate a great extent have possibly not engaged in crowdfunding approaches like online platforms to raise funds for their enterprises. Otherwise, most who appreciate the use of crowdfunding are in tandem with the reality of crowdfunding, which offers youth business enterprises a unique opportunity to access funding (collaborative financing, equity/asset-based financing, and P2P lending), validate their ideas, engage with their target audience, and receive valuable feedback.

These factors contribute to the sustainability and growth of the ventures, helping young entrepreneurs establish themselves financially in the market. This is supported by Gudata Abara Tadele Banti (2019), whose results show that financial institutions, through crowdfunding initiatives, were contributing to micro and small enterprises' growth. Grella (2018) result showed that debt crowdfunding allows funders (lenders) to directly lend to fundraisers or invest in debt obligations issued through a platform, while Agrawal, Catalini, and Goldfarb (2018) study on types of crowdfunding found that reward-based crowdfunding enables beneficiaries to access capital at a lower cost compared to traditional sources.

Enterprise characteristics have a grand mean of 3.5404, which, when rounded to the nearest whole number of 4, is 'Great extent' on the Likert scale of measurement. This

implies that most respondents perceived enterprise characteristics as influencing the sustainability of the enterprise to a great extent. This confirms the idea that, for instance, experienced young entrepreneurs whose businesses have been in operation for some years understand viable business models. That is, the business model adopted by a youth enterprise can determine its ability to generate revenue and sustain profitability. A well-defined and viable business model, such as one that addresses a market need or offers unique products/services modeled by its size, can attract customers and generate consistent income.

This study is in agreement with that of Ploypailin and Pongsutti (2020), whose findings indicated that firm size and financial capital both significantly moderate and mediate the impact of innovation on firm performance. Hande Karadag's (2019) findings of one-way ANOVA tests also indicated that performance in financial management practices has a strong and positive correlation with the education level of small business owners and managers, whereas no significant difference is found regarding SMEs operating in different industries. For the impact of company age, an independent sample T-test showed a meaningful difference between small and medium-sized companies that are five years or older and younger.

In the Banchuenvijit (2019) study, a positive relation was found between total sales and profitability of the firms, but on the contrary, a negative relation was found between profitability and total assets. The grand mean response for financial sustainability is 3.2864 which is a moderate extent on the Likert scale of measurement. This indicates that most respondents reported that market share of products/services, market value of

products/services, savings, profit margin, revenue growth, and sales volumes affected the financial sustainability of their enterprise. This implies that most owners of enterprises appreciate the need for financial sustainability because it is crucial for fostering their economic growth, promoting innovation, and financially empowering young entrepreneurs.

This is supported by Maina (2018), the survey revealed that financial deepening (total bank credit to the private sector currently stands at 75 percent of GDP), among other factors, contributed to the sequencing of financial market development of small business enterprises. Loayza and Roman (2019) results showed that financial deepening has non-linear effects on both economic growth and stability; they defined a socially optimal level of financial deepening as one where marginal costs and benefits are equalized. Hamdallah and Srouji's (2022) results showed a significant relationship between FEP and SI and that bank FEP is directed by return on assets (ROA) and return on equity (ROE).

Mihai, Alexandra, and Liliana's (2020) results indicated a positive impact on turnover was acknowledged for all enterprises particularly for big companies, but there was an absence of any statistically significant relation in the case of SMEs. In the study done by Gudata Abara Tadele Banti (2019), the result shows that financial institutions, through crowd-funding initiatives, were contributing to the growth of micro and small enterprises. Masira (2018) found that the coefficient of company size to long-term debt was negative and highly significant, which suggested that company size has a negative relationship with long-term debt.

4.5.2 Measures of Dispersion

From Table 4.10, the values for skewness (degree and direction of asymmetry) and kurtosis (peakedness) are well within ± 1.96 limits, suggesting that the departure from normality is not extreme. Secondly, the values of skewness show both positive and negative, implying that some data are slightly right-skewed while others are slightly left-skewed but fall within normal distribution. Kurtosis values fall within +1 and -1, showing that few observations highly deviate from the mode; in a visual presentation, the curve could be neither too flat nor too peaked. Lastly, since this dataset assumes a normal distribution, most of the values are within one standard deviation on either side of the mean- thus showing a normal small spread. That is, the dataset shows a small spread because all values are close to the mean, yielding smaller variance and standard deviation.

4.6 Secondary Data Analysis

Secondary data captured the number of years in operation, cost of starting the business, YEDF disbursements to counties, loan disbursement through intermediaries, loan disbursements done by YEDF per county annual sales and profits, total assets, ROA percentage (calculated as percentage of profit/loss of total assets summarized per industry, per year).

4.6.1 Loan Disbursement per County

The youth enterprise development reports (2022) categorize loans distributed to the youth-owned enterprises into six groups namely; Group loans, Individual loans (Groups), Business expansion loans, Agri Bizz loans, Talanta loans, and Trade or local purchase order (LPO) financing. The range of these loans according to each category is in terms of the minimum and the maximum that could be accessed by the target group ranging from

Kshs. 100,000 to 1,000,000 for group loans while in the case of Individual loans (Groups), the range is between Kshs. 25,000 to 200,000. Business expansion loans target group may access a minimum of Kshs. 100,000 and a maximum of 2 million shillings. The range also applies to the case of Agri Bizz loans and Talanta loans. However, for those enterprises targeting financing through trade or local purchase order financing, their range is between Kshs. 100,000 to 5,000,000 (5million).

To examine the extent to which financial inclusion parameters are actualized in the four counties, the study examined through document analysis the disbursement of funds by the youth enterprise development fund per county, loan recovery of the disbursed funds, and the target beneficiaries. In Bungoma County, the total disbursement by the year 2022 was Kshs. 138.87 million, while Kakamega County accounted for 397 million. Busia County's total disbursement was Kshs. 103, 195,469, and Vihiga County had a disbursement totaling Kshs. 132, 835,633.

From the above data, Kakamega County had the highest cumulative disbursement during the year 2022, followed by Bungoma County and Vihiga County, with Busia County being the least. Further to the study findings in terms of beneficiaries targeted by the YEDF, Kakamega County has the highest number, followed by Vihiga County, Busia County, and Bungoma County, respectively, as Table 4.10 below demonstrates.

Table 4.10: YEDF Disbursements to Counties

County name	Disbursement (Kshs.)	Beneficiaries
Kakamega	397.00 million	49,718
Bungoma	138.87 million	16,789
Vihiga	132.83 million	30,481
Busia	103.19 million	28,362
Total	771.89 million	115,150

Source: Research Data (2023)

The results from Table 4.10 above indicate that Kakamega County had 49,718 beneficiaries, followed by Vihiga County, which had 30,481, Busia County, 28,362, and Bungoma County, 16,789.

4.6.2 Loan Disbursement through Intermediaries

The study discovered that the YEDF does not only distribute funds directly to youth-owned enterprises but also uses other financial intermediaries, such as banks. Cumulatively, as per the year 2022, the total disbursements through the financial intermediaries by the YEDF according to counties were as follows: Bungoma county kshs. 34.2 million benefiting 526 beneficiaries; Kakamega county kshs. 162.3 million benefitted 5,312; Busia county distributed kshs. 15.57 million benefiting 501; and Vihiga county kshs. 63.9 million was distributed through financial intermediaries to 1597 beneficiaries. This shows that YEDF does not only disburse their finances directly to the youths but also partners with other intermediaries to enhance financial inclusion among the youth.

4.6.3 Loan Recovery Rate

The recovery rate of directly disbursed funds to the youth, according to the YEDF report (2022), for the case of Busia County, a 65% recovery rate was achieved; the Kakamega County rate was at 64%; Vihiga County at 63%; and Bungoma County at 60%. Based on

these findings, the youth-owned enterprises are fairly responding to their credit obligations with an average default rate of less than 40%.

4.6.4 Challenges Experienced by the Youth Owned Enterprises

The challenges that most respondents reported were CRB listing mostly affecting the processing of individual loans, poor attitudes towards loans, the disintegration of groups due to misunderstandings or youth mobility, and people's fear of offering loan securities to youth. The low disbursement was occasioned by challenges in the implementation of the new enterprise resource planning system, which will enable online and mobile applications of loans when fully complete. High defaulting rate due to the unviability of the chosen business, high competition from already established enterprises, high taxation/levies from local county government, lack of adequate training and mentorship in enterprise management, electioneering cycle challenges such as forced loan applications through politicians to influence the electorates, such loans when granted repayment becomes a problem.

Other challenges included collection-related challenges resulting from group disintegration due to persistent conflicts or disagreements; for instance, one group member becomes a beneficiary at the expense of others and wants the entire group to bear the burden of repaying the loan. Further, respondents cited COVID-19-related challenges as having led to low loaning levels, group disintegration due to a lack of business opportunities, and not meeting business targets.

In summary, apart from covid-19 effects and election cycle risk, other challenges that affect the financial sustainability of youth-owned enterprises include; lack of financial

literacy, limited access to formal financial services, Informal and cash-based transactions especially those without bank accounts, limited financial resources (due to limited savings, lack of collateral, or limited access to credit), technological barriers like mobile banking or digital payment platforms, social and cultural barriers where some social and cultural norms may discourage or limit youth entrepreneurship, particularly for marginalized groups (like minority ethnic groups in Busia, Bungoma and abled differently-disabled group) and the female gender that operate in patriarchal communities- partly noted in some wards in Kakamega, Busia and Bungoma Counties.

Mitigation measures discussed included, among others, regular training and mentorship programs for loanees, applicants to be taken through a process of screening such that those who qualify are the only ones that would be cleared to receive loans, the introduction of grace periods between one and six months depending on the kind of project, continuous sensitization on the viability of several loan products, partnering with relevant stakeholders on youth matters to mentor youth on loan utilization, field visits on successful youth-owned enterprises and optimizing loan size, follow-ups, and more training on loan acquisition and utilization on viable and sustainable profit-making enterprises.

4.6.5 Return on Asset

Return on assets (ROA) is a financial ratio that is used to show how profitable a firm is in relation to its total assets. In this study, the ROA % was calculated by expressing the profit/loss as a percentage of the total assets of the youth-owned enterprise. Below is a tabular and graphic representation of ROA % (profit/loss as a percentage of total assets) per industry and year.

Table 4.11: ROA % (profit/loss as a % of total assets) Per Industry

	2017	2018	2019	2020	2021	2022
Construction	4.59	4.55	4.96	2.10	4.61	4.57
Agriculture	4.63	4.60	4.98	2.09	4.69	4.66
Manufacturing	4.41	4.56	4.67	3.13	4.41	4.39
Transport	2.93	3.10	2.00	1.29	3.07	3.09
Health and Beauty	3.32	4.00	4.20	2.12	3.49	3.41
Hotel/Tourism	3.63	3.20	3.20	2.08	3.37	3.39
Poultry	2.31	3.10	2.80	1.89	2.96	2.99
Trade	3.03	3.30	3.20	1.18	1.48	1.47
Retail	4.34	4.30	4.50	3.36	3.77	3.63
Production	4.27	4.42	4.43	4.14	4.51	4.45
Service	4.53	4.78	4.47	1.96	4.09	4.03
Hardware	3.51	4.10	4.31	3.11	4.27	4.22

Source: Research Data (2023)

The results show a decline for all enterprises in the year 2020, implying that youth-owned enterprises were harshly affected by the COVID-19 virus and thus had very low business. This is also shown by the graphical representation with a steep drop in ROA % in 2020.

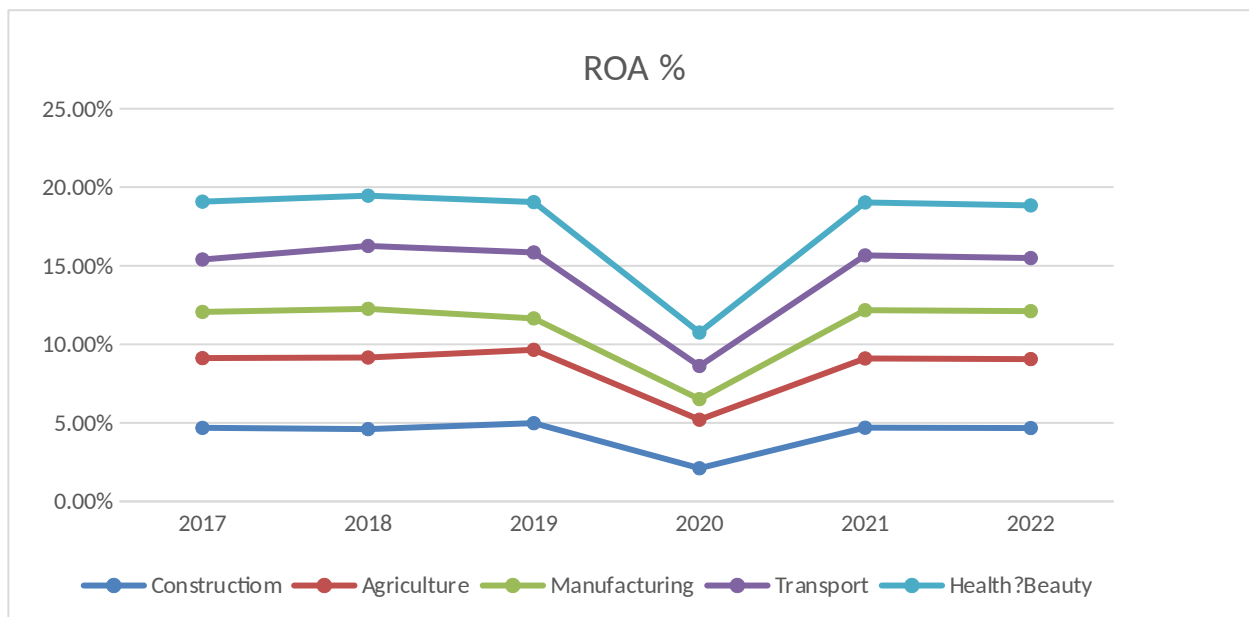


Figure 4.5 ROA % Graphical Representations

Source: Research Data (2023)

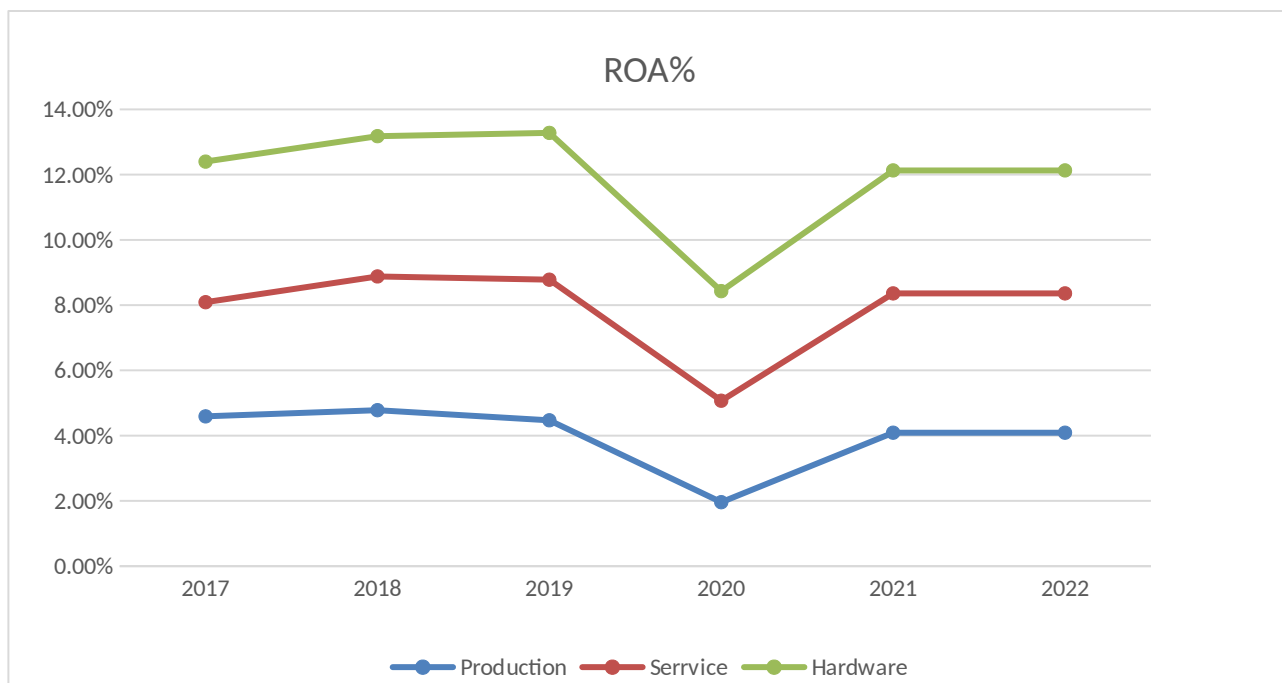


Figure 4.5 ROA % Graphical Representations

Source: Research Data (2023)

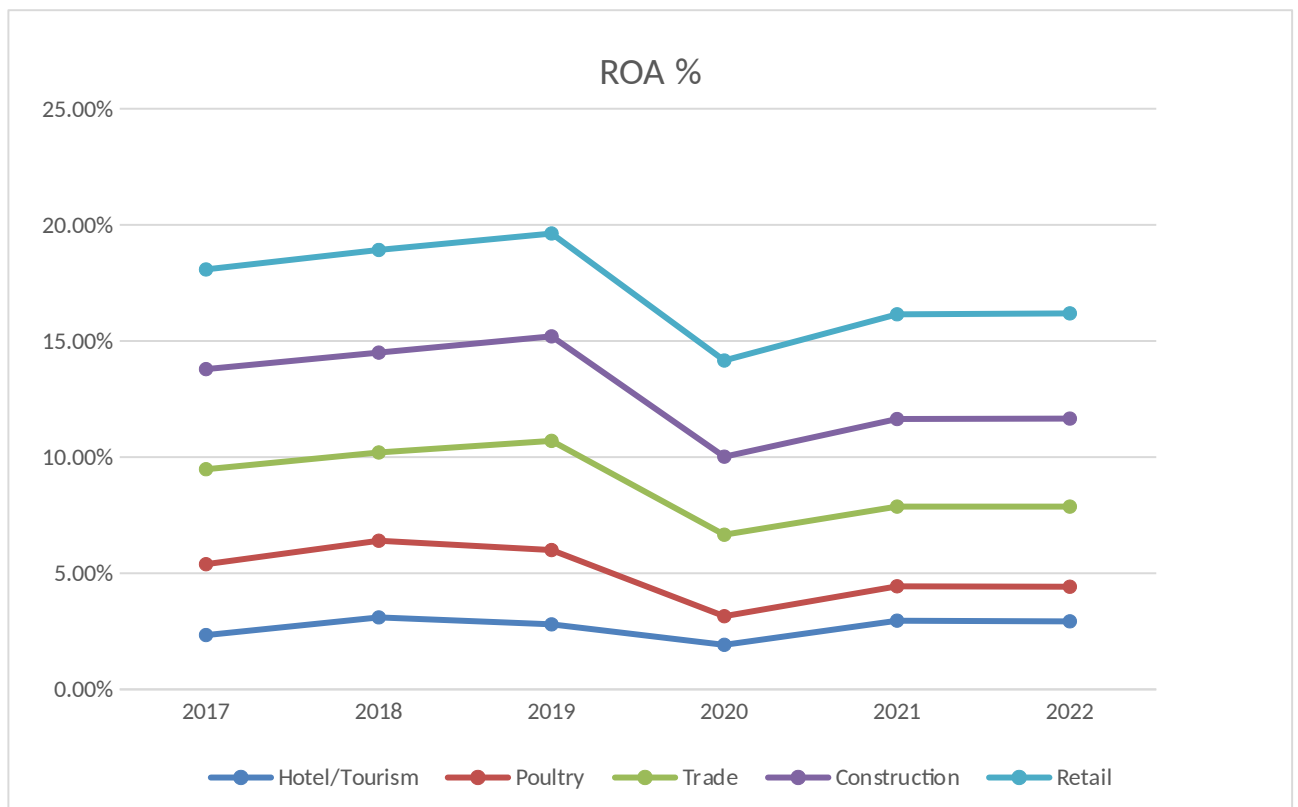


Figure 4.5 ROA % Graphical Representations

Source: Research Data (2023)

In terms of a sharp drop in ROA % per industry, transport and trade-related enterprises showed the sharp drops, possibly because of the COVID-19 restriction where people stayed in houses, thus the transport enterprises suffered the casualties, plus trade-related enterprises where people could not go out to seek general trade-related services.

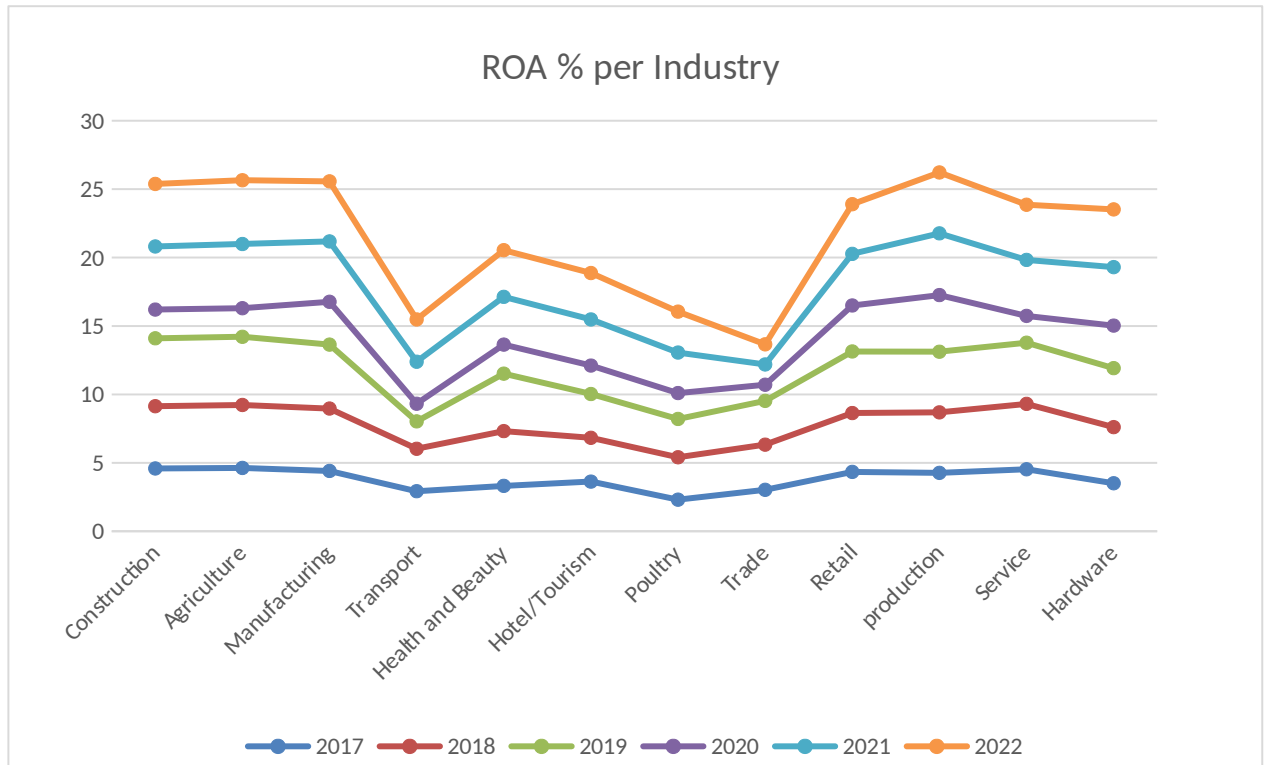


Figure 4.6 ROA % Per Industry

Source: Research Data (2023)

4.7 Inferential Statistics

This section covers bivariate analysis, multiple linear regression analysis, and hypothesis testing. Inferential statistics were computed after key diagnostic tests and model regression assumption thresholds were fully met because their violations can lead to prejudiced statistical inferences.

4.7.1 Model Diagnostic Tests Statistical Findings

Shapiro-Wilk test was used to test normality. This is because most assert that for tests on samples of $n = 3$ to 2000, Shapiro Wilks test is recommended; but for those of $n > 2000$ use Kolmogorov-Smirnov (Hair et al, 2016). Since n is less than 2000, Shapiro-Wilk test

was deemed suitable to test normality. When testing normality the following normality hypotheses were stated;

H_0 = data come from a normally-distributed population (observed distribution fits normal distribution)

H_a = data did not come from a normally distributed population (observed distribution does not fit normal distribution). If you accept H_0 , then assume normality. If you reject, then do not assume normality.

Table 4.12: Normality Test

	Shapiro-Wilk		
	Statistic	Df	Sig.
Financial intermediation	.972	187	.203
Financial deepening	.997	187	.419
Financial innovation	.915	187	.491
Crowdfunding	.936	187	.463
Enterprise characteristics	.887	187	.337
Sustainability of youth owned enterprise	.963	187	.313

Source: Research Data (2023)

From the normality test, the computed SPSS output of the Shapiro-Wilk tests, the p-value is greater than 0.05 so we accept the null hypothesis that the data comes from approximately normally-distributed population. Equally, the values for skewness (degree and direction of asymmetry) and kurtosis (peakedness), are well within ± 1.96 limits, suggesting that the departure from normality was not extreme; thus all assuming normal distribution.

4.7.2 Linearity

A linearity test was done. The independent and dependent variables must have a linear relationship because regression tests linear relationships. When analyzing a single variable, the simple linear regression method was used. However, the multiple linear regression method was used to analyze all the variables together. The simple linear regression results are shown using the four models as indicated under each subheading.

4.7.2.1 Influence of Financial Intermediation on Sustainability of the YOE

The study sought to test the research hypothesis one which was stated as

H01: There is no significant effect of financial intermediation on the sustainability of youth owned enterprises. Table 4.13 indicates the study findings.

Table 4.13: Influence of Financial Intermediation on Sustainability of the YOE

Model Summary								
Change Statistics								
Model	R	R Square	Adjusted R Square	RStd. Error of the Estimate	Square Change	F Change	df1	Sig. F Change
1	.603 ^a	.364	.359	.64374	.364	182.698	1	185 .000

Source: Research Data (2023)

ANOVA ^a					
Model	Sum of Squares	df	Mean Square	F	Sig.
1Regression	75.711	1	75.711	182.698	.000 ^b
Residual	76.665	185	.414		
Total	152.376	186			

Source: Research Data (2023)

Coefficients ^a					
Model		Unstandardized Coefficients	Std. Error	Standardized Coefficients	t
1	(Constant)	.923	.174		5.882
	Financial Intermediation	.631	.047	.603	6.553

a. Dependent Variable: Sustainability of youth owned enterprises

Source: Research Data (2023)

The above simple linear model summary shows that R squared is 0.364, which implies that 36.4% of the variation in financial sustainability of youth-owned enterprises is explained by financial intermediation, while other factors of financial inclusion not in the simple linear model account for 63.6% variation in financial sustainability of youth-owned enterprises. Further coefficient analysis reveals that there exists a positive and significant influence of financial intermediation ($\beta = 0.631$ (0.047); at $P < .005$). The results imply that a single increase in financial intermediation initiatives will lead to a 0.631 unit increase with a standard error of 0.047 in the financial sustainability of the studied youth-owned enterprises. Therefore, the resultant simple linear regression equation model is;

$$Y = 0.923 + 0.631X_1$$

Where:

Y = financial sustainability of youth owned enterprises

X_1 = financial intermediation

4.7.2.2 Influence of Financial Deepening on Sustainability of the YOEs

The study sought to test the research hypotheses one that was stated as;

H02: There is no significant influence of financial deepening on the sustainability of youth owned enterprises in the Western Region, Kenya. Table 4.14 indicates the study findings.

Table 4.14: Influence of Financial Deepening on Sustainability of the YOE.s.

Model Summary									
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change in R Square	F Change	df1	df2	Sig. Change
1	.315 ^a	.099	.097	.62101	.099	210.111	1	185	.000

Source: Research Data (2023)

ANOVA^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	81.030	1	81.030	210.111	.000 ^b
	Residual	71.346	185	.386		
	Total	152.376	186			

Source: Research Data (2023)

Coefficients^a						
Model		Unstandardized Coefficients B	Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	.685	.185		3.702	.000
	Financial Deepening	.366	.053	.315	8.504	.000

a. Dependent Variable: Sustainability of youth owned enterprises

Source: Research Data (2023)

The simple linear model summary above shows that R squared is 0.099, which implies that 9.9% of the variation in financial sustainability of youth-owned enterprises is explained by financial deepening, while other factors of financial inclusion not in the simple linear model account for 90.1% variation in financial sustainability of youth-owned enterprises. Further coefficient analysis reveals that there exists a positive and significant linear influence of financial deepening ($\beta = 0.366$ (0.053); at $P < .005$). The results imply that a

single increase in financial deepening will lead to a 0.366-unit increase, with a standard error of 0.053, in the financial sustainability of the studied youth-owned enterprises. The resultant simple linear regression equation model is;

$$Y = 0.685 + 0.366X_2$$

Where:

Y = financial sustainability of youth owned enterprises

X₂ = financial deepening

4.7.2.3 Influence of Financial Innovation on Sustainability of the YOE

The study sought to test the research hypotheses one that was stated as;

H03: There is no significant influence of financial innovation on the sustainability of youth owned enterprises in Western Region, Kenya. Table 4.15 indicates the study findings.

Table 4.15: Influence of Financial Innovation on Sustainability of the YOE

Model summary									
Std. ErrorChange Statistics									
	R	Adjusted Rof	theR SquareF	Sig. F					
Model	R	Square	Square	Estimate	Change	Change	df1	df2	Change
1	.660 ^a	.434	.427	.63158	.434	196.998	1	185	.000

Source: Research Data (2023)

ANOVA ^a					
Sum of Squares	df	Mean Square	F		Sig.
Regression	78.581	1	78.581	196.998	.000 ^b
Residual	73.795	185	.399		
Total	152.376	186			

Source: Research Data (2023)

Coefficients^a

		Unstandardized Coefficients		Standardized Coefficients	
Model		B	Std. Error	Beta	t
1	(Constant)	.983	.170		5.766
	Financial Innovation	.672	.049	.660	8.815

a. Dependent Variable: Sustainability of youth owned enterprises

Source: Research Data (2023)

The simple linear model summary shows that R squared is 0.434, which implies that 43.4% of variation in financial sustainability of youth-owned enterprises is explained by financial innovation, while other dimensions of financial inclusion not in the simple linear model account for 56.6% variation in financial sustainability of youth-owned enterprises. Further coefficient analysis reveals that there exists a positive and significant direct influence of financial innovation ($\beta = 0.672$ (0.049); at $P < .005$). The results therefore imply that a single increase in the adoption of feasible financial innovation initiatives by the owners/managers of the youth enterprises will yield a 0.672 unit increase with a standard error of 0.047 in the financial sustainability of the studied youth-owned enterprises. Therefore, the resultant simple linear regression equation model is;

$$Y = 0.983 + 0.672X_3$$

Where:

Y = financial sustainability of youth owned enterprises

X₃ = financial innovation

4.7.2.4 Influence of Crowdfunding on Sustainability of the YOE

The study sought to test the research hypotheses one that was stated as;

H04: There is no significant influence of crowdfunding on the sustainability of youth owned enterprises in the Western Region, Kenya. Table 4.16 indicates the study findings.

Table 4.16: Influence of Crowdfunding on Sustainability of the YOE

Model Summary									
Change Statistics									
Model	R	R Square	Adjusted Square	R Std. Error of the Estimate	Change	F Change	df1	df2	Sig. Change
1	.393 ^a	.154	.143	.68750	.154	137.384	1	185	.000

Source: Research Data (2023)

ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	64.935	1	64.935	137.384	.000 ^b
	Residual	87.441	185	.473		
	Total	152.376	186			

Source: Research Data (2023)

Coefficients ^a					
		Unstandardized Coefficients		Standardized Coefficients	
Model		B	Std. Error	Beta	t
1	(Constant)	.986	.203		4.867
	Crowd Funding	.445	.055	.393	8.765

a. Dependent Variable: Sustainability of youth owned enterprises

Source: Research Data (2023)

The simple linear model summary shows that R squared is 0.434 which implies that 43.4% of the variation in the financial sustainability of youth-owned enterprises is explained by crowdfunding while other dimensions of financial inclusion not in the simple linear model account for 56.6% variation in the financial sustainability of youth owned enterprises. Further coefficient analysis reveals that there exists a positive and significant linear influence of crowdfunding ($\beta = 0.445$ (0.055); at $P < .005$). The results therefore imply that a single increase in the utilization of viable crowd-funding platforms by the owners/managers of the youth enterprises will yield 0.445 unit increase with a standard error of 0.055, in the financial sustainability of the studied youth-owned enterprises. Therefore, the resultant simple linear regression equation model is;

$$Y = 0.986 + 0.445X_4$$

Where:

Y = financial sustainability of youth owned enterprises

X₄= crowd funding

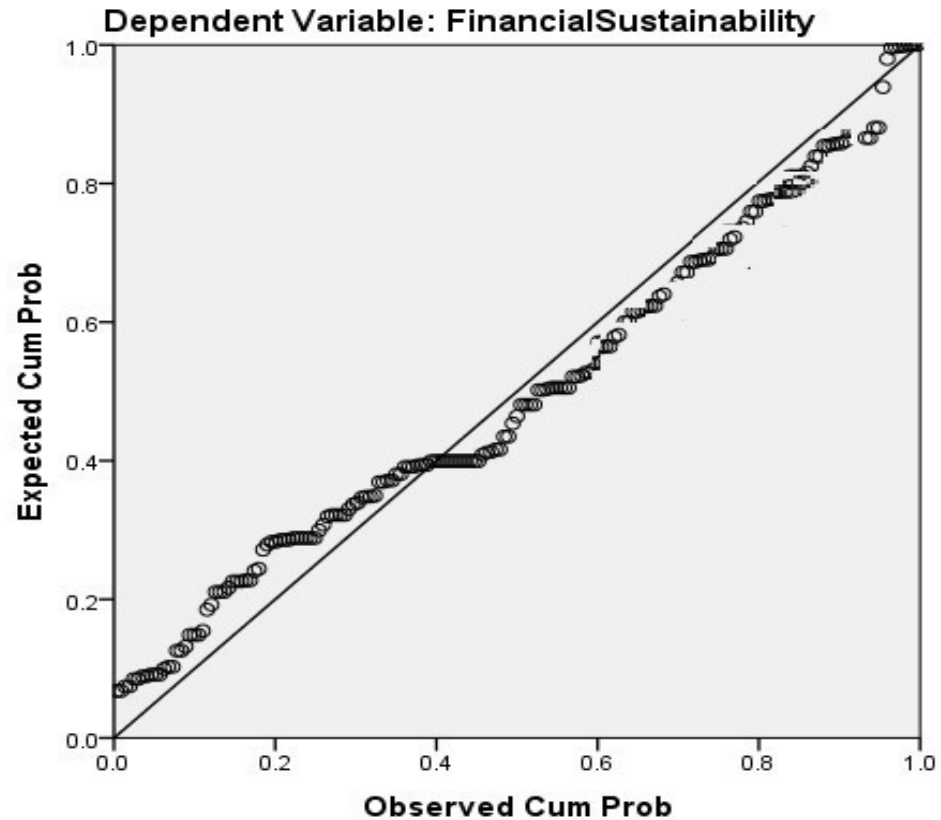


Figure 4.7: linearity Test of Y Values and Standardized Residuals

Source: Research Data (2023)

The graph summarily shows

patterns forming around a straight line depicting a linear graph. This is because the points on the scatter plot resembles a straight line, implying that a change in x results in a positive change in y. That is, x (independent variables) have direct linear relationship with the dependent variable (y), implying any change in financial inclusion variables(x) will yield

a significant positive change in the financial sustainability (y) of the studied youth owned enterprises.

4.8 Multicollinearity Test

The multiple linear regression statistical rule requires that first, linear regression analysis must be done so as to ascertain that the independent and dependent variables have a linear significant relationship. That is, independent variable with statistically insignificant relationship with the dependent variable cannot be included in the multiple linear regression analysis. This was tested using correlation analysis as shown in table on correlation analysis; and the results shows that all the study's independent variables and moderator variable had linear significant relationship with the outcome variable (sustainability of youth owned enterprises). The correlation analysis (table 4.2) shows that all independent variables (financial intermediation; 0.603^{**}, financial deepening; 0.315^{**}, financial innovation; 0.660^{**}, crowd funding; 0.393^{**}) showed positive significant ($p \leq 0.01$) linear influence on the outcome variable (sustainability of youth owned enterprises) and the moderator variable (enterprise characteristics) also had a positive significant (0.649^{**} at $p \leq 0.01$) association with the dependent variable (sustainability of youth owned enterprises).

Multicollinearity test was computed to confirm whether two or more predictors in the model are correlated. That is, Multicollinearity was tested by computing the variance inflation factors (VIF) for each predictor variable. Variance Inflation Factor (VIF) lower than 10 and tolerance values greater than 0.1 are acceptable for multiple regression (Hair et

al., 2016).

Table 4.17: Multicollinearity Test

Model		Collinearity Statistics	
		Tolerance	VIF
1	(Constant)		
	Financial Intermediation	.215	4.659
	Financial Deepening	.128	7.808
	Financial Innovation	.240	4.173
	Crowd Funding	.165	6.073

Source: Research Data (2023)

Further lack of multicollinearity is supported by the correlation analysis where the correlation between all pairs of independent variables (financial intermediation, financial deepening, financial innovation, crowdfunding) was computed and the highest correlation coefficient between the independent variables was 0.582 which is below the threshold of 0.9 (Hair et al., 2016), thus multicollinearity assumption was dully checked and met.

4.8.1 Homoscedasticity Test

Table 4.18: Breusch-Pagan Test for Homoscedasticity^{a,b,c}

Chi-Square	df	Sig.
20.78	1	.1049

a. Dependent variable: Financial Sustainability of Youth Owned Enterprises

b. H0; constant variance (Tests the null hypothesis that the variance of the errors does not depend on the values of the independent variables).

c. Predicted values from design: Intercept + financial intermediation + financial deepening+ financial innovation + crowdfunding

Source: Research Data (2023)

The homoscedasticity test was done as it tests whether the dependent variable exhibits equal variance across the range of the independent variables. Homoscedasticity refers to the assumption that the dependent variable exhibits similar amounts of variance across the range of values for an independent variable (Hair et al., 2016). The Breusch-Pagan null hypothesis states that there is a constant of error term- that is error terms (residuals) are not correlated with the value of the predictors (independent variables) thus recommends that the probability (p) value should be greater than 0.05 in order to meet the homoscedasticity assumption and to allow the regression model for further analysis. That is the null hypothesis in the Breusch-Pagan test is homoscedasticity.

If the null hypothesis is rejected, it is concluded that there is heteroscedasticity in the data. If the level of significance is less than 0.05, the null hypothesis is rejected. As indicated in the table on the Homoscedasticity Test, the probability value is greater than 0.05, thus, the non-significant results imply there was no problem of homoscedasticity (there is constant

variance of error terms across all values of independent variables).

4.8.2 Correlation Analysis

This was computed to show the correlations between the study's conceptualized variables (financial intermediation, financial deepening, financial innovation, crowdfunding) and the outcome variable (sustainability of youth owned enterprises), plus testing the association between the moderator variable (enterprise characteristics) with the dependent variable (sustainability of youth owned enterprises).

The moderator-dependent variable association was tested first because lack of a significant association between them implies that moderation analysis cannot then be computed (Hair *et al*, 2016). The bivariate analysis based on correlation principle (table 19.) shows that all independent variables (financial intermediation; 0.603**, financial deepening; 0.315**, financial innovation; 0.660**, crowdfunding; 0.393**) showed positive significant ($p \leq 0.01$) linear influence on the outcome variable (sustainability of youth owned enterprises) and the moderator variable (enterprise characteristics) also had a positive significant (0.649** at $p \leq 0.01$) association with the dependent variable (sustainability of youth owned enterprises).

In terms of ranking the linear influence of each independent variable based on their correlation coefficients, financial innovation had the highest coefficient (0.660**), implying that financial innovation plays a crucial role in improving the financial sustainability of youth-owned enterprises by expanding their access to capital, providing

financial management tools, managing risks, and offering education and mentorship opportunities.

Table 4.19: Correlations Analysis

			Financial Intermediation	Financial Deepening	Financial Innovation	Crowd Funding	Enterprise characteristic	Financial Sustainability
Financial Intermediation	Pearson Correlation	1						
	Sig. (2-tailed)							
	N	187						
Financial Deepening	Pearson Correlation	.549**	1					
	Sig. (2-tailed)	.000						
	N	187	187					
Financial Innovation	Pearson Correlation	.480**	.430**	1				
	Sig. (2-tailed)	.000	.000					
	N	187	187	187				
Crowd Funding	Pearson Correlation	.582**	.579**	.571**	1			
	Sig. (2-tailed)	.000	.000	.000				
	N	187	187	187	187			
Enterprise characteristics	Pearson Correlation	.555**	.505**	.576**	.546**	1		
	Sig. (2-tailed)	.000	.000	.000	.000			
	N	187	187	187	187	187		
Financial Sustainability	Pearson Correlation	.603**	.315**	.660**	.393**	.649**	1	
	Sig. (2-tailed)	.000	.000	.000	.000	.000		
	N	187	187	187	187	187	187	

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

Source: Research Data (2023)

Though, financial deepening was the least (.315**) it showed linear significant influence on the outcome variable (sustainability of youth owned enterprises) implying that financial deepening provides youth-owned enterprises with improved access to capital, including loans, investment, and credit facilities. This enables them to finance their

operations, expand their business, and invest in growth opportunities.

4.8.3 Multiple Linear Regression Analysis

This was computed using hierarchical regression to test the multiple linear influence on conceptualized independent variables (financial intermediation, financial deepening, financial innovation and crowdfunding) on the dependent variable (sustainability of youth owned enterprises). That is, multiple linear regression analysis was based on the multiple correlation principle and sought to explain the variance of the dependent variable (sustainability of youth owned enterprise) based on the independent and moderating variables. The hierarchical regression was used so as to get the most suitable optimal model.

In this regard, first, the four independent variables (financial intermediation, financial deepening, financial innovation and crowdfunding) were computed to assess their multiple influences on the dependent variable (sustainability of youth owned enterprises) as conceptualized in the study's conceptual model and make inferences about the study's specific objectives. That is multiple linear regression analysis allows researchers to analyze the impact of multiple independent variables on a dependent variable simultaneously. This is particularly useful when there are several potential predictors that may influence the outcome variable. It also allows researchers to quantify the extent to which each independent variable contributes to the variation in the dependent variable. This information can help in determining the relative importance of different predictors and identifying the most influential factors (Hayes, 2013).

In addition, multiple regression analysis allows researchers to test hypotheses and make inferences about the relationships between variables. By examining the significance of the

regression coefficients, researchers can determine whether the relationships observed are statistically significant and generalize the findings to the larger population (Hayes, 2013). Therefore the multiple linear regression analysis (table 4.20) shows the multiple model summary, ANOVA and coefficients whose inference guided in the answering of the study's specific objectives one to four.

Table 4.20: Multiple Linear Regression Analysis

Model Summary									
Model	R	R Square	Adjusted Square	Std. Error of the Estimate	Change Statistics			df1	df2
					R Square Change	F Change	Sig. F Change		
1	.777 ^a	.604	.595	.57581	.604	69.393		4	182

Source: Research Data (2023)

ANOVA^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	92.032	4	23.008	69.393	.000b
	Residual	60.344	182	.332		
	Total	152.376	186			

Source: Research Data (2023)

Coefficients ^a						
		Unstandardized Coefficients		Standardized Coefficients		
Model		B	Std. Error	Beta	t	Sig.
1	(Constant)	.976	.313		7.006	.000
	Financial Intermediation	.184	.075	.221	4.883	.000
	Financial Deepening	.513	.134	.488	3.814	.000
	Financial Innovation	.283	.092	.293	3.085	.002
	Crowd Funding	.176	.075	.211	2.345	.020

a. Dependent Variable: Financial Sustainability

Source: Research Data (2023)

The model shows an adjusted R^2 of 0.595. We can confidently infer that the study model explains 59.5% of the variations in the sustainability of the sampled youth-owned enterprise while other confounding factors (not in this study model) account for 40.5%, thus, it is a good study model. The adjusted R^2 is sometimes normally used because it is a corrected goodness of fit (model accuracy) measure of linear models rather than just relying on R^2 which is just a statistical measure that represents the proportion of the variance of the dependent variable that is explained by independent variable in a multiple regression model (Hair *et al*, 2016).

The ANOVA results in Table 4.20 show F-statistic; 69.393 significant at $p \leq 0.05$ confirms the fitness of model 1; that is, the multiple linear regression model 1 is a good fit for data and that the four independent variables (financial intermediation, financial deepening, financial innovation, crowdfunding) are indeed different from each other and are good predictors of the outcome variable (sustainability of youth owned enterprises).

Further, the coefficients results (table 4.20) were used to answer the study's first four specific objectives. The first specific objective was to examine the effect of financial intermediation on the sustainability of youth-owned enterprises. From the values of unstandardized regression (β) coefficients with standard errors in parenthesis, financial intermediation significantly influenced the sustainability of youth owned enterprises; $\beta = 0.184$ (0.075) significant at $p < 0.05$. This implies that a unit increase in financial intermediation measures will lead to a 0.184 (with a standard error of 0.075) unit increase in the sustainability of youth owned enterprises. The results are consistent with Chemutai (2021) study which found a statistically significant positive causal relationship between financial access, financial transparency, financial credit products, and financial literacy and performance among micro and small enterprises, thus emphasizing the need for financial intermediation in business enterprise sustainability, Maja, Pervan and Marijana (2019) study found a positive influence of credit on business survival, Mairura, Namusonge and Karanja (2018) study showed the positive significant role of financial intermediation on the growth of SMEs.

The second specific objective was to establish the contribution of financial deepening on the sustainability of youth owned enterprises. From the values of unstandardized regression (β) coefficients with standard errors in parenthesis, financial deepening significantly contributes to the sustainability of youth owned enterprises; $\beta = 0.513$ (0.134) significant at $p < 0.05$. This implies that a unit increase in financial deepening will contribute 0.513 (with a standard error of 0.134) unit increase in the sustainability of youth owned enterprises. The results are supported by the IMF (2020) trend analysis of financial

deepening in Asian countries where access has a positive linear relationship with SMEs' growth, OECD (2020) enterprise surveys also revealed that financial deepening among other factors significantly contributed to the sequencing of financial market development of small business enterprises. However, the results differ from some previous studies. That is, Eugster (2019) in an examination of the relationship between the pace of financial deepening and SMEs growth yielded inconclusive results. That is, the growth of some small enterprises is accompanied by greater risk-taking and high leverage, particularly when the financial system is poorly regulated and supervised.

The third specific objective was to determine the influence of financial innovation on the sustainability of youth owned enterprises. From the values of unstandardized regression (β) coefficients with standard errors in parenthesis, financial innovation significantly influences the sustainability of youth owned enterprises; $\beta = 0.283$ (0.092) significant at $p < 0.05$. This implies that a unit increase in financial innovations will yield a 0.283 (with a standard error of 0.092) unit increase in the sustainability of youth owned enterprises. The results support Mihai, Alexandra and Liliana (2020) that found a positive significant influence of innovation on SME growth in Bucharest, Thabiso and Odunayo (2021) study that found that financial innovation training significantly influenced Small and Medium Enterprises' financial sustainability in South Africa, Zerenler (2018) study that found SMEs financial growth had significantly positive relationships with financial innovation and Ignazio (2019) study which revealed that financial innovation had not only opened up new opportunities for the SMEs, but also increased new market players arising from new products in the financial market; and Ngugi (2020) study which found that financial innovativeness influenced the growth of SMEs in Kenya. However, the study results differ

from Karabulut (2019) study which found that financial innovation has negative impacts on firm growth, suggesting that a failure to consider the potential negative effects of innovation given the heavy investment cost of innovation could reduce the firm's profitability in the short term.

The fourth specific objective was to examine the influence of crowdfunding on the sustainability of youth owned enterprises. From the values of unstandardized regression (β) coefficients with standard errors in parenthesis, crowdfunding significantly influences the sustainability of youth owned enterprises; $\beta = 0.176$ (0.075) significant at $p < 0.05$. This implies that a unit increase in crowdfunding connections will yield a 0.176 (with a standard error of 0.075) unit increase in the sustainability of youth owned enterprises.

The results are supported by Gudata Abara Tadele Banti (2019) study that found a significant influence of financial institutions with the crowdfunding model on the growth of Micro and Small Enterprises in Assosa Zone. However, the study results differ from some previous studies, for instance, Gebrehiwot and Wolday (2019) study on Micro and Small Enterprises (MSEs) Finance in Ethiopia where crowdfunding was found insignificant with respect to Return on Equity. More so, Tiyezye (2021) study on the factors affecting small and medium enterprises' access to finance in Lusaka found a negative correlation between fund crowding and financial performance. The final multiple regression equation for the overall significant multiple influence of the study's conceptualized independent variables (financial intermediation, financial deepening, financial innovation, crowdfunding) on sustainability of youth owned enterprise is;

(i) Multiple linear regression equation;

$$y = 0.976 + 0.184X_1 + 0.513X_2 + 0.283X_3 + 0.176X_4$$

Where;

y = Sustainability of youth owned enterprises

X₁ = Financial intermediation

X₂ = Financial deepening

X₃ = Financial innovation

X₄ = Crowdfunding

In terms of ranking, financial deepening had the highest coefficient (0.513), possibly because it promotes economic stability and resilience thus enables access to capital, which are essential for the success and longevity of youth-owned enterprises, enabling them to thrive, financial innovation was second (0.283), showing the importance of embracing dynamic innovations in the financial sector, financial intermediation was third (0.184) showing the importance of financial intermediaries for loan/credit provision to youth owned enterprise and last was crowdfunding (0.176) implying that though crowdfunding has a significant influence on the sustainability of youth owned enterprises, some had not really embraced it due to lack of knowledge about this financial inclusion initiative.

The fifth specific objective of the study was to establish the moderating influence of enterprise characteristics on the relationship between financial inclusion and sustainability of youth owned enterprises. This was tested using moderation analysis shown in Table 4.21 below.

Table 4.21: Moderation Analysis

Model Summary									
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change in R Square	F Change	df1	df2	Sig. Change
2	.866 ^c	.750	.738	.46352	.067	11.886	4	177	.000

Source: Research Data (2023)

ANOVA ^a					
Model		Sum of Squares	df	Mean Square	F
2	Regression	114.346	9	12.705	59.134
	Residual	38.029	177	.215	
	Total	152.376	186		

Source: Research Data (2023)

		Coefficients ^a				
		Unstandardized Coefficients		Standardized Coefficients		
Model		B	Std. Error	Beta	t	Sig.
2	(Constant)	.938	.325		5.970	.000
	Financial Intermediation	.230	.090	.205	2.050	.042
	Financial Deepening	.458	.116	.436	3.949	.000
	Financial Innovation	.471	.125	.426	3.781	.000
	Crowd Funding	.319	.156	.283	3.836	.000
	Enterprise characteristics	.696	.097	.302	7.157	.000
	Product					
	term1(Z*FinIntermediation)	.362	.167	.317	2.164	.032
	Product					
	term2(Z*FinDeepening)	.169	.014	.121	2.454	.015
	Product					
	term3(Z*FinInnovation)	.175	.086	.196	2.036	.043
	Product					
	term4(Z*Crowdfunding)	.204	.053	.190	2.557	.011

a. Dependent Variable: Financial Sustainability

Source: Research Data (2023)

From table 4.21 model 2 shows improved adjusted R^2 of 0.738 implying that with addition of the moderator (enterprise characteristics, Z) and product terms ($x_1*Z + x_2*Z + x_3*Z + x_4*Z$) the final model explains 73.8% of the variations in the financial sustainability of the studied youth owned enterprise while other factors not in this study model accounts for 26.2%, thus, the moderator variable (enterprise characteristics) signifies an interaction effect in the study's conceptualized moderation model.

This is because when you compare model 1 and model 2, the introduction of the interaction (product) terms increases the model explaining power by 14.3% (59.5% to 73.8%). That is, the results indicate that there is a potential moderating effect of enterprise characteristics on the relationship between financial inclusion variables (financial intermediation, financial deepening, financial innovation, crowdfunding) and the study's outcome variable (sustainability of youth owned enterprises).

ANOVA results show an F-statistic of 59.134 significant at $p \leq 0.05$ confirming the overall fitness of the study's model; that is the study's overall regression model is good fit for data and that the four independent variables (financial intermediation, financial deepening, financial innovation, crowdfunding) the moderator variable (enterprise characteristics) plus the product terms are statistically significant enough to predict the outcome variable (sustainability of youth owned enterprises). In conclusion therefore about analysis of variance (ANOVA), the F-ratios in models 1 and 2 represent an improvement in the prediction of the variables by fitting the models in data and the p-values of the ANOVA tables are below the tolerable significance level (5% level of significance), thus implies a possibility of rejecting the null hypotheses in subsequent analysis (coefficients).

Therefore, from the values of unstandardized regression (β) coefficients with standard errors in parenthesis (table 4.22) in model 2 (adding moderator variable and product terms in the hierarchical regression model 2), all the independent variables; Financial intermediation; $\beta = 0.230$ (0.090) at $p < 0.05$; financial deepening; $\beta = 0.458$ (0.116) at $p < 0.05$; financial innovation; $\beta = 0.471$ (0.125) at $p < 0.05$, crowdfunding; $\beta = 0.319$

(0.156) at $p < 0.05$; enterprise characteristics (moderator) $\beta = 0.696$ (0.097) at $p < 0.05$ were significant predictors of sustainability of youth owned enterprises (the outcome variable) and; the moderation effects; product term1; $\beta = 0.362$ (0.167) at $p < 0.05$; product term 2; $\beta = 0.169$ (0.014) at $p < 0.05$; product term 3; $\beta = 0.175$ (0.086) at $p < 0.05$; product term 4; $\beta = 0.204$ (0.053) at $p < 0.05$ indicates significant moderation effects. The coefficient analysis indicates that enterprise characteristics significantly moderate the relationship between financial intermediation (product term 1; $X_1 * z$), financial deepening (product term 2; $X_2 * z$); financial innovation (product term 3; $X_3 * z$); crowdfunding (product term 4; $X_4 * z$) and financial sustainability of youth owned enterprises (outcome variable).

Financial intermediation and enterprise characteristics interaction had the highest moderation coefficient; product term1; $\beta = 0.362$ (0.167) at $p < 0.05$; implying that financial intermediation is a key dimension of financial inclusion because it directs connects youth-owned enterprises with financial resources and services; and enterprise characteristics that can potentially moderate this relationship include factors such as the size of the enterprise, the level of experience and expertise of the entrepreneur. For example, a larger enterprise may have more access to financial intermediaries and be able to negotiate better terms and conditions for financial services, which can enhance financial sustainability. On the other hand, enterprise characteristics such as limited experience, lack of collateral, or undefined ownership structure can negatively impact the relationship between financial intermediation and financial sustainability. That is, these characteristics may make it more difficult for youth-owned enterprises to access financial services or obtain favorable financing terms, thus affecting their ability to achieve long-term financial sustainability.

The coefficient analysis shows that enterprise characteristics significantly moderate the relationship between financial inclusion and sustainability of youth owned enterprises. The results are supported by Ploypailin and Pongsutti (2020) study that found that firm size moderates the relationship between innovation and firm performance of small and medium enterprises. However, Legesse (2018) found that firm age for family-owned enterprises negatively influences performance, whereas such ownership has a statistically significant effect Lwango et al. (2017). Further, Esteve-Pérez et al. (2018) study showed that age is also a critical determinant of firm survival based on the industry (sector) life cycle, while Zahid, Christian, and Bernhard (2018) study asserted that approaches to sustainability appear to be influenced by not just the owners/investors but also by the type of control and broader contexts.

Table 4.22: Model 1 and 2 Summaries

	Model 1		Model 2	
	β	<i>p value</i>	B	<i>p value</i>
Constant	.976	.000	.938	.000
Financial Intermediation	.184	.000	.230	.042
Financial Deepening	.513	.000	.458	.000
Financial Innovation	.283	.002	.471	.000
Crowd Funding	.176	.020	.319	.000
Enterprise characteristics	.715	.000	.696	.000
Z* Fin. Intermediation			.362	.032
Z* Fin. Deepening			.169	.015
Z* Fin. Innovation			.175	.043
Z* Crowd funding			.204	.011

Source: Research Data (2023)

Therefore, the optimal model of the study (significant multiple linear and moderation effects) is;

$$(ii) \quad Y = 0.938 + .230X_1 + 0.458X_2 + 0.471X_3 + 0.319X_4 + 0.696Z + 0.362X_1*Z + 0.169X_2*Z + 0.175X_3*Z + 0.204X_4*Z$$

Where;

y = Sustainability of youth owned enterprises

X₁ = Financial intermediation

X₂ = Financial deepening

X₃ = Financial innovation

X₄ = Crowdfunding

Z = Moderator (enterprise characteristics)

(x* z) = interaction (product) term

The final model (ii) shows all financial inclusion variables (financial intermediation, financial deepening, financial innovation, crowdfunding) significantly influence sustainability of youth owned enterprises; with financial innovation having the highest coefficient (0.471) followed by financial deepening (0.458). This implies that financial innovation plays a crucial role in enhancing the financial sustainability of youth-owned enterprises by increasing their access to financing, reducing transaction costs, managing risks, and promoting financial literacy. Financial deepening also showed high coefficient possibly because financial deepening aims to create a robust and inclusive financial

system that supports economic development, facilitates investment, promotes stability and in this case sustainability of youth owned enterprises.

Crowdfunding also showed significant influence with a coefficient (0.319) implying that since crowdfunding is a method of raising funds for a project or venture by collecting small amounts of money from a large number of people, typically through online platforms; by allowing individuals or organizations to reach out to a wide audience and solicit contributions or investments for their idea, product, or cause; it has become popular with innovative youth for various purposes, such as supporting creative projects, launching innovative business startups, or funding on-going projects.

Financial intermediation though last in the final model (0.230) had a significant influence on the sustainability of youth owned enterprises simply because financial intermediation supports the financial sustainability of youth-owned enterprises by providing access to capital, managing risks, offering financial advice, facilitating networking and partnerships, and promoting financial literacy and capacity building. Through these services, financial intermediaries contribute to the growth and success of these enterprises, ensuring their long-term viability.

Finally, enterprise characteristics indicated a moderating influence on the relationship between financial inclusion and sustainability of youth owned enterprises, implying that factors such as size, ownership structure, age of the enterprise plus the experience of business owner can significantly determine the acquisition and utilization of financial inclusion products/services.

4.9 Discussion of Findings

This section covers a discussion of findings based on descriptive and inferential statistics, backed by qualitative data from interviews with respondents. A topical approach has been adopted to guide the discussion.

4.9.1 Influence of Financial Intermediation on Financial Sustainability of the YOE

The first specific objective of the study was to examine the effect of financial intermediation on the financial sustainability of youth owned enterprises. Descriptive statistics showed the grand mean of responses for financial intermediation is 3.5858 which when rounded off to 4 is agreed on the Likert scale of measurement used in the study. This implies that generally, most respondents agreed that various financial intermediation measures (funding/financing policies, financial linkages/partnerships, financial investment training) adopted by owners of the enterprise enhanced the financial sustainability of the enterprise. The results are supported by Mairura, Namusonge and Karanja (2018) study where most of the respondents agreed with the fact that, they received a lot of support from the financial intermediaries; the support received enhanced business growth. That is, 73.5 percent said that support received enhanced business growth and 55.6 percent strongly agreed and agree on cumulative responses.

Multiple regression analysis showed that financial intermediation significantly influences the sustainability of youth owned enterprises; $\beta = 0.230$ (0.090) at $p < 0.05$. The results are supported by Ukamaka, Ikechukwu and Nkiru (2019), Maja, Ivica and Marijana (2017) studies. However, the results differ with Imoughele and Ismaila (2019) who employed Co-integration and Error Correction Modelling (ECM) techniques; and found that financial

intermediation had a direct but insignificant impact on the country's SMEs' financial output due to high interest and inflation rates.

From interviews with respondents, in as much many respondents support the usefulness of financial intermediation as a key financial inclusion initiative for the sustainability of their enterprises; certain challenges were identified by them. This includes a lack of collateral, that is financial institutions require collateral as security for loans but some youth-owned enterprises did not have sufficient assets to offer as collateral, making it difficult for them to access loans from traditional lenders. Secondly, some youth-owned enterprises had limited or no credit history, making it challenging for financial institutions to assess their creditworthiness; thus without a proven track record, it was harder for some youth-owned enterprises to secure loans. Thirdly, some youth-owned enterprises were perceived as higher risk by financial institutions due to their limited experience and potential instability of business ventures. This perception results in the denial of loan facilities. Fourth, some young business owners lack the necessary financial literacy skills to effectively manage their finances and navigate the financial intermediation process, which makes it difficult for them to understand loan terms, negotiate better rates, or present their business plans effectively to lenders.

Further, some youth-owned enterprises face challenges in accessing information about available financial intermediation options, such as loans, grants, or mentorship programs, which restricts their ability to explore different funding sources and make informed decisions. Thus, some have limited networks and connections. That is, compared to more established businesses, some youth-owned enterprises have a smaller business network

and fewer connections with potential investors or lenders, which makes it harder for them to find suitable financial intermediaries or access alternative funding sources.

4.9.2 Influence of Financial Deepening on Financial Sustainability of the YOE

The second specific objective of the study was to establish the contribution of financial deepening on the financial sustainability of youth owned enterprises. Descriptive statistics indicated that the grand mean response of financial deepening is 3.3943 which is uncertain on the Likert scale of measurement used in the study. This means that respondents were divided on how financial deepening influences the sustainability of their enterprises. That is those who were mostly uncertain could imply they did not fully understand financial deepening issues. This is supported by IMF (2020) enterprise surveys in Chile indicated that only 13 percent of firms use banks to finance investment (about half of the world average) thus lack of awareness by some youth enterprises could not make them access business development credit.

Multiple regression analysis showed that financial deepening significantly influences the sustainability of youth owned enterprises; $\beta = 0.458$ (0.116) at $p < 0.05$. The results are supported by IMF (2020) enterprise surveys in Malaysia and Chile; OECD (2020) enterprise surveys also indicate that Morocco showed a significant relationship between financial deepening in the countries and financial growth of small/young entrepreneurs' business sustainability. However, the results differ with some previous studies. That is, Eugster (2019) in an examination of the relationship between the pace of financial deepening and SMEs growth yielded inconclusive results. That is, the growth of some small enterprises is accompanied by greater risk-taking and high leverage, particularly

when the financial system is poorly regulated and supervised.

From interviews with respondents on challenges of financial deepening, first, some interviewees reported limited access to financial services as a major challenge; that is, in some sub-counties especially established in rural settings, there was lack of varied financial institutions or banking services, making it difficult for youth-owned enterprises to access financial products and services. Secondly, some interviewees reported inadequate support and mentorship; that is some youth-owned enterprises operating in rural localities lacked access to mentorship and support programs that can provide guidance on financial management, business planning, and accessing funding. Thirdly, high interest rates. Some interviewees reported that due to perceived higher risks associated with youth-owned enterprises located in rural areas with very few financial lending institutions, some financial institutions operating in the localities charge higher interest rates on loans, making it more expensive for young entrepreneurs to borrow money for their businesses.

4.9.3 Influence of Financial Innovation on Financial Sustainability of the YOE

The third specific objective of the study was to determine the influence of financial innovation on the financial sustainability of youth owned enterprises. Descriptive statistics indicated that the grand mean of financial innovation is 3.3307 which is a ‘moderate extent’ on the Likert scale of measurement. That is most respondents indicate that financial innovation influences the sustainability of the enterprise to a moderate extent.

Multiple regression analysis showed that financial innovation significantly influences the

sustainability of youth owned enterprises; $\beta = 0.471$ (0.125) at $p < 0.05$. The resulted by Mihai, Alexandra and Liliana (2020), Zerenler (2018), Wu (2018), Abouzar (2019) Ignazio (2019), Ngugi (2020) studies that revealed a positive significant relationship between financial innovation and financial growth or sustainability. However, Lafourcade (2019) on financial innovations on MFIs in Africa showed that 47 percent post positive unadjusted returns were attributed by high operating cost and lack of enough financial innovation to counter it; while Karabulut (2019) found that financial innovation has negative impacts on firm growth. From interviews with respondents, a few challenges in relation to financial innovation were identified. Apart from financial innovation illiteracy and collateral-related challenges, most interviewees reported regulatory barriers, whereby some youth-owned enterprises face regulatory barriers that restrict their ability to innovate financially. Other challenges included complex regulations, licensing requirements, and compliance costs which hinder their growth and limit their access to innovative financial solutions.

4.9.4 Influence of Crowdfunding on Financial Sustainability of the YOE

The fourth specific objective of the study was to the influence of crowdfunding on financial sustainability of youth owned enterprises. Descriptive statistics indicated that the grand mean of crowdfunding is 3.5715 rounded off to 4 which is a great extent on the Likert scale of measurement. This implies that most respondents indicated that crowdfunding influences the financial sustainability of the enterprise to a great extent. This also means that those who did not indicate a great extent have possibly not engaged in crowdfunding approaches like online platforms to raise funds for their enterprises. The descriptive results are supported by Nderitu (2022) study where 84.7% of respondents

indicated that access to credit from among others, online platforms and level of knowledge on crowdfunding platforms significantly affected the financial sustainability of small profit-making firms.

Multiple regression analysis showed that crowdfunding significantly influences the sustainability of youth owned enterprises; $\beta = 0.319 (0.156)$ at $p < 0.05$. The results are supported by Catalini, and Goldfarb (2018), Grella (2018), which found a positive relationship between crowdfunding and the financial sustainability of small firms. However, Tiyezye (2021) study found a negative correlation between fund crowding ($r = 0.202$) and financial performance; Gebrehiwot and Wolday (2019) study in Ethiopia found that crowdfunding had an insignificant effect with respect to Return on equity and solvency risk had negative but significant in relation to return on assets implying more studies on crowd funding-financial sustainability relationship especially in small firms.

From interviews with respondents, a number of challenges of crowdfunding were discussed. First is limited track record whereby some youth-owned enterprises are startups or early-stage businesses without an established track record and lack of a proven history can make it difficult for them to convince potential crowdfunders to invest in their business ventures. Secondly is the limited network challenge where some young entrepreneurs have a smaller network compared to more experienced business owners which limits them to reach a wide audience and attract enough supporters to meet their crowdfunding goals. Thirdly is the lack of credibility challenge, that is most online platforms Investors often look for credibility and expertise when deciding where to invest their money, thus young entrepreneurs struggling to establish themselves as credible and trustworthy profit-making enterprises, with poor work experience or industry recognition

may not attract crowd funders. Fourthly, due to financial constraints, some youth-owned enterprises have limited financial resources to invest in marketing and promotion efforts to attract crowdfunding backers which made it harder for them to stand out among other campaigns and gain visibility on crowdfunding platforms.

Further is the inexperience in marketing and promotion where a number of young entrepreneurs reported limited experience in marketing and promoting their business or crowdfunding campaign meant to attract potential backers and raising funds through online crowdfunding platforms while some have limited access to resources and mentorship: like business incubators, mentorship programs, or professional networks that can provide guidance and support in navigating the crowdfunding process.

In summary, therefore, though financial inclusion initiatives have enhanced the financial sustainability of some studied youth owned enterprises (Agrawal, Catalini, and Goldfarb , 2018) , challenges still exist. Some of these challenges include; the politicization of the funds, lack of financial literacy, limited access to formal financial services, informal and cash-based transactions especially those without bank accounts, limited financial resources (due to limited savings, lack of collateral, or limited access to credit), technological barriers like mobile banking or digital payment platforms, social and cultural barriers where some social and cultural norms may discourage or limit youth entrepreneurship, particularly for marginalized groups (like minority ethnic groups in Busia, Bungoma and abled differently-disabled group) and the female gender that operate in patriarchal communities-partly noted in some wards in Kakamega, Busia and Bungoma counties.

4.9.5 Enterprise Characteristics, Financial Inclusion and Financial Sustainability of the YOE's

The last (fifth) specific objective of the study was to establish the moderating influence of enterprise characteristics on the relationship between financial inclusion and financial sustainability of youth owned enterprises. Descriptive statistics indicated that the grand mean of enterprise characteristics is 3.5404 rounded to 4 is a 'Great extent' on the Likert scale of measurement. This implies that most respondents perceived enterprise characteristics as influencing the sustainability of the enterprise to a great extent. This confirms the idea that for instance, experienced young entrepreneurs whose businesses have been in operation for some years understand viable business models.

Multiple regression analysis showed that enterprise characteristics significantly moderated the relationship between financial inclusion and financial sustainability of youth owned enterprises; that is; product term 1; $\beta = 0.362 (0.167)$ at $p < 0.05$; product term 2; $\beta = 0.169 (0.014)$ at $p < 0.05$; product term 3; $\beta = 0.175 (0.086)$ at $p < 0.05$; product term 4; $\beta = 0.204 (0.053)$ at $p < 0.05$ indicates significant moderation effects. The results are supported by Lwango et al. (2017) study that showed a significant influence of ownership and Esteve-Pérez et al. (2018) study on the influence of age on firm sustainability. But Legesse's (2018) study found that firm age for family-owned enterprises negatively influences performance especially given family ownership wrangles may crop up in the long term thus threatening firm sustainability.

Further, Sumon and Abu (2019) study on the effects of firm size and firm characteristics

such as age and independent director on profitability, found that firm size (Total assets, Number of employees and Number of branches) positively affects firms' profitability but age and independent director on board were negatively influencing firms' profitability of the firms operating in Bangladesh banking industry.

Masira (2018) study on Chinese firms also revealed a negative relationship between size and long-term debt may be due to the fact that large firms have better access to capital markets for equity finance because of their reputation in the markets and the attraction of capital gains in the secondary markets.

From interviews with respondents with regard to the positive and negative effects of age, size and ownership structure on sustainability of their enterprises, a number of issues were summarized. First, with regard to positive attributes of age, most respondents were confident that Young entrepreneurs have fresh perspectives and thus often bring innovative and creative ideas to the table, which can lead to the development of sustainable business models and practices. Secondly, young entrepreneurs are generally more adaptable and willing to embrace change. This can be advantageous when it comes to adopting sustainable practice and thirdly, youth-owned enterprises are often driven by a strong sense of purpose and a desire to make a positive impact.

This passion and motivation can help sustain their commitment to sustainability initiatives over the long term. However, the negative attributes of age included; some young business owners lack the experience and knowledge necessary to effectively implement and manage sustainability initiatives. They may struggle with understanding complex regulations, accessing resources, or navigating the complexities of sustainable supply chains and often face challenges in accessing capital and financial resources, which can

hinder their ability to invest in sustainable technologies or practices.

Lack of funding can limit their capacity to implement sustainability initiatives and compete with larger, more established businesses. Thirdly, some young business owners have limited networks and partnerships: Established businesses may have well-established networks and partnerships that can support sustainability initiatives. Young entrepreneurs may face challenges in building these networks and accessing the necessary resources and expertise to implement sustainable practices.

In regard to size, the positive attributes included operational simplicity; that is some small youth-owned enterprises have no operational complexity but as they grow in size, they often face increased complexities in managing their operations. This can make it challenging to maintain sustainability practices consistently across all aspects of the business secondly, they are small in size and thus have flexibility in operation because they have less bureaucracy and simple flexible structures that can allow the ability to respond quickly to changing market dynamics and adapt their sustainability strategies accordingly without incorporating many ideas on the bureaucracy flow of larger firms (Sumon and Abu, 2019).

However, the negative attributes of size included; small scale of impact; that is, they have limited potential to make a greater impact on sustainability due to their limited ability to reach more customers, create more jobs, and generate higher revenues. They have limited resource availability, thus with limited resources, such as financial capital and human resources, these small enterprises cannot invest in sustainable technologies; limited access

to funding, partnerships, and networks, cannot support their sustainability efforts at a fast rate. There is also limitations in research and development. Some small youth owned enterprises have limited capacity to invest in research and development, thus limiting them in developing innovative solutions and products that align with their sustainability objectives. This is because they have no resources to conduct market research, identify emerging trends, and adapt their business models accordingly (UN survey reports, 2020).

Further, in terms of ownership structure and sustainability of youth owned enterprises, the interviewees identified positive effects as follows; first, commitment and motivation: When some young entrepreneurs have sole ownership or a significant stake in their enterprises, they are more likely to be committed and motivated to make their businesses sustainable in the long term. They have a personal stake in the success of the enterprise and are more likely to invest time, effort, and resources into ensuring its sustainability. Secondly, decision-making agility; some youth-owned enterprises with a decentralized ownership structure, such as partnerships or cooperatives, can make decisions more quickly and adapt to changing market conditions. This agility allows them to respond to sustainability challenges and seize opportunities more effectively. Thirdly, innovation and creativity: Ownership structures that encourage youth participation and involvement in decision-making processes can foster innovation and creativity. That is young entrepreneurs strongly bring fresh perspectives and ideas to the table, leading to sustainable business practices and the development of innovative products or services.

However, the negative effects included among others, first, lack of resources: some young entrepreneurs may face challenges in accessing financial resources necessary for

sustainability. Limited access to capital due to a lack of collateral or business experience can hinder the growth and development of some youth-owned enterprises. Secondly, limited experience and expertise: Ownership by inexperienced youth entrepreneurs may result in a lack of knowledge or expertise in managing and sustaining a business. This can lead to mistakes, inefficiencies, and difficulties in implementing sustainable practices. Thirdly, risk aversion: Some young entrepreneurs are risk-averse due to their limited experience, financial constraints, or fear of failure. This risk aversion can hinder their ability to take calculated risks necessary for sustainable growth and innovation.

Further, interviewees were asked to explain how size, age, and ownership affected the stability of their enterprise. First, in regard to size, the summarized discussion indicated that one, smaller enterprises often have the advantage of being more flexible and adaptable to market changes. They can respond quickly to customer needs and adjust their operations accordingly, which can contribute to financial sustainability. Secondly, in relation to economies of scale, small enterprises may not benefit from economies of scale, which means that it cannot produce goods or services at a lower cost per unit. Thirdly, access to resources: small enterprises often have limited access to resources such as funding, equipment, technology, and skilled labor. Which limits their productivity and competitiveness, translating into less financial sustainability. Fourth, small youth owned enterprises may have a limited market reach and customer base, thus not allowing them to generate more sales and revenue hence limited contribution to financial stability. More so, the small youth owned enterprise have no potential to diversify their product or service offerings, because of their over-reliance on a single source of income. Lack of diversification cannot help them mitigate risks; thus limits their financial sustainability.

In terms of age, on the positive side, in relation to higher risk Investors and some lenders may perceive youth-owned enterprises as riskier compared to more established businesses. This perception can result in higher interest rates, stricter borrowing terms, or difficulty in securing funding, affecting the financial sustainability of the enterprise secondly, young enterprises may be more agile and adaptable to market changes, which can be an advantage. However, young business owners may also lack the resources and experience to navigate economic downturns or unexpected challenges, impacting their financial sustainability; have limited experience in managing finances, budgeting, and forecasting and face challenges in accessing capital due to their limited financial history and network.

In terms of ownership structure, first, in the case where the youth-owned business is owned and operated by a single individual, this structure allows for complete control and decision-making authority, the owner is personally liable for any financial obligations or debts of the business. This can put the owner's personal assets at risk and make it difficult to secure external funding or investment. Secondly in cases where the youth-owned business is owned and operated by two or more individuals. Partnerships can provide additional financial resources, skills, and expertise, which can enhance the financial sustainability of the enterprise. More partnerships also involve shared decision-making and shared liabilities, which sometimes lead to conflicts and disagreements in sharing assets and liabilities thus the reason for some breakup and financial unsustainability of some youth owned enterprises.

4.9.6 Financial Inclusion Initiatives Applied in the Studied YOE

In general, interviewees were asked to identify any financial inclusion initiatives applied in the enterprise. Some respondents indicated that they received microfinance and small business loans from financial institutions that offered them microloans or small business loans specifically designed for their enterprises. These loans often have lower interest rates and flexible repayment terms to accommodate the unique challenges faced by youth-owned business firms.

This agrees with Ukamaka, Ikechukwu and Nkiru (2019) study findings, which revealed that with the exception of bank interest rate to SMEs, financial intermediation, commercial bank loans and advances to SMEs, bank lending rate, exchange rate and monetary policy - have a positive and significant influence on SMEs' performance. A good number of respondents accepted to have received business development services from some financial lending firms like Youth Enterprise Development Fund and microfinance banks, whereby they received training and mentorship programs to equip young entrepreneurs with essential business skills. These services included workshops on financial management, product marketing strategies, business planning, and networking opportunities. Still, a sizeable number of respondents appreciated use of mobile banking and digital payment platforms. That is, accepted to have utilized mobile banking and digital payment platforms to improve the accessibility and convenience of financial services meant for youth-owned enterprises. These initiatives enabled them to receive payments, make transactions, and access financial services through their smartphones, even in remote areas where some operate from (Ploypailin and Pongsutti 2020).

There were few respondents who indicated the use of savings and Insurance programs which encouraged them to save and invest in their businesses for long-term sustainability. That is, the financial lending institutions provided them with savings accounts and insurance programs tailored to the needs of young entrepreneurs, promoting financial security and stability. However, some respondents could not comply with the savings initiatives because of low profits or accrued losses thus, had nothing to save. Few respondents reported to have also received funds arising from competitions. That is they received funding opportunities through entrepreneurship competitions like smart farms from the Agricultural Society of Kenya, entrepreneur of the year awards sponsored by banks, and local county government, and awards from the Kenya Association of Manufacturers, where winners were awarded for having innovative ideas and potential for growth.

Further, a good number of interviewees reported having received relevant financial literacy programs from commercial banks, microfinance lending institutions, and local county governments meant for promoting financial education and literacy which is crucial for youth entrepreneurs. This included workshops and training programs that taught basic financial concepts, budgeting, financial planning, and investment strategies to help young entrepreneurs make informed financial decisions to avoid diverting the loaned amounts to unplanned expenditures. This is supported by Mairura, Namusonge and Karanja (2018) studies on the role of financial intermediation in the growth of small and medium manufacturing enterprises in Kenya. Few respondents also reported in participating in partnerships and collaborations. That is established young entrepreneurs collaborate with government agencies, financial institutions, and non-profit organizations in offering

access to resources, networks, and expertise that contribute to the development of upcoming young entrepreneurs. In summary, most interviewees appreciated the fact that financial inclusion initiatives for youth-owned enterprises provided them with access to financial services and resources to empower them and support their business growth.

4.9.7 Successes of the Financial Inclusion Initiatives Adopted by the YOE's

Interviewees were also asked to explain some of the successes of the financial inclusion initiatives that they adopted. Most interviewees reported that the financial inclusion approach has enabled them to have increased access to formal financial services, especially for those who previously had no bank accounts, thus having bank accounts, allows them to save, borrow, make payments, and access to requisite viable insurance services. This is in agreement with Maina (2018) study whose results showed that access to credit, loan repayment conditions, and financial literacy, financial planning relate to the profitability of youth-initiated enterprises. Interviewees appreciated that by providing access to financial services, financial inclusion initiatives have helped them get lifted out of poverty. That is, access to credit and savings accounts enabled young entrepreneurs to start or expand businesses, invest in education, and improve their overall financial well-being which translates to poverty reduction in their families.

The female interviewees appreciated that financial inclusion initiatives have played a crucial role in empowering women economically with emphasis on women enterprise fund and some local government funding policies specifically designed for young women entrepreneurs as supported by ACET (2020) on promoting women and youth financial inclusion for entrepreneurship and job creation. That is, by providing access to financial

services, women are able to access credit, save money, and build financial resilience, decision-making, and financial independence, especially for widowed, single women or those from patriarchal communities that only value the male gender. This is also in line with Omolayo, (2018) study the role of cultural values in understanding the challenges faced by female enterprises. The interviewees asserted that by providing access to financial services, young business owners are able to invest, expand, and participate more actively in the economy which translates to increased productivity, job creation, and overall economic development.

Further, a good number of interviewees appreciated that financial inclusion has spurred digital innovation in the financial sector, whereby mobile banking, digital payments, and other technological financial advancements have made financial services more accessible and affordable, particularly in remote areas where young entrepreneurs with novice business ideas could not know where and how to access funds to develop their novice business ideas. The interviewees reported that by bringing more young entrepreneurs into the formal financial system, financial inclusion has contributed to young entrepreneurs' financial stability. Increased savings, and improved financial risk management; thus reduced reliance on informal financial services can help mitigate the financial vulnerabilities of the youth.

4.9.8 Challenges Faced by the YOE's in Sustaining the Financial Position of the Enterprise

The interviewees were asked to explain any challenges faced in sustaining the financial position of the enterprise. They identified some challenges such as cash flow management.

That is while proper cash flow management is crucial for the financial sustainability of any business, some young entrepreneurs lack experience in forecasting and managing cash flow effectively, leading to cash shortages or misallocation of borrowed funds. They also reported challenges related to market volatility, that is, youth-owned enterprises, especially those operating in dynamic industries or markets, faced increased market volatility, making it challenging to predict and plan for future revenues and expenses; due to economic downturns or sudden changes in market conditions.

The findings agree with that of Eugster, (2019) on nonlinear marginal effects of finance on growth. The interviewees reported stiff competition challenges, that is, some young entrepreneurs often faced stiff competition from established businesses in their industries. Competing with larger, more established companies was challenging, especially when it came to pricing, marketing, and differentiation strategies. This competition impact negatively on the financial performance and sustainability of youth-owned enterprises. In addition, some interviewees reported regulatory and compliance requirements challenges; whereby compliance with various legal and regulatory requirements was complex and time-consuming for young entrepreneurs. Failure to comply with these requirements resulted in penalties or legal issues, thus impacting negatively on the financial stability of the enterprise.

4.10: Hypothesis Testing

Table 4.23: Hypothesis testing

Null hypothesis	Findings	Decision	Conclusion
H ₀₁ : There is no significant influence of financial intermediation on the sustainability of youth-owned enterprises.	$\beta = 0.230$; t value; 2.050 $p = 0.042$ significant at ($p \leq 0.05$)	H ₀₁ Rejected	There is significant influence of financial intermediation on the sustainability of youth-owned enterprises.
H ₀₂ : There is no significant influence of financial deepening on the sustainability of youth-owned enterprises.	$\beta = 0.458$; t value; 3.949 $p = 0.00$ significant at ($p \leq 0.05$)	H ₀₂ Rejected	There is significant influence of financial deepening on the sustainability of the youth-owned enterprises.
H ₀₃ : There is no significant influence of financial innovation on the sustainability of youth-owned enterprises.	$\beta = 0.471$; t value; 3.781 $p = 0.00$ significant at ($p \leq 0.05$)	H ₀₃ Rejected	There is significant influence of financial innovation on the sustainability of youth-owned enterprises.
H ₀₄ : There is no significant influence of crowdfunding on the sustainability of youth-owned enterprises.	$\beta = 0.319$; t value; 3.836 $p = 0.00$ significant at ($p \leq 0.05$)	H ₀₄ Rejected	There is significant influence of crowdfunding on the sustainability of youth-owned enterprises.
H ₀₅ : Enterprise characteristics does not significantly moderate the relationship between financial inclusion and sustainability of youth-owned enterprises.	Product terms; 1. $\beta = 0.362$; t=2.164 2. $\beta = 0.169$; t=2.454 3. $\beta = 0.175$; t=2.036 4. $\beta = 0.204$; t=2.557 All significant at ($p \leq 0.05$)	H ₀₅ Rejected	Enterprise characteristics significantly moderate the relationship between financial inclusion and sustainability of youth-owned enterprises.

Source: Research Data (2023)

This was tested based on the following hypothesis testing statistical rules; $H_0: \beta = 0$; $H_a: \beta \neq 0$; tested at 5% significance level ($p \leq 0.05$).

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction.

This chapter summarizes the study findings, and presents study conclusions, recommendations, and suggested areas for further research.

5.2 Summary of Study Findings

The general objective of the study was to examine the influence of Financial Inclusion and Enterprise Characteristics on the Sustainability of youth owned enterprises in Western Region, Kenya. The specific objectives were; to examine the influence of financial intermediation on the sustainability of the youth owned enterprises; to establish the influence of financial deepening on the sustainability of youth owned enterprises; to determine the influence of financial innovation on the sustainability of youth owned enterprises; to examine the influence of crowdfunding on the sustainability of youth owned enterprises; and to establish the moderating influence of enterprise characteristics on the relationship between financial inclusion and sustainability of youth owned enterprises.

5.2.1 Financial Intermediation and Sustainability of YOE's

This was the first specific objective of the study, that is, to examine the influence of financial intermediation on financial sustainability of youth owned enterprises. Descriptive statistics showed that generally, most respondents agreed that various financial intermediation measures (funding/financing policies, financial linkages/partnerships, financial investment training) adopted by owners of the enterprise

enhanced the financial sustainability of the enterprise. The results are supported by previous researchers where most of the respondents agreed to have received a lot of support from the financial intermediaries to sustain their enterprises.

The multiple regression analysis showed that financial intermediation significantly influences the sustainability of youth owned enterprises; $\beta = 0.230$ (0.090) at $p < 0.05$. The results support findings by some previous researchers, however, the results differ with other previous researchers who employed co-integration and error correction modeling techniques and found that financial intermediation had a direct but insignificant impact on the country's small enterprises' financial output due to high interest and inflation rates. Interviews with respondents identified some financial intermediation challenges such as lack of collateral, limited or no credit history, making it challenging for financial institutions to assess their creditworthiness, limited experience and potential instability of business venture, lack of necessary financial literacy skills, lack of information on affordable loans, grants, or mentorship programs, and limited network and connections especially those operating in the village settings.

5.2.2 Financial Deepening and Sustainability of YOE's

This was the second specific objective of the study which was to establish the influence of financial deepening on sustainability of youth owned enterprises. Descriptive statistics indicated that respondents were divided on how financial deepening influences the sustainability of their enterprises. That is those who were mostly uncertain could imply they did not fully understand financial deepening issues. This is supported by previous enterprise surveys in Chile which indicated that small percentage of firms use banks to

finance investment (about half of the world average) thus lack of awareness by some youth enterprises could not make them access business development credit. Multiple regression analysis showed that financial deepening significantly influences the sustainability of youth owned enterprises; $\beta = 0.458$ (0.116) at $p < 0.05$. The results are supported by enterprise surveys in Malaysia, Chile and Morocco that showed a significant relationship between financial deepening in the countries and young entrepreneurs' business financial sustainability.

From interviews with respondents on challenges of financial deepening, first, some interviewees reported limited access to financial services as a major challenge; that is, for those established in rural settings, makes it difficult for such youth-owned enterprises to access financial products and services.

Secondly, some interviewees reported inadequate support and mentorship; that is some youth-owned enterprises operating in rural localities lacked access to mentorship and support programs that can provide guidance on financial management, business planning, and accessing funding. Thirdly, high interest rates. Some interviewees reported that due to perceived higher risks associated with youth-owned enterprises located in rural areas with very few financial lending institutions, some financial institutions operating in the localities charge higher interest rates on loans, making it more expensive for young entrepreneurs to borrow money for their businesses.

5.2.3 Financial Innovation and Sustainability of YOE

This was third specific objective of the study which sought to determine the influence of

financial innovation on the sustainability of youth owned enterprises. From descriptive statistics, most respondents indicated that financial innovation influences the sustainability of the enterprise to a moderate extent.

Multiple regression analysis showed that financial innovation significantly influences the sustainability of youth owned enterprises; $\beta = 0.471$ (0.125) at $p < 0.05$. The results are supported by previous research that revealed a positive significant relationship between financial innovation and financial growth or sustainability. However, other research on financial innovations in Africa showed that a significant percentage post positive unadjusted returns were attributed to high operating costs and lack of enough financial innovation to counter it; while some studies found that financial innovation has negative impacts on firm growth.

From interviews with respondents, a few challenges in relation to financial innovation were identified. Apart from financial innovation illiteracy and collateral-related challenges, most interviewees reported regulatory barriers, whereby some youth-owned enterprises face regulatory barriers that restrict their ability to innovate financially. Other challenges included complex regulations, licensing requirements, and compliance costs which hinder their growth and limit their access to innovative financial solutions.

5.2.4 Crowdfunding and Sustainability of YOE

This was the fourth specific objective of the study which sought to determine the influence of crowdfunding on the sustainability of youth owned enterprises. Descriptive statistics indicated that most respondents indicated that crowdfunding influences the financial

sustainability of the enterprise to a great extent. This also means that those who did not indicate a great extent have possibly not engaged in crowdfunding approaches like online platforms to raise funds for their enterprises. The descriptive results are supported by previous studies where a significant percentage of respondents indicated that access to credit from among others, online platforms and level of knowledge on crowdfunding platforms significantly affected the financial sustainability of small profit-making firms like youth owned enterprises.

Multiple regression analysis showed that crowdfunding significantly influences the sustainability of youth owned enterprises; $\beta = 0.319 (0.156)$ at $p < 0.05$. The results are supported by previous research that found a positive relationship between crowdfunding and the financial sustainability of small firms. However, some studies found a negative correlation between fund crowding and financial performance; while some studies in Ethiopia found that crowdfunding had an insignificant effect with respect to Return on Equity and solvency risk had a negative but significant in relation to return on assets implying more studies on crowd funding-financial sustainability relationship especially in small firms like youth-owned enterprises.

From interviews with respondents, a number of challenges of crowdfunding were discussed. First is limited track record whereby some youth-owned enterprises are startups or early-stage businesses without an established track record and lack of a proven history can make it difficult for them to convince potential crowd funders to invest in their business ventures.

Secondly, due to financial constraints, some youth-owned enterprises have limited

financial resources to invest in marketing and promotion efforts to attract crowdfunding backers which made it harder for them to stand out among other campaigns and gain visibility on crowdfunding platforms.

In summary, though financial inclusion initiatives have enhanced the financial sustainability of some studied youth owned enterprises, challenges still exist. Some of these challenges include; politicization of the funds, lack of financial literacy, limited access to formal financial services, informal and cash-based transactions especially those without bank accounts, limited financial resources (due to limited savings, lack of collateral, or limited access to credit), technological barriers like mobile banking or digital payment platforms, social and cultural barriers where some social and cultural norms may discourage or limit youth entrepreneurship, particularly for marginalized groups (like minority ethnic groups in Busia, Bungoma and abled differently-disabled group) and the female gender that operate in patriarchal communities-partly noted in some wards in Kakamega, Busia and Bungoma counties.

5.2.5 Financial Inclusion, Enterprise Characteristics and Sustainability of the YOE's

This is the fifth specific objective of the study which sought to establish the moderating influence of enterprise characteristics on the relationship between financial inclusion and sustainability of youth owned enterprises. Descriptive statistics indicated most respondents perceived enterprise characteristics as influencing the sustainability of the enterprise to a great extent. This confirms the idea that for instance, experienced young entrepreneurs whose businesses have been in operation for some years understand viable

business models.

Multiple regression analysis showed that enterprise characteristics significantly moderated the relationship between financial inclusion and financial sustainability of youth owned enterprises. The results support previous studies that showed a significant influence of ownership and age on firm sustainability. However, some other studies found that firm age for family-owned enterprises negatively influences performance especially given family ownership wrangles may crop up in the long term thus threatening firm sustainability.

From interviews with respondents in regard to the positive and negative effects of age, size, and ownership structure on the sustainability of their enterprises, a number of issues were summarized. First, with regard to positive attributes of age, most respondents were confident that young entrepreneurs have fresh perspectives and thus often bring innovative and creative ideas to the table. Secondly, young entrepreneurs are generally more adaptable and willing to embrace change and thirdly, youth-owned enterprises are often driven by a strong sense of purpose and a desire to make a positive impact. However, the negative attributes of age include lack of experience, face challenges in accessing capital and financial resources, have limited networks and partnerships. In regard to size, the positive attributes included operational simplicity and flexibility in operations. However, the negative attributes of size included a small scale of impact, limited resource availability, and limitations in research and development.

Lastly, in terms of ownership structure and sustainability of youth-owned enterprises, the interviewees identified positive effects as strong commitment and motivation, decision-making ability, and strong innovation and creativity because of young owners. However, the negative effects included among others, lack of resources, limited experience and expertise, risk aversion,

5.3 Conclusion

First, the study concludes that the adoption of financial intermediation plays a vital role in supporting the financial sustainability of youth-owned enterprises by providing access to capital, financial risk management tools, financial planning services, financial networking opportunities, and financial capacity-building programs. Secondly, the study concludes that understanding financial deepening parameters such as the ratio of money supply to GDP, price indices, scope of financial services provision, and related challenges can enhance the sustainability of youth-owned enterprises. Thirdly, engaging in dynamic and strategic financial innovations unique to small enterprises can enhance the sustainability of youth-owned enterprises. Fourthly, the timely adoption of crowdfunding platforms like social media fundraisers, peer-to-peer lending, online lending platforms, and online fundraisers assists small enterprises raise capital, which can significantly boost the sustainability of youth-owned enterprises. Lastly, timely and dynamic application of feasible enterprise characteristics like size, age, and ownership structure can benefit youth-owned enterprises with economies of scale, thus significantly moderating the influence of financial inclusion initiatives on the sustainability of youth-owned enterprises.

5.4 Contribution of the Study

This research advances the knowledge of finance and entrepreneurship in general and makes significant contributions to the literature and practice. Theoretically, the empirical results contribute to filling the gap in the literature as they offer new perspectives on the determinants of youth-owned enterprises' financial sustainability. By exploring the relationship between financial access and enterprise characteristics, this research enhances the theoretical knowledge and practical application of financial intermediation, sustainable finance, and innovation spread. The study also fills the research gap where the theories are discussed in the context of Kenya's western region to provide a better understanding of how financial inclusion impacts young business people in similar contexts.

Practically, the study provides pivotal insights to policymakers, practitioners, and entrepreneurs about how to enhance the success of young entrepreneurs and the sustainability of their businesses through specific actions and interventions. These results reemphasize the significance of dynamic and realistic approaches to financial intermediation measures, financial deepening, and the implementation of financial innovations. They prove the necessity for youth entrepreneurs to use modern financial instruments and connected networks proactively. Besides, the study offers practical recommendations that may inform policy and program priorities that would support increased financial access, financial education, and an environment for youth entrepreneurship.

5.5 Recommendations

The following recommendations can be made from the study findings to improve the

financial sustainability of youth-owned enterprises. Owners of these enterprises should enhance their knowledge of dynamic and realistic measures of financial intermediation. This encompasses the financing policies, partnering, training on the financial investment, and the use of financial risk management. To acquire the knowledge and tools needed for proper financial management, individuals may obtain financial planning services, consider interlinking opportunities, and participate in capacity development programs.

There is a need for youth entrepreneurs to pursue information and gain financial knowledge in relation to financial deepening challenges. Knowledge on the characteristics of financial markets and instruments can enable them to take constructive actions that affect their businesses sustainably. Also, being updated on changes and strategic advancements in the financial field is essential. Youth-owned enterprises can increase efficiency, access new markets, and thus increase their competitive advantage by adopting new technologies and employing new and better financial solutions.

Deploying unique innovation passions, effective market analysis, a meaningful online platform, and relating well with the target demographics can likewise enlarge sustainability. Additional help could be obtained from mentors who have prior experience and knowledge or from crowdfunding specialists. Finally, the integration of flexible size and age features with realistic ownership profiles can mobilize positive properties that support financial viability. This means that the structures of young enterprises should be made more flexible to accommodate whatever challenge comes or take on productive opportunities.

5.6 Areas for Further Study

Several areas need to be explored further to add to the findings of this research study. To begin with, a replication of a similar study using the longitudinal research method would enable the assessment of the extent and impact of financial inclusion initiatives in the long run. This could unearth issues of trends or long-term effects that cross-sectional research may fail to show. In addition, research conducted using the time series data could assess the sustainability path of youth-owned enterprises over the past decade. Such a study would help offer a further understanding of the temporal patterns of enterprise sustainability and the drivers of these patterns.

Also, a comparative and cross-sectional study concerning the comparison of the financial inclusion interventions and the sustainability of female and male youth-owned enterprises would unveil the gender-sensitive barriers to and opportunities in entrepreneurship. Using this comparison, one would be in a position to design appropriate interventions and the support structures needed to meet the needs of the various groups. From the identified areas, future work should proceed with the knowledge synthesis and subsequent attempts at filling the gaps that were discovered in this study and contribute to the strategies that would enhance the growth and sustainability of youth-owned enterprises.

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APPENDICES

APPENDIX I: RESEARCH INTRODUCTION LETTER

June 10th, 2023

Dear Respondent,

REF: REQUEST FOR DATA COLLECTION

My name is Hassan Busolo a PhD, Business Administration (Finance) student from Masinde Muliro University of Science and Technology currently undertaking a research thesis entitled: *Financial Inclusion Enterprise Characteristics and Sustainability of Youth Owned Enterprises in Kakamega, Vihiga, Busia and Bungoma counties.*

The attached is a questionnaire schedule designed to elicit necessary information for the study. You are kindly requested to respond to the information requested which will be used strictly for the purpose of this study and will be treated with the highest confidentiality.

Thank you.

Yours Faithfully,

Hassan Busolo

Researcher

+254-721 728 682

APPENDIX II: QUESTIONNAIRE

Kindly fill in the following questions. Please respond to the questions as honestly as possible. The participation in the process is voluntary. In some questions, you are required to fill in the details while others make a choice and tick appropriately.

Part A: Background Information.

1. What is the name of your enterprise
2. Where is the enterprise located within the County
3. Contact details (physical location)
4. No. of years in the operation of the business

Under 5 Years	{ }
Between 5--10	{ }
Between 10-15	{ }
Between 15-20	{ }
Over 20 years	{ }
5. What is your marital status?

Single	{ }
Married	{ }
Widowed	{ }
6. Level of your formal education?

Primary level	{ }
Secondary level	{ }
Tertiary/College	{ }
University level	{ }

Part B: Business Demographics

1. Which type of business is your enterprise?

Retail { }

Health and Beauty { }

Construction { }

Agriculture { }

Manufacturing { }

Hospitality { }

Transport { }

Hotel/Tourism { }

Services { }

Buying and Selling { }

Production { }

Trade + Service { }

Others, Specify

2. Where do you get funds for your business activities?

Family { }

Friends { }

Merry Go Rounds/Chamas { }

Banks { }

NGOs	{ }
Youth Enterprise Fund	{ }
Women Enterprise Fund	{ }
County Government	{ }
Others (please specify).....	

3. What was the cost of starting the business in Ksh?

Between 1000-5000	{ }
Between 5000-10,000	{ }
Between 10,000-20,000	{ }
Between 20,000-50,000	{ }
Between 50,000-100,000	{ }
Over 100,000	{ }

2. What are the levels of annual sales in your enterprise (net income in kshs)?

Below 10000	{ }
10000-50000	{ }
50000-100000	{ }
Above 100000	{ }

3. What are the levels of annual profits in your enterprise (net income in kshs)?

Loss { }

Below 10000	{ }
10000-50000	{ }

3. What are total assets levels of the enterprise (kshs)?

Below 100000 { }

100000-500000 { }

500000-1000000 { }

Above 1000000 { }

4. Kindly show any liabilities the enterprise has experienced in the past year (s).

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Part C- Primary data collection tool

1. Financial Intermediation and Sustainability of YOE

The following statements indicate the various intermediation activities in your enterprise.

Please Tick (✓) against the statements to indicate your response about the intermediation activities based on the following keys;

KEY; 5- Strongly agree, 4- Agree 3- uncertain, 2- Disagree 1- Strongly disagree

Statements	5	4	3	2	1
Funding /bank rules /policies are flexible and enterprise friendly					
The role out of funding model meets my business enterprise needs for growth					
The financial intervention has linked my enterprise to other financing partners					
Competing enterprises for funding limits funding volume hence my business challenge for growth					
The training on financial literacy enhance my investment skills and record keeping					
Close supervision of the funders enhance fiscal discipline for growth of my enterprise					
Investment evaluation skills gained help my enterprise in prioritizing viable ventures					
Exposure through linkages benefit my business through benchmarking					

Source: Researcher (2023)

2. Financial Deepening and Sustainability of YOE

The following statements indicate the various Deepening issues that can affect your enterprise. Please Tick (✓) against the statements to indicate your response about the financial deepening issues based on the following keys;

KEY; 5- Strongly agree, 4- Agree 3- uncertain, 2- Disagree 1- Strongly disagree

Statements	5	4	3	2	1
Money circulation enhancement through financial deepening spur the growth of my enterprise					
Sales volume of my enterprise is increased due to access of more funds					
Price indices of the items traded are pointers to my enterprise growth					
Where financial services are limited in scope my enterprise growth may be constrained					
Broader financial scope enhance access to financial services make my enterprise have alternatives					
Monetary policies especially interest rates affect my enterprise access to finances					
Volume of cash flows in the county enhance growth of my enterprise					

Source: Researcher (2023)

3. Financial Innovation and Sustainability of YOE's

To what extent do the following financial innovation practices affect financial sustainability of your enterprise? Tick (✓) against the statements to indicate your response about the financial innovation practices based on the following keys;

KEY; 5- Very great extent, 4- Great extent, 3- moderate extent, 2- little extent, 1- Very

little extent

Statements	5	4	3	2	1
Use of E-payments to track transactions					
Adoption of Mobile payments to cater for mobile transactions					
Use of Table banking initiatives					
Adoption of Agency banking channels					
Practicing E-accounting and e- auditing platforms					
Engaging in dynamic Financial innovation literacy programs					

Source: Researcher (2023)

4. Crowdfunding and Sustainability of YOE

To what extent do the following crowdfunding practices affect financial sustainability of your enterprise? Tick (✓) against the statements to indicate your response about the financial innovation practices based on the following keys;

KEY; 5- Very great extent, 4- Great extent, 3- moderate extent, 2- little extent, 1- Very little extent

Statements	5	4	3	2	1
Use of Collaborative financing					
Adoption of Equity based financing					
Utilization of Asset based financing					
Embracing Peer to peer lending					
Use of online platforms for raising business capital					

Source: Researcher (2023)

5. Enterprise Characteristics and Sustainability of YOE

To what extent do the following enterprise characteristics affect financial sustainability of your enterprise? Tick (✓) against the statements to indicate your response based on the following keys;

KEY; 5- Very great extent, 4- Great extent, 3- moderate extent, 2- little extent, 1- Very little extent

Statements	5	4	3	2	1
The size of the enterprise					
The age of the enterprise					
The number of branches/Branch network					
The total number of employees in the enterprise					
The distribution of employees according to their gender					
The gender of the enterprise owner					
Enterprise that is family owned					
Enterprise that has diversified ownership					

Source: Researcher (2023)

6. Financial Sustainability of YOE

To what extent do the following dimensions affect financial sustainability of the enterprise? Tick (✓) against the statements to indicate your response based on the following keys;

KEY; 5- Very great extent, 4- Great extent, 3- moderate extent, 2- little extent, 1- Very little extent

Statements	5	4	3	2	1
The Market share of products/services of the enterprise					
The Market value of products/services of the enterprise					
The Savings accrued by the enterprise					
The Profit margin of the enterprise					
The total Revenue of the enterprise					
The Sales volume of the enterprise					

Source: Researcher (2023)

APPENDIX III: ROTATED COMPONENT MATRIX

	Component					
	1	2	3	4	5	6
1.Funding /bank rules /policies are flexible and enterprise friendly	.656					
2.The role out of funding model meets my business enterprise needs for growth	.677					
3.The financial intervention has linked my enterprise to other financing partners	.675					

4.Competing enterprises for funding limits funding volume hence my business challenge for growth	.646					
5.The training on financial literacy enhance my investment skills and record keeping	.616					
6.Close supervision of the funders enhance fiscal discipline for growth of my enterprise	.643					
7.Investment evaluation skills gained help my enterprise in prioritizing viable ventures	.671					
8.Exposure through linkages benefit my business through benchmarking	.653					
9.Money circulation enhancement through financial deepening spur the growth of my enterprise		.681				
10.Sales volume of my enterprise is increased due to access of more funds		.631				
11.Price indices of the items traded are pointers to my enterprise growth		.650				
12.Where financial services are limited in scope my enterprise growth may be constrained		.651				
13.Broader financial scope enhance access to financial services make my enterprise have alternatives		.691				
14.Monetary policies especially interest rates affect my enterprise access to finances		.649				
15.Volume of cash flows in the county enhance growth of my enterprise		.639				
16.E-payments			.626			
17.Mobile payments			.652			
18.Table banking			.694			
19.Agency banking			.662			
20.E-accounting & auditing			.673			
21.Financial innovation literacy			.682			
22.Collaborative financing				.629		
23.Equity based financing				.619		
24.Asset based financing				.647		
25.Peer to peer lending				.664		
26.Online platforms for raising business capital				.693		

27.Social media platforms				.691		
28.Enterprise size					.771	
29.Enterprise age					.714	
30.Number of branches/Branch network					.732	
31.Number of employees					.743	
32.Gender distribution of employees					.749	
33.Gender of the enterprise owner					.751	
34.Family owned					.761	
35.Diversified ownership					.747	
36.Market share of products/services						.573
37.Market value of products/services						.602
38.Savings						.554
39.Profit margin						.623
40.Revenue growth						.601
41.Sales volume						.539

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

Source: Research Data (2023)

APPENDIX IV: INTERVIEW SCHEDULE

1. Please identify any financial inclusion initiatives applied in the enterprise

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2. Please identify any successes of the financial inclusion initiatives used

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3. Please identify any challenges of the financial inclusion initiatives used

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4. Please explain any challenges you have faced in sustaining the financial position of the enterprise.....

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5. Please explain how the size, age and or ownership structure of the enterprise has positively or negatively affected the operations of the enterprise

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.....
.....

6. Please describe how size, age and ownership structure can affect the financial stability of the enterprise.....

.....

3.14.1.1 Size.....

3.14.1.2 Age.....

(iii) Ownership structure.....

APPENDIX V: DOCUMENT ANALYSIS SCHEDULE

ITEM	<i>Present</i>	<i>Absent</i>
1.Business registration certificate		
2 Business operation permit		
3. Business operation premises		
4.Cash sale books and receipts		
5.Cheque books		
6. financial statements		
7.Inventory records		
8.Staff/employee records		
9.Purchasing/supplies records		

Source: Researcher (2023)

APPENDIX VI: SECONDARY DATA: ROA (Return on Asset)

	Enterprise's Annual profit/loss as a % of Enterprise's value of total assets.											
Name of Enterprise	2017		2018		2019		2020		2021		2022	
	<i>Profit/Loss</i>	<i>Total Assets</i>	<i>Profit/Loss</i>	<i>Total Assets</i>	<i>Profit/Loss</i>	<i>Total Assets</i>	<i>Profit/Loss</i>	<i>Total Assets</i>	<i>Profit/Loss</i>	<i>Total Assets</i>	<i>Profit/Loss</i>	<i>Total Assets</i>

Source: Researcher (2023)

APPENDIX VII: UNIVERSITY LETTER

Tel: 0702597361
Tel: 0733120020
email: deansobe@mmust.ac.ke
website: mmust.ac.ke



P.O Box 190
Kakamega 50100
Kenya

**MASINDE MULIRO UNIVERSITY OF SCIENCE AND TECHNOLOGY
(MMUST)
SCHOOL OF BUSINESS AND ECONOMICS (SOBE)**

REF: PBA/H/01-54197/2019

DATE: 18th July, 2023

TO: MR. HASSAN BUSOLO

**SUBJECT: SUCCESSFUL DEFENCE OF RESEARCH
PROPOSAL, HASSAN BUSOLO
REG. NO. PBA/H/01-54197/2019**

The above subject refers.

Following your successful defense of your research proposal titled ***“Financial Inclusion, Enterprise Characteristics and Sustainability of the Youth Owned Enterprises in Western Kenya”*** before the School of Business and Economics Graduate Studies Committee, your research proposal is hereby submitted to Director School of Graduate Studies for documentation and processing. Your supervisors are **Dr. Muli Maingi, Dr. Oseno Ben and Rev. Prof. Willis Otuya**

On behalf of the School of Business and Economics Graduate Studies Committee, you are hereby permitted to proceed and collect the data needed to complete your thesis.

By copy of this letter, relevant institutions/bodies are humbly requested to assist you in achieving your endeavor.



PROF. ROBERT K.W. EGESSA
Associate Professor and Dean
School of Business and Economics
Mobile: 0722-672-264
Email: regessa@mmust.ac.ke

APPENDIX VIII: NACOSTI LETTER

 REPUBLIC OF KENYA	 NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY & INNOVATION
Ref No: 446551	Date of Issue: 02/August/2023
RESEARCH LICENSE	
	
This is to Certify that Mr.. HASSAN BUSOLO of Masinde Muliro University of Science and Technology, has been licensed to conduct research as per the provision of the Science, Technology and Innovation Act, 2013 (Rev.2014) in Bungoma, Busia, Kakamega, Vihiga on the topic: FINANCIAL INCLUSION, ENTERPRISE CHARACTERISTICS AND SUSTAINABILITY OF THE YOUTH OWNED ENTERPRISES IN WESTERN KENYA for the period ending : 02/August/2024.	
License No: NACOSTI/P/23/28181	
446551	
Applicant Identification Number	Director General NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY & INNOVATION
	Verification QR Code
	
NOTE: This is a computer generated License. To verify the authenticity of this document, Scan the QR Code using QR scanner application.	
See overleaf for conditions	

APPENDIX IX: UNIVERSITY APPROVAL OF THE PROPOSAL



MASINDE MULIRO UNIVERSITY OF SCIENCE AND TECHNOLOGY (MMUST)

Tel: 056-30870
Fax: 056-30153
E-mail: directordps@mmust.ac.ke
Website: www.mmust.ac.ke

P.O Box 190
Kakamega – 50100
Kenya

Directorate of Postgraduate Studies

Ref: MMU/COR: 509099

15th September 2023

Hassan Busolo
PBA/H/01-54197/2019,
P.O. Box 190-50100,
KAKAMEGA.

Dear Mr. Busolo

RE: APPROVAL OF PROPOSAL

I am pleased to inform you that the Directorate of Postgraduate Studies has considered and approved your PhD proposal entitled '*Financial Inclusion, Enterprise Characteristics and Sustainability of the Youth Owned Enterprises in Western Region, Kenya*' and appointed the following as supervisors:

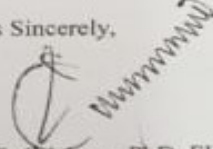
1. Dr. Muli Maingi	- SOBE, MMUST
2. Dr. Oseno Ben	- SOBE, MMUST
3. Prof. Willis Otuya	- SOBE MMUST

You are required to submit through your supervisor(s) progress reports every three months to the Director Postgraduate Studies. Such reports should be copied to the following: Chairman, School of Business and Economics Graduate Studies Committee and Chairman, Accounting and Finance Department. Kindly adhere to research ethics consideration in conducting research.

It is the policy and regulations of the University that you observe a deadline of three years from the date of registration to complete your Master's thesis. Do not hesitate to consult this office in case of any problem encountered in the course of your work.

We wish you the best in your research and hope the study will make original contribution to knowledge.

Yours Sincerely,





Prof. S. Ochebero, PhD, FIEP
DIRECTOR, DIRECTORATE OF POSTGRADUATE STUDIES

APPENDIX X: MINISTRY OF EDUCATION -WESTERN REGIONAL OFFICE

REPUBLIC OF KENYA



MINISTRY OF EDUCATION
STATE DEPARTMENT FOR BASIC EDUCATION

Telephone: 056-30411
Fax: 056 - 31307
E-mail: rceducation2016@gmail.com
When replying please quote our ref. no.

REGIONAL DIRECTOR OF EDUCATION
WESTERN REGION
P. O. BOX 137 - 50100
KAKAMEGA

Ref. No. RDE/WR/69/VOL.1/36

Date: 03rd August, 2023

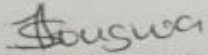
HASSAN BUSOLO
P.O. BOX 190-50100
KAKAMEGA

RE: RESEARCH AUTHORIZATION

Reference is made to a letter from NACOSTI Ref. No. NACOSTI/P/23/28181 dated 2nd August, 2023 on the above subject.

This is to inform you that you have been authorized to carry out research on **"Financial Inclusion, Enterprise Characteristics and Sustainability of the Youth Owned Enterprises in Western Kenya"** for the period ending 02nd August, 2024.

Please accord him any necessary assistance he may require.


SONGWA T J (MRS)
For: REGIONAL DIRECTOR OF EDUCATION
WESTERN REGION.

for REGIONAL DIRECTOR OF EDUCATION
(WESTERN REGION)

APPENDIX XI: MIN. OF EDUCATION KAKAMEGA COUNTY

REPUBLIC OF KENYA



**MINISTRY OF EDUCATION
STATE DEPARTMENT FOR BASIC EDUCATION**

Telephone: 056 -30411
Fax: 056 – 31307
E-mail: rceducation2016@gmail.com
When replying please quote our Ref.

County Director of Education
Kakamega County
P. O. BOX 137 - 50100
KAKAMEGA

REF: KAKA/C/GA/29/17/VOL.VI/226 **3rd August, 2023**

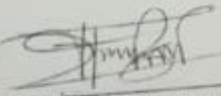
**MR. HASSAN BUSOLO
MMUST
KAKAMEGA**

RE: RESEARCH AUTHORIZATION

Reference is made to a letter from NACOSTI Ref No: NACOSTI/P/23/28181 dated 2nd August, 2023 concerning subject matter.

This is to inform you that you have been authorized to carry out research on **'Financial inclusion, enterprise characteristics and sustainability of the youth owned enterprises in Kakamega County'**, for the period ending 2nd August, 2024.

Please accord him/her any necessary assistance he/she may require.


**HELLEN NYANGAU
COUNTY DIRECTOR OF EDUCATION
KAKAMEGA COUNTY**

Copy to:

**The Regional Director of Education
WESTERN REGION**

APPENDIX XII: YEDF LETTER



YOUTH ENTERPRISE DEVELOPMENT FUND BOARD

Our Ref: YEDFB/CEO/130/2023

Date: 31st August 2023

Hassan Busolo

P.O Box 190 - 50100

NAIROBI

Dear 

RE: AUTHORITY TO CONDUCT RESEARCH

I acknowledge receipt of your request to undertake a research study entitled *“Financial Inclusion Enterprise Characteristics and Sustainability of Youth Owned Enterprises in Kakamega, Vihiga, Busia and Bungoma Counties”*.

This is to inform you that your request has been approved. Accordingly, you are advised to liaise with the Fund's Research Unit and/or the respective County Offices for your basic orientation and facilitation to access the necessary information for your research study.

You are further advised to share with us your findings by sending us a copy of your final thesis duly signed by your college supervisor.

Wishing you success.

Yours


JOSIAH ARABU MORIASI

CHIEF EXECUTIVE OFFICER

Cc: County Credit Officers; Youth Enterprise Development Fund, Kakamega, Vihiga, Busia and Bungoma Counties